IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

CISCO SYSTEMS, INC. and CISCO TECHNOLOGY, INC. Plaintiffs, v. INTELLIGENT PROTECTION MANAGEMENT CORP., Defendants.	Civil Action No. 1:25-CV-00271-MN

DEFENDANT INTELLIGENT PROTECTION MANAGEMENT CORP.'S INITIAL INVALIDITY CONTENTIONS

IPR2025-01589
Intelligent Protection Mgmt Corp. v. Cisco Technology, Inc.
Cisco's Exhibit 2007
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Defendant Intelligent Protection Management Corp. ("IPM") hereby serves its Preliminary Invalidity Contentions on Plaintiffs Cisco Systems, Inc., and Cisco Technology, Inc. (collectively, "Cisco").

I. RESERVATIONS

A. General Reservation of Rights

The information provided shall not be deemed an admission regarding the scope of any claims or the proper construction of those claims or any terms contained therein. IPM does not waive the right to contest any claim constructions or to take positions during claim construction proceedings that have yet to occur that may be inconsistent with the invalidity contentions herein. In certain instances, IPM has applied the claims to the prior art in view of Cisco's allegations, admissions, or positions for purposes of these contentions only. IPM's disclosure of Invalidity Contentions is not intended to be, and is not, an admission that any Asserted Claim is infringed by any of IPM's products, that any particular feature or aspect of any of the accused products practices any limitations of the Asserted Claims, or that any of the constructions implicit in Cisco's Infringement Contentions are reasonable, supportable, or proper. Rather, IPM's application of the claims to the prior art is intended to apply Cisco's apparent interpretation of the claims. In the context of anticipation, "[t]he principle of law is concisely embodied in the truism: 'That which infringes if later anticipates if earlier.'" *Brown v. 3M*, 265 F.3d 1349, 1352 (Fed. Cir. 2001). Similarly, for obviousness, "obvious variants of prior art references are themselves part of the public domain." *In re Translogic Tech*., 504 F.3d 1249, 1259 (Fed. Cir. 2007).

IPM denies infringement of each and every asserted claim. IPM submits these contentions without waiving any challenges to Cisco's incorrect or improper application of the Asserted Claims in its infringement contentions. Moreover, IPM's contentions may reflect

alternative positions as to claim scope. By providing these contentions, IPM is not waiving or limiting its right to make arguments about the proper scope of the Asserted Claims. Further, by including prior art that would anticipate or render obvious those claims based on Cisco's apparent claim constructions or on any other particular claim constructions, IPM is neither adopting Cisco's claim constructions, nor admitting the accuracy of any particular claim constructions.

In addition, the identification of prior-art disclosures that anticipate and/or render obvious a particular claim element in these contentions is not an admission that the claim element satisfies the requirements of 35 U.S.C. § 112. Where IPM asserts that an asserted claim is invalid under 35 U.S.C. § 112 (such as because of a failure to particularly point out and distinctly claim the invention, failure to provide written description support in the specification, and/or failure to enable one of ordinary skill in the art to make and use the claimed invention), IPM has nonetheless provided prior art disclosures that anticipate or render obvious the Asserted Claims on the assumption that Cisco will contend those claims are definite, supported by an adequate written description, and adequately enabled. In those instances where IPM asserts that the claims are invalid under 35 U.S.C. § 112 (e.g., no written description, not enabled, and/or indefinite), IPM has applied the prior art in part in accordance with its assumptions that Cisco: (1) contends those claims are definite, (2) finds written description support for those claims, and (3) contends that those claims are enabled. However, IPM's Invalidity Contentions do not represent any agreement or view as to the meaning, definiteness, written description support for, or enablement of any claim contained therein. In fact, IPM notes numerous grounds for invalidity on such bases below.

B. General Reservation of Rights

Cisco's Initial Infringement Contentions are deficient in numerous respects. By way of example, Cisco does not disclose any relevant evidence for multiple limitations to support its

allegations that ManyCam allegedly practices the claims. Furthermore, Cisco has presented no substantive contentions of any alleged indirect infringement or infringement under the doctrine of equivalents in its infringement contentions. If Cisco is permitted to provide this and other information relating to alleged infringement under the doctrine of equivalents, IPM may amend and supplement these Invalidity Contentions as appropriate, including specifically to demonstrate that any potential expansion under the doctrine of equivalents would ensnare the prior art. Cisco's deficient contentions have severely prejudiced IPM's ability to prepare its invalidity contentions. To the extent that Cisco attempts to cure such deficiencies, IPM specifically reserves the right to object to such attempts to cure, as well as to modify, amend, or supplement its invalidity contentions.

C. The Intrinsic Record

IPM further reserves the right to rely on applicable industry standards and prior art cited in the file histories of the Patents-in-Suit and any related U.S. and foreign patent applications as invalidating references or to show the state of the art. IPM further reserves the right to rely on the patent applicants' admissions concerning the scope of the prior art relevant to the Patents-in-Suit found in, *inter alia*: the patent prosecution history for the Patents-in-Suit and any related patents and/or patent applications or reexaminations (or inter partes review proceedings); any testimony of the named inventors on the Patents-in-Suit; and the papers filed and any evidence submitted by Cisco in connection with this or any other litigation.

D. Rebuttal Evidence

Prior art not included in these Invalidity Contentions, whether known or not known to IPM, may become relevant. In particular, IPM is currently unaware of the extent, if any, to which Cisco will contend that limitations of the Asserted Claims of the Patents-in-Suit are not disclosed in the

prior art identified herein. To the extent that such an issue arises, IPM reserves the right to identify other references that would disclose or render obvious the allegedly missing limitation(s), or otherwise rebut Cisco's argument. Discovery is ongoing, and IPM anticipates that additional prior art may be found through additional investigation or discovery. Thus, IPM reserves the right to revise, amend, and/or supplement the information provided herein, including identifying, charting, and relying on additional references, should such art be found.

Additionally, as third-party discovery may occur, IPM reserves the right to present additional items of prior art under 35 U.S.C. §§ 102(a), (b), (e), and/or (g), and/or § 103 located or produced during discovery or further investigation, and to assert contentions of invalidity under 35 U.S.C. §§ 102(c), (d), or (f). For example, IPM may issue subpoenas to third parties believed to have knowledge, documentation and/or corroborating evidence concerning the validity of the asserted claims. In addition to the prior art identified below and the accompanying invalidity claim charts, IPM also incorporates by reference any additional invalidity contentions, identified prior art, or invalidity claim charts disclosed at any time by any party to any other litigation or U.S. Patent and Trademark Office proceeding involving the Patents-in-Suit.

E. Contextual Evidence

IPM's claim charts cite particular teachings and disclosures of the prior art as applied to the limitations of each of the Asserted Claims. However, persons having ordinary skill in the art generally may view an item of prior art in the context of his or her experience and training, other publications, literature, products, and understandings. As such, the cited portions are only examples, and IPM reserves the right to rely on uncited portions of the prior art references and on other publications and expert testimony as aids in understanding and interpreting the cited portions, as providing context thereto, and as additional evidence that the prior art discloses a claim

limitation or the claimed subject matter as a whole. IPM further reserves the right to rely on uncited portions of the prior art references, other publications, and testimony, including expert testimony, to establish bases for combinations of certain cited references that render the Asserted Claims obvious. The references discussed in the claim charts may disclose the elements of the Asserted Claims explicitly and/or inherently, and/or they may be relied upon to show the state of the art in the relevant time-frame. The suggested obviousness combinations are provided in the alternative to anticipation contentions and are not to be construed to suggest that any reference included in the combinations is not by itself anticipatory.

II. IDENTIFICATION OF PRIOR ART

As discussed in greater detail below and in the accompanying claim charts, each of the Asserted Claims is invalid because it is anticipated and/or rendered obvious under 35 U.S.C. §§ 102 and 103, because it fails to satisfy the written description or enablement requirements under 35 U.S.C. § 112 ¶ 1, because it is indefinite under 35 U.S.C. § 112 ¶ 2, and/or because it does not claim patent-eligible subject matter under 35 U.S.C. § 101. For example, each of the Asserted Claims is anticipated by and/or obvious in view of one or more pieces of prior art identified in these contentions, alone and in combination. The prior art identified in these contentions discloses the elements of the Asserted Claims either explicitly or inherently, and IPM may also rely upon that art to show the state of the art in the relevant timeframe. In addition to the prior art identified in these contentions, IPM plans to rely on the "Background of the Invention" and other relevant portions of the Asserted Patents and related patents, the prosecution history of the Asserted Patents and related patents (including all cited references), and fact and expert testimony about the prior art to prove that the Asserted Claims are invalid. IPM may also rely upon other material to show the state of the art in the relevant timeframe. IPM bases these contentions on the understanding of

a person of ordinary skill in the art at the time of the claimed priority date and on IPM's apparent view as to the scope of the Asserted Claims as reflected in Cisco's September 12, 2025 Disclosure of Asserted Claims and Infringement Contentions, to the extent that view can be inferred from Cisco's infringement contentions.

IPM not only relies upon the prior art disclosed herein, but also relies on any commercial embodiments and accompanying literature of the various assignees that correspond to the respective disclosures found within the prior art disclosed herein. The assignees' various and respective commercial embodiments and/or corresponding literature anticipate and/or render obvious the claims of the Patents-in-Suit for at least the reasons disclosed in these Invalidity Contentions and claim charts, as well as for other independent reasons found within the commercial embodiments and corresponding literature. IPM also reserves the right to rely on related patents, published applications, foreign patents or publications, and other patent documents as necessary to establish prior art status or clarify the disclosures cited. IPM further reserves the right to rely on the earliest publication or priority dates to which each of the prior art references are entitled, including dates on which a claim of priority may be based for patent references that are any of a divisional, continuation, or continuation-in-part of an earlier filed patent application.

A. List of Prior Art References

PRIOR ART REFERENCES	
1.	U.S. Patent App. Pub. No. 2010/0302130 Kikuchi et al. ("Kikuchi")
2.	U.S. Patent App. Pub. No. 2010/0002069 Eleftheriadis et al. ("Eleftheriadis")
3.	U.S. Patent. App. Pub. No. 2008/0235612 Nakagawa ("Nakagawa")
4.	U.S. Patent. App. Pub. No. 2010/0138767 Wang et al. ("Wang")
5.	U.S. Patent No. 5,896,128 ("Boyer")

6.	U.S. Patent No. 6,950,097 B1 ("Hojabri")
7.	LifeSize Video Communications Systems User and Administrator Guide ("LifeSize")
8.	U.S. Patent App. Pub. No. 2006/0158510 Lia et al. ("Lia")
9.	U.S. Patent. App. Pub. No. 2010/008416 Hedge et al. ("Hedge")
10.	Tysso Provisional U.S. Patent Application No. 61/103,588 ("Tysso Provisional")
11.	U.S. Patent No. 8,300,081 B1 Sawyer ("Sawyer")
12.	International Patent App. Pub No. WO 01/39130 A1 Reusens ("Reusens")
13.	U.S. Patent. App. Pub. No. 2007/0064112 A1 Chatting et al. ("Chatting")
14.	U.S. Patent. App. Pub. No. 2008/0303949 A1 Ciudad et al. ("Ciudad")

IPM not only relies on the prior art documents disclosed herein, but also on any commercial embodiments and accompanying literature of the various assignees that correspond to the respective disclosures found within the prior art disclosed herein. The assignees' various and respective commercial embodiments and/or corresponding literature anticipate and/or render obvious the claims of the Asserted Patents for at least the reasons disclosed in the claim charts served herewith, as well as for other independent reasons found within the commercial embodiments and corresponding literature. IPM's investigation and understanding of the prior art sales, offers for sale, use, and knowledge is not complete, and IPM reserves the right to use both the evidence cited herein, as well as other specific information developed through fact and expert discovery, to establish that the asserted claims are invalid under 35 U.S.C. §§ 102(a), (b), and (g).

III. INVALIDITY CONTENTIONS

A. General State of the Art at the Time of the Alleged Inventions

Additional prior art may provide background and context pertinent to the teachings, and interpretation of, the prior art referenced by the claim charts, including, for example:

- the prior art references and systems identified in the claim charts,
- prior art references and systems discussed in the Asserted Patents and their prosecution histories; or
- the "References Cited" on the face of the Asserted Patents.

IPM intends to rely on such prior art to demonstrate the general state of the art at the time of the alleged inventions and what one of ordinary skill in the art would have understood at a time prior to the date of alleged invention of the Asserted Claims of the Asserted Patents. This prior art is exemplary only and is not in any way intended to limit the scope of what one of ordinary skill in the art would have understood at the times of the alleged inventions. IPM reserves the right to rely upon additional prior art, information, and/or knowledge to demonstrate what one of ordinary skill would have understood at the times prior to the date of the alleged invention of the Asserted Patents.

B. Invalidity Under 35 U.S.C §§ 102 & 103

The references identified above and in the Exhibits to IPM's Invalidity Contentions teach or suggest each and every element of the Asserted Claims and each independently anticipates the Asserted Claims under 35 U.S.C. §§ 102(a), (b), (e), and/or (g), as set forth in the charts. To the extent that Cisco contends that a prior art reference identified in these Invalidity Contentions does not anticipate an Asserted Claim, the reference, alone or in combination with one or more additional references, renders the Asserted Claims obvious in light of the knowledge of person

having ordinary skill in the relevant art under 35 U.S.C. § 103. As further indicated in the attached charts, certain prior art references and combination of prior art references render certain claims obvious under 35 U.S.C. § 103, at least under Cisco's actual and/or apparent application of the claims. To the extent any of the identified prior art references incorporate or refer to other prior art references, the full disclosure of all such references is a single piece of prior art under 35 U.S.C. § 102. Each claim chart provided for a prior art reference should be understood to incorporate by reference all other prior art references incorporated or referred to in the prior art and all claims charts provided for those other references.

1. Exemplary Motivations to Combine

As demonstrated in the Exhibits to IPM's Invalidity Contentions, the Asserted Claims are invalid under 35 U.S.C. § 103(a) as obvious in view of the references identified in Section II, whether alone or in combination with each other. Moreover, design incentives and market forces, such the advantages of creating a more desirable product and the effects of demands known to the design community or present in the marketplace, would have prompted such modifications or combinations. A person of ordinary skill in the art at the time of the purported invention would have been motivated to modify the prior art or combine prior art references as a result of (i) his or her education and experience, (ii) the state of the prior art as a whole, (iii) the nature of the problem to be solved, (iv) common knowledge in the art, (v) common sense, (vi) design incentives, and/or (vii) a desire to tailor a solution using all of the skills, knowledge and creativity at his or her disposal, including solutions to the alleged problems or to achieve the purported objectives identified in the Background of the Patents-in-Suit. Moreover, many of the references include teachings, suggestions, or motivations to modify the disclosed subject matter, making it obvious to lead one skilled in the art to try to modify or combine their teachings, or to choose from the

multiple identified, predictable potential solutions to this recognized need and pursue the known potential solutions with reasonable expectation of success.

Exemplary combinations of prior art references are listed below, and these combinations render the claims of the Patents-in-Suit invalid as obvious under 35 U.S.C. § 103. IPM's disclosures that these combinations render the claims of the '858 Patent obvious under 35 U.S.C. § 103 are in no way an admission or suggestion that each reference does not independently anticipate the asserted claims under 35 U.S.C. § 102. Nor does the inclusion of the exemplary combinations below exclude other combinations of prior art disclosed in this section. Furthermore, to the extent that any one of the prior art references in IPM's Invalidity Contentions is found not to disclose every limitation of the claims of the Asserted Patents, it would similarly have been obvious to a person of ordinary skill in the art to combine that reference with any of the other references to meet the limitations, and such persons would have been motivated to do so for at least the same reasons as with respect to the combinations of the references below.

Additionally, to the extent they are not anticipated, the Asserted Claims are simply obvious combinations of elements that were well known in the art at the time of invention, and by Cisco's own contentions, inherent in a videoconferencing system. For example, the independent claims of the '293 patent list a number of requirements of "combining the subject images of corresponding video frames" and "scaling the video frames" that were well known in the video conferencing field. The prior art is replete with disclosures of apparatuses and methods satisfying the asserted claims of Patents-in-Suit, including those described in IPM's Invalidity Contentions.

Below, we discuss the motivation to combine the pieces of prior art identified in the Exhibits to IPM's Invalidity Contentions. As discussed above, the list of prior art combinations is

non-exhaustive, and IPM reserves the right to use the references provided in the Exhibits to IPM's Invalidity Contentions in combination with one another.

a. Reusens in view of Sawyer (Exhibit A-2)

For example, it would have been obvious to combine Reusens with Sawyer because the combination does nothing more than combine known techniques and apparatuses according to their known and ordinary uses to yield predictable results. Reusens discloses a method of combining video sequences. Sawyer discloses a system and method for blending video feeds and removing backgrounds from video feeds. A POSITA would have a strong motivation to combine these references because both are in the same field of video conferencing, are directed at solving similar problems, disclose solutions with similar advantages, and existed in the same general time period as each other. It would have been obvious to a person skilled in the art to modify or combine Reusens's method of combining video sequences with Sawyer's disclosure of a method for blending video feeds.

b. Chatting in view of Ciudad and Sawyer (Exhibit A-4)

For example, it would have been obvious to combine Chatting with Ciudad and Sawyer because the combination does nothing more than combine known techniques and apparatuses according to their known and ordinary uses to yield predictable results. Chatting discloses a method of overlaying video images. Ciudad discloses a method of manipulating video streams and removing backgrounds from video feeds. Sawyer discloses a method of blending video feeds and removing backgrounds from video feeds. A POSITA would have a strong motivation to combine these references because all three are in the field of video conferencing, are directed at solving similar problems, disclose solutions with similar advantages, and existed in the same general time

period as each other. It would have been obvious to a person skilled in the art to modify or combine Chatting's method of overlaying images with Ciudad's method of manipulating video streams and Sawyer's method of blending video feeds.

c. Nakagawa in view of Lia (Exhibit B-2)

For example, it would have been obvious to combine Nakagawa with Lia because the combination does nothing more than combine known techniques and apparatuses according to their known and ordinary uses to yield predictable results. Nakagawa discloses a method of displaying documents and slider-type interface that allows users to switch between different views or layouts. Lia discloses a method of displaying multiple layouts for video conferencing. A POSITA would have a strong motivation to combine these references because both are in the field of image display, are directed at solving similar problems, disclose solutions with similar advantages, and existed in the same general time period as each other. It would have been obvious to a person skilled in the art to modify or combine Nakagawa's method of displaying documents and use of a slider with Lia's method of displaying multiple layouts.

d. Nakagawa in view of LifeSize (Exhibit B-3)

For example, it would have been obvious to combine Nakagawa with LifeSize because the combination does nothing more than combine known techniques and apparatuses according to their known and ordinary uses to yield predictable results. Nakagawa discloses a method of displaying documents and slider-type interface that allows users to switch between different views or layouts. LifeSize discloses a system of overlaying multiple layers of videos. A POSITA would have a strong motivation to combine these references because both are in the field of image display, are directed at solving similar problems, disclose solutions with similar advantages, and existed in the same general time period as each other. It would have been obvious to a person skilled in the

art to modify or combine Nakagawa's method of displaying documents and use of a slider to with LifeSize's system of overlaying video layers.

e. Kikuchi in view of Nakagawa (Exhibit B-4)

For example, it would have been obvious to combine Kikuchi with Nakagawa because the combination does nothing more than combine known techniques and apparatuses according to their known and ordinary uses to yield predictable results. Kikuchi discloses a system of displaying images and different layouts of those images. Nakagawa discloses a method of displaying documents and slider-type interface that allows users to switch between different views or layouts. A POSITA would have a strong motivation to combine these references because both are in the field of image display, are directed at solving similar problems, disclose solutions with similar advantages, and existed in the same general time period as each other. It would have been obvious to a person skilled in the art to modify or combine Kikuchi's method of image display with Nakagawa's method of displaying documents and use of a slider to manipulate those documents.

f. Wang in view of Boyer in view of Hojabri (Exhibit B-5)

For example, it would have been obvious to combine Wang with Boyer and Hojabri because the combination does nothing more than combine known techniques and apparatuses according to their known and ordinary uses to yield predictable results. Wang discloses an interface for displaying multiple windows on a computer. Boyer discloses a system and method of displaying overlapping images. Hojabri discloses an interface for controlling video streams. A POSITA would have a strong motivation to combine these references because these references are in the field of image display and means of controlling those displays, are directed at solving similar problems, disclose solutions with similar advantages, and existed in the same general time period as each other. It would have been obvious to a person skilled in the art to modify or combine

Wang's multiple display windows with Boyer's system of overlapping images and with Hojabri's control of multiple video streams.

g. Kikuchi in view of Eleftheriadis and Nakagawa (Exhibit B-6)

For example, it would have been obvious to combine Kikuchi with Eleftheriadis and Nakagawa because the combination does nothing more than combine known techniques and apparatuses according to their known and ordinary uses to yield predictable results. Kikuchi discloses a system of displaying images and different layouts of those images. Eleftheriadis discloses a system of transmitting and displaying video signals. Nakagawa discloses a method of displaying documents and a slider-type interface that allows users to switch between different views or layouts. A POSITA would have a strong motivation to combine these references because both are in the fields of image display, are directed at solving similar problems, disclose solutions with similar advantages, and existed in the same general time period as each other. It would have been obvious to a person skilled in the art to modify or combine Kikuchi's method of image display with Eleftheriadis's method of transmitting and displaying video signals and Nakagawa's method of displaying documents and use of a slider to manipulate those documents.

These and other motivations to combine references would have been within the knowledge of a person of ordinary skill in the art and/or located in the references themselves. It would have been obvious to one of ordinary skill in the art to try combining the identified prior art references because there were only a finite number of predictable solutions. Further, known work in one field of endeavor would prompt variations based on predictable design incentives and/or market forces either in the same field or a different one, and the combinations represent the known potential options with a reasonable expectation of success.

Any reference or combination of references that anticipates or makes obvious an independent claim also makes obvious any claim dependent on that independent claim because

every element of each dependent claim was known by a person of ordinary skill at the time of the alleged invention, and it would have been obvious to combine those known elements with the independent claim at least as a matter of common sense and routine innovation. Accordingly, IPM contends that each claim would have been obvious not only by the combinations explicitly defined in these contentions, but also by any combination of references that renders obvious that claim.

To the extent Plaintiffs contend that any reference contains multiple distinct embodiments, it would be obvious to combine elements of the distinct embodiments. A person would be motivated to make such a combination because the elements are found in the same reference and the reference as a whole is directed to the same topic.

2. Invalidity Under 35 U.S.C. § 102(f)

A patent is invalid if the alleged inventor "did not himself invent the subject matter sought to be patented." 35 U.S.C. § 102(f). A patent is invalid under 102(f) if the invention was previously conceived of by another and that conception was communicated to the named inventor. *See, e.g.*, *Gambro Lundia AB v. Baxter Healthcare Corp.*, 110 F.3d 1573, 1576 (Fed. Cir. 1997); *see also Price v. Symsek*, 988 F.2d 1187, 1190 (Fed. Cir. 1993). IPM's investigation into derivation by the named inventors of the Patents-in-Suit continues. IPM reserves the right to amend these contentions as it becomes aware of additional evidence, including, for example after the deposition of the named inventors and other witnesses from Cisco. Moreover, by asserting the invalidity of the Asserted Patent, IPM in no way waives or limits any non-infringement arguments it may make in this case.

3. Invalidity Under 35 U.S.C. § 112 (a)

Section 112 requires that a patent specification "contain a written description . . . of the manner and process of making and using [the invention] in such full, clear, concise and exact terms

as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same." 35 U.S.C. § 112(a). To fulfill that written description requirement, "the patent specification must describe an invention in sufficient detail that one skilled in the art can clearly conclude that the inventor invented what is claimed." *Kao Corp. v. Unilever US, Inc.*, 441 F.3d 963, 967–68 (Fed. Cir. 2006); *see also LizardTech, Inc. v. Earth Resource Mapping, Inc.*, 424 F.3d 1336, 1345 (Fed. Cir. 2005) ("[E]nough [of the invention] must be included to convince a person of skill in the art that the inventor possessed the invention . . . ."). IPM contends that, at least under Cisco's actual and/or apparent application of the claims, the Asserted Patents do not include a sufficient written description supporting the Asserted Claims.

Section 112 likewise requires that the specification "enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the" claimed invention. 35 U.S.C. § 112 ¶ 1. A claim is not enabled if, "at the effective filing date of the patent, one of ordinary skill in the art could not practice their full scope without undue experimentation." *Wyeth and Cordis Corp. v. Abbott Labs.*, 720 F.3d 1380, 1384 (Fed. Cir. 2013). "This important doctrine prevents both inadequate disclosure of an invention and overbroad claiming that might otherwise attempt to cover more than was actually invented." *MagSil Corp. v. Hitachi Global Storage Techs.*, *Inc.*, 687 F.3d 1377, 1381 (Fed. Cir. 2012). IPM contends that, at least under Cisco's actual and/or apparent application of the claims, the Asserted Claims do not enable any person skilled in the relevant art to make and use the claimed inventions without undue experimentation.

The following Asserted Claims, at least under Cisco's actual and/or apparent application of the claims, are invalid under 35 U.S.C. § 112 (a), because the specification lacks an adequate

written description of the following limitations and/or because the specification does not enable any person skilled in the art to make and use the invention claimed.

For example, claims 1-20 of the ’293 Patent require “scaling the video frames of the first video stream and repositioning in a first direction the resulting pictures in the video frames of the first video stream to produce a first sequence of scaled video frames.” However, the specification of the ’293 Patent does not contain a full, clear, concise, and exact written description of how to perform this limitation, nor does the specification of the ’293 Patent contain a full, clear, concise, and exact written description that would enable a person of ordinary skill in the art to practice this limitation. The specification fails to provide any details as to what “scaling . . . and repositioning into a first direction” is, or how it is performed. The ’293 Patent specification does not enable a person of ordinary skill in the art to practice the invention claimed in the ’293 Patent. Consequently, Claims 1 and 10 (as well as dependent claims 2-9 and 11-20) of the ’293 Patent are invalid under 35 U.S.C. § 112.

As a further example, claims 2, 6, and 8 of the ’708 Patent requires “providing, for at least one of the intervals, a relationship between positions within the at least one of the intervals and a size and position of one or more frames of a respective layout associated with the interval.” However, the specification of the ’708 Patent does not contain a full, clear, concise, and exact written description of how to perform this limitation, nor does the specification of the ’708 Patent contain a full, clear, concise, and exact written description that would enable a person of ordinary skill in the art to practice this limitation. The specification fails to provide any details as to what a “providing . . . a relationship between positions within the at least one of the intervals” is, or how it is performed. The ’708 Patent specification does not enable a person of ordinary skill in the art

to practice the invention claimed in the '708 Patent. Consequently, Claims 2, 6, and 8 are invalid under 35 U.S.C. § 112.

4. Invalidity Under 35 U.S.C. § 112 (b) and/or 35 U.S.C. § 112 (f)

IPM contends that, at least under Cisco's actual and/or apparent application of the claims, the Asserted Claims are invalid under 35 U.S.C. § 112 (b) and/or (f). Section 112 requires that the specification "conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." 35 U.S.C. § 112 (b). As the Supreme Court clarified, this provision requires that the "claims, viewed in light of the specification and the prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty." *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014). IPM contends that, at least under Cisco's actual and/or apparent application of the claims, the Asserted Claims fail to distinctly claim what the inventor claims as his invention.

The following claims elements are indefinite and render the identified claim(s) invalid:

- repositioning in a first direction the resulting pictures in the video frames of the first video stream to produce a first sequence of scaled video frame ('293 Patent claim 1).

IV. IPM's Document Production

IPM has produced documents for the prior art references listed in the Exhibits to IPM's Initial Invalidity Contentions. *See* IPM00000320 - IPM00000333.

Dated: October 13, 2025

Respectfully submitted,

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Exhibit A-1: Invalidity of U.S. Patent No. 8,830,293 in view of US 8,300,081 to Sawyer et al. ("Sawyer") [1]

This chart is subject to all reservations, objections, and disclaimers in Defendant's Invalidity Contentions and any amendment, supplement, or modification thereof, which are incorporated herein by reference in their entirety.

Sawyer was originally filed December 11, 2008 and published as a publication on October 30 2012 and thus is available as prior art to U.S. Patent No. 8,830,293 (the "'293 Patent") under at least 35 U.S.C. § 102(b).

Sawyer is also evidence of prior invention in the United States under 35 U.S.C. § 102(g). The conception of Sawyer occurred at least as early as December 11, 2008. Based on information currently available, the persons or entities involved in the conception and diligent reduction to practice of the ideas in Sawyer include at least the named inventors and the assignee Discovery is ongoing and Defendant will update this chart pursuant to Federal Rule of Civil Procedure 26(e), the Local Rules, and the Orders of record in this matter subject to further investigation and discovery regarding the reference, the Court's construction of the claims at issue, and discovery generally, including third-party discovery.

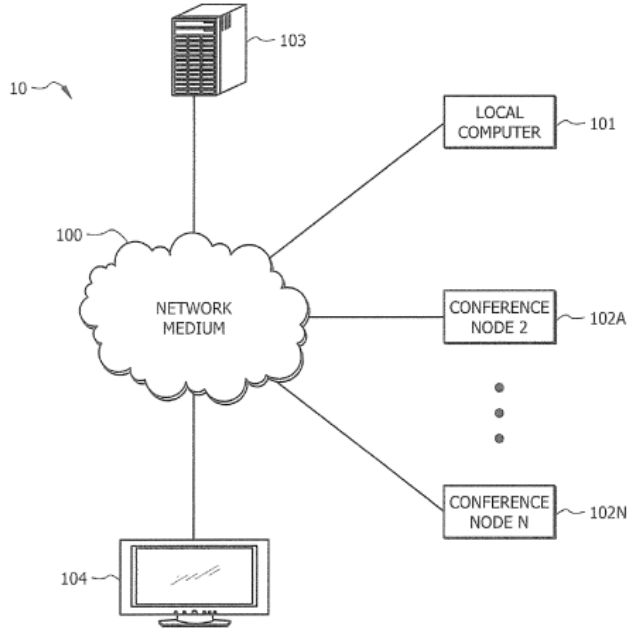
Sawyer anticipates the asserted claims of the '293 Patent. Alternatively, Sawyer renders obvious the asserted claims, either alone or in combination with other prior art identified in the cover pleading or herein, and/or in combination with (1) the general knowledge of one of ordinary skill in the art; (2) the teachings of any of the prior art references set forth in IPM's other invalidity claim charts with respect to the limitation-at-issue; and/or (3) the teachings of any of the prior art references set forth in the cover pleading of IPM's invalidity contentions with respect to the key concepts applicable for the limitation-at-issue.

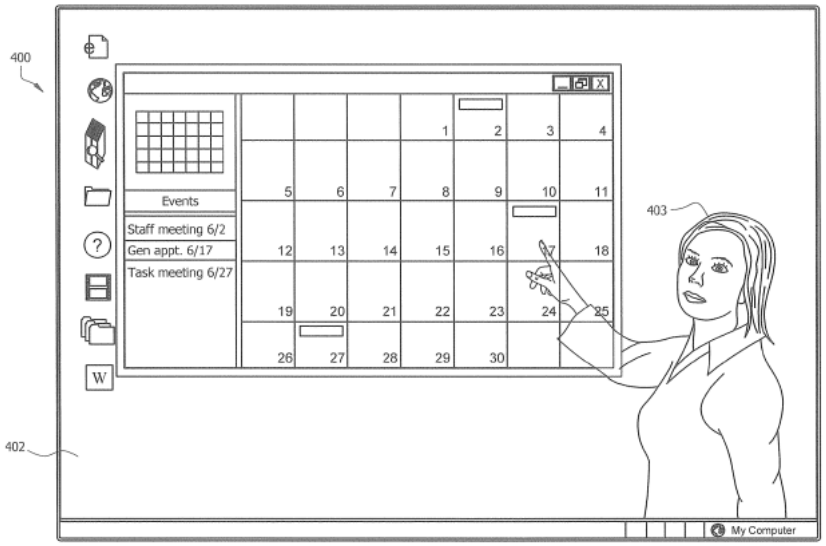
To the extent that the following invalidity contentions reflect constructions of claim limitations consistent with or suggested by Cisco's Infringement Contentions, no inference is intended, nor should any be drawn that IPM agrees with Cisco's apparent claim constructions or infringement contentions. IPM offers such invalidity contentions solely in the alternative to any position it may ultimately take as to

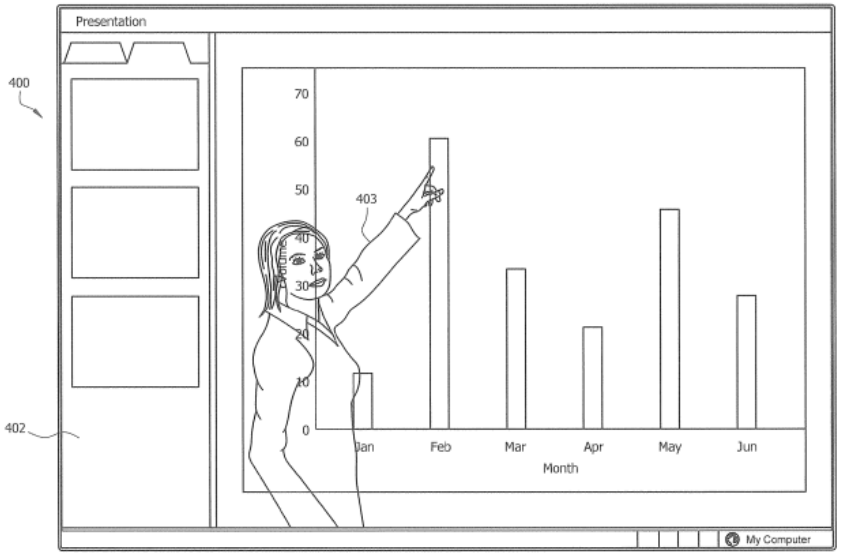
[1] Discovery in this case is ongoing and accordingly, this initial invalidity chart is not final. IPM has conducted its invalidity analysis herein based at least in part and in some instances entirely upon Cisco's apparent application of the claims of the '293 Patent. By charting the prior art against the claims and limitations herein, IPM is neither admitting nor agreeing to Cisco's application of the claims at issue in this case, and these charts should not be interpreted as an admission or concession by IPM that any particular construction or application of any claim limitation by Cisco is correct or proper. Additionally, these charts provide representative examples of portions of the charted references that disclose the indicated limitations under Cisco's application of the claims; additional portions of these references other than the representative examples provided herein may also disclose the indicated limitation(s) and IPM contends that the asserted claims are invalid in light of the charted reference(s) as a whole in its or their entirety. Where a particular figure is cited, the citation should be understood to encompass the caption and description of the figure as well as any text relating to or describing the figure. Conversely, where particular text referring to a figure is cited, the citation should be understood to include the figure as well.

any claim construction issues. IPM denies that the accused products infringe the asserted claim and expressly reserves the right to contest Cisco's apparent claim constructions and infringement contentions.

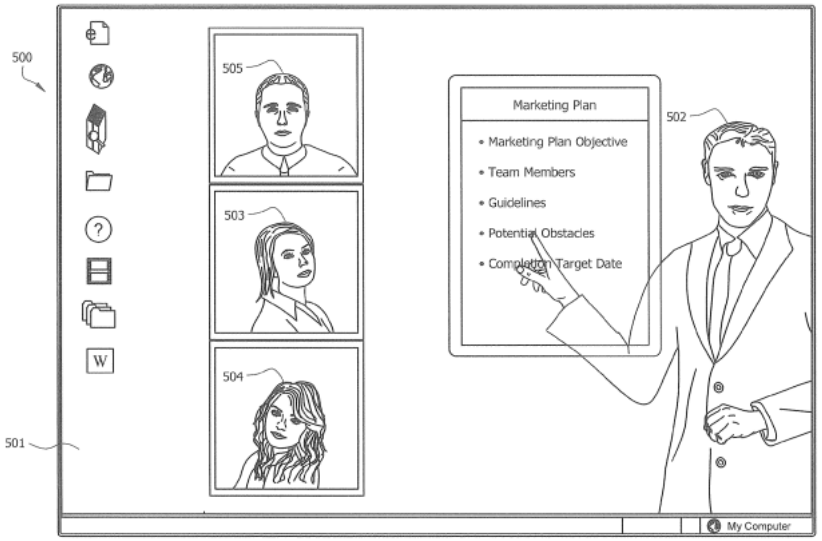
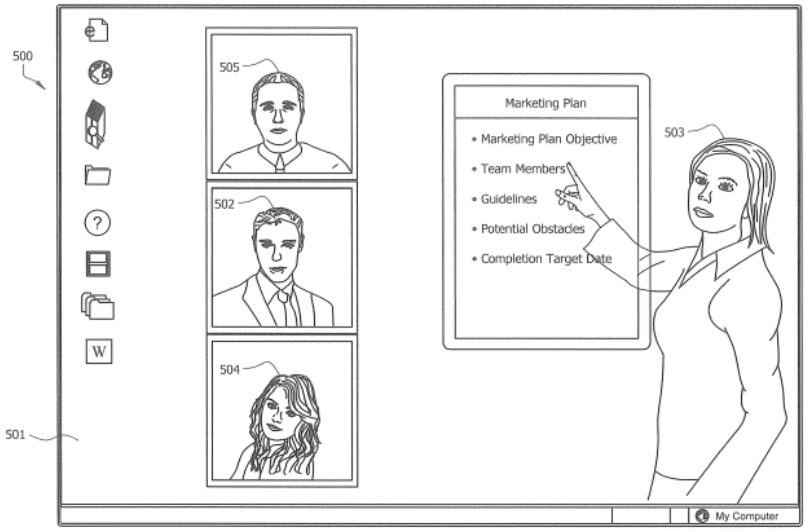
Asserted Claim of the '293 Patent	Exemplary Citations
Claim 1	
1[a]. A method comprising: receiving at least first and second real-time video streams, each of the first and second real-time video streams comprising video frames containing a picture comprising a subject image and a background image;	To the extent the preamble is limiting, Sawyer either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Sawyer at [Column 03, Line 63]: "Turning now to FIG. 1, a block diagram is shown illustrating aspects of the present disclosure as applied to embodiments implementing video conferencing system 10. Various components of video conferencing system 10 are connected via network medium 100. Network medium 100 can be any suitable means for conveying one or more video and/or data feeds between locations. For example, network medium 100 may be a local area network, wireless network, an internet connection, cellular communications network, and the like. Video conferencing system 10 includes local computer 101 which is one of the conference nodes participating in video conferencing system 10. Local computer 101 is configured to receive a video signal either locally or from a remote source. The remote source may be another physical computing device, including but not limited to another conference node, such as nodes 102 a-n, remote server 103, or any other alternate video source 104. It is noted that alternate video source 104 may include a television signal, streaming video, video received from a cellular phone, closed circuit broadcast, and the like." *Id.* at Fig. 1:

Asserted Claim of the ’293 Patent	Exemplary Citations
	 *FIG. 1* *Id.* at [Column 04, Line 16]: “Local computer 101 is configured to blend the image data representing the video signal with image data representing primary feed data, such as a feed from its displayed desktop. Primary feed data can be any other visual presentation or shared space that a user may want to view along with the camera feed. In one embodiment, the primary feed data is a shared space from the user's computer in a video conference. The shared space may be the actual full desktop view of a participant's computer or a shared view of an application from a conferencing server or only a shared portion of the participant's desktop view. The primary feed data could also be an active video feed. Moreover, the primary desktop feed may originate at local computer 101, or may originate from any other source on conferencing system 10. The blended signal is configured to incorporate one or more primary subjects of the video signal with the desktop feed. Local computer 101 may be further configured to adjust the transparency level of at least one of the primary desktop feed and the video signal.”

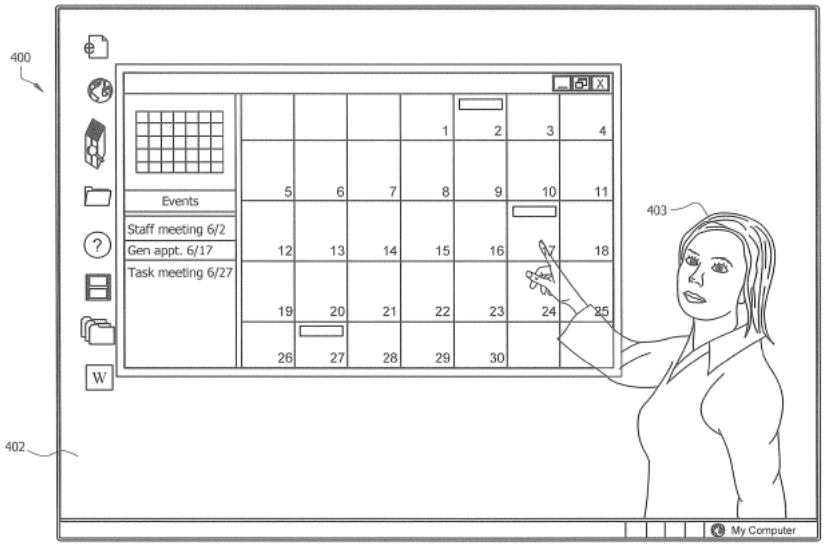
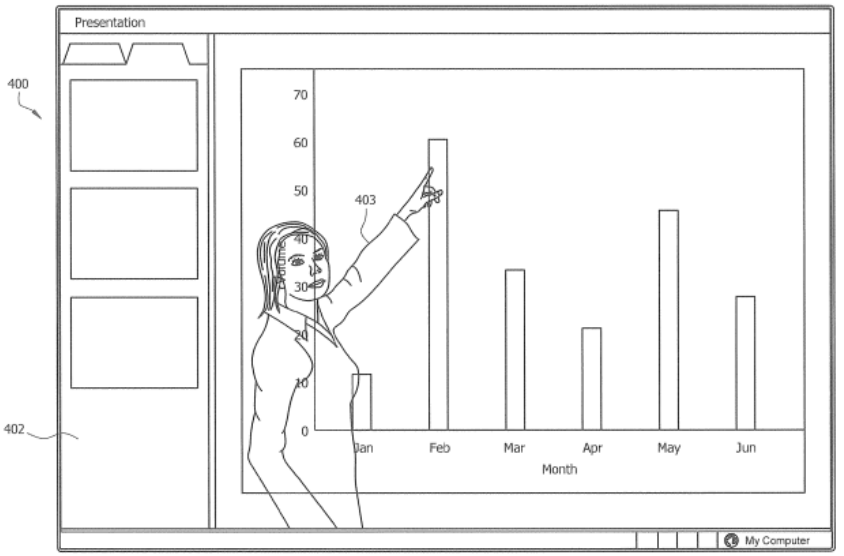
Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
1[b]. combining the subject images of corresponding video frames of the first and second video streams into a combined frame of a combined video stream such that the subject image of the first video stream is positioned in an anterior portion of the combined frame and the subject image of the second video stream is positioned in a posterior portion of the combined frame, wherein the combining comprises:	Sawyer either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Sawyer at [Column 06, Line 07]: "FIGS. 4A and 4B illustrate blended view 400 of camera feed 403 and primary feed 402 according to an embodiment of the present teachings. Blended feed 400 combines both primary feed 402 and camera feed 403. Blending may be accomplished using any means capable of combining such images including alpha compositing, image masks, and the like. As shown in FIGS. 4A and 4B, the blended feeds are able to be viewed in a manner such that a viewer is able to focus on an application from primary feed 402 while viewing gestures and actions occurring in camera feed 403. Thereby, a greatly improved viewing experience is created." *Id*. At Figs. 4A and 4B:  *FIG. 4A*

Asserted Claim of the ’293 Patent	Exemplary Citations to Sawyer
	 *FIG. 4B* *Id*. at [Column 06, Line 22]: “It should be noted that, while FIG. 4A illustrates a view of a computer desktop for primary feed 402, as stated above, primary feed 402 or additional and/or alternative embodiments of the teachings herein may include any visual presentation that a user may want to view along with the camera feed such as a streaming video feed, and the like. For example, FIG. 4B illustrates camera feed 403 blended with primary feed 402, which is a full screen professional presentation such as is generated by various presentation software.”

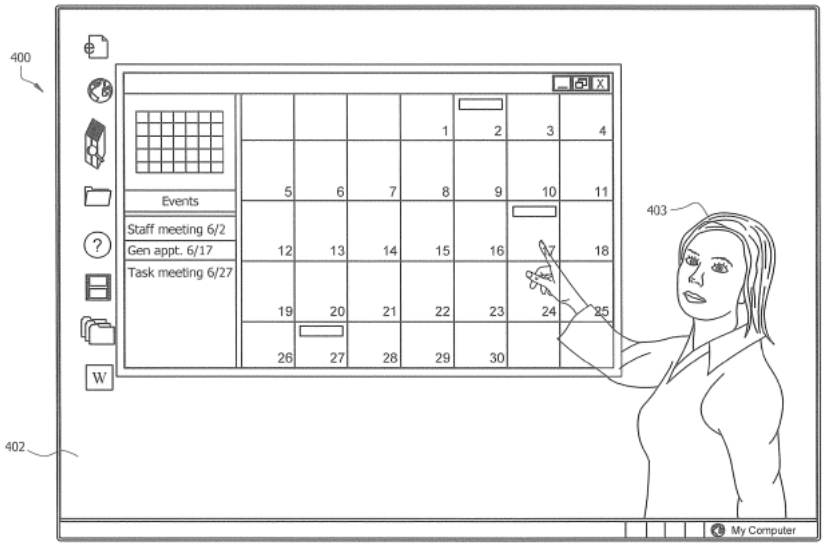
Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
1[c]. scaling the video frames of the first video stream and repositioning in a first direction the resulting pictures in the video frames of the first video stream to produce a first sequence of scaled video frames;	Sawyer either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Sawyer at [Column 04, Line 35]: "Local computer 101 may be further configured to broadcast the blended signal to other participants in the conference on conference nodes 102 a-n, or to remote server 103, over network medium 100. Local computer 101 may also be configured to subtract out image data representing one or more primary subjects of the video signal from the raw image data of the video signal, and/or subtract out image data representing one or more key frames in the primary desktop feed, before blending the signal with the primary desktop feed. In short, local computer 101 may be configured to implement the functionality of the embodiments discussed in the present teachings herein." *Id.* at [Column 07, Line 50]: "FIGS. 5A and 5B are additional blended illustrations 500 of an embodiment of the present teachings which utilize and blend multiple camera feeds. Multiple camera feeds 502 503 504 505 may be simultaneously blended with primary feed 501 thereby showing multiple conference participants. As shown in FIG. 5A, camera feed 502 is active and is displayed in a blended view with primary feed 501. In FIG. 5B a second camera feed 503 of multiple camera feeds 502 503 504 505 is active and displayed in a blended view with primary feed 501. A feed of multiple camera feeds 502 503 504 505 may become active based on activity within the video conference. For example, camera feed 502 may become active when a user associated with camera feed 502 is speaking. In other embodiments, an active feed may be selected manually. It may also be desirable to provide an indicator proximate to inactive feeds (e.g. 503 504 505 if FIG. 5A) to indicate when a participant desires to speak, or is speaking. Additionally, as shown in FIGS. 5A and 5B embodiments may function to expand the viewable size, or reposition, a camera feed of multiple camera feeds 502 503 504 505, in response a particular feed becoming active. When displaying multiple participants, embodiments may provide for an indicator to signal which participant is speaking." *Id.* at Figs. 5A and 5B :

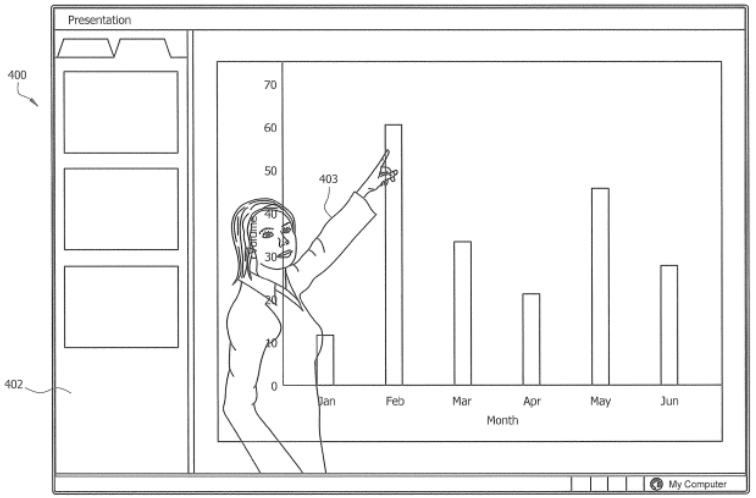
Asserted Claim of the ’293 Patent	Exemplary Citations to Sawyer
	 *FIG. 5A*  *FIG. 5B*

Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
1[d]. removing the background image in the first sequence of scaled video frames to produce first background separated video frames to be displayed in the anterior portion of the combined frames of the combined video stream; and	Sawyer either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Sawyer at [Column 04, Line 35]: "Local computer 101 may be further configured to broadcast the blended signal to other participants in the conference on conference nodes 102 a-n, or to remote server 103, over network medium 100. Local computer 101 may also be configured to subtract out image data representing one or more primary subjects of the video signal from the raw image data of the video signal, and/or subtract out image data representing one or more key frames in the primary desktop feed, before blending the signal with the primary desktop feed. In short, local computer 101 may be configured to implement the functionality of the embodiments discussed in the present teachings herein." *Id.* at [Column 06, Line 07]: "FIGS. 4A and 4B illustrate blended view 400 of camera feed 403 and primary feed 402 according to an embodiment of the present teachings. Blended feed 400 combines both primary feed 402 and camera feed 403. Blending may be accomplished using any means capable of combining such images including alpha compositing, image masks, and the like. As shown in FIGS. 4A and 4B, the blended feeds are able to be viewed in a manner such that a viewer is able to focus on an application from primary feed 402 while viewing gestures and actions occurring in camera feed 403. Thereby, a greatly improved viewing experience is created." *Id*. At Figs. 4A and 4B:

Asserted Claim of the ’293 Patent	Exemplary Citations to Sawyer
	 *FIG. 4A*  *FIG. 4B* *Id*. at [Column 06, Line 22]: “It should be noted that, while FIG. 4A illustrates a view of

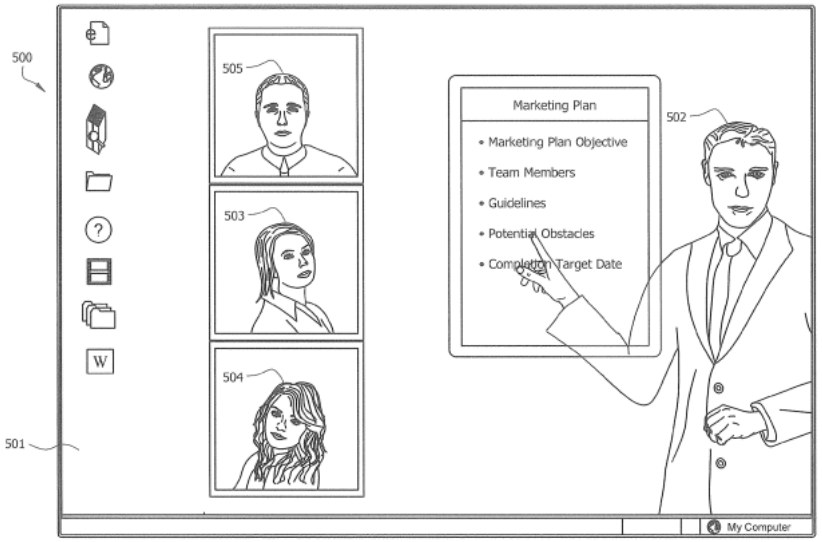
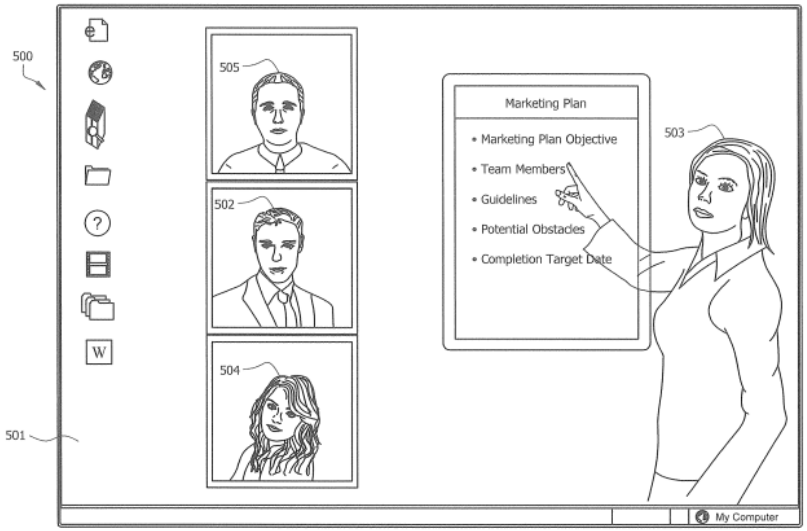
Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
	a computer desktop for primary feed 402, as stated above, primary feed 402 or additional and/or alternative embodiments of the teachings herein may include any visual presentation that a user may want to view along with the camera feed such as a streaming video feed, and the like. For example, FIG. 4B illustrates camera feed 403 blended with primary feed 402, which is a full screen professional presentation such as is generated by various presentation software."

Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
1[e]. superimposing the first background separated video frames onto corresponding ones of the video frames of the second video stream to produce combined video frames of the combined video stream; and	Sawyer either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Sawyer at [Column 06, Line 07]: "FIGS. 4A and 4B illustrate blended view 400 of camera feed 403 and primary feed 402 according to an embodiment of the present teachings. Blended feed 400 combines both primary feed 402 and camera feed 403. Blending may be accomplished using any means capable of combining such images including alpha compositing, image masks, and the like. As shown in FIGS. 4A and 4B, the blended feeds are able to be viewed in a manner such that a viewer is able to focus on an application from primary feed 402 while viewing gestures and actions occurring in camera feed 403. Thereby, a greatly improved viewing experience is created." *Id*. At Figs. 4A and 4B:  *FIG. 4A*

Asserted Claim of the ’293 Patent	Exemplary Citations to Sawyer
	 *FIG. 4B* *Id*. at [Column 06, Line 22]: “It should be noted that, while FIG. 4A illustrates a view of a computer desktop for primary feed 402, as stated above, primary feed 402 or additional and/or alternative embodiments of the teachings herein may include any visual presentation that a user may want to view along with the camera feed such as a streaming video feed, and the like. For example, FIG. 4B illustrates camera feed 403 blended with primary feed 402, which is a full screen professional presentation such as is generated by various presentation software.” *Id*. at [Column 06, Line 27]: “Embodiments of the present disclosure are also configured to adjust a transparency value of one of the feeds. FIGS. 4A and 4B illustrate blended primary feed 402 and camera feed 403 wherein camera feed 403 has had its transparency value adjusted either at specific times or all of the time to become more transparent with respect to primary feed 402. As a result, a person displayed on camera feed 403 is able to gesture in a manner that intersects objects displayed in primary feed 402 without completely obscuring such objects. The added transparency of camera feed 403 also allows an observer of blended view 400 to more easily focus on the content of both primary feed 402 and camera feed 403.”

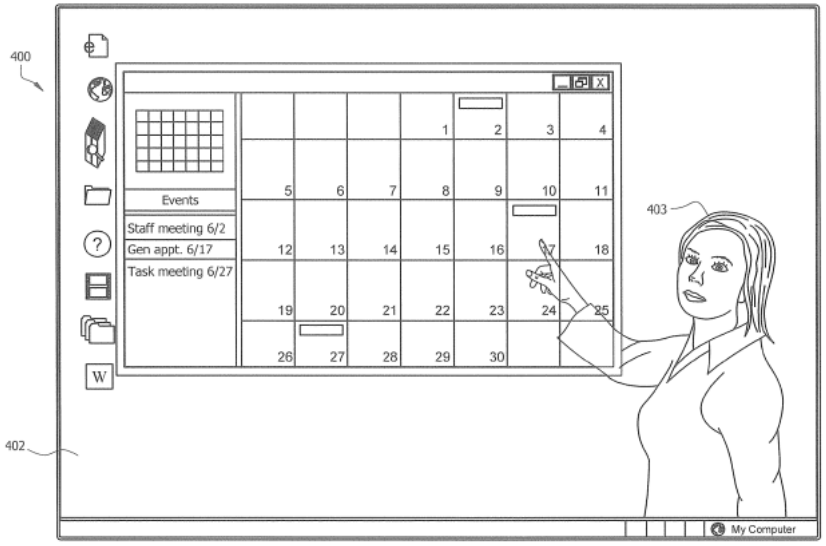
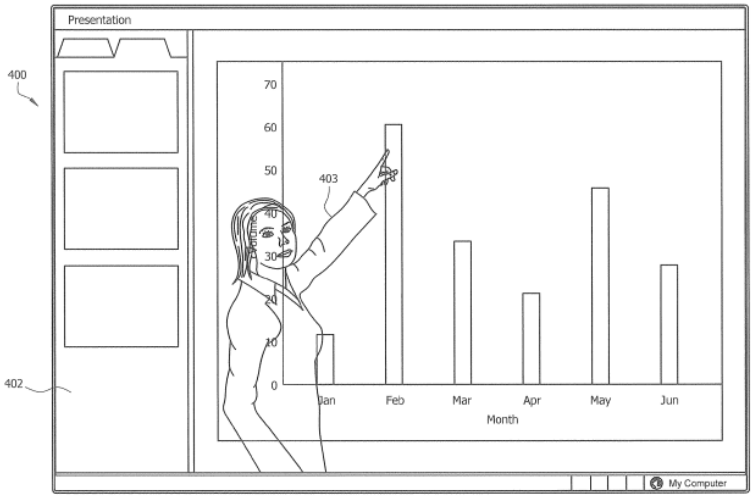
Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
1[f]. supplying the combined video stream to a video display for displaying the combined video stream.	Sawyer either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Sawyer at [Column 04, Line 56]: "It should be noted that in additional and/or alternative embodiments of the present teachings, the blending and adjusting of transparency may occur at any of the video conferencing system. For example, at the starting side, or side from which the camera feed video is being captured, the participant's local computer may adjust the transparency of one or more of the feeds, blend the camera feed data with the primary feed data, and then send the composite broadcast feed data out to the other participants or conferencing server. Alternatively, the starting side may broadcast the camera feed data and primary feed data separately, so that each local computer for each participant handles the transparency adjustment and blending operations. Still further, a conferencing server or other intermediate blending server may receive the video feed and the primary feed from the starting side, create the camera feed from the video feed, create the primary feed, adjust the transparency level as desired, blend the camera feed and primary feed, and then either deliver the composite broadcast feed to a conferencing server for broadcasting to the participants, or send the composite broadcast feed to the participants directly." *See e.g.*, Sawyer at [Column 07, Line 50]: "FIGS. 5A and 5B are additional blended illustrations **500** of an embodiment of the present teachings which utilize and blend multiple camera feeds. Multiple camera feeds **502 503 504 505** may be simultaneously blended with primary feed **501** thereby showing multiple conference participants. As shown in FIG. 5A, camera feed **502** is active and is displayed in a blended view with primary feed **501**. In FIG. 5B a second camera feed **503** of multiple camera feeds **502 503 504 505** is active and displayed in a blended view with primary feed **501**."

Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
Claim 2	
2[a]. The method of claim 1, wherein the subject image of video frames of the first video stream comprises images of multiple videoconference participants and the subject image of video frames of the second video stream comprises images of multiple videoconference participants.	Sawyer either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Sawyer at [Column 07, Line 50]: "FIGS. 5A and 5B are additional blended illustrations 500 of an embodiment of the present teachings which utilize and blend multiple camera feeds. Multiple camera feeds 502 503 504 505 may be simultaneously blended with primary feed 501 thereby showing multiple conference participants. As shown in FIG. 5A, camera feed 502 is active and is displayed in a blended view with primary feed 501. In FIG. 5B a second camera feed 503 of multiple camera feeds 502 503 504 505 is active and displayed in a blended view with primary feed 501. A feed of multiple camera feeds 502 503 504 505 may become active based on activity within the video conference. For example, camera feed 502 may become active when a user associated with camera feed 502 is speaking. In other embodiments, an active feed may be selected manually. It may also be desirable to provide an indicator proximate to inactive feeds (e.g. 503 504 505 if FIG. 5A) to indicate when a participant desires to speak, or is speaking. Additionally, as shown in FIGS. 5A and 5B embodiments may function to expand the viewable size, or reposition, a camera feed of multiple camera feeds 502 503 504 505, in response a particular feed becoming active. When displaying multiple participants, embodiments may provide for an indicator to signal which participant is speaking." *Id.* at Figs. 5A and 5B:

Asserted Claim of the ’293 Patent	Exemplary Citations to Sawyer
	 *FIG. 5A*  *FIG. 5B*

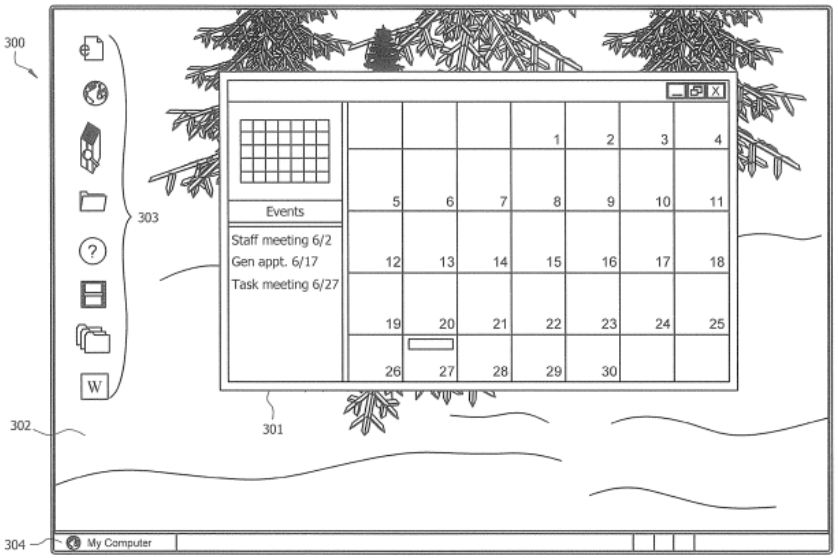
Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
Claim 03	
3[a]. The method of claim 1, wherein combining comprises: scaling the video frames of the second video stream and repositioning in a second direction the resulting pictures in the video frames of the second video stream to produce a second sequence of scaled video frames;	Sawyer either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Sawyer at [Column 04, Line 35]: "Local computer 101 may be further configured to broadcast the blended signal to other participants in the conference on conference nodes 102 a-n, or to remote server 103, over network medium 100. Local computer 101 may also be configured to subtract out image data representing one or more primary subjects of the video signal from the raw image data of the video signal, and/or subtract out image data representing one or more key frames in the primary desktop feed, before blending the signal with the primary desktop feed. In short, local computer 101 may be configured to implement the functionality of the embodiments discussed in the present teachings herein." *See e.g.*, Sawyer at [Column 06, Line 28]: "In some embodiments, when blending primary feed 402 and camera feed 403, it is preferable to reverse the visual presentation of either primary feed 402 or camera feed 403. This is because primary feed 402 is showing the desktop as is, whereas video capturing a scene including a person will generally reverse its visual presentation left to right. For example, even though the video subject points to his or her right, the presentation of that video shows the subject pointing to his or her left. As such, to create a natural viewing environment it is beneficial to reverse one of the feeds. It is generally more natural to reverse camera feed 401 so as to avoid reversal of any words displayed on primary feed 402." *See e.g.*, Sawyer at [Column 06, Line 40]: "Embodiments of the present disclosure are also configured to adjust a transparency value of one of the feeds. FIGS. 4A and 4B illustrate blended primary feed 402 and camera feed 403 wherein camera feed 403 has had its transparency value adjusted either at specific times or all of the time to become more transparent with respect to primary feed 402. As a result, a person displayed on camera feed 403 is able to gesture in a manner that intersects objects displayed in primary feed 402 without completely obscuring such objects. The added transparency of camera feed 403 also allows an observer of blended view 400 to more easily focus on the content of both primary feed 402 and camera feed 403."

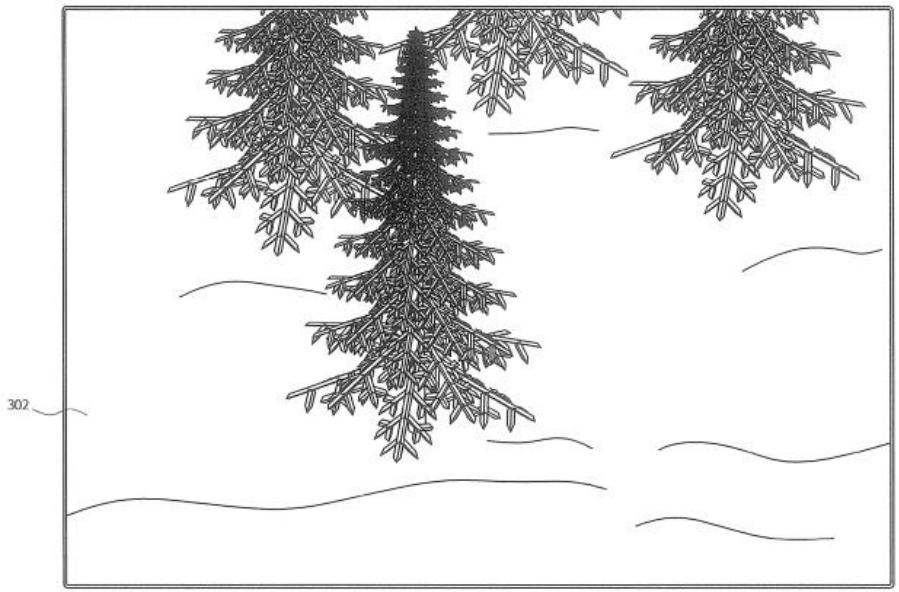
Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
3[b]. extending the background image in the second sequence of scaled video frames to produce background extended video frames to be displayed in the posterior portion of the combined frames of the combined video stream; and	Sawyer either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.,* Sawyer at [Column 05, Line 49]: "In some embodiments, at least one reference frame may be subtracted from the primary feed. FIGS. 3A-3C illustrate a progressing example of a visual presentation of desktop computer 300. The visual presentation comprises application window 301, background picture 302, and various icons 303 and menus 304. When blending the primary feed with camera feed data captures it may be desirable to minimize the amount of items being displayed with the primary feed. Background picture 302 may be subtracted to display alternate background 302′. Alternate background 302′ may be selected as preferred by a user. Alternate background 302′ is shown as a solid color. A solid background may be desirable as it assists in making any blended visual presentation easier to view. However, any other background could be selected, as desired by the user."
3[c]. superimposing the first background separated video frames onto corresponding ones of background extended video frames to produce combined video frames of the combined video stream.	Sawyer either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Sawyer at [Column 06, Line 07]: "FIGS. 4A and 4B illustrate blended view 400 of camera feed 403 and primary feed 402 according to an embodiment of the present teachings. Blended feed 400 combines both primary feed 402 and camera feed 403. Blending may be accomplished using any means capable of combining such images including alpha compositing, image masks, and the like. As shown in FIGS. 4A and 4B, the blended feeds are able to be viewed in a manner such that a viewer is able to focus on an application from primary feed 402 while viewing gestures and actions occurring in camera feed 403. Thereby, a greatly improved viewing experience is created."

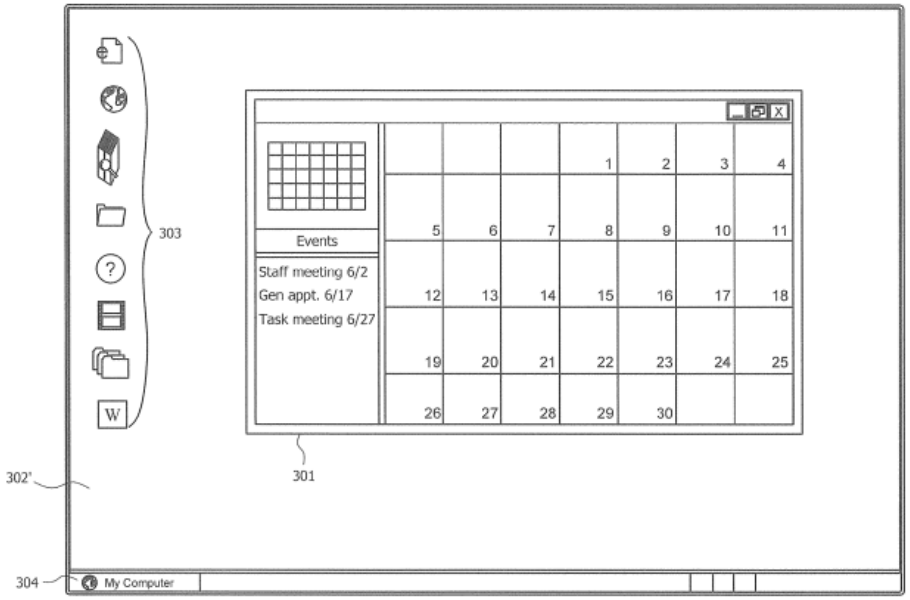
Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
	Id. At Figs. 4A and 4B:  *FIG. 4A*  *FIG. 4B* *Id*. at [Column 06, Line 22]: "It should be noted that, while FIG. 4A illustrates a view of

Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
	a computer desktop for primary feed 402, as stated above, primary feed 402 or additional and/or alternative embodiments of the teachings herein may include any visual presentation that a user may want to view along with the camera feed such as a streaming video feed, and the like. For example, FIG. 4B illustrates camera feed 403 blended with primary feed 402, which is a full screen professional presentation such as is generated by various presentation software." *Id*. at [Column 06, Line 27]: "Embodiments of the present disclosure are also configured to adjust a transparency value of one of the feeds. FIGS. 4A and 4B illustrate blended primary feed 402 and camera feed 403 wherein camera feed 403 has had its transparency value adjusted either at specific times or all of the time to become more transparent with respect to primary feed 402. As a result, a person displayed on camera feed 403 is able to gesture in a manner that intersects objects displayed in primary feed 402 without completely obscuring such objects. The added transparency of camera feed 403 also allows an observer of blended view 400 to more easily focus on the content of both primary feed 402 and camera feed 403."

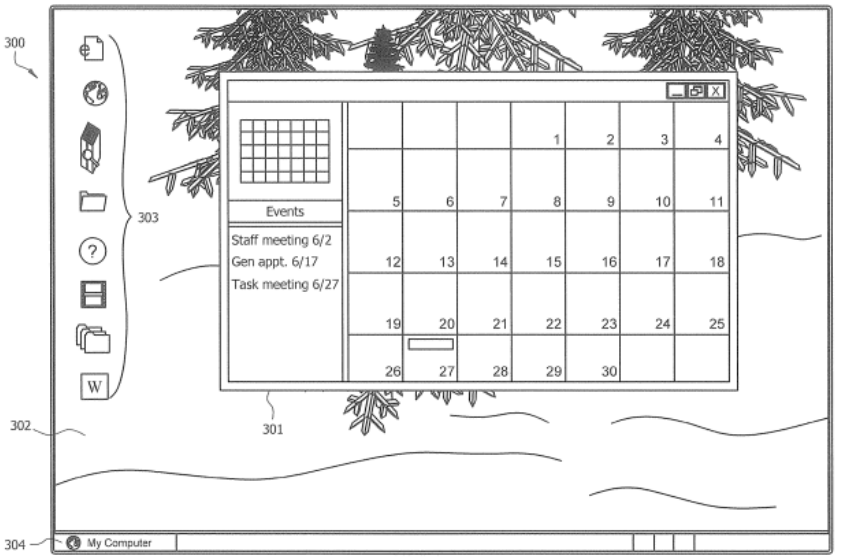
Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
Claim 4	
4[a]. The method of claim 3, wherein the second direction is opposite to the first direction.	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.,* Sawyer at [Column 05, Line 49]: "In some embodiments, at least one reference frame may be subtracted from the primary feed. FIGS. 3A-3C illustrate a progressing example of a visual presentation of desktop computer 300. The visual presentation comprises application window 301, background picture 302, and various icons 303 and menus 304. When blending the primary feed with camera feed data captures it may be desirable to minimize the amount of items being displayed with the primary feed. Background picture 302 may be subtracted to display alternate background 302′. Alternate background 302′ may be selected as preferred by a user. Alternate background 302′ is shown as a solid color. A solid background may be desirable as it assists in making any blended visual presentation easier to view. However, any other background could be selected, as desired by the user." *See e.g.*, Sawyer at [Column 06, Line 28]: "In some embodiments, when blending primary feed 402 and camera feed 403, it is preferable to reverse the visual presentation of either primary feed 402 or camera feed 403. This is because primary feed 402 is showing the desktop as is, whereas video capturing a scene including a person will generally reverse its visual presentation left to right. For example, even though the video subject points to his or her right, the presentation of that video shows the subject pointing to his or her left. As such, to create a natural viewing environment it is beneficial to reverse one of the feeds. It is generally more natural to reverse camera feed 401 so as to avoid reversal of any words displayed on primary feed 402." *See e.g.*, Sawyer at [Column 06, Line 40]: "Embodiments of the present disclosure are also configured to adjust a transparency value of one of the feeds. FIGS. 4A and 4B illustrate blended primary feed 402 and camera feed 403 wherein camera feed 403 has had its transparency value adjusted either at specific times or all of the time to become more transparent with respect to primary feed 402. As a result, a person displayed on camera feed 403 is able to gesture in a manner that intersects objects displayed in primary feed 402 without completely obscuring such objects. The added transparency of camera feed 403 also allows an observer of blended view 400 to more easily focus on the content

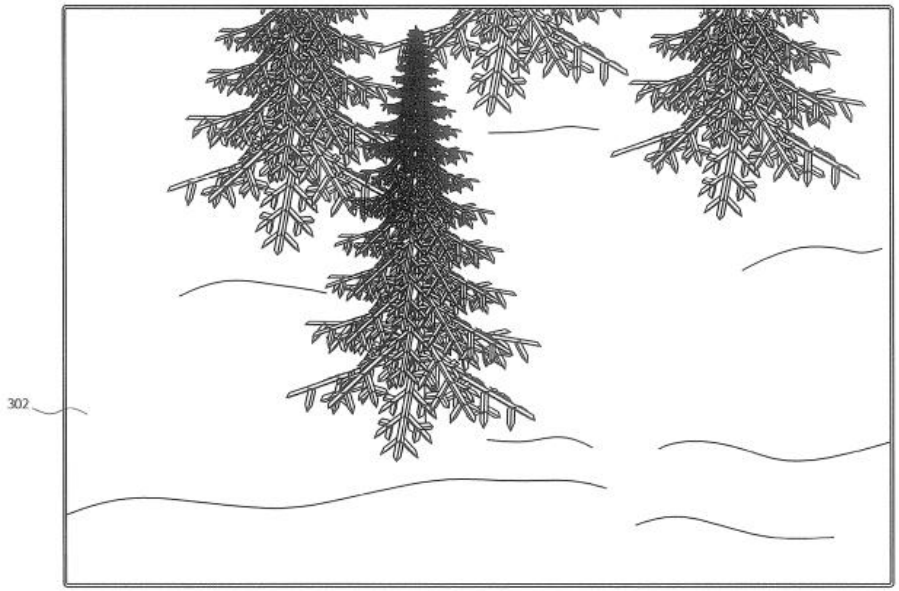
Asserted Claim of the ’293 Patent	Exemplary Citations to Sawyer
	of both primary feed 402 and camera feed 403.” *Id.* at [Column 04, Line 35]: “Local computer 101 may be further configured to broadcast the blended signal to other participants in the conference on conference nodes 102 a-n, or to remote server 103, over network medium 100. Local computer 101 may also be configured to subtract out image data representing one or more primary subjects of the video signal from the raw image data of the video signal, and/or subtract out image data representing one or more key frames in the primary desktop feed, before blending the signal with the primary desktop feed. In short, local computer 101 may be configured to implement the functionality of the embodiments discussed in the present teachings herein.” *Id.* at Figs. 3A-3C:  *FIG. 3A*

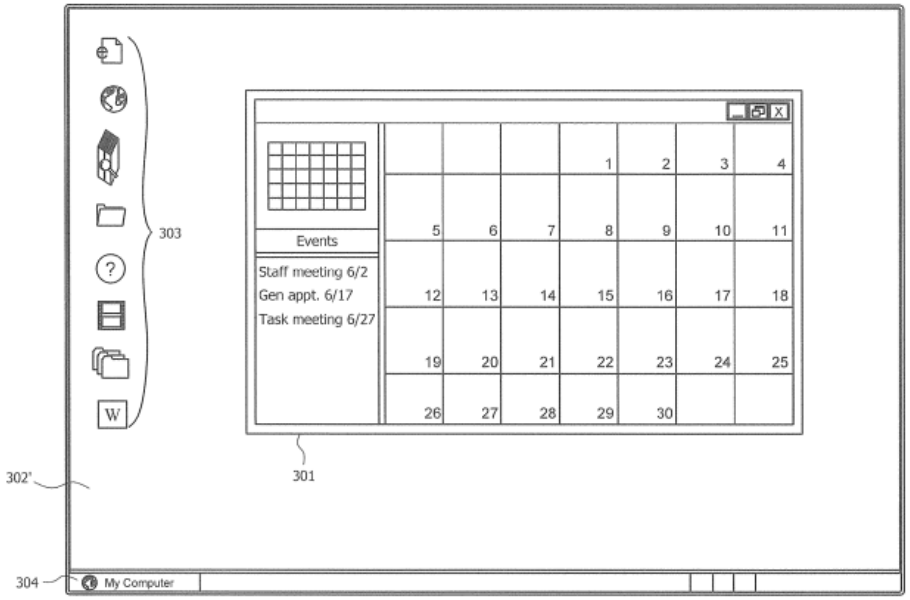
Asserted Claim of the ’293 Patent	Exemplary Citations to Sawyer
	 FIG. 3B

Asserted Claim of the ’293 Patent	Exemplary Citations to Sawyer
	 *FIG. 3C*

Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
Claim 5	
5[a]. The method of claim 1, wherein combining further comprises: removing the background image in the video frames of the first and second video streams to produce first and second background separated video frames;	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.,* Sawyer at [Column 01, Line 53]: "Representative embodiments of the present teachings are directed to systems and methods that blend a video feed with a primary feed in a manner which allows a viewer to focus on a primary feed, while also observing the video feed. A blended visual presentation preferably reduces unnecessary portions of the video feed, primary feed, or both. Further, a transparency value of at least one of the video feed and primary feed is adjusted, thereby providing for an improved visual presentation." *Id.* at [Column 01, Line 62]: "Additional representative embodiments of the present teachings are directed to computer implemented methods that include identifying image data representing at least one reference frame in camera feed data captured by a first camera, subtracting the image data representing the at least one identified reference frame from the camera feed data to be blended with primary feed data representing a shared desktop space for a visual collaboration, adjusting a transparency value of at least one of the camera feed data or the primary feed data, blending the camera feed data with the primary feed data to make a broadcast feed, and transmitting the broadcast feed to at least one computer display." *See e.g.,* Sawyer at [Column 05, Line 49]: "In some embodiments, at least one reference frame may be subtracted from the primary feed. FIGS. 3A-3C illustrate a progressing example of a visual presentation of desktop computer 300. The visual presentation comprises application window 301, background picture 302, and various icons 303 and menus 304. When blending the primary feed with camera feed data captures it may be desirable to minimize the amount of items being displayed with the primary feed. Background picture 302 may be subtracted to display alternate background 302′. Alternate background 302′ may be selected as preferred by a user. Alternate background 302′ is shown as a solid color. A solid background may be desirable as it assists in making any blended visual presentation easier to view. However, any other background could be selected, as desired by the user."

Asserted Claim of the ’293 Patent	Exemplary Citations to Sawyer
5[b]. generating supplemental background image video frames that comprise a supplemental background image; and	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.,* Sawyer at [Column 05, Line 49]: “In some embodiments, at least one reference frame may be subtracted from the primary feed. FIGS. 3A-3C illustrate a progressing example of a visual presentation of desktop computer 300. The visual presentation comprises application window 301, background picture 302, and various icons 303 and menus 304. When blending the primary feed with camera feed data captures it may be desirable to minimize the amount of items being displayed with the primary feed. Background picture 302 may be subtracted to display alternate background 302′. Alternate background 302′ may be selected as preferred by a user. Alternate background 302′ is shown as a solid color. A solid background may be desirable as it assists in making any blended visual presentation easier to view. However, any other background could be selected, as desired by the user.” *Id.* at Figs. 3A-3C:  *FIG. 3A*

Asserted Claim of the ’293 Patent	Exemplary Citations to Sawyer
	 FIG. 3B

Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
	 *FIG. 3C* *Id.* at [Column 04, Line 47]: "Local computer 101 may also act as a conference server, or a separate conference server. Conference server 103 may be used to administer the video conference, blend signals, etc. A conference server may be utilized to switch between, or to simultaneously blend, a plurality of video signals from separate conference users with a primary desktop feed. Switching may be implemented based on the activity occurring within a video conference, such as a participant speaking, an administrator selecting a video signal, and the like."
5[c]. superimposing corresponding ones of the first background separated video frames and the second background separated video frames onto corresponding ones of the supplemental background video frames to produce the combined video frames of the combined video stream.	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.,* Sawyer at [Column 05, Line 49]: "In some embodiments, at least one reference frame may be subtracted from the primary feed. FIGS. 3A-3C illustrate a progressing example of a visual presentation of desktop computer 300. The visual presentation comprises application window 301, background picture 302, and various icons 303 and menus 304. When blending the primary feed with camera feed data captures it may be

Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
	desirable to minimize the amount of items being displayed with the primary feed. Background picture 302 may be subtracted to display alternate background 302′. Alternate background 302′ may be selected as preferred by a user. Alternate background 302′ is shown as a solid color. A solid background may be desirable as it assists in making any blended visual presentation easier to view. However, any other background could be selected, as desired by the user." *Id.* at [Column 04, Line 35]: "Local computer 101 may be further configured to broadcast the blended signal to other participants in the conference on conference nodes 102 a-n, or to remote server 103, over network medium 100. Local computer 101 may also be configured to subtract out image data representing one or more primary subjects of the video signal from the raw image data of the video signal, and/or subtract out image data representing one or more key frames in the primary desktop feed, before blending the signal with the primary desktop feed. In short, local computer 101 may be configured to implement the functionality of the embodiments discussed in the present teachings herein." *Id.* at [Column 04, Line 47]: "Local computer 101 may also act as a conference server, or a separate conference server. Conference server 103 may be used to administer the video conference, blend signals, etc. A conference server may be utilized to switch between, or to simultaneously blend, a plurality of video signals from separate conference users with a primary desktop feed. Switching may be implemented based on the activity occurring within a video conference, such as a participant speaking, an administrator selecting a video signal, and the like."

Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
Claim 6	
6[a]. The method of claim 1, wherein the first and second video streams are produced at a same video conferencing site.	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.,* Sawyer at [Column 04, Line 16]: "Local computer 101 is configured to blend the image data representing the video signal with image data representing primary feed data, such as a feed from its displayed desktop. Primary feed data can be any other visual presentation or shared space that a user may want to view along with the camera feed. In one embodiment, the primary feed data is a shared space from the user's computer in a video conference. The shared space may be the actual full desktop view of a participant's computer or a shared view of an application from a conferencing server or only a shared portion of the participant's desktop view. The primary feed data could also be an active video feed. Moreover, the primary desktop feed may originate at local computer 101, or may originate from any other source on conferencing system 10. The blended signal is configured to incorporate one or more primary subjects of the video signal with the desktop feed. Local computer 101 may be further configured to adjust the transparency level of at least one of the primary desktop feed and the video signal."

Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
Claim 7	
7[a]. The method of claim 1, wherein the first and second video streams are produced at different video conferencing sites.	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.,* Sawyer at [Column 04, Line 16]: "Local computer 101 is configured to blend the image data representing the video signal with image data representing primary feed data, such as a feed from its displayed desktop. Primary feed data can be any other visual presentation or shared space that a user may want to view along with the camera feed. In one embodiment, the primary feed data is a shared space from the user's computer in a video conference. The shared space may be the actual full desktop view of a participant's computer or a shared view of an application from a conferencing server or only a shared portion of the participant's desktop view. The primary feed data could also be an active video feed. Moreover, the primary desktop feed may originate at local computer 101, or may originate from any other source on conferencing system 10. The blended signal is configured to incorporate one or more primary subjects of the video signal with the desktop feed. Local computer 101 may be further configured to adjust the transparency level of at least one of the primary desktop feed and the video signal." *See e.g.,* Sawyer at [Column 04, Line 35]: "Local computer 101 may be further configured to broadcast the blended signal to other participants in the conference on conference nodes 102 a-n, or to remote server 103, over network medium 100. Local computer 101 may also be configured to subtract out image data representing one or more primary subjects of the video signal from the raw image data of the video signal, and/or subtract out image data representing one or more key frames in the primary desktop feed, before blending the signal with the primary desktop feed. In short, local computer 101 may be configured to implement the functionality of the embodiments discussed in the present teachings herein. Local computer 101 may also act as a conference server, or a separate conference server. Conference server 103 may be used to administer the video conference, blend signals, etc. A conference server may be utilized to switch between, or to simultaneously blend, a plurality of video signals from separate conference users with a primary desktop feed. Switching may be implemented based on the activity occurring within a video conference, such as a participant speaking, an administrator selecting a video signal, and the like."

Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
Claim 8	
8[a]. The method of claim 1, wherein combining is performed at a site other than where the first and second video streams are produced.	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.,* Sawyer at [Column 04, Line 47]: "Local computer 101 may also act as a conference server, or a separate conference server. Conference server 103 may be used to administer the video conference, blend signals, etc. A conference server may be utilized to switch between, or to simultaneously blend, a plurality of video signals from separate conference users with a primary desktop feed. Switching may be implemented based on the activity occurring within a video conference, such as a participant speaking, an administrator selecting a video signal, and the like."

Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
Claim 9	
9[a]. The method of claim 1, wherein the subject images of video frames of the first and second video streams are images of video conference participants.	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.,* Sawyer at [Column 04, Line 35]: "Local computer 101 may be further configured to broadcast the blended signal to other participants in the conference on conference nodes 102 a-n, or to remote server 103, over network medium 100. Local computer 101 may also be configured to subtract out image data representing one or more primary subjects of the video signal from the raw image data of the video signal, and/or subtract out image data representing one or more key frames in the primary desktop feed, before blending the signal with the primary desktop feed. In short, local computer 101 may be configured to implement the functionality of the embodiments discussed in the present teachings herein." *Id.* at [Column 04, Line 47]: "Local computer 101 may also act as a conference server, or a separate conference server. Conference server 103 may be used to administer the video conference, blend signals, etc. A conference server may be utilized to switch between, or to simultaneously blend, a plurality of video signals from separate conference users with a primary desktop feed. Switching may be implemented based on the activity occurring within a video conference, such as a participant speaking, an administrator selecting a video signal, and the like."

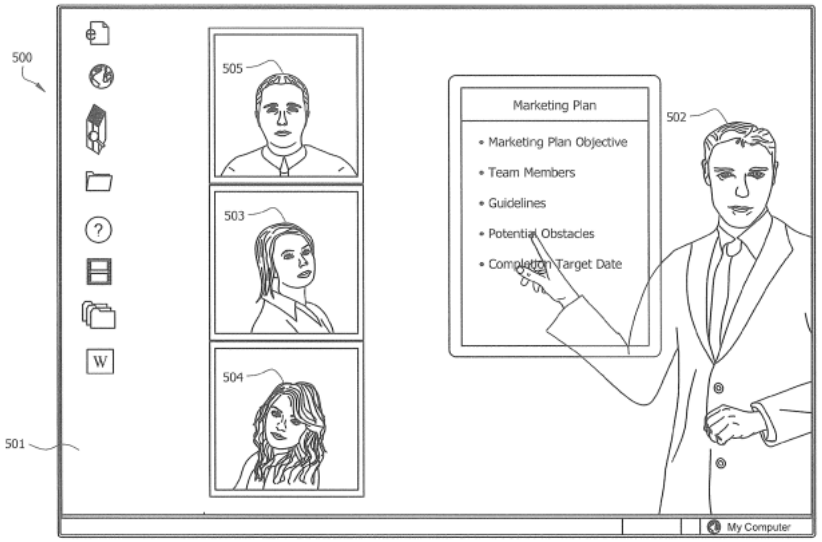

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Marketing Plan
• Marketing Plan Objective
• Team Members
• Guidelines
• Potential Obstacles
• Completion Target Date
My Computer

FIG. 5A

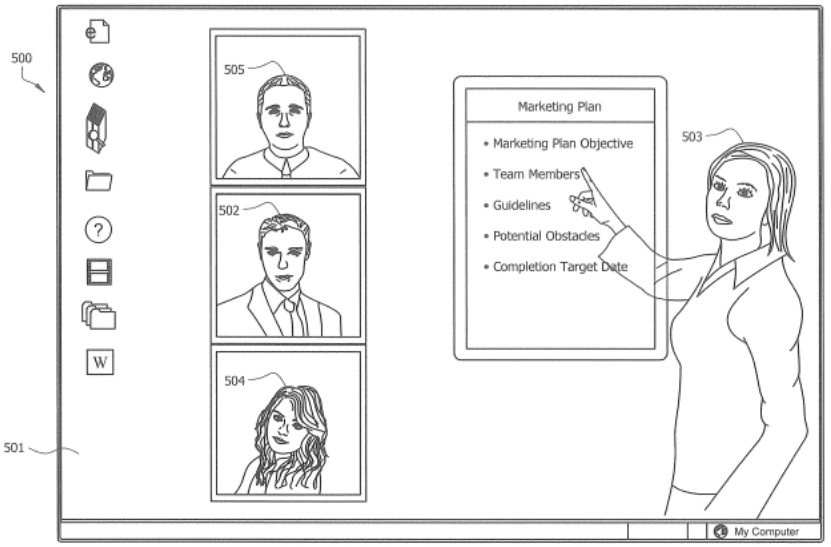
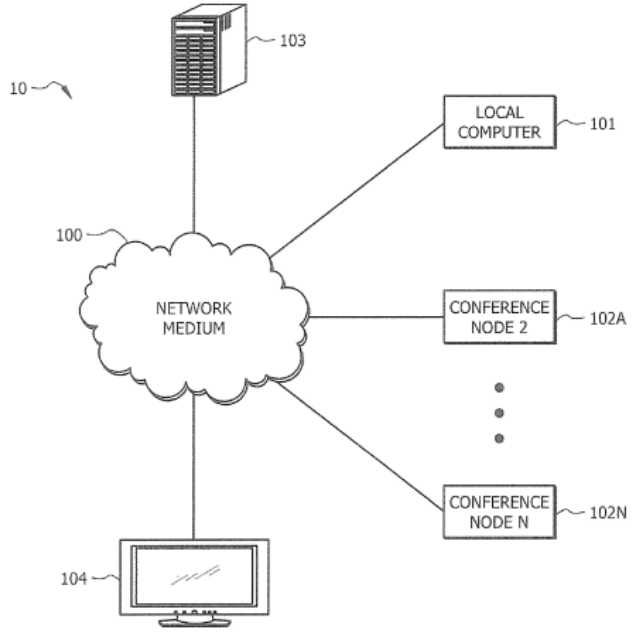
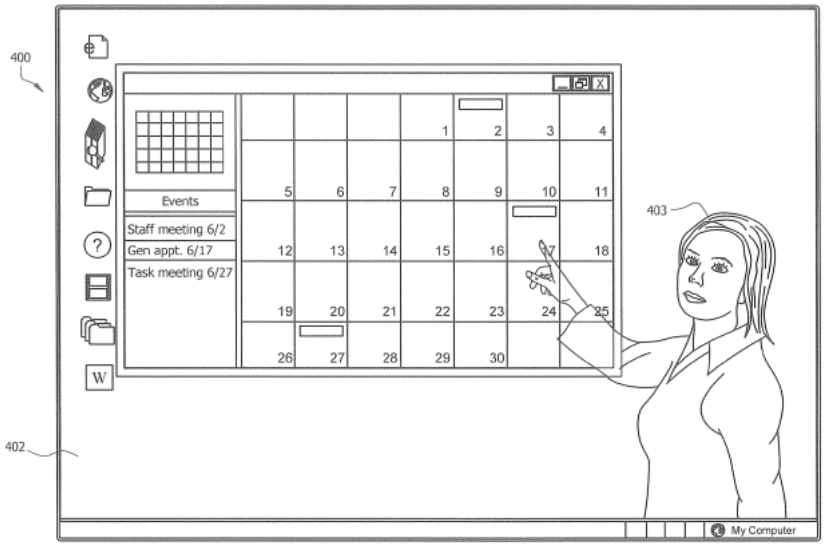
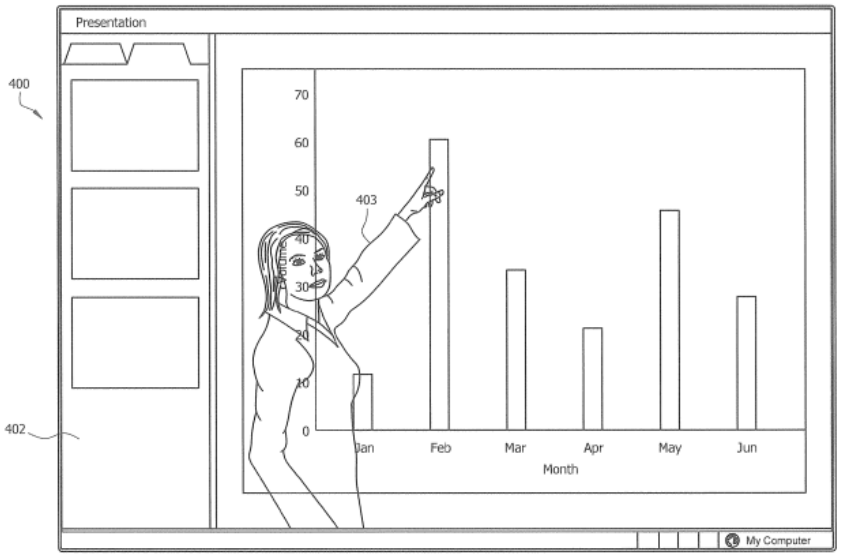

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Marketing Plan
• Marketing Plan Objective
• Team Members
• Guidelines
• Potential Obstacles
• Completion Target Date
My Computer

FIG. 5B

Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
Claim 10	
10[a]. An apparatus comprising: a first memory configured to store data for at least first and second real-time video streams, each of the first and second real-time video streams comprising video frames containing a picture comprising a subject image and a background image; and	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.,* Sawyer at [Column 03, Line 48]: "In the following detailed description, numerous specific details are set forth to provide a thorough understanding of claimed subject matter. However, it will be understood by those skilled in the art that claimed subject matter may be practiced without these specific details. In other instances, methods, apparatuses or systems that would be known by one of ordinary skill have not been described in detail so as not to obscure claimed subject matter. Some portions of the detailed description which follow are presented in terms of algorithms or symbolic representations of operations on data bits or binary digital signals stored within a computing system memory, such as a computer memory. These algorithmic descriptions or representations are examples of techniques used by those of ordinary skill in the data processing arts to convey the substance of their work to others skilled in the art." *Id.* at [Column 03, Line 63]: "Turning now to FIG. 1, a block diagram is shown illustrating aspects of the present disclosure as applied to embodiments implementing video conferencing system 10. Various components of video conferencing system 10 are connected via network medium 100. Network medium 100 can be any suitable means for conveying one or more video and/or data feeds between locations. For example, network medium 100 may be a local area network, wireless network, an internet connection, cellular communications network, and the like. Video conferencing system 10 includes local computer 101 which is one of the conference nodes participating in video conferencing system 10. Local computer 101 is configured to receive a video signal either locally or from a remote source. The remote source may be another physical computing device, including but not limited to another conference node, such as nodes 102 a-n, remote server 103, or any other alternate video source 104. It is noted that alternate video source 104 may include a television signal, streaming video, video received from a cellular phone, closed circuit broadcast, and the like." *Id.* at Fig. 1:

Asserted Claim of the ’293 Patent	Exemplary Citations to Sawyer
	 *FIG. 1* *Id.* at [Column 04, Line 16]: “Local computer 101 is configured to blend the image data representing the video signal with image data representing primary feed data, such as a feed from its displayed desktop. Primary feed data can be any other visual presentation or shared space that a user may want to view along with the camera feed. In one embodiment, the primary feed data is a shared space from the user's computer in a video conference. The shared space may be the actual full desktop view of a participant's computer or a shared view of an application from a conferencing server or only a shared portion of the participant's desktop view. The primary feed data could also be an active video feed. Moreover, the primary desktop feed may originate at local computer 101, or may originate from any other source on conferencing system 10. The blended signal is configured to incorporate one or more primary subjects of the video signal with the desktop feed. Local computer 101 may be further configured to adjust the transparency level of at least one of the primary desktop feed and the video signal.” *Id.* at [Column 09, Line 30]: “Embodiments, or portions thereof, may be embodied in

Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
	program or code segments operable upon a processor-based system (e.g., computer system or computing platform) for performing functions and operations as described herein. The program or code segments making up the various embodiments may be stored in a computer-readable medium, which may comprise any suitable medium for temporarily or permanently storing such code. Examples of the computer-readable medium include such tangible computer-readable media as an electronic memory circuit, a semiconductor memory device, random access memory (RAM), read only memory (ROM), erasable ROM (EROM), flash memory, a magnetic storage device (e.g., floppy diskette), optical storage device (e.g., compact disk (CD), digital versatile disk (DVD), etc.), a hard disk, and the like."
10[b]. at least one data processor configured to: combine the subject images of corresponding video frames of the first and second video streams into a combined frame of a first combined video stream such that the subject image of the first video stream is positioned in an anterior portion of the combined frame and the subject image of the second video stream is positioned in a posterior portion of the combined frame, wherein the at least one data processor is configured to combine the subject images of video frames by:	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Sawyer at [Column 06, Line 07]: "FIGS. 4A and 4B illustrate blended view 400 of camera feed 403 and primary feed 402 according to an embodiment of the present teachings. Blended feed 400 combines both primary feed 402 and camera feed 403. Blending may be accomplished using any means capable of combining such images including alpha compositing, image masks, and the like. As shown in FIGS. 4A and 4B, the blended feeds are able to be viewed in a manner such that a viewer is able to focus on an application from primary feed 402 while viewing gestures and actions occurring in camera feed 403. Thereby, a greatly improved viewing experience is created." *Id.* at [Column 04, Line 35]: "Local computer 101 may be further configured to broadcast the blended signal to other participants in the conference on conference nodes 102 a-n, or to remote server 103, over network medium 100. Local computer 101 may also be configured to subtract out image data representing one or more primary subjects of the video signal from the raw image data of the video signal, and/or subtract out image data representing one or more key frames in the primary desktop feed, before blending the signal with the primary desktop feed. In short, local computer 101 may be configured to implement the functionality of the embodiments discussed in the present teachings herein." *Id*. at Figs. 4A and 4B:

Asserted Claim of the ’293 Patent	Exemplary Citations to Sawyer
	 *FIG. 4A*  *FIG. 4B* *Id*. at [Column 06, Line 22]: “It should be noted that, while FIG. 4A illustrates a view of

Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
	a computer desktop for primary feed 402, as stated above, primary feed 402 or additional and/or alternative embodiments of the teachings herein may include any visual presentation that a user may want to view along with the camera feed such as a streaming video feed, and the like. For example, FIG. 4B illustrates camera feed 403 blended with primary feed 402, which is a full screen professional presentation such as is generated by various presentation software." *Id.* at [Column 09, Line 30]: "Embodiments, or portions thereof, may be embodied in program or code segments operable upon a processor-based system (e.g., computer system or computing platform) for performing functions and operations as described herein. The program or code segments making up the various embodiments may be stored in a computer-readable medium, which may comprise any suitable medium for temporarily or permanently storing such code. Examples of the computer-readable medium include such tangible computer-readable media as an electronic memory circuit, a semiconductor memory device, random access memory (RAM), read only memory (ROM), erasable ROM (EROM), flash memory, a magnetic storage device (e.g., floppy diskette), optical storage device (e.g., compact disk (CD), digital versatile disk (DVD), etc.), a hard disk, and the like."
10[c]. scaling the video frames of the first video stream and repositioning in a first direction the resulting pictures in the video frames of the first video stream to produce a first sequence of scaled video frames;	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 1[c] above
10[d]. removing the background image in the first sequence of scaled video frames to produce first background separated video frames to be displayed in the anterior portion of the combined frames of the combined video stream; and	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 1[d] above

Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
10[e]. superimposing the first background separated video frames onto corresponding ones of the video frames of the second video stream to produce combined video frames of the combined video stream.	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 1[e] above

Asserted Claim of the ’293 Patent	Exemplary Citations to Sawyer
Claim 11	
11[a]. The apparatus of claim 10, wherein the at least one data processor is configured to combine the subject images of video frames by:	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Sawyer at [Column 04, Line 16]: “Local computer 101 is configured to blend the image data representing the video signal with image data representing primary feed data, such as a feed from its displayed desktop. Primary feed data can be any other visual presentation or shared space that a user may want to view along with the camera feed. In one embodiment, the primary feed data is a shared space from the user's computer in a video conference. The shared space may be the actual full desktop view of a participant's computer or a shared view of an application from a conferencing server or only a shared portion of the participant's desktop view. The primary feed data could also be an active video feed. Moreover, the primary desktop feed may originate at local computer 101, or may originate from any other source on conferencing system 10. The blended signal is configured to incorporate one or more primary subjects of the video signal with the desktop feed. Local computer 101 may be further configured to adjust the transparency level of at least one of the primary desktop feed and the video signal.” *Id.* at [Column 04, Line 35]: “Local computer 101 may be further configured to broadcast the blended signal to other participants in the conference on conference nodes 102 a-n, or to remote server 103, over network medium 100. Local computer 101 may also be configured to subtract out image data representing one or more primary subjects of the video signal from the raw image data of the video signal, and/or subtract out image data representing one or more key frames in the primary desktop feed, before blending the signal with the primary desktop feed. In short, local computer 101 may be configured to implement the functionality of the embodiments discussed in the present teachings herein.” *Id.* at [Column 09, Line 30]: “Embodiments, or portions thereof, may be embodied in program or code segments operable upon a processor-based system (e.g., computer system or computing platform) for performing functions and operations as described herein. The program or code segments making up the various embodiments may be stored in a computer-readable medium, which may comprise any suitable medium for

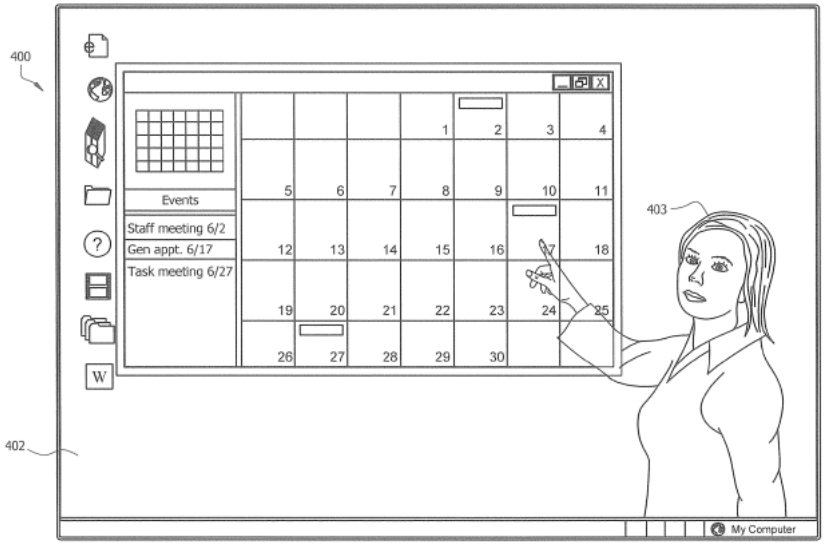
Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
	temporarily or permanently storing such code. Examples of the computer-readable medium include such tangible computer-readable media as an electronic memory circuit, a semiconductor memory device, random access memory (RAM), read only memory (ROM), erasable ROM (EROM), flash memory, a magnetic storage device (e.g., floppy diskette), optical storage device (e.g., compact disk (CD), digital versatile disk (DVD), etc.), a hard disk, and the like."
11[b]. scaling the video frames of the second video stream and reposition in a second direction the resulting pictures in the video frames of the second video stream to produce a second sequence of scaled video frames;	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 3[a] above
11[c]. extending the background image in the second sequence of scaled video frames to produce background extended video frames to be displayed in the posterior portion of the combined frames of the combined video stream; and	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 3[b] above
11[d]. superimposing the first background separated video frames onto corresponding ones of background extended video frames to produce combined video frames of the combined video stream.	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 3[c] above

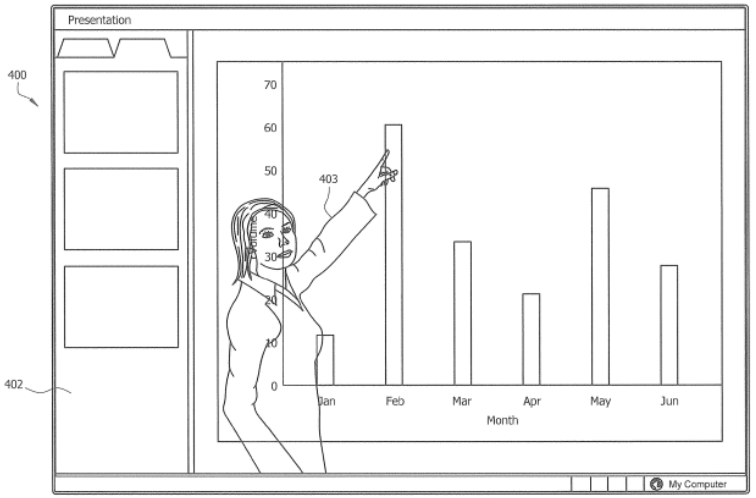
Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
Claim 12	
12[a]. A system comprising the apparatus of claim 10, and further comprising: a first video conferencing endpoint configured to communicate with the apparatus, the first endpoint including:	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Sawyer at [Column 04, Line 16]: "Local computer 101 is configured to blend the image data representing the video signal with image data representing primary feed data, such as a feed from its displayed desktop. Primary feed data can be any other visual presentation or shared space that a user may want to view along with the camera feed. In one embodiment, the primary feed data is a shared space from the user's computer in a video conference. The shared space may be the actual full desktop view of a participant's computer or a shared view of an application from a conferencing server or only a shared portion of the participant's desktop view. The primary feed data could also be an active video feed. Moreover, the primary desktop feed may originate at local computer 101, or may originate from any other source on conferencing system 10. The blended signal is configured to incorporate one or more primary subjects of the video signal with the desktop feed. Local computer 101 may be further configured to adjust the transparency level of at least one of the primary desktop feed and the video signal." *Id.* at [Column 04, Line 35]: "Local computer 101 may be further configured to broadcast the blended signal to other participants in the conference on conference nodes 102 a-n, or to remote server 103, over network medium 100. Local computer 101 may also be configured to subtract out image data representing one or more primary subjects of the video signal from the raw image data of the video signal, and/or subtract out image data representing one or more key frames in the primary desktop feed, before blending the signal with the primary desktop feed. In short, local computer 101 may be configured to implement the functionality of the embodiments discussed in the present teachings herein."
12[b]. a first video camera configured to generate the first real-time video stream, wherein the subject image of the first real-time video stream comprises an image of a	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Sawyer at [Column 04, Line 16]: "Local computer 101 is configured to blend the image data representing the video signal with image data representing primary feed

Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
first video conferencing participant at the first endpoint;	data, such as a feed from its displayed desktop. Primary feed data can be any other visual presentation or shared space that a user may want to view along with the camera feed. In one embodiment, the primary feed data is a shared space from the user's computer in a video conference. The shared space may be the actual full desktop view of a participant's computer or a shared view of an application from a conferencing server or only a shared portion of the participant's desktop view. The primary feed data could also be an active video feed. Moreover, the primary desktop feed may originate at local computer 101, or may originate from any other source on conferencing system 10. The blended signal is configured to incorporate one or more primary subjects of the video signal with the desktop feed. Local computer 101 may be further configured to adjust the transparency level of at least one of the primary desktop feed and the video signal." Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Sawyer at [Column 04, Line 16]: "Local computer 101 is configured to blend the image data representing the video signal with image data representing primary feed data, such as a feed from its displayed desktop. Primary feed data can be any other visual presentation or shared space that a user may want to view along with the camera feed. In one embodiment, the primary feed data is a shared space from the user's computer in a video conference. The shared space may be the actual full desktop view of a participant's computer or a shared view of an application from a conferencing server or only a shared portion of the participant's desktop view. The primary feed data could also be an active video feed. Moreover, the primary desktop feed may originate at local computer 101, or may originate from any other source on conferencing system 10. The blended signal is configured to incorporate one or more primary subjects of the video signal with the desktop feed. Local computer 101 may be further configured to adjust the transparency level of at least one of the primary desktop feed and the video signal." *Id.* at [Column 08, Line 39]: "In step 602, a primary feed is retrieved for the collaboration. The primary feed may originate from any local or remote source with respect to a viewer of the primary feed. The primary feed may be a shared desktop or presentation or portion thereof, an application, slide show, recorded or streaming video feed, or any other type of feed or multimedia presentation which would be desirable to blend with a camera feed. Further, the primary feed may originate locally or remotely
12[c]. a second video camera configured to generate the second real-time video stream, wherein the subject image of the second real-time video stream comprises an image of a second video conferencing participant at the first endpoint; and	

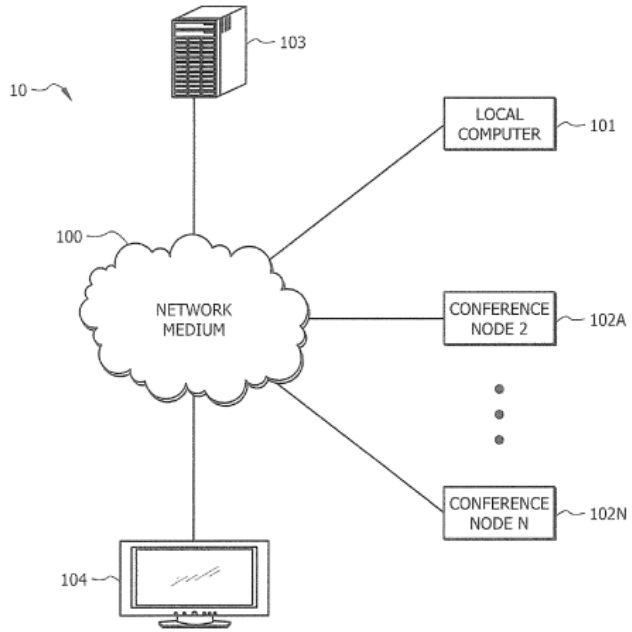
Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
	with respect to the camera feed."
12[d]. a first control unit configured to forward the first and second real-time video streams to the apparatus; and	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Sawyer at [Column 04, Line 16]: "Local computer 101 may be further configured to broadcast the blended signal to other participants in the conference on conference nodes 102 a-n, or to remote server 103, over network medium 100. Local computer 101 may also be configured to subtract out image data representing one or more primary subjects of the video signal from the raw image data of the video signal, and/or subtract out image data representing one or more key frames in the primary desktop feed, before blending the signal with the primary desktop feed. In short, local computer 101 may be configured to implement the functionality of the embodiments discussed in the present teachings herein." *Id.* at [Column 04, Line 56]: "It should be noted that in additional and/or alternative embodiments of the present teachings, the blending and adjusting of transparency may occur at any of the video conferencing system. For example, at the starting side, or side from which the camera feed video is being captured, the participant's local computer may adjust the transparency of one or more of the feeds, blend the camera feed data with the primary feed data, and then send the composite broadcast feed data out to the other participants or conferencing server. Alternatively, the starting side may broadcast the camera feed data and primary feed data separately, so that each local computer for each participant handles the transparency adjustment and blending operations. Still further, a conferencing server or other intermediate blending server may receive the video feed and the primary feed from the starting side, create the camera feed from the video feed, create the primary feed, adjust the transparency level as desired, blend the camera feed and primary feed, and then either deliver the composite broadcast feed to a conferencing server for broadcasting to the participants, or send the composite broadcast feed to the participants directly."

Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
12[e]. a second video conferencing endpoint configured to communicate with the apparatus, the second endpoint including: a second control unit configured to receive the combined video stream of the apparatus; and	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Sawyer at [Column 04, Line 16]: "Local computer 101 may be further configured to broadcast the blended signal to other participants in the conference on conference nodes 102 a-n, or to remote server 103, over network medium 100. Local computer 101 may also be configured to subtract out image data representing one or more primary subjects of the video signal from the raw image data of the video signal, and/or subtract out image data representing one or more key frames in the primary desktop feed, before blending the signal with the primary desktop feed. In short, local computer 101 may be configured to implement the functionality of the embodiments discussed in the present teachings herein." *Id.* at [Column 04, Line 56]: "It should be noted that in additional and/or alternative embodiments of the present teachings, the blending and adjusting of transparency may occur at any of the video conferencing system. For example, at the starting side, or side from which the camera feed video is being captured, the participant's local computer may adjust the transparency of one or more of the feeds, blend the camera feed data with the primary feed data, and then send the composite broadcast feed data out to the other participants or conferencing server. Alternatively, the starting side may broadcast the camera feed data and primary feed data separately, so that each local computer for each participant handles the transparency adjustment and blending operations. Still further, a conferencing server or other intermediate blending server may receive the video feed and the primary feed from the starting side, create the camera feed from the video feed, create the primary feed, adjust the transparency level as desired, blend the camera feed and primary feed, and then either deliver the composite broadcast feed to a conferencing server for broadcasting to the participants, or send the composite broadcast feed to the participants directly."
12[f]. a display configured to receive and render the combined video stream from the control unit.	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Sawyer at [Column 06, Line 07]: "FIGS. 4A and 4B illustrate blended view 400 of camera feed 403 and primary feed 402 according to an embodiment of the present teachings. Blended feed 400 combines both primary feed 402 and camera feed 403.

Asserted Claim of the ’293 Patent	Exemplary Citations to Sawyer
	Blending may be accomplished using any means capable of combining such images including alpha compositing, image masks, and the like. As shown in FIGS. 4A and 4B, the blended feeds are able to be viewed in a manner such that a viewer is able to focus on an application from primary feed 402 while viewing gestures and actions occurring in camera feed 403. Thereby, a greatly improved viewing experience is created.” *Id*. At Figs. 4A and 4B:  *FIG. 4A*

Asserted Claim of the ’293 Patent	Exemplary Citations to Sawyer
	 *FIG. 4B*

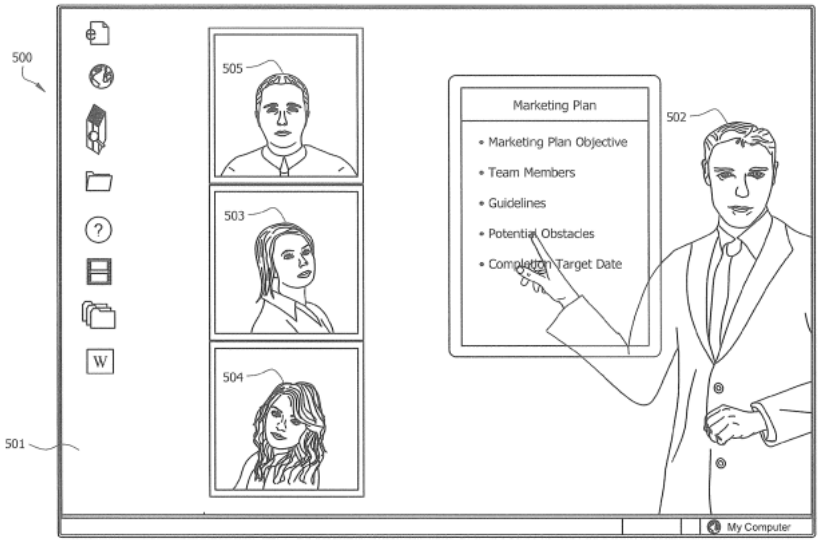
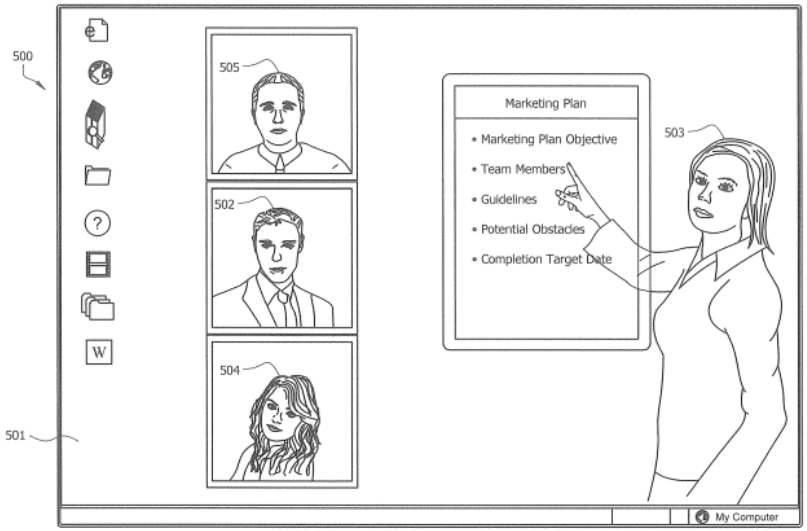
Asserted Claim of the ’293 Patent	Exemplary Citations to Sawyer
Claim 13	
13[a]. Logic encoded in one or more tangible non-transitory storage media for execution and when executed operable to:	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Sawyer at [Column 03, Line 63]: “Turning now to FIG. 1, a block diagram is shown illustrating aspects of the present disclosure as applied to embodiments implementing video conferencing system 10. Various components of video conferencing system 10 are connected via network medium 100. Network medium 100 can be any suitable means for conveying one or more video and/or data feeds between locations. For example, network medium 100 may be a local area network, wireless network, an internet connection, cellular communications network, and the like. Video conferencing system 10 includes local computer 101 which is one of the conference nodes participating in video conferencing system 10. Local computer 101 is configured to

Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
	receive a video signal either locally or from a remote source. The remote source may be another physical computing device, including but not limited to another conference node, such as nodes 102 a-n, remote server 103, or any other alternate video source 104. It is noted that alternate video source 104 may include a television signal, streaming video, video received from a cellular phone, closed circuit broadcast, and the like." *Id.* at Fig. 1:  *FIG. 1* *Id.* at [Column 09, Line 30]: "Embodiments, or portions thereof, may be embodied in program or code segments operable upon a processor-based system (e.g., computer system or computing platform) for performing functions and operations as described herein. The program or code segments making up the various embodiments may be stored in a computer-readable medium, which may comprise any suitable medium for temporarily or permanently storing such code. Examples of the computer-readable medium include such tangible computer-readable media as an electronic memory circuit, a semiconductor memory device, random access memory (RAM), read only memory

Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
	(ROM), erasable ROM (EROM), flash memory, a magnetic storage device (e.g., floppy diskette), optical storage device (e.g., compact disk (CD), digital versatile disk (DVD), etc.), a hard disk, and the like."
13[b]. receive at least first and second real-time video streams, each of the first and second real-time video streams comprising video frames containing a picture comprising a subject image and a background image;	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 1[a] above
13[c]. combine the subject images of corresponding video frames of the first and second video streams into a combined frame of a combined video stream such that the subject image of the first video stream is positioned in an anterior portion of the combined frame and the subject image of the second video stream is positioned in a posterior portion of the combined frame, wherein the subject images are combined by:	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 1[b] above
13[d]. scaling the video frames of the first video stream and repositioning in a first direction the resulting pictures in the video frames of the first video stream to produce a first sequence of scaled video frames;	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 1[c] above
13[e]. removing the background image in the first sequence of scaled video frames to produce first background separated video frames to be displayed in the anterior portion of the combined frames of the	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 1[d] above

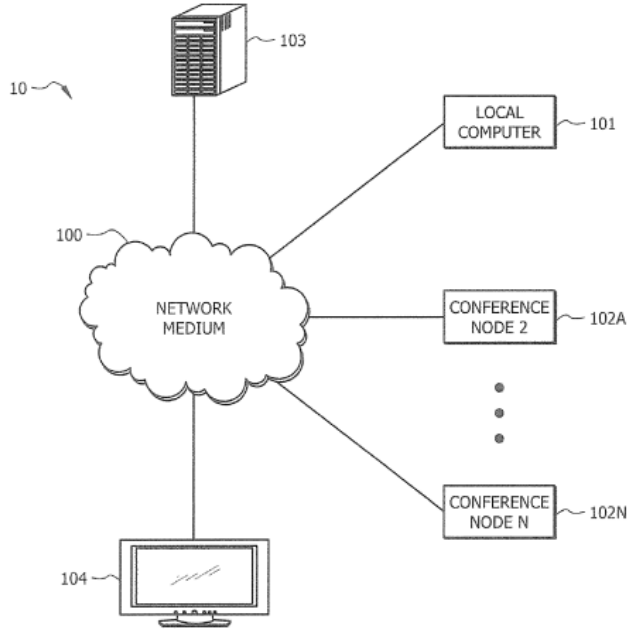
Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
combined video stream; and	
13[f]. superimposing the first background separated video frames onto corresponding ones of the video frames of the second video stream to produce combined video frames of the combined video stream; and	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 1[e] above
13[e]. supply the combined video stream to a video display for displaying the combined video stream.	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 1[f] above

Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
Claim 14	
14[a]. The logic of claim 13, wherein the logic that receives is configured to receive video frames of the first video stream comprising images of multiple videoconference participants in the subject image and video frames of the second video stream comprising images of multiple videoconference participants in the subject image.	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Sawyer at [Column 07, Line 50]: "FIGS. 5A and 5B are additional blended illustrations 500 of an embodiment of the present teachings which utilize and blend multiple camera feeds. Multiple camera feeds 502 503 504 505 may be simultaneously blended with primary feed 501 thereby showing multiple conference participants. As shown in FIG. 5A, camera feed 502 is active and is displayed in a blended view with primary feed 501. In FIG. 5B a second camera feed 503 of multiple camera feeds 502 503 504 505 is active and displayed in a blended view with primary feed 501. A feed of multiple camera feeds 502 503 504 505 may become active based on activity within the video conference. For example, camera feed 502 may become active when a user associated with camera feed 502 is speaking. In other embodiments, an active feed may be selected manually. It may also be desirable to provide an indicator proximate to inactive feeds (e.g. 503 504 505 if FIG. 5A) to indicate when a participant desires to speak, or is speaking. Additionally, as shown in FIGS. 5A and 5B embodiments may function to expand the viewable size, or reposition, a camera feed of multiple camera feeds 502 503 504 505, in response a particular feed becoming active. When displaying multiple participants, embodiments may provide for an indicator to signal which participant is speaking." *Id.* at Figs. 5A and 5B:

Asserted Claim of the ’293 Patent	Exemplary Citations to Sawyer
	 *FIG. 5A*  *FIG. 5B* *Id.* at [Column 09, Line 30]: “Embodiments, or portions thereof, may be embodied in

Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
	program or code segments operable upon a processor-based system (e.g., computer system or computing platform) for performing functions and operations as described herein. The program or code segments making up the various embodiments may be stored in a computer-readable medium, which may comprise any suitable medium for temporarily or permanently storing such code. Examples of the computer-readable medium include such tangible computer-readable media as an electronic memory circuit, a semiconductor memory device, random access memory (RAM), read only memory (ROM), erasable ROM (EROM), flash memory, a magnetic storage device (e.g., floppy diskette), optical storage device (e.g., compact disk (CD), digital versatile disk (DVD), etc.), a hard disk, and the like."

Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
Claim 15	
15[a]. The logic of claim 13, wherein the logic that combines is configured to:	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Sawyer at [Column 03, Line 63]: "Turning now to FIG. 1, a block diagram is shown illustrating aspects of the present disclosure as applied to embodiments implementing video conferencing system 10. Various components of video conferencing system 10 are connected via network medium 100. Network medium 100 can be any suitable means for conveying one or more video and/or data feeds between locations. For example, network medium 100 may be a local area network, wireless network, an internet connection, cellular communications network, and the like. Video conferencing system 10 includes local computer 101 which is one of the conference nodes participating in video conferencing system 10. Local computer 101 is configured to receive a video signal either locally or from a remote source. The remote source may be another physical computing device, including but not limited to another conference node, such as nodes 102 a-n, remote server 103, or any other alternate video source 104. It is noted that alternate video source 104 may include a television signal, streaming video, video received from a cellular phone, closed circuit broadcast, and the like." *Id.* at Fig. 1:

Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
	 *FIG. 1* *Id.* at [Column 09, Line 30]: "Embodiments, or portions thereof, may be embodied in program or code segments operable upon a processor-based system (e.g., computer system or computing platform) for performing functions and operations as described herein. The program or code segments making up the various embodiments may be stored in a computer-readable medium, which may comprise any suitable medium for temporarily or permanently storing such code. Examples of the computer-readable medium include such tangible computer-readable media as an electronic memory circuit, a semiconductor memory device, random access memory (RAM), read only memory (ROM), erasable ROM (EROM), flash memory, a magnetic storage device (e.g., floppy diskette), optical storage device (e.g., compact disk (CD), digital versatile disk (DVD), etc.), a hard disk, and the like."
15[b]. scale the video frames of the second video stream and reposition in a second direction the resulting pictures in the video	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate:

Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
frames of the second video stream to produce a second sequence of scaled video frames;	*See* claim 3[a] above
15[c]. extend the background image in the second sequence of scaled video frames to produce background extended video frames to be displayed in the posterior portion of the combined frames of the combined video stream; and	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 3[b] above
15[d]. superimpose the first background separated video frames onto corresponding ones of background extended video frames to produce combined video frames of the combined video stream.	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 3[c] above

Asserted Claim of the ’293 Patent	Exemplary Citations to Sawyer
Claim 16	
16[a]. The logic of claim 15, wherein the second direction is opposite to the first direction.	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 4[a] above

Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
Claim 17	
17[a]. The logic of claim 13, wherein the logic that combines is configured to: remove the background image in the video frames of the first and second video streams to produce first and second background separated video frames;	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 5[a] above
17[b]. generate supplemental background image video frames that comprise a supplemental background image; and	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 5[b] above
17[c]. superimpose corresponding ones of the first background separated video frames, and the second background separated video frames onto corresponding ones of the supplemental background video frames to produce the combined video frames of the combined video stream.	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 5[c] above

Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
Claim 18	
18[a]. The logic of claim 13, wherein the first and second video streams are produced at the same video conferencing site.	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 6[a] above

Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
Claim 19	
19[a]. The logic of claim 13, wherein the first and second video streams are produced at different video conferencing sites.	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 7[a] above

Asserted Claim of the '293 Patent	Exemplary Citations to Sawyer
Claim 20	
20[a]. The logic of claim 13, wherein the logic that combines is configured to be performed at a site other than where the first and second video streams are produced.	Sawyer, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 8[a] above

Exhibit A-2: Invalidity of U.S. Patent No. 8,830,293 in view of WO 2001,039,130 to Reusens et al. ("Reusens") in view of U.S. Patent No. 8,300,081 ("Sawyer")[1]

This chart is subject to all reservations, objections, and disclaimers in Defendant's Invalidity Contentions and any amendment, supplement, or modification thereof, which are incorporated herein by reference in their entirety.

Reusens was originally filed November 24, 2000 and published as a publication on May 31, 2001 and thus is available as prior art to U.S. Patent No. 8,830,293 (the "'293 Patent") under at least 35 U.S.C. § 102(b).

Reusens is also evidence of prior invention in the United States under 35 U.S.C. § 102(g). The conception of Reusens occurred at least as early as November 24, 2000. Based on information currently available, the persons or entities involved in the conception and diligent reduction to practice of the ideas in Reusens include at least the named inventors and the assignee Discovery is ongoing and Defendant will update this chart pursuant to Federal Rule of Civil Procedure 26(e), the Local Rules, and the Orders of record in this matter subject to further investigation and discovery regarding the reference, the Court's construction of the claims at issue, and discovery generally, including third-party discovery.

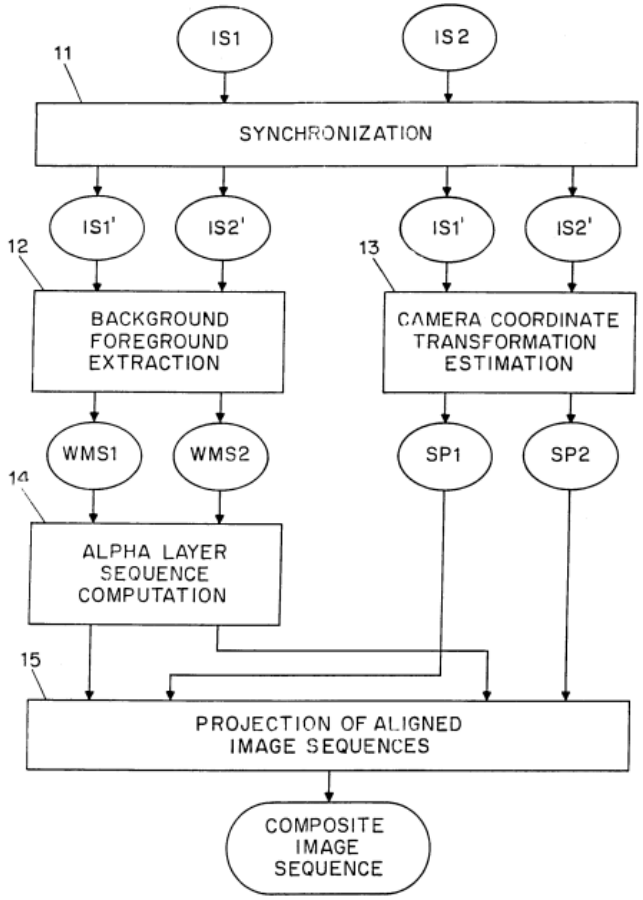
Reusens renders obvious the asserted claims of the '293 Patent, either alone or in combination with other prior art (including U.S. Patent No. 8,300,081 ("Sawyer")) and/or in combination with (1) the general knowledge of one of ordinary skill in the art; (2) the teachings of any of the prior art references set forth in IPM's other invalidity claim charts with respect to the limitation-at-issue; and/or (3) the teachings of any of the prior art references set forth in the cover pleading of IPM's invalidity contentions with respect to the key concepts applicable for the limitation-at-issue.

To the extent that the following invalidity contentions reflect constructions of claim limitations consistent with or suggested by Cisco's Infringement Contentions, no inference is intended, nor should any be drawn that IPM agrees with Cisco's apparent claim constructions

[1] Discovery in this case is ongoing and accordingly, this initial invalidity chart is not final. IPM has conducted its invalidity analysis herein based at least in part and in some instances entirely upon Cisco's apparent application of the claims of the '293 Patent. By charting the prior art against the claims and limitations herein, IPM is neither admitting nor agreeing to Cisco's application of the claims at issue in this case, and these charts should not be interpreted as an admission or concession by IPM that any particular construction or application of any claim limitation by Cisco is correct or proper. Additionally, these charts provide representative examples of portions of the charted references that disclose the indicated limitations under Cisco's application of the claims; additional portions of these references other than the representative examples provided herein may also disclose the indicated limitation(s) and IPM contends that the asserted claims are invalid in light of the charted reference(s) as a whole in its or their entirety. Where a particular figure is cited, the citation should be understood to encompass the caption and description of the figure as well as any text relating to or describing the figure. Conversely, where particular text referring to a figure is cited, the citation should be understood to include the figure as well.

or infringement contentions. IPM offers such invalidity contentions solely in the alternative to any position it may ultimately take as to any claim construction issues. IPM denies that the accused products infringe the asserted claim and expressly reserves the right to contest Cisco's apparent claim constructions and infringement contentions.

Asserted Claim of the '293 Patent	Exemplary Citations
Claim 1	
1[a]. A method comprising: receiving at least first and second real-time video streams, each of the first and second real-time video streams comprising video frames containing a picture comprising a subject image and a background image;	To the extent the preamble is limiting, Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Reusens at [Abstract]: "Given two video sequences, a composite video sequence can be generated (15) which includes visual elements from each of the given sequences, suitably synchronized (11) and represented in a chosen focal plane. A composite video sequence can be made also by similarly combining a video sequence with an audio sequence. In the composite video sequence, contestants, action figures or objects can be shown against a common background (12) even if the given video sequences differ as to background, with the common background taken from one or the other of the given sequences, for example. Alternatively, a different suitable background can be used, e.g. as derived from the given video sequences, as obtained from another video sequence or image, or as otherwise synthesized." *Id.* at [Page 04]: Fig. 1 shows two image sequences IS 1 and IS2 being fed to a module 11 for synchronization into synchronized sequences IS l' and IS2'. For example, the sequences IS 1 and IS2 may have been obtained for two contestants in a down-hill racing competition, and they may be synchronized by the module 11 so that the first frame of each sequence corresponds to its contestant leaving the starting gate. *Id.* at [Page 08-09]: A composite sequence can be broadcast over existing facilities such as network, cable and satellite TV, and as video on the Internet, for example. Such sequences can be offered as on-demand services, e.g. on a channel separate from a WO 01/39130 PCT/US00/32117 10 9 strictly real-time main channel. Or, instead of by broadcasting over a separate channel, a composite video sequence can be included as a portion of a regular channel, displayed as a corner portion, for example. *Id.* at Fig. 1:

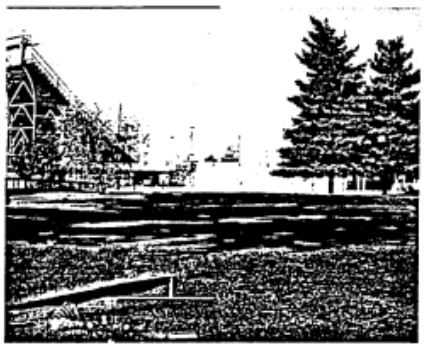
Asserted Claim of the '293 Patent	Exemplary Citations
	 FIG. 1

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
1[b]. combining the subject images of corresponding video frames of the first and second video streams into a combined frame of a combined video stream such that the subject image of the first video stream is positioned in an anterior portion of the combined frame and the subject image of the second video stream is positioned in a posterior portion of the combined frame, wherein the combining comprises:	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Reusens at [Page 14]: "E.4 Compositing (Module 4)- SPl and SP2 describe how each frame of the respective image sequences IS 1 and IS2 relates to the respective backgrounds BGD 1 and BGD2, and SNT describes how the two image sequences should relate. Accordingly, each frame of IS2 can be geometrically related to any frame in IS1 and conversely. Once a frame of IS2 has been transformed and aligned with its corresponding frame in IS1, the two frames can be shown together, e.g. as blended in a single image or side-by-side on a split screen. The weight of each pixel of each of the two frames in the composite image depends primarily on three factors, namely (i) the weight masks WMS1 and WMS2 which for each pixel represent a classification/discrimination measure between background and foreground, (ii) the 25 desired weight for the pixel in the composite image sequence, and (iii) the visual effect desired." *Id*. at Fig. 15:  BGD1  FRAME #1 OF IS1

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
	 BGD2  FRAME #1 OF IS2  FRAME #1 OF COMPOSITE SEQUENCE *Id.* at [Page 17]: "As to factor (iii), the visual effect desired may call for transparency of overlapping foreground objects, or it may be desired to simulate depth of field by showing one foreground object as in front of the other, for example. Means may be included also to permit an end-user to select transparency interactively, e.g. by mouse clicking, keyboard typing and/or any other suitable input device, until a satisfactory effect is visually ascertained. This operation can be performed jointly with interactive setting of spatial normalization. For example, two agents placed side-by-side preferably may appear solid, whereas a degree of transparency may be preferred in case of overlap."

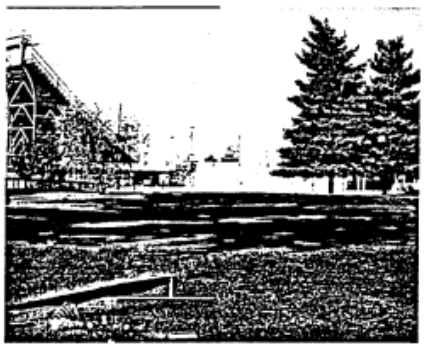
Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
1[c]. scaling the video frames of the first video stream and repositioning in a first direction the resulting pictures in the video frames of the first video stream to produce a first sequence of scaled video frames;	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Reusens at [Claim 1]: "A computer method for generating a composite video sequence from a plurality of given video sequences wherein each of the given video sequences comprises a representation of a respective object with action relative to a respective environment, the method comprising the steps of: (a) forming a background representation; (b) ascertaining the representation of the respective object in each of the given video sequences; (c) coordinating the actions of the ascertained representations; and (d) forming the composite video sequence such that the coordinated representations appear in a common environment." *Id.* at [Claim 19]: "The method of claim 1, wherein step (c) comprises determining a spatial/geometrical normalization transformation between the given video sequences, for matching as to size and/or orientation a visual element in one of the given video sequences with a visual element in another of the given video sequences."

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
1[d]. removing the background image in the first sequence of scaled video frames to produce first background separated video frames to be displayed in the anterior portion of the combined frames of the combined video stream; and	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Reusens at [Page 08]: "In each sequence, background and foreground can be extracted using a suitable motion estimation method. This method should be "robust", for background/foreground extraction where image sequences are acquired by a moving camera and where the acquired scene contains moving agents or objects. Required also is temporal consistency, for the extraction of background/foreground to be stable over time. Where both the camera and the agents are moving predictably, e.g. at constant speed or acceleration, temporal filtering can be used for enhanced temporal consistency." *Id.* at [Page 14]: "E.4 Compositing (Module 4)- SPl and SP2 describe how each frame of the respective image sequences IS1 and IS2 relates to the respective backgrounds BGD 1 and BGD2, and SNT describes how the two image sequences should relate. Accordingly, each frame of IS2 can be geometrically related to any frame in IS1 and conversely. Once a frame of IS2 has been transformed and aligned with its corresponding frame in IS1, the two frames can be shown together, e.g. as blended in a single image or side-by-side on a split screen. The weight of each pixel of each of the two frames in the composite image depends primarily on three factors, namely (i) the weight masks WMS1 and WMS2 which for each pixel represent a classification/discrimination measure between background and foreground, (ii) the 25 desired weight for the pixel in the composite image sequence, and (iii) the visual effect desired." *Id*. at Fig. 15:

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
	 BGD1  FRAME #1 OF IS1  BGD2  FRAME #1 OF IS2

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
	 FRAME #1 OF COMPOSITE SEQUENCE *Id.* at [Page 17]: "As to factor (iii), the visual effect desired may call for transparency of overlapping foreground objects, or it may be desired to simulate depth of field by showing one foreground object as in front of the other, for example. Means may be included also to permit an end-user to select transparency interactively, e.g. by mouse clicking, keyboard typing and/or any other suitable input device, until a satisfactory effect is visually ascertained. This operation can be performed jointly with interactive setting of spatial normalization. For example, two agents placed side-by-side preferably may appear solid, whereas a degree of transparency may be preferred in case of overlap."

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
1[e]. superimposing the first background separated video frames onto corresponding ones of the video frames of the second video stream to produce combined video frames of the combined video stream; and	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Reusens at [Page 10]: "C. Superimposing of Video Sequences- After extraction of the background/foreground in each sequence and estimation of the camera coordinate transformation between each sequence and a reference system, the sequences can be projected into a chosen focal plane for simultaneous visualization on a single display. Alpha layers for each frame of each sequence are generated from the multiple background/foreground weight masks. Thus, the composite sequence is formed by transforming each sequence into the chosen focal plane and superimposing the different transformed images with the corresponding alpha weight." *Id.* at [Page 14]: "E.4 Compositing (Module 4)- SPl and SP2 describe how each frame of the respective image sequences IS 1 and IS2 relates to the respective backgrounds BGD 1 and BGD2, and SNT describes how the two image sequences should relate. Accordingly, each frame of IS2 can be geometrically related to any frame in IS1 and conversely. Once a frame of IS2 has been transformed and aligned with its corresponding frame in IS1, the two frames can be shown together, e.g. as blended in a single image or side-by-side on a split screen. The weight of each pixel of each of the two frames in the composite image depends primarily on three factors, namely (i) the weight masks WMS1 and WMS2 which for each pixel represent a classification/discrimination measure between background and foreground, (ii) the 25 desired weight for the pixel in the composite image sequence, and (iii) the visual effect desired." *Id*. at Fig. 15:

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
	 BGD1  FRAME #1 OF IS1  BGD2  FRAME #1 OF IS2

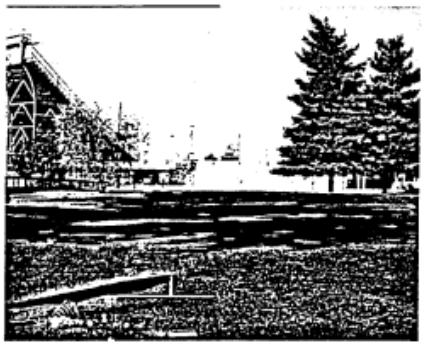
Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
	 FRAME #1 OF COMPOSITE SEQUENCE *Id.* at [Page 17]: "As to factor (iii), the visual effect desired may call for transparency of overlapping foreground objects, or it may be desired to simulate depth of field by showing one foreground object as in front of the other, for example. Means may be included also to permit an end-user to select transparency interactively, e.g. by mouse clicking, keyboard typing and/or any other suitable input device, until a satisfactory effect is visually ascertained. This operation can be performed jointly with interactive setting of spatial normalization. For example, two agents placed side-by-side preferably may appear solid, whereas a degree of transparency may be preferred in case of overlap."

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
1[f]. supplying the combined video stream to a video display for displaying the combined video stream.	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Reusens at [Page 10]: "C. Superimposing of Video Sequences- After extraction of the background/foreground in each sequence and estimation of the camera coordinate transformation between each sequence and a reference system, the sequences can be projected into a chosen focal plane for simultaneous visualization on a single display. Alpha layers for each frame of each sequence are generated from the multiple background/foreground weight masks. Thus, the composite sequence is formed by transforming each sequence into the chosen focal plane and superimposing the different transformed images with the corresponding alpha weight."

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
Claim 2	
2[a]. The method of claim 1, wherein the subject image of video frames of the first video stream comprises images of multiple videoconference participants and the subject image of video frames of the second video stream comprises images of multiple videoconference participants.	It would have been obvious to a person of ordinary skill in the art to combine Reusens with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including: • See, e.g., Sawyer (Ex. A-1) at [Column 07, Line 50] & Figs. 5A and 5B: "FIGS. 5A and 5B are additional blended illustrations 500 of an embodiment of the present teachings which utilize and blend multiple camera feeds. Multiple camera feeds 502 503 504 505 may be simultaneously blended with primary feed 501 thereby showing multiple conference participants. As shown in FIG. 5A, camera feed 502 is active and is displayed in a blended view with primary feed 501. In FIG. 5B a second camera feed 503 of multiple camera feeds 502 503 504 505 is active and displayed in a blended view with primary feed 501. A feed of multiple camera feeds 502 503 504 505 may become active based on activity within the video conference. For example, camera feed 502 may become active when a user associated with camera feed 502 is speaking. In other embodiments, an active feed may be selected manually. It may also be desirable to provide an indicator proximate to inactive feeds (e.g. 503 504 505 if FIG. 5A) to indicate when a participant desires to speak, or is speaking. Additionally, as shown in FIGS. 5A and 5B embodiments may function to expand the viewable size, or reposition, a camera feed of multiple camera feeds 502 503 504 505, in response a particular feed becoming active. When displaying multiple participants, embodiments may provide for an indicator to signal which participant is speaking."
Claim 03	
3[a]. The method of claim 1, wherein combining comprises: scaling the video frames of the second video stream and repositioning in a second direction the resulting pictures in the video frames of the second video stream to	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates: *See e.g.*, Reusens at [Page 09]: "E. Spatial and Temporal Normalization - Fig. 7 shows image sequences IS 1 and IS2 being fed into respective modules 1 yielding respective parameter sequences SPl and SP2 which describe the transformation of each frame with respect to respective background representations BGDI and BGD2. Each of the

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
produce a second sequence of scaled video frames;	parameters describes how a frame geometrically relates to the respective background." *Id.* at [Page 09]: "The parameter sequences SPl and SP2 are fed into the respective module 2, each for generating a sequence of respective weight masks WMS 1 and WMS2 giving for each pixel entry a discrimination measure of foreground versus background. For example, such weights may represent a probability of a pixel to 10 belong to the background. The two image sequences IS 1 and IS2 in parallel are fed into the module 3 for estimation of a spatial normalization transformation SNT that expresses how the two sequences should relate geometrically. SP 1 and SP2 describe how each frame of IS 1 and 1S2 relates to its respective background BGD 1 and BGD2 be aligned to its corresponding frame in IS1. Using their corresponding weight masks, the module 4 blends the aligned frames into a composite frame. The concatenation of the composite frames yields the composite image sequence showing two coordinated foreground objects moving together against a background which may be the background of SP 1, or the background of SP2, or another desired background." *Id.* at [Claim 19]: "The method of claim 1, wherein step (c) comprises determining a spatial/geometrical normalization transformation between the given video sequences, for matching as to size and/or orientation a visual element in one of the given video sequences with a visual element in another of the given video sequences."
3[b]. extending the background image in the second sequence of scaled video frames to produce background extended video frames to be displayed in the posterior portion of the combined frames of the combined video stream; and	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Reusens at [Page 09]: "E. Spatial and Temporal Normalization - Fig. 7 shows image sequences IS 1 and IS2 being fed into respective modules 1 yielding respective parameter sequences SPl and SP2 which describe the transformation of each frame with respect to respective background representations BGDI and BGD2. Each of the parameters describes how a frame geometrically relates to the respective background." *Id.* at [Page 09]: "SP 1 and SP2 describe how each frame of IS 1 and 1S2 relates to its respective background BGD 1 and BGD2 be aligned to its corresponding frame in IS1. Using their corresponding weight masks, the module 4 blends the aligned frames into a composite frame. The concatenation of the composite frames yields the composite image sequence showing two coordinated foreground objects moving together against a

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
	background which may be the background of SP 1, or the background of SP2, or another desired background." *Id.* at [Page 10]: "E.0 Construction of Background Representation - A background representation is understood as a representation of the environment in which an action takes place, e.g. a single recorded image, recorded from at least approximately the same position as the image sequence to be processed but with a sufficiently wide angle to represent the environment of a scene in its entirety. Alternatively, the background representation may be formed as a panoramic image, reconstructed from an image sequence covering an entire scene and recorded from a similar camera position. Further alternatives include a parametric description of a simple environment/background, e.g. a tennis court, or a synthetic background of a single color or a simple pattern."
3[c]. superimposing the first background separated video frames onto corresponding ones of background extended video frames to produce combined video frames of the combined video stream.	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Reusens at [Page 10]: "C. Superimposing of Video Sequences- After extraction of the background/foreground in each sequence and estimation of the camera coordinate transformation between each sequence and a reference system, the sequences can be projected into a chosen focal plane for simultaneous visualization on a single display. Alpha layers for each frame of each sequence are generated from the multiple background/foreground weight masks. Thus, the composite sequence is formed by transforming each sequence into the chosen focal plane and superimposing the different transformed images with the corresponding alpha weight." *Id.* at [Page 14]: "E.4 Compositing (Module 4)- SPl and SP2 describe how each frame of the respective image sequences IS 1 and IS2 relates to the respective backgrounds BGD 1 and BGD2, and SNT describes how the two image sequences should relate. Accordingly, each frame of IS2 can be geometrically related to any frame in IS1 and conversely. Once a frame of IS2 has been transformed and aligned with its corresponding frame in IS1, the two frames can be shown together, e.g. as blended in a single image or side-by-side on a split screen. The weight of each pixel of each of the two frames in the composite image depends primarily on three factors, namely (i) the weight masks WMS1 and WMS2 which for each pixel represent a classification/discrimination measure between background and foreground, (ii) the 25 desired weight for the pixel in the

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
	composite image sequence, and (iii) the visual effect desired." *Id*. at Fig. 15:  BGD1  FRAME #1 OF IS1  BGD2  FRAME #1 OF IS2

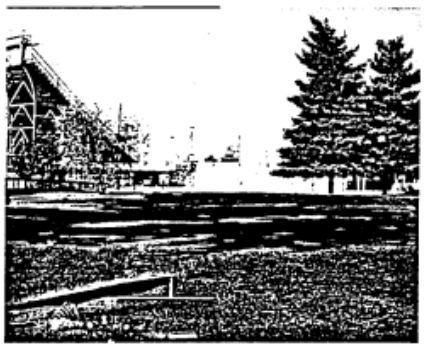
Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
	 FRAME #1 OF COMPOSITE SEQUENCE *Id.* at [Page 17]: "As to factor (iii), the visual effect desired may call for transparency of overlapping foreground objects, or it may be desired to simulate depth of field by showing one foreground object as in front of the other, for example. Means may be included also to permit an end-user to select transparency interactively, e.g. by mouse clicking, keyboard typing and/or any other suitable input device, until a satisfactory effect is visually ascertained. This operation can be performed jointly with interactive setting of spatial normalization. For example, two agents placed side-by-side preferably may appear solid, whereas a degree of transparency may be preferred in case of overlap."

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
Claim 4	
4[a]. The method of claim 3, wherein the second direction is opposite to the first direction.	It would have been obvious to a person of ordinary skill in the art to combine Reusens with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including: • See, e.g., Sawyer (Ex. A-1) at [Column 05, Line 49]: "In some embodiments, at least one reference frame may be subtracted from the primary feed. FIGS. 3A-3C illustrate a progressing example of a visual presentation of desktop computer 300. The visual presentation comprises application window 301, background picture 302, and various icons 303 and menus 304. When blending the primary feed with camera feed data captures it may be desirable to minimize the amount of items being displayed with the primary feed. Background picture 302 may be subtracted to display alternate background 302′. Alternate background 302′ may be selected as preferred by a user. Alternate background 302′ is shown as a solid color. A solid background may be desirable as it assists in making any blended visual presentation easier to view. However, any other background could be selected, as desired by the user." [Column 06, Line 28]: "In some embodiments, when blending primary feed 402 and camera feed 403, it is preferable to reverse the visual presentation of either primary feed 402 or camera feed 403. This is because primary feed 402 is showing the desktop as is, whereas video capturing a scene including a person will generally reverse its visual presentation left to right. For example, even though the video subject points to his or her right, the presentation of that video shows the subject pointing to his or her left. As such, to create a natural viewing environment it is beneficial to reverse one of the feeds. It is generally more natural to reverse camera feed 401 so as to avoid reversal of any words displayed on primary feed 402." *See e.g.*, Sawyer at [Column 06, Line 40]: "Embodiments of the present disclosure are also configured to adjust a transparency value of one of the feeds. FIGS. 4A and 4B illustrate blended primary feed 402 and camera feed 403 wherein camera feed 403 has had its transparency value adjusted either at specific times or all of the time to become more transparent with respect to primary feed 402. As a result, a person displayed on camera feed 403 is able to gesture in a manner that intersects objects displayed in primary

Asserted Claim of the ’293 Patent	Exemplary Citations to Reusens
	feed 402 without completely obscuring such objects. The added transparency of camera feed 403 also allows an observer of blended view 400 to more easily focus on the content of both primary feed 402 and camera feed 403.”

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
Claim 5	
5[a]. The method of claim 1, wherein combining further comprises: removing the background image in the video frames of the first and second video streams to produce first and second background separated video frames;	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Reusens at [Page 08]: "In each sequence, background and foreground can be extracted using a suitable motion estimation method. This method should be "robust", for background/foreground extraction where image sequences are acquired by a moving camera and where the acquired scene contains moving agents or objects. Required also is temporal consistency, for the extraction of background/foreground to be stable over time. Where both the camera and the agents are moving predictably, e.g. at constant speed or acceleration, temporal filtering can be used for enhanced temporal consistency." *Id.* at [Abstract]: "Given two video sequences, a composite video sequence can be generated (15) which includes visual elements from each of the given sequences, suitably synchronized (11) and represented in a chosen focal plane. A composite video sequence can be made also by similarly combining a video sequence with an audio sequence. In the composite video sequence, contestants, action figures or objects can be shown against a common background (12) even if the given video sequences differ as to background, with the common background taken from one or the other of the given sequences, for example. Alternatively, a different suitable background can be used, e.g. as derived from the given video sequences, as obtained from another video sequence or image, or as otherwise synthesized."
5[b]. generating supplemental background image video frames that comprise a supplemental background image; and	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.,* Reusens [Claim 17]: "The method of claim 14, comprising using the classification in replacing the background with a different background." *Id.* at [Abstract]: "Given two video sequences, a composite video sequence can be generated (15) which includes visual elements from each of the given sequences, suitably synchronized (11) and represented in a chosen focal plane. A composite video sequence can be made also by similarly combining a video sequence with an audio sequence. In the composite video sequence, contestants, action figures or objects can be shown against

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
	a common background (12) even if the given video sequences differ as to background, with the common background taken from one or the other of the given sequences, for example. Alternatively, a different suitable background can be used, e.g. as derived from the given video sequences, as obtained from another video sequence or image, or as otherwise synthesized."
5[c]. superimposing corresponding ones of the first background separated video frames and the second background separated video frames onto corresponding ones of the supplemental background video frames to produce the combined video frames of the combined video stream.	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Reusens at [Page 10]: "C. Superimposing of Video Sequences- After extraction of the background/foreground in each sequence and estimation of the camera coordinate transformation between each sequence and a reference system, the sequences can be projected into a chosen focal plane for simultaneous visualization on a single display. Alpha layers for each frame of each sequence are generated from the multiple background/foreground weight masks. Thus, the composite sequence is formed by transforming each sequence into the chosen focal plane and superimposing the different transformed images with the corresponding alpha weight." *Id.* at [Page 14]: "E.4 Compositing (Module 4)- SPl and SP2 describe how each frame of the respective image sequences IS 1 and IS2 relates to the respective backgrounds BGD 1 and BGD2, and SNT describes how the two image sequences should relate. Accordingly, each frame of IS2 can be geometrically related to any frame in IS1 and conversely. Once a frame of IS2 has been transformed and aligned with its corresponding frame in IS1, the two frames can be shown together, e.g. as blended in a single image or side-by-side on a split screen. The weight of each pixel of each of the two frames in the composite image depends primarily on three factors, namely (i) the weight masks WMS1 and WMS2 which for each pixel represent a classification/discrimination measure between background and foreground, (ii) the 25 desired weight for the pixel in the composite image sequence, and (iii) the visual effect desired." *Id*. at Fig. 15:

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
	 BGD1  FRAME #1 OF IS1  BGD2  FRAME #1 OF IS2

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
	 FRAME #1 OF COMPOSITE SEQUENCE *Id.* at [Page 17]: "As to factor (iii), the visual effect desired may call for transparency of overlapping foreground objects, or it may be desired to simulate depth of field by showing one foreground object as in front of the other, for example. Means may be included also to permit an end-user to select transparency interactively, e.g. by mouse clicking, keyboard typing and/or any other suitable input device, until a satisfactory effect is visually ascertained. This operation can be performed jointly with interactive setting of spatial normalization. For example, two agents placed side-by-side preferably may appear solid, whereas a degree of transparency may be preferred in case of overlap."

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
Claim 6	
6[a]. The method of claim 1, wherein the first and second video streams are produced at a same video conferencing site.	It would have been obvious to one of ordinary skill in the art to modify the teachings of Reusens, such as by combining with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including: • See, e.g., Sawyer (Ex. A-1) at [Column 04, Line 16]: "Local computer 101 is configured to blend the image data representing the video signal with image data representing primary feed data, such as a feed from its displayed desktop. Primary feed data can be any other visual presentation or shared space that a user may want to view along with the camera feed. In one embodiment, the primary feed data is a shared space from the user's computer in a video conference. The shared space may be the actual full desktop view of a participant's computer or a shared view of an application from a conferencing server or only a shared portion of the participant's desktop view. The primary feed data could also be an active video feed. Moreover, the primary desktop feed may originate at local computer 101, or may originate from any other source on conferencing system 10. The blended signal is configured to incorporate one or more primary subjects of the video signal with the desktop feed. Local computer 101 may be further configured to adjust the transparency level of at least one of the primary desktop feed and the video signal."

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
Claim 7	
7[a]. The method of claim 1, wherein the first and second video streams are produced at different video conferencing sites.	It would have been obvious to one of ordinary skill in the art to modify the teachings of Reusens, such as by combining with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including: • See, e.g., Sawyer (Ex. A-1) at [Column 04, Line 35]: "Local computer 101 may be further configured to broadcast the blended signal to other participants in the conference on conference nodes 102 a-n, or to remote server 103, over network medium 100. Local computer 101 may also be configured to subtract out image data representing one or more primary subjects of the video signal from the raw image data of the video signal, and/or subtract out image data representing one or more key frames in the primary desktop feed, before blending the signal with the primary desktop feed. In short, local computer 101 may be configured to implement the functionality of the embodiments discussed in the present teachings herein. Local computer 101 may also act as a conference server, or a separate conference server. Conference server 103 may be used to administer the video conference, blend signals, etc. A conference server may be utilized to switch between, or to simultaneously blend, a plurality of video signals from separate conference users with a primary desktop feed. Switching may be implemented based on the activity occurring within a video conference, such as a participant speaking, an administrator selecting a video signal, and the like."

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
Claim 8	
8[a]. The method of claim 1, wherein combining is performed at a site other than where the first and second video streams are produced.	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates: *See e.g.,* Reusens at [Claim 55]: "A computer programmed for generating a composite video sequence from a plurality of given video sequences wherein each of the given video sequences comprises a representation of a respective object with action relative to a respective environment, the program comprising: (a) instructions for forming a background representation; (b) instructions for ascertaining the representation of the respective object in each of the given video sequences; (c) instructions for coordinating the actions of the ascertained representations; and (c) instructions for forming the composite video sequence such that the coordinated representations appear in a common environment." To the extent that Cisco contends that Reusens does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Reusens with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including: • See, e.g., Sawyer (Ex. A-1) at Sawyer at [Column 04, Line 47]: "Local computer 101 may also act as a conference server, or a separate conference server. Conference server 103 may be used to administer the video conference, blend signals, etc. A conference server may be utilized to switch between, or to simultaneously blend, a plurality of video signals from separate conference users with a primary desktop feed. Switching may be implemented based on the activity occurring within a video conference, such as a participant speaking, an administrator selecting a video signal, and the like."

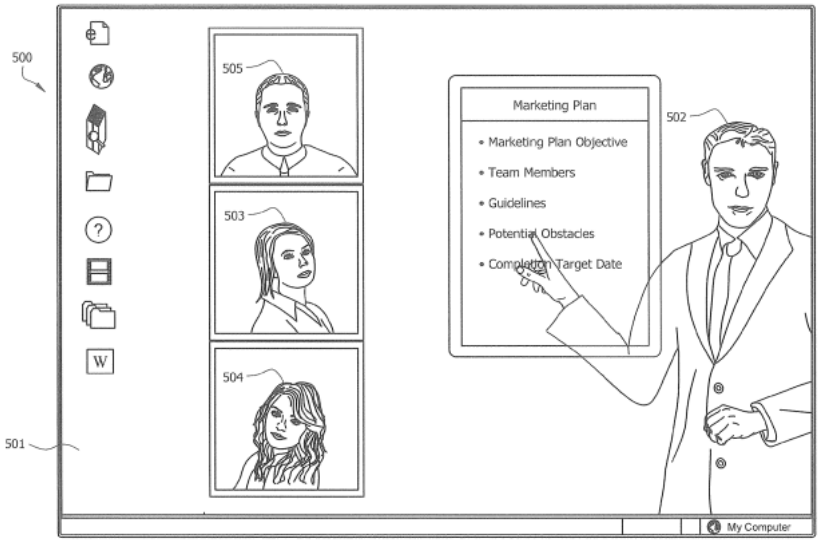

500
505
503
504
501
502
Marketing Plan
• Marketing Plan Objective
• Team Members
• Guidelines
• Potential Obstacles
• Completion Target Date
W
My Computer

FIG. 5A

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
Claim 9	
9[a]. The method of claim 1, wherein the subject images of video frames of the first and second video streams are images of video conference participants.	It would have been obvious to one of ordinary skill in the art to modify the teachings of Reusens, such as by combining with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including: • See, e.g., Sawyer (Ex. A-1) at [Column 04, Line 35]: "Local computer 101 may be further configured to broadcast the blended signal to other participants in the conference on conference nodes 102 a-n, or to remote server 103, over network medium 100. Local computer 101 may also be configured to subtract out image data representing one or more primary subjects of the video signal from the raw image data of the video signal, and/or subtract out image data representing one or more key frames in the primary desktop feed, before blending the signal with the primary desktop feed. In short, local computer 101 may be configured to implement the functionality of the embodiments discussed in the present teachings herein."

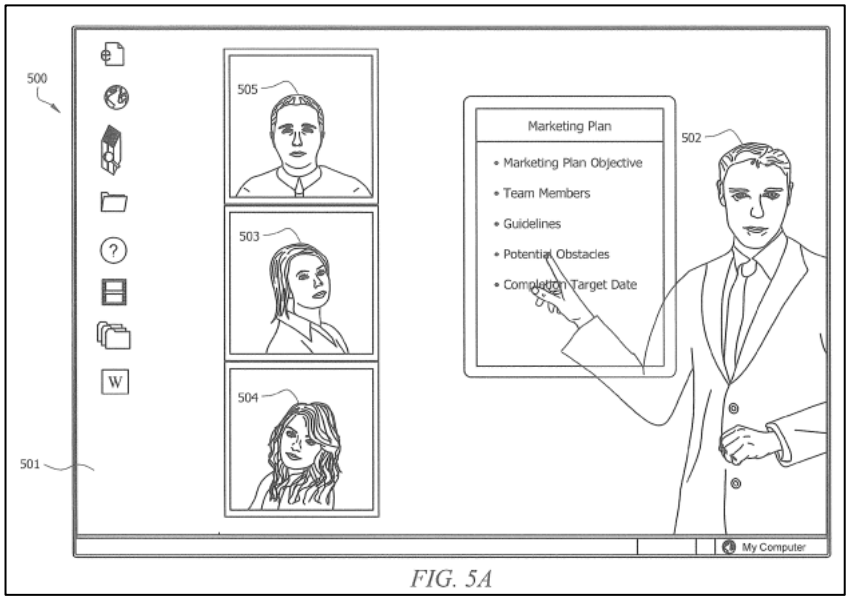
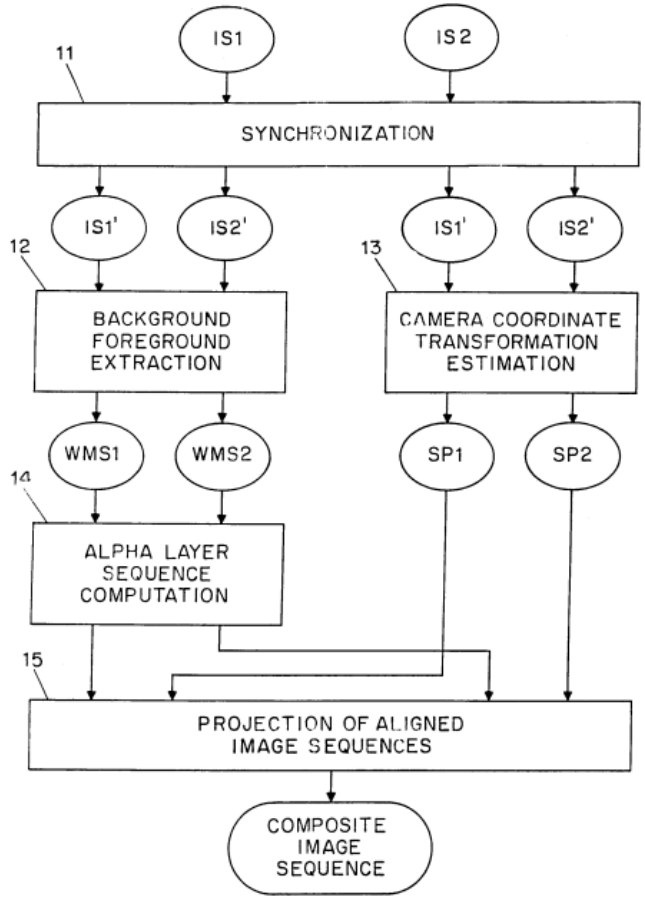


FIG. 5A

Id. at [Column 04, Line 47]: "Local computer 101 may also act as a conference server, or a separate conference server. Conference server 103 may be used to administer the video conference, blend signals, etc. A conference server may be utilized to switch between, or to simultaneously blend, a plurality of video signals from separate conference users with a primary desktop feed. Switching may be implemented based on the activity occurring within a video conference, such as a participant speaking, an administrator selecting a video signal, and the like."

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
Claim 10	
10[a]. An apparatus comprising: a first memory configured to store data for at least first and second real-time video streams, each of the first and second real-time video streams comprising video frames containing a picture comprising a subject image and a background image; and	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates: *See e.g.,* Reusens at [Page 04]: "Fig. 1 shows two image sequences IS 1 and IS2 being fed to a module 11 for synchronization into synchronized sequences IS l' and IS2'. For example, the sequences IS 1 and IS2 may have been obtained for two contestants in a down-hill racing competition, and they may be synchronized by the module 11 so that the first frame of each sequence corresponds to its contestant leaving the starting gate." *Id.* at Fig. 1:

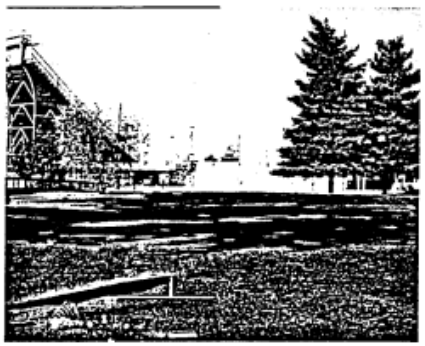
Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
	 FIG. 1 "The synchronized sequences are fed to a module 12 for background5 foreground extraction, as well as to a module 13 for camera coordinate transformation estimation. For each of the image sequences, the module 12 yields a weight-mask sequence (WMS), with each weight mask being an array having an entry for each pixel position and differentiating between the scene of interest and the background/foreground. The generation of the weight mask sequence involves computerized searching of images for elements which, from frame to frame, move relative to the background. The module 13 yields sequence parameters SP 1 and SP2

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	including camera angles of azimuth and elevation, and camera focal length and aperture among others. These parameters can be determined from each video sequence by computerized processing including interpolation and matching of images. Alternatively, a suitably equipped camera can furnish the sequence parameters directly, thus obviating the need for their estimation by computerized processing" *Id.* at [Page 08]: "In each sequence, background and foreground can be extracted using a suitable motion estimation method. This method should be "robust", for background/foreground extraction where image sequences are acquired by a moving camera and where the acquired scene contains moving agents or objects. Required also is temporal consistency, for the extraction of background/foreground to be stable over time. Where both the camera and the agents are moving predictably, e.g. at constant speed or acceleration, temporal filtering can be used for enhanced temporal consistency." *Id.* at [Abstract]: "Given two video sequences, a composite video sequence can be generated (15) which includes visual elements from each of the given sequences, suitably synchronized (11) and represented in a chosen focal plane. A composite video sequence can be made also by similarly combining a video sequence with an audio sequence. In the composite video sequence, contestants, action figures or objects can be shown against a common background (12) even if the given video sequences differ as to background, with the common background taken from one or the other of the given sequences, for example. Alternatively, a different suitable background can be used, e.g. as derived from the given video sequences, as obtained from another video sequence or image, or as otherwise synthesized."
10[b]. at least one data processor configured to: combine the subject images of corresponding video frames of the first and second video streams into a combined frame of a first combined video stream such that the subject image of the first video stream is positioned in an anterior portion of the combined frame and the subject image of the second video stream is positioned in a posterior portion of the	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates: *See e.g.*, Reusens at [Page 14]: "E.4 Compositing (Module 4)- SPl and SP2 describe how each frame of the respective image sequences IS 1 and IS2 relates to the respective backgrounds BGD 1 and BGD2, and SNT describes how the two image sequences should relate. Accordingly, each frame of IS2 can be geometrically related to any frame in IS1 and conversely. Once a frame of IS2 has been transformed and aligned with its corresponding frame in IS1, the two frames can be shown together, e.g. as blended in a single image or side-by-side on a split screen. The weight of each pixel of each of the

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combined frame, wherein the at least one data processor is configured to combine the subject images of video frames by:	two frames in the composite image depends primarily on three factors, namely (i) the weight masks WMS1 and WMS2 which for each pixel represent a classification/discrimination measure between background and foreground, (ii) the 25 desired weight for the pixel in the composite image sequence, and (iii) the visual effect desired." *Id*. at Fig. 15:  BGD1  FRAME #1 OF IS1  BGD2  FRAME #1 OF IS2

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	 FRAME #1 OF COMPOSITE SEQUENCE *Id.* at [Page 17]: "As to factor (iii), the visual effect desired may call for transparency of overlapping foreground objects, or it may be desired to simulate depth of field by showing one foreground object as in front of the other, for example. Means may be included also to permit an end-user to select transparency interactively, e.g. by mouse clicking, keyboard typing and/or any other suitable input device, until a satisfactory effect is visually ascertained. This operation can be performed jointly with interactive setting of spatial normalization. For example, two agents placed side-by-side preferably may appear solid, whereas a degree of transparency may be preferred in case of overlap."
10[c]. scaling the video frames of the first video stream and repositioning in a first direction the resulting pictures in the video frames of the first video stream to produce a first sequence of scaled video frames;	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates: *See* claim 1[c] above
10[d]. removing the background image in the first sequence of scaled video frames to produce first background separated video frames to be displayed in the anterior portion of the combined frames of the	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates: *See* claim 1[d] above

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combined video stream; and	
10[e]. superimposing the first background separated video frames onto corresponding ones of the video frames of the second video stream to produce combined video frames of the combined video stream.	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates: *See* claim 1[e] above

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Claim 11	
11[a]. The apparatus of claim 10, wherein the at least one data processor is configured to combine the subject images of video frames by:	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates: *See e.g.*, Reusens at [Page 14]: "E.4 Compositing (Module 4)- SPl and SP2 describe how each frame of the respective image sequences IS 1 and IS2 relates to the respective backgrounds BGD 1 and BGD2, and SNT describes how the two image sequences should relate. Accordingly, each frame of IS2 can be geometrically related to any frame in IS1 and conversely. Once a frame of IS2 has been transformed and aligned with its corresponding frame in IS1, the two frames can be shown together, e.g. as blended in a single image or side-by-side on a split screen. The weight of each pixel of each of the two frames in the composite image depends primarily on three factors, namely (i) the weight masks WMS1 and WMS2 which for each pixel represent a classification/discrimination measure between background and foreground, (ii) the 25 desired weight for the pixel in the composite image sequence, and (iii) the visual effect desired." *Id*. at Fig. 15:  BGD1  FRAME #1 OF IS1

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	 BGD2  FRAME #1 OF IS2  FRAME #1 OF COMPOSITE SEQUENCE *Id.* at [Page 17]: "As to factor (iii), the visual effect desired may call for transparency of overlapping foreground objects, or it may be desired to simulate depth of field by showing one foreground object as in front of the other, for example. Means may be included also to permit an end-user to select transparency interactively, e.g. by mouse clicking, keyboard typing and/or any other suitable input device, until a satisfactory effect is visually ascertained. This operation can be performed jointly with interactive setting of spatial normalization. For example, two agents placed side-by-side preferably may appear solid, whereas a degree of transparency may be preferred in case of overlap."

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11[b]. scaling the video frames of the second video stream and reposition in a second direction the resulting pictures in the video frames of the second video stream to produce a second sequence of scaled video frames;	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates: *See* claim 3[a] above
11[c]. extending the background image in the second sequence of scaled video frames to produce background extended video frames to be displayed in the posterior portion of the combined frames of the combined video stream; and	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates: *See* claim 3[b] above
11[d]. superimposing the first background separated video frames onto corresponding ones of background extended video frames to produce combined video frames of the combined video stream.	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates: *See* claim 3[c] above

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
Claim 12	
12[a]. A system comprising the apparatus of claim 10, and further comprising: a first video conferencing endpoint configured to communicate with the apparatus, the first endpoint including:	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates: *See e.g.*, Reusens at [Page 18]: "The invention can be used to form composite sequences of sports actions, with sports-specific spatial and temporal synchronization. In gymnastics, for example, the control points for temporal normalization can be chosen as those instants where the gymnast touches the floor. Or, e.g. in figure skating, execution of figures can be temporally aligned between start and finish. Alternatively yet. sequences can be spatially normalized e.g. for the center of gravity of action figures to match up, as can be of interest for comparing different artistic interpretations of a ballet dance routine, for example." "The invention offers a capability for comparing agents performing in different locations, which is of special interest in learning actions such as a golf swing, for example. Thus, a golfer can compare his performance with that of a role model filmed elsewhere, as well as monitor his progress over time by comparing different performances of his own." To the extent that Cisco contends that Reusens does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Reusens with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including: • See, e.g., Sawyer (Ex. A-1) at [Column 04, Line 16]: "Local computer 101 is configured to blend the image data representing the video signal with image data representing primary feed data, such as a feed from its displayed desktop. Primary feed data can be any other visual presentation or shared space that a user may want to view along with the camera feed. In one embodiment, the primary feed data is a shared space from the user's computer in a video conference. The shared space may be the actual full desktop view of a participant's computer or a shared view of an application from a conferencing server or only a shared portion of the participant's desktop view. The primary feed data could also be an active

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	video feed. Moreover, the primary desktop feed may originate at local computer 101, or may originate from any other source on conferencing system 10. The blended signal is configured to incorporate one or more primary subjects of the video signal with the desktop feed. Local computer 101 may be further configured to adjust the transparency level of at least one of the primary desktop feed and the video signal." *Id.* at [Column 04, Line 35]: "Local computer 101 may be further configured to broadcast the blended signal to other participants in the conference on conference nodes 102 a-n, or to remote server 103, over network medium 100. Local computer 101 may also be configured to subtract out image data representing one or more primary subjects of the video signal from the raw image data of the video signal, and/or subtract out image data representing one or more key frames in the primary desktop feed, before blending the signal with the primary desktop feed. In short, local computer 101 may be configured to implement the functionality of the embodiments discussed in the present teachings herein."
12[b]. a first video camera configured to generate the first real-time video stream, wherein the subject image of the first real-time video stream comprises an image of a first video conferencing participant at the first endpoint;	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates: *See e.g.*, Reusens at [Page 18]: "The invention can be used to form composite sequences of sports actions, with sports-specific spatial and temporal synchronization. In gymnastics, for example, the control points for temporal normalization can be chosen as those instants where the gymnast touches the floor. Or, e.g. in figure skating, execution of figures can be temporally aligned between start and finish. Alternatively yet. sequences can be spatially normalized e.g. for the center of gravity of action figures to match up, as can be of interest for comparing different artistic interpretations of a ballet dance routine, for example." "The invention offers a capability for comparing agents performing in different locations, which is of special interest in learning actions such as a golf swing, for example. Thus, a golfer can compare his performance with that of a role model filmed elsewhere, as well as monitor his progress over time by comparing different performances of his own." *Id.* at [Page 15]: "The image sequences ISl and IS2 can be aligned based on their geometric relationship. A spatial normalization transformation SNT can be used, e.g.,

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	for matching in size and/or position elements which are present in both image sequences, from the background and/or the foreground. Among examples of such elements in the background are the lines of a tennis or squash court, the poles in pole vaulting, and a standard element such as a purposely placed aluminum T-bar. Foreground examples include the size of a person, the length of his forearm, the length of a golf club, etc." *Id.* at [Page 18]: "While the description above is for an action recorded by a single camera, the technique also applies where multiple cameras are used. The technique then can be used individually, e.g. for each pair of cameras having the same viewing angle. Also, from multiple views a 3-dimensional representation can be generated akin to a three-dimensional moving model of a performer, and spatio-temporal normalization and background adaptation can be applied to such a representation as well." To the extent that Cisco contends that Reusens does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Reusens with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including: • See, e.g., Sawyer (Ex. A-1) at [Column 04, Line 16]: "Local computer 101 is configured to blend the image data representing the video signal with image data representing primary feed data, such as a feed from its displayed desktop. Primary feed data can be any other visual presentation or shared space that a user may want to view along with the camera feed. In one embodiment, the primary feed data is a shared space from the user's computer in a video conference. The shared space may be the actual full desktop view of a participant's computer or a shared view of an application from a conferencing server or only a shared portion of the participant's desktop view. The primary feed data could also be an active video feed. Moreover, the primary desktop feed may originate at local computer 101, or may originate from any other source on conferencing system 10. The blended signal is configured to incorporate one or more primary subjects of the video signal with the desktop feed. Local computer 101 may be further configured to adjust the transparency level of at least one of the primary desktop feed and the video signal."

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12[c]. a second video camera configured to generate the second real-time video stream, wherein the subject image of the second real-time video stream comprises an image of a second video conferencing participant at the first endpoint; and	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates: *See e.g.*, Reusens at [Page 18]: "The invention can be used to form composite sequences of sports actions, with sports-specific spatial and temporal synchronization. In gymnastics, for example, the control points for temporal normalization can be chosen as those instants where the gymnast touches the floor. Or, e.g. in figure skating, execution of figures can be temporally aligned between start and finish. Alternatively yet. sequences can be spatially normalized e.g. for the center of gravity of action figures to match up, as can be of interest for comparing different artistic interpretations of a ballet dance routine, for example." "The invention offers a capability for comparing agents performing in different locations, which is of special interest in learning actions such as a golf swing, for example. Thus, a golfer can compare his performance with that of a role model filmed elsewhere, as well as monitor his progress over time by comparing different performances of his own." *Id.* at [Page 15]: "The image sequences ISl and IS2 can be aligned based on their geometric relationship. A spatial normalization transformation SNT can be used, e.g., for matching in size and/or position elements which are present in both image sequences, from the background and/or the foreground. Among examples of such elements in the background are the lines of a tennis or squash court, the poles in pole vaulting, and a standard element such as a purposely placed aluminum T-bar. Foreground examples include the size of a person, the length of his forearm, the length of a golf club, etc." *Id.* at [Page 18]: "While the description above is for an action recorded by a single camera, the technique also applies where multiple cameras are used. The technique then can be used individually, e.g. for each pair of cameras having the same viewing angle. Also, from multiple views a 3-dimensional representation can be generated akin to a three-dimensional moving model of a performer, and spatio-temporal normalization and background adaptation can be applied to such a representation as well." To the extent that Cisco contends that Reusens does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Reusens with the common general knowledge and/or the teachings of the

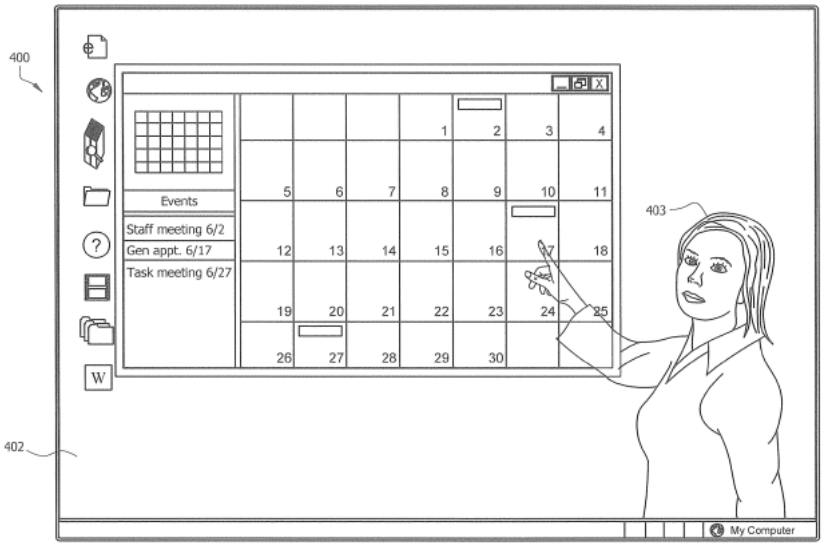
Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
	numerous prior art references that disclose this limitation, including: • See, e.g., Sawyer (Ex. A-1) at [Column 04, Line 16]: "Local computer 101 is configured to blend the image data representing the video signal with image data representing primary feed data, such as a feed from its displayed desktop. Primary feed data can be any other visual presentation or shared space that a user may want to view along with the camera feed. In one embodiment, the primary feed data is a shared space from the user's computer in a video conference. The shared space may be the actual full desktop view of a participant's computer or a shared view of an application from a conferencing server or only a shared portion of the participant's desktop view. The primary feed data could also be an active video feed. Moreover, the primary desktop feed may originate at local computer 101, or may originate from any other source on conferencing system 10. The blended signal is configured to incorporate one or more primary subjects of the video signal with the desktop feed. Local computer 101 may be further configured to adjust the transparency level of at least one of the primary desktop feed and the video signal." *Id.* at [Column 08, Line 39]: "In step 602, a primary feed is retrieved for the collaboration. The primary feed may originate from any local or remote source with respect to a viewer of the primary feed. The primary feed may be a shared desktop or presentation or portion thereof, an application, slide show, recorded or streaming video feed, or any other type of feed or multimedia presentation which would be desirable to blend with a camera feed. Further, the primary feed may originate locally or remotely with respect to the camera feed."
12[d]. a first control unit configured to forward the first and second real-time video streams to the apparatus; and	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates: *See e.g.*, Reusens at [Page 18]: "The invention can be used to form composite sequences of sports actions, with sports-specific spatial and temporal synchronization. In gymnastics, for example, the control points for temporal normalization can be chosen as those instants where the gymnast touches the floor. Or, e.g. in figure skating, execution of figures can be temporally aligned between start and finish. Alternatively yet. sequences can be spatially normalized e.g. for the center of gravity of action figures to match up, as can be of interest for comparing different artistic interpretations of a ballet

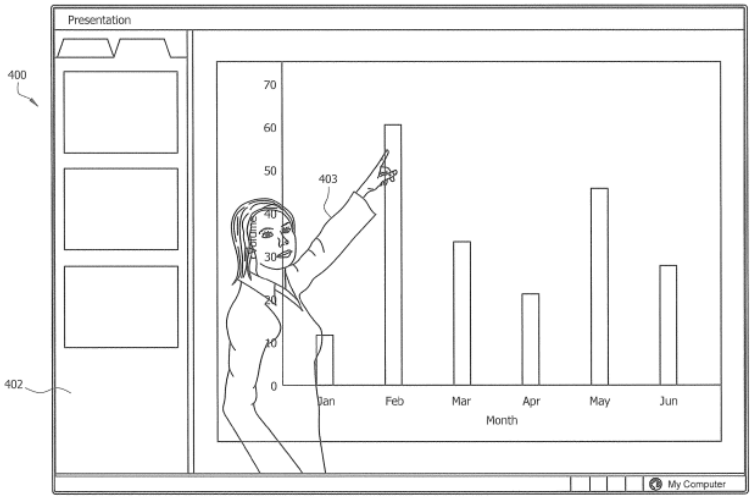
Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
	dance routine, for example." "The invention offers a capability for comparing agents performing in different locations, which is of special interest in learning actions such as a golf swing, for example. Thus, a golfer can compare his performance with that of a role model filmed elsewhere, as well as monitor his progress over time by comparing different performances of his own." *Id.* at [Page 15]: "The image sequences ISl and IS2 can be aligned based on their geometric relationship. A spatial normalization transformation SNT can be used, e.g., for matching in size and/or position elements which are present in both image sequences, from the background and/or the foreground. Among examples of such elements in the background are the lines of a tennis or squash court, the poles in pole vaulting, and a standard element such as a purposely placed aluminum T-bar. Foreground examples include the size of a person, the length of his forearm, the length of a golf club, etc." *Id.* at [Page 18]: "While the description above is for an action recorded by a single camera, the technique also applies where multiple cameras are used. The technique then can be used individually, e.g. for each pair of cameras having the same viewing angle. Also, from multiple views a 3-dimensional representation can be generated akin to a three-dimensional moving model of a performer, and spatio-temporal normalization and background adaptation can be applied to such a representation as well." To the extent that Cisco contends that Reusens does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Reusens with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including: • See, e.g., Sawyer (Ex. A-1) at [Column 04, Line 16]: "Local computer 101 may be further configured to broadcast the blended signal to other participants in the conference on conference nodes 102 a-n, or to remote server 103, over network medium 100. Local computer 101 may also be configured to subtract out image data representing one or more primary subjects of the video signal from the raw image data of the video signal, and/or subtract out image data representing one or more key frames in the primary desktop feed, before blending the signal with the primary desktop feed. In short, local computer 101 may be configured to

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	implement the functionality of the embodiments discussed in the present teachings herein." *Id.* at [Column 04, Line 56]: "It should be noted that in additional and/or alternative embodiments of the present teachings, the blending and adjusting of transparency may occur at any of the video conferencing system. For example, at the starting side, or side from which the camera feed video is being captured, the participant's local computer may adjust the transparency of one or more of the feeds, blend the camera feed data with the primary feed data, and then send the composite broadcast feed data out to the other participants or conferencing server. Alternatively, the starting side may broadcast the camera feed data and primary feed data separately, so that each local computer for each participant handles the transparency adjustment and blending operations. Still further, a conferencing server or other intermediate blending server may receive the video feed and the primary feed from the starting side, create the camera feed from the video feed, create the primary feed, adjust the transparency level as desired, blend the camera feed and primary feed, and then either deliver the composite broadcast feed to a conferencing server for broadcasting to the participants, or send the composite broadcast feed to the participants directly."
12[e]. a second video conferencing endpoint configured to communicate with the apparatus, the second endpoint including: a second control unit configured to receive the combined video stream of the apparatus; and	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates: *See e.g.*, Reusens at [Page 18]: "The invention can be used to form composite sequences of sports actions, with sports-specific spatial and temporal synchronization. In gymnastics, for example, the control points for temporal normalization can be chosen as those instants where the gymnast touches the floor. Or, e.g. in figure skating, execution of figures can be temporally aligned between start and finish. Alternatively yet. sequences can be spatially normalized e.g. for the center of gravity of action figures to match up, as can be of interest for comparing different artistic interpretations of a ballet dance routine, for example." "The invention offers a capability for comparing agents performing in different locations, which is of special interest in learning actions such as a golf swing, for example. Thus, a golfer can compare his performance with that of a role model filmed elsewhere, as well as monitor his progress over time by comparing different

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	performances of his own." *Id.* at [Page 15]: "The image sequences ISl and IS2 can be aligned based on their geometric relationship. A spatial normalization transformation SNT can be used, e.g., for matching in size and/or position elements which are present in both image sequences, from the background and/or the foreground. Among examples of such elements in the background are the lines of a tennis or squash court, the poles in pole vaulting, and a standard element such as a purposely placed aluminum T-bar. Foreground examples include the size of a person, the length of his forearm, the length of a golf club, etc." *Id.* at [Page 18]: "While the description above is for an action recorded by a single camera, the technique also applies where multiple cameras are used. The technique then can be used individually, e.g. for each pair of cameras having the same viewing angle. Also, from multiple views a 3-dimensional representation can be generated akin to a three-dimensional moving model of a performer, and spatio-temporal normalization and background adaptation can be applied to such a representation as well." To the extent that Cisco contends that Reusens does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Reusens with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including: • See, e.g., Sawyer (Ex. A-1) at [Column 04, Line 16]: "Local computer 101 may be further configured to broadcast the blended signal to other participants in the conference on conference nodes 102 a-n, or to remote server 103, over network medium 100. Local computer 101 may also be configured to subtract out image data representing one or more primary subjects of the video signal from the raw image data of the video signal, and/or subtract out image data representing one or more key frames in the primary desktop feed, before blending the signal with the primary desktop feed. In short, local computer 101 may be configured to implement the functionality of the embodiments discussed in the present teachings herein." *Id.* at [Column 04, Line 56]: "It should be noted that in additional and/or alternative embodiments of the present teachings, the blending and adjusting of transparency may occur at any of the video conferencing system. For example, at the starting side, or side

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	from which the camera feed video is being captured, the participant's local computer may adjust the transparency of one or more of the feeds, blend the camera feed data with the primary feed data, and then send the composite broadcast feed data out to the other participants or conferencing server. Alternatively, the starting side may broadcast the camera feed data and primary feed data separately, so that each local computer for each participant handles the transparency adjustment and blending operations. Still further, a conferencing server or other intermediate blending server may receive the video feed and the primary feed from the starting side, create the camera feed from the video feed, create the primary feed, adjust the transparency level as desired, blend the camera feed and primary feed, and then either deliver the composite broadcast feed to a conferencing server for broadcasting to the participants, or send the composite broadcast feed to the participants directly."
12[f]. a display configured to receive and render the combined video stream from the control unit.	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates: *See e.g.*, Reusens at [Page 10]: "C. Superimposing of Video Sequences- After extraction of the background/foreground in each sequence and estimation of the camera coordinate transformation between each sequence and a reference system, the sequences can be projected into a chosen focal plane for simultaneous visualization on a single display. Alpha layers for each frame of each sequence are generated from the multiple background/foreground weight masks. Thus, the composite sequence is formed by transforming each sequence into the chosen focal plane and superimposing the different transformed images with the corresponding alpha weight." To the extent that Cisco contends that Reusens does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Reusens with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including: • See, e.g., Sawyer (Ex. A-1) at [Column 06, Line 07]: "FIGS. 4A and 4B illustrate blended view 400 of camera feed 403 and primary feed 402 according to an embodiment of the present teachings. Blended feed 400 combines both primary feed 402 and camera feed 403. Blending may be accomplished using any means capable of combining such images including alpha

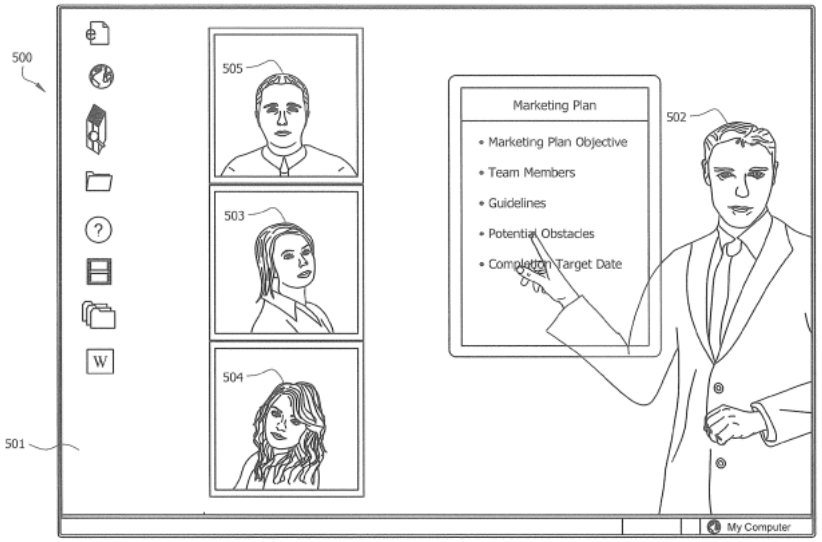
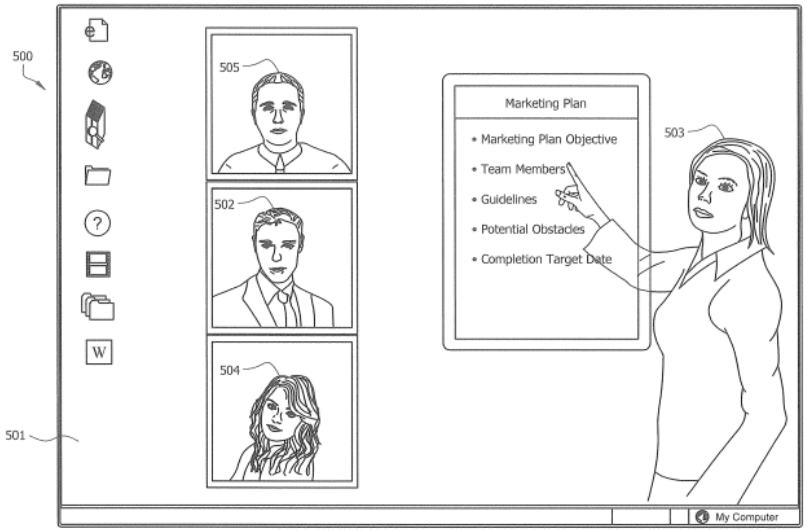
Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
	compositing, image masks, and the like. As shown in FIGS. 4A and 4B, the blended feeds are able to be viewed in a manner such that a viewer is able to focus on an application from primary feed 402 while viewing gestures and actions occurring in camera feed 403. Thereby, a greatly improved viewing experience is created." *Id*. At Figs. 4A and 4B:  *FIG. 4A*

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	 *FIG. 4B*

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Claim 13	
13[a]. Logic encoded in one or more tangible non-transitory storage media for execution and when executed operable to:	To the extent the preamble is limiting, Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates: *See e.g.*, Reusens at [Claim 55]: "A computer programmed for generating a composite video sequence from a plurality of given video sequences wherein each of the given video sequences comprises a representation of a respective object with action relative to a respective environment, the program comprising: (a) instructions for forming a background representation"
13[b]. receive at least first and second real-time video streams, each of the first and second real-time video streams comprising video frames containing a picture comprising a subject image and a background image;	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates: *See* claim 1[a] above
13[c]. combine the subject images of corresponding video frames of the first and second video streams into a combined frame of a combined video stream such that the subject image of the first video stream is positioned in an anterior portion of the combined frame and the subject image of the second video stream is positioned in a posterior portion of the combined frame, wherein the subject images are combined by:	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates: *See* claim 1[b] above
13[d]. scaling the video frames of the first video stream and repositioning in a first direction the resulting pictures in the video	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates:

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
frames of the first video stream to produce a first sequence of scaled video frames;	*See* claim 1[c] above
13[e]. removing the background image in the first sequence of scaled video frames to produce first background separated video frames to be displayed in the anterior portion of the combined frames of the combined video stream; and	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates: *See* claim 1[d] above
13[f]. superimposing the first background separated video frames onto corresponding ones of the video frames of the second video stream to produce combined video frames of the combined video stream; and	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates: *See* claim 1[e] above
13[e]. supply the combined video stream to a video display for displaying the combined video stream.	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates: *See* claim 1[f] above

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
Claim 14	
14[a]. The logic of claim 13, wherein the logic that receives is configured to receive video frames of the first video stream comprising images of multiple videoconference participants in the subject image and video frames of the second video stream comprising images of multiple videoconference participants in the subject image.	To the extent that Reusens does not expressly or inherently disclose this limitation, it would have been obvious to one of ordinary skill in the art to modify the teachings of Reusens, such as by combining with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including: • See, e.g., Sawyer (Ex. A-1) at [Column 07, Line 50]: "FIGS. 5A and 5B are additional blended illustrations 500 of an embodiment of the present teachings which utilize and blend multiple camera feeds. Multiple camera feeds 502 503 504 505 may be simultaneously blended with primary feed 501 thereby showing multiple conference participants. As shown in FIG. 5A, camera feed 502 is active and is displayed in a blended view with primary feed 501. In FIG. 5B a second camera feed 503 of multiple camera feeds 502 503 504 505 is active and displayed in a blended view with primary feed 501. A feed of multiple camera feeds 502 503 504 505 may become active based on activity within the video conference. For example, camera feed 502 may become active when a user associated with camera feed 502 is speaking. In other embodiments, an active feed may be selected manually. It may also be desirable to provide an indicator proximate to inactive feeds (e.g. 503 504 505 if FIG. 5A) to indicate when a participant desires to speak, or is speaking. Additionally, as shown in FIGS. 5A and 5B embodiments may function to expand the viewable size, or reposition, a camera feed of multiple camera feeds 502 503 504 505, in response a particular feed becoming active. When displaying multiple participants, embodiments may provide for an indicator to signal which participant is speaking." *Id.* at Figs. 5A and 5B:

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
	 *FIG. 5A*  *FIG. 5B* *Id.* at [Column 09, Line 30]: "Embodiments, or portions thereof, may be embodied in

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
	program or code segments operable upon a processor-based system (e.g., computer system or computing platform) for performing functions and operations as described herein. The program or code segments making up the various embodiments may be stored in a computer-readable medium, which may comprise any suitable medium for temporarily or permanently storing such code. Examples of the computer-readable medium include such tangible computer-readable media as an electronic memory circuit, a semiconductor memory device, random access memory (RAM), read only memory (ROM), erasable ROM (EROM), flash memory, a magnetic storage device (e.g., floppy diskette), optical storage device (e.g., compact disk (CD), digital versatile disk (DVD), etc.), a hard disk, and the like."

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
Claim 15	
15[a]. The logic of claim 13, wherein the logic that combines is configured to:	To the extent the preamble is limiting, Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates: *See e.g.*, Reusens at [Claim 55]: "A computer programmed for generating a composite video sequence from a plurality of given video sequences wherein each of the given video sequences comprises a representation of a respective object with action relative to a respective environment, the program comprising: (a) instructions for forming a background representation"
15[b]. scale the video frames of the second video stream and reposition in a second direction the resulting pictures in the video frames of the second video stream to produce a second sequence of scaled video frames;	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates: *See* claim 3[a] above
15[c]. extend the background image in the second sequence of scaled video frames to produce background extended video frames to be displayed in the posterior portion of the combined frames of the combined video stream; and	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates: *See* claim 3[b] above
15[d]. superimpose the first background separated video frames onto corresponding ones of background extended video frames to produce combined video frames of the combined video stream.	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates: *See* claim 3[c] above

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
Claim 16	
16[a]. The logic of claim 15, wherein the second direction is opposite to the first direction.	It would have been obvious to a person of ordinary skill in the art to combine Reusens with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including: • See, e.g., Sawyer (Ex. A-1) at [Column 05, Line 49]: "In some embodiments, at least one reference frame may be subtracted from the primary feed. FIGS. 3A-3C illustrate a progressing example of a visual presentation of desktop computer 300. The visual presentation comprises application window 301, background picture 302, and various icons 303 and menus 304. When blending the primary feed with camera feed data captures it may be desirable to minimize the amount of items being displayed with the primary feed. Background picture 302 may be subtracted to display alternate background 302′. Alternate background 302′ may be selected as preferred by a user. Alternate background 302′ is shown as a solid color. A solid background may be desirable as it assists in making any blended visual presentation easier to view. However, any other background could be selected, as desired by the user." [Column 06, Line 28]: "In some embodiments, when blending primary feed 402 and camera feed 403, it is preferable to reverse the visual presentation of either primary feed 402 or camera feed 403. This is because primary feed 402 is showing the desktop as is, whereas video capturing a scene including a person will generally reverse its visual presentation left to right. For example, even though the video subject points to his or her right, the presentation of that video shows the subject pointing to his or her left. As such, to create a natural viewing environment it is beneficial to reverse one of the feeds. It is generally more natural to reverse camera feed 401 so as to avoid reversal of any words displayed on primary feed 402." *See e.g.*, Sawyer at [Column 06, Line 40]: "Embodiments of the present disclosure are also configured to adjust a transparency value of one of the feeds. FIGS. 4A and 4B illustrate blended primary feed 402 and camera feed 403 wherein camera feed 403 has had its transparency value adjusted either at specific times or all of the time to become more transparent with respect to primary feed 402. As a result, a person displayed on

	camera feed 403 is able to gesture in a manner that intersects objects displayed in primary feed 402 without completely obscuring such objects. The added transparency of camera feed 403 also allows an observer of blended view 400 to more easily focus on the content of both primary feed 402 and camera feed 403."

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
Claim 17	
17[a]. The logic of claim 13, wherein the logic that combines is configured to: remove the background image in the video frames of the first and second video streams to produce first and second background separated video frames;	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates: *See* claim 5[a] above
17[b]. generate supplemental background image video frames that comprise a supplemental background image; and	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates: *See* claim 5[b] above
17[c]. superimpose corresponding ones of the first background separated video frames, and the second background separated video frames onto corresponding ones of the supplemental background video frames to produce the combined video frames of the combined video stream.	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates: *See* claim 5[c] above

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
Claim 18	
18[a]. The logic of claim 13, wherein the first and second video streams are produced at the same video conferencing site.	It would have been obvious to one of ordinary skill in the art to modify the teachings of Reusens, such as by combining with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including: • See, e.g., Sawyer (Ex. A-1) at [Column 04, Line 16]: "Local computer 101 is configured to blend the image data representing the video signal with image data representing primary feed data, such as a feed from its displayed desktop. Primary feed data can be any other visual presentation or shared space that a user may want to view along with the camera feed. In one embodiment, the primary feed data is a shared space from the user's computer in a video conference. The shared space may be the actual full desktop view of a participant's computer or a shared view of an application from a conferencing server or only a shared portion of the participant's desktop view. The primary feed data could also be an active video feed. Moreover, the primary desktop feed may originate at local computer 101, or may originate from any other source on conferencing system 10. The blended signal is configured to incorporate one or more primary subjects of the video signal with the desktop feed. Local computer 101 may be further configured to adjust the transparency level of at least one of the primary desktop feed and the video signal."

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
Claim 19	
19[a]. The logic of claim 13, wherein the first and second video streams are produced at different video conferencing sites.	It would have been obvious to one of ordinary skill in the art to modify the teachings of Reusens, such as by combining with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including: • See, e.g., Sawyer (Ex. A-1) at [Column 04, Line 35]: "Local computer 101 may be further configured to broadcast the blended signal to other participants in the conference on conference nodes 102 a-n, or to remote server 103, over network medium 100. Local computer 101 may also be configured to subtract out image data representing one or more primary subjects of the video signal from the raw image data of the video signal, and/or subtract out image data representing one or more key frames in the primary desktop feed, before blending the signal with the primary desktop feed. In short, local computer 101 may be configured to implement the functionality of the embodiments discussed in the present teachings herein. Local computer 101 may also act as a conference server, or a separate conference server. Conference server 103 may be used to administer the video conference, blend signals, etc. A conference server may be utilized to switch between, or to simultaneously blend, a plurality of video signals from separate conference users with a primary desktop feed. Switching may be implemented based on the activity occurring within a video conference, such as a participant speaking, an administrator selecting a video signal, and the like."

Asserted Claim of the '293 Patent	Exemplary Citations to Reusens
Claim 20	
20[a]. The logic of claim 13, wherein the logic that combines is configured to be performed at a site other than where the first and second video streams are produced.	Reusens, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following example illustrates: *See* claim 8[a] above

Exhibit A-3: Invalidity of U.S. Patent No. 8,830,293 in view of Tysso Provisional U.S. Patent Application No. 61/103,588 ("Tysso Provisional")[1]

This chart is subject to all reservations, objections, and disclaimers in Defendant's Invalidity Contentions and any amendment, supplement, or modification thereof, which are incorporated herein by reference in their entirety.

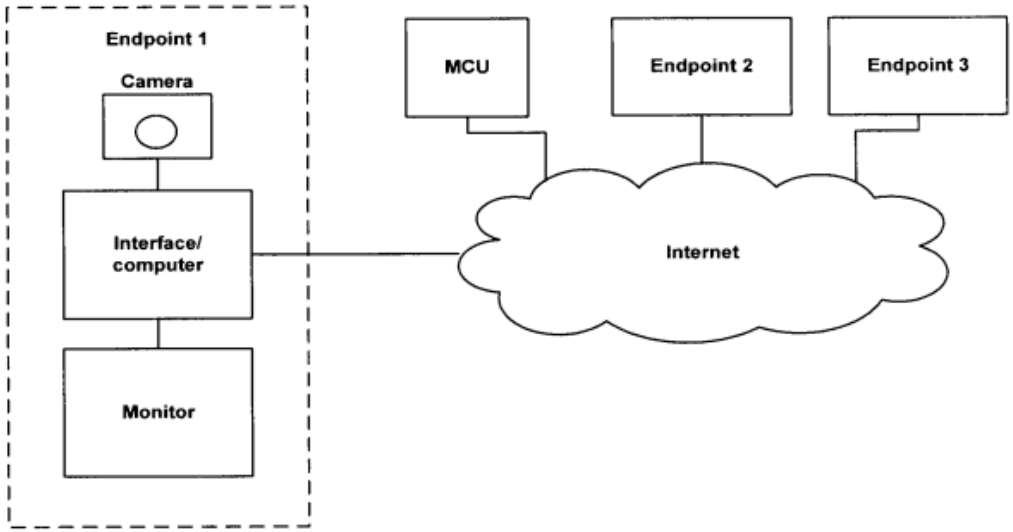
Tysso Provisional U.S. Patent Application No. 61/103,588 (the "Tysso Provisional") was originally filed on October 08, 2008. As a provisional application, it is being relied upon to show prior conception and overlap with the asserted claims of U.S. Patent No. 8,830,293 (the "'293 Patent"). The Tysso Provisional is also evidence of prior invention in the United States under 35 U.S.C. § 102(g). Based on information currently available, the persons or entities involved in the conception and diligent reduction to practice of the ideas in the Tysso Provisional include at least the named inventors and the assignee.

The Tysso Provisional anticipates the asserted claims of the '293 Patent. Alternatively, the Tysso Provisional renders obvious the asserted claims, either alone or in combination with other prior art identified in the cover pleading or herein, and/or in combination with (1) the general knowledge of one of ordinary skill in the art; (2) the teachings of any of the prior art references set forth in IPM's other invalidity claim charts with respect to the limitation-at-issue; and/or (3) the teachings of any of the prior art references set forth in the cover pleading of IPM's invalidity contentions with respect to the key concepts applicable for the limitation-at-issue.

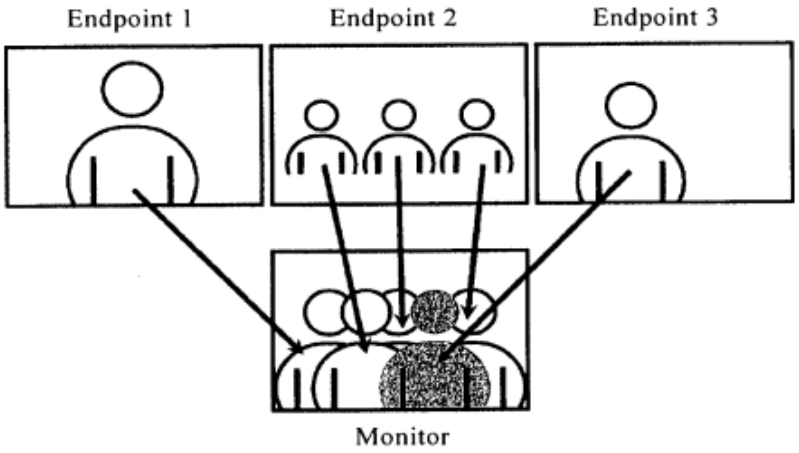
To the extent that the following invalidity contentions reflect constructions of claim limitations consistent with or suggested by Cisco's Infringement Contentions, no inference is intended, nor should any be drawn that IPM agrees with Cisco's apparent claim constructions or infringement contentions. IPM offers such invalidity contentions solely in the alternative to any position it may ultimately take as to any claim construction issues. IPM denies that the accused products infringe the asserted claim and expressly reserves the right to contest Cisco's apparent claim constructions and infringement contentions.

[1] Discovery in this case is ongoing and accordingly, this initial invalidity chart is not final. IPM has conducted its invalidity analysis herein based at least in part and in some instances entirely upon Cisco's apparent application of the claims of the '293 Patent. By charting the prior art against the claims and limitations herein, IPM is neither admitting nor agreeing to Cisco's application of the claims at issue in this case, and these charts should not be interpreted as an admission or concession by IPM that any particular construction or application of any claim limitation by Cisco is correct or proper. Additionally, these charts provide representative examples of portions of the charted references that disclose the indicated limitations under Cisco's application of the claims; additional portions of these references other than the representative examples provided herein may also disclose the indicated limitation(s) and IPM contends that the asserted claims are invalid in light of the charted reference(s) as a whole in its or their entirety. Where a particular figure is cited, the citation should be understood to encompass the caption and description of the figure as well as any text relating to or describing the figure. Conversely, where particular text referring to a figure is cited, the citation should be understood to include the figure as well.

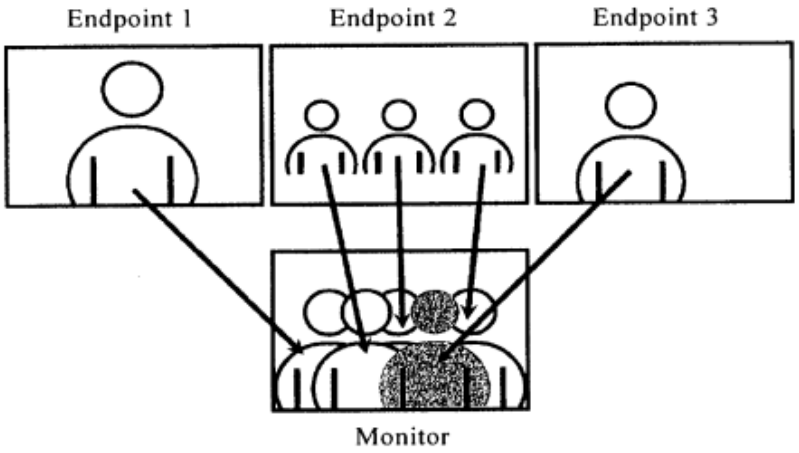
Asserted Claim of the '293 Patent	Exemplary Citations
Claim 1	
1[a]. A method comprising: receiving at least first and second real-time video streams, each of the first and second real-time video streams comprising video frames containing a picture comprising a subject image and a background image;	To the extent the preamble is limiting, Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Tysso Provisional at [Page 02]: "The method according to the invention is for presenting a plurality of participants in a video conference on a single monitor in such a way that participants located at least three endpoints seems to be located in the same room. This is achieved by merging video images from each end point in such a way that the participants appear to be sitting in the same room. The person currently talking is highlighted on the monitor." *Id.* at [Page 03]: "The first step of the inventive method is to receive video signals comprising sound and image data of the participants at each endpoint, e.g. from end points | to 3. Such video signals may comprise one or more participants at each endpoint including the conference room or surroundings they are located in." *Id.* at [Page 03]: "The video signals may also just comprise data of the bodies of the participants in the case where the surroundings have already been removed at the endpoints. In this case the endpoint comprises means for extracting image data from each participant from the background in such a way that only the participant is included in the image data. The surroundings can be extracted form an image by applying a blue- or greenscreen behind the participant(s) that are filmed at the endpoint together with depth information." "The second step is to process and extract image data of participants from their backgrounds, if this has not already been done at one or more endpoints as said above, and processing the extracted image data in such a way that the images of each participant appears to have similar appearance." *Id.* at Fig. 2:

Asserted Claim of the ’293 Patent	Exemplary Citations
	 Fig. 2

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
1[b]. combining the subject images of corresponding video frames of the first and second video streams into a combined frame of a combined video stream such that the subject image of the first video stream is positioned in an anterior portion of the combined frame and the subject image of the second video stream is positioned in a posterior portion of the combined frame, wherein the combining comprises:	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Tysso Provisional at [Page 05]: "When the images of the participants in the video conference are extracted from the background image, they will be subjected to further processing in the MCU by processing the image data of the participants in such a way that the images of each participant located at the endpoints are scaled to the same size, and adjusted to have similar colour balance, contrast and intensity by comparing the image data received from each endpoint and finding a mean value for said parameters. The resulting images of the participants will then be presented aligned horizontally and overlapped on a monitor. This process is performed dynamically according to the number of participants in the video conference." "The resulting images of the participants will then be presented aligned horizontally and overlapped on a monitor. This process is performed dynamically according to the number of participants in the video conference. Figure 1 illustrates visually the process performed for presenting participants located at different endpoint on a single monitor. As seen from the figure, the participants at endpoints 1 through 3 have different sizes, and different number of participants at the endpoints. When they are presented merged on one monitor, the image data from each end point has been processed and scaled such that all participants appear to have the same size on the monitor. The single monitor shows all participants aligned horizontally, scaled to the same sized and possibly overlapped, giving the impression that they are located in the same conference room. If the number of participants is too great to fit the width of the monitor without being overlapped, the images of the participants will be adjusted by being partly overlapped to be fitted to the width." *Id*. at Fig. 2:

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
	

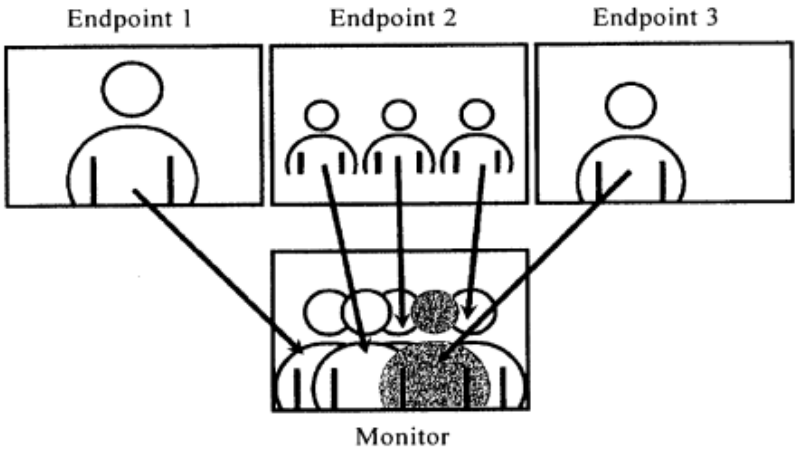
Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
1[c]. scaling the video frames of the first video stream and repositioning in a first direction the resulting pictures in the video frames of the first video stream to produce a first sequence of scaled video frames;	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Tysso Provisional at [Page 05]: "When the images of the participants in the video conference are extracted from the background image, they will be subjected to further processing in the MCU by processing the image data of the participants in such a way that the images of each participant located at the endpoints are scaled to the same size, and adjusted to have similar colour balance, contrast and intensity by comparing the image data received from each endpoint and finding a mean value for said parameters. The resulting images of the participants will then be presented aligned horizontally and overlapped on a monitor. This process is performed dynamically according to the number of participants in the video conference." "The resulting images of the participants will then be presented aligned horizontally and overlapped on a monitor. This process is performed dynamically according to the number of participants in the video conference. Figure 1 illustrates visually the process performed for presenting participants located at different endpoint on a single monitor. As seen from the figure, the participants at endpoints 1 through 3 have different sizes, and different number of participants at the endpoints. When they are presented merged on one monitor, the image data from each end point has been processed and scaled such that all participants appear to have the same size on the monitor. The single monitor shows all participants aligned horizontally, scaled to the same sized and possibly overlapped, giving the impression that they are located in the same conference room. If the number of participants is too great to fit the width of the monitor without being overlapped, the images of the participants will be adjusted by being partly overlapped to be fitted to the width." *Id*. at Fig. 2:

Asserted Claim of the ’293 Patent	Exemplary Citations to Tysso Provisional
	

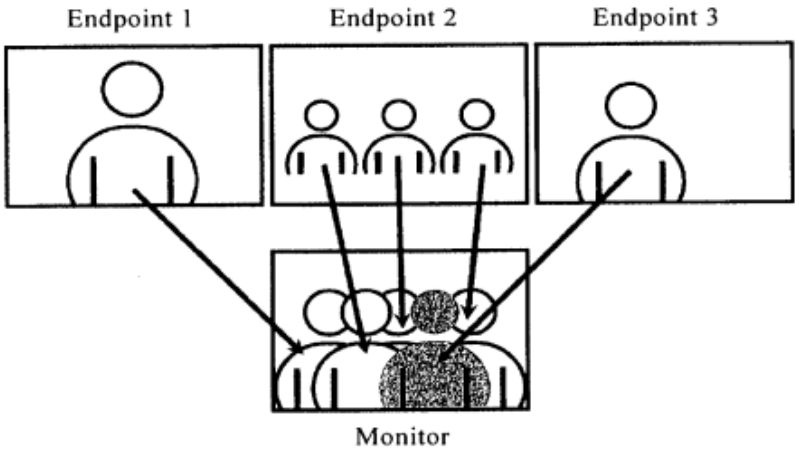
Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
1[d]. removing the background image in the first sequence of scaled video frames to produce first background separated video frames to be displayed in the anterior portion of the combined frames of the combined video stream; and	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Tysso Provisional at [Page 03]: "The first step of the inventive method is to receive video signals comprising sound-and image data of the participants at each endpoint, e.g. from end points | to 3. Such video signals may comprise one or more participants at each endpoint including the conference room or surroundings they are located in." "The video signals may also just comprise data of the bodies of the participants in the case where the surroundings have already been removed at the endpoints. In this case the endpoint comprises means for extracting image data from each participant from the background in such a way that only the participant is included in the image data. The surroundings can be extracted form an image by applying a blue- or greenscreen behind the participant(s) that are filmed at the endpoint together with depth information." "The second step is to process and extract image data of participants from their backgrounds, if this has not already been done at one or more endpoints as said above, and processing the extracted image data in such a way that the images of each participant appears to have similar appearance." *Id.* at [Page 04]: "There are different known ways of extracting only the image data of one or more participants from the background of an image. One way of doing this is by using techniques comprising a synthetic blue screen by using an algorithm that analyzes different parameters of the background image. Another way is to use pattern recognition for recognizing faces and bodies. Depth information for each pixel in an image is also a feasible way of extracting image data belonging to the background." *Id.* at [Page 05]: "When the images of the participants in the video conference are extracted from the background image, they will be subjected to further processing in the MCU by processing the image data of the participants in such a way that the images of each participant located at the endpoints are scaled to the same size, and adjusted to have similar colour balance, contrast and intensity by comparing the image data received from each endpoint and finding a mean value for said parameters. The resulting images of the participants will then be presented aligned horizontally and overlapped on a monitor. This process is performed dynamically according to the number of participants in the

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
	video conference." "The resulting images of the participants will then be presented aligned horizontally and overlapped on a monitor. This process is performed dynamically according to the number of participants in the video conference. Figure 1 illustrates visually the process performed for presenting participants located at different endpoint on a single monitor. As seen from the figure, the participants at endpoints 1 through 3 have different sizes, and different number of participants at the endpoints. When they are presented merged on one monitor, the image data from each end point has been processed and scaled such that all participants appear to have the same size on the monitor. The single monitor shows all participants aligned horizontally, scaled to the same sized and possibly overlapped, giving the impression that they are located in the same conference room. If the number of participants is too great to fit the width of the monitor without being overlapped, the images of the participants will be adjusted by being partly overlapped to be fitted to the width."

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
1[e]. superimposing the first background separated video frames onto corresponding ones of the video frames of the second video stream to produce combined video frames of the combined video stream; and	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Tysso Provisional at [Page 05]: " When the images of the participants in the video conference are extracted from the background image, they will be subjected to further processing in the MCU by processing the image data of the participants in such a way that the images of each participant located at the endpoints are scaled to the same size, and adjusted to have similar colour balance, contrast and intensity by comparing the image data received from each endpoint and finding a mean value for said parameters. The resulting images of the participants will then be presented aligned horizontally and overlapped on a monitor. This process is performed dynamically according to the number of participants in the video conference." "The resulting images of the participants will then be presented aligned horizontally and overlapped on a monitor. This process is performed dynamically according to the number of participants in the video conference. Figure 1 illustrates visually the process performed for presenting participants located at different endpoint on a single monitor. As seen from the figure, the participants at endpoints 1 through 3 have different sizes, and different number of participants at the endpoints. When they are presented merged on one monitor, the image data from each end point has been processed and scaled such that all participants appear to have the same size on the monitor. The single monitor shows all participants aligned horizontally, scaled to the same sized and possibly overlapped, giving the impression that they are located in the same conference room. If the number of participants is too great to fit the width of the monitor without being overlapped, the images of the participants will be adjusted by being partly overlapped to be fitted to the width." *Id.* at Fig. 2:

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
	

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
1[f]. supplying the combined video stream to a video display for displaying the combined video stream.	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Tysso Provisional at [Page 10]: *See e.g.*, Tysso Provisional at [Page 05]: " When the images of the participants in the video conference are extracted from the background image, they will be subjected to further processing in the MCU by processing the image data of the participants in such a way that the images of each participant located at the endpoints are scaled to the same size, and adjusted to have similar colour balance, contrast and intensity by comparing the image data received from each endpoint and finding a mean value for said parameters. The resulting images of the participants will then be presented aligned horizontally and overlapped on a monitor. This process is performed dynamically according to the number of participants in the video conference." "The resulting images of the participants will then be presented aligned horizontally and overlapped on a monitor. This process is performed dynamically according to the number of participants in the video conference. Figure 1 illustrates visually the process performed for presenting participants located at different endpoint on a single monitor. As seen from the figure, the participants at endpoints 1 through 3 have different sizes, and different number of participants at the endpoints. When they are presented merged on one monitor, the image data from each end point has been processed and scaled such that all participants appear to have the same size on the monitor. The single monitor shows all participants aligned horizontally, scaled to the same sized and possibly overlapped, giving the impression that they are located in the same conference room. If the number of participants is too great to fit the width of the monitor without being overlapped, the images of the participants will be adjusted by being partly overlapped to be fitted to the width." *Id.* at Fig. 2:

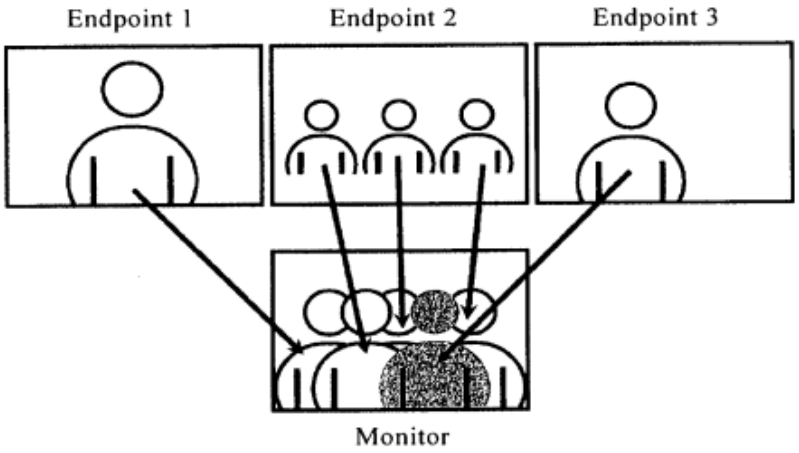
	 Endpoint 1 Endpoint 2 Endpoint 3 Monitor

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
Claim 2	
2[a]. The method of claim 1, wherein the subject image of video frames of the first video stream comprises images of multiple videoconference participants and the subject image of video frames of the second video stream comprises images of multiple videoconference participants.	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Tysso Provisional at [Page 02]: "The method according to the invention is for presenting a plurality of participants in a video conference on a single monitor in such a way that participants located at least three endpoints seems to be located in the same room. This is achieved by merging video images from each end point in such a way that the participants appear to be sitting in the same room. The person currently talking is highlighted on the monitor." *Id.* at [Page 03]: "The first step of the inventive method is to receive video signals comprising sound and image data of the participants at each endpoint, e.g. from end points | to 3. Such video signals may comprise one or more participants at each endpoint including the conference room or surroundings they are located in." *Id.* at [Page 03]: "The video signals may also just comprise data of the bodies of the participants in the case where the surroundings have already been removed at the endpoints. In this case the endpoint comprises means for extracting image data from each participant from the background in such a way that only the participant is included in the image data. The surroundings can be extracted form an image by applying a blue- or greenscreen behind the participant(s) that are filmed at the endpoint together with depth information." "The second step is to process and extract image data of participants from their backgrounds, if this has not already been done at one or more endpoints as said above, and processing the extracted image data in such a way that the images of each participant appears to have similar appearance."
Claim 03	
3[a]. The method of claim 1, wherein combining comprises:	Tysso Provisional expressly or inherently discloses and/or renders obvious this limitation.

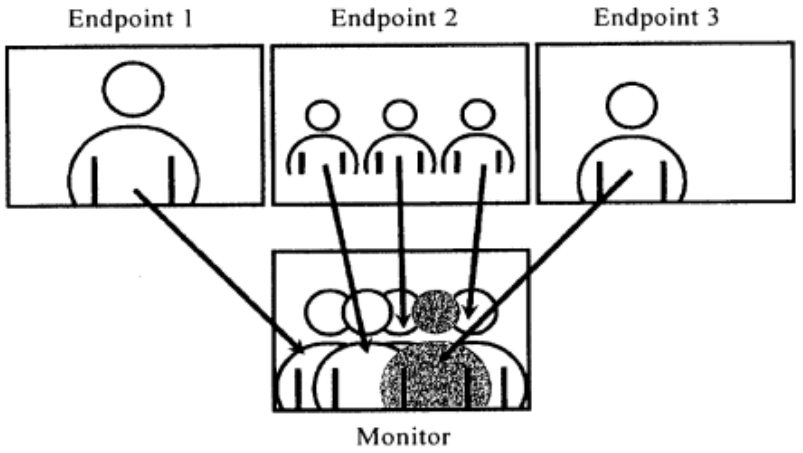
Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
scaling the video frames of the second video stream and repositioning in a second direction the resulting pictures in the video frames of the second video stream to produce a second sequence of scaled video frames;	*See e.g.*, Tysso Provisional at [Page 05]: "When the images of the participants in the video conference are extracted from the background image, they will be subjected to further processing in the MCU by processing the image data of the participants in such a way that the images of each participant located at the endpoints are scaled to the same size, and adjusted to have similar colour balance, contrast and intensity by comparing the image data received from each endpoint and finding a mean value for said parameters. The resulting images of the participants will then be presented aligned horizontally and overlapped on a monitor. This process is performed dynamically according to the number of participants in the video conference." "The resulting images of the participants will then be presented aligned horizontally and overlapped on a monitor. This process is performed dynamically according to the number of participants in the video conference. Figure 1 illustrates visually the process performed for presenting participants located at different endpoint on a single monitor. As seen from the figure, the participants at endpoints 1 through 3 have different sizes, and different number of participants at the endpoints. When they are presented merged on one monitor, the image data from each end point has been processed and scaled such that all participants appear to have the same size on the monitor. The single monitor shows all participants aligned horizontally, scaled to the same sized and possibly overlapped, giving the impression that they are located in the same conference room. If the number of participants is too great to fit the width of the monitor without being overlapped, the images of the participants will be adjusted by being partly overlapped to be fitted to the width."
3[b]. extending the background image in the second sequence of scaled video frames to produce background extended video frames to be displayed in the posterior portion of the combined frames of the combined video stream; and	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Tysso Provisional at [Page 04]: "There are different known ways of extracting only the image data of one or more participants from the background of an image. One way of doing this is by using techniques comprising a synthetic blue screen by using an algorithm that analyzes different parameters of the background image. Another way is to use pattern recognition for recognizing faces and bodies. Depth information for each pixel in an image is also a feasible way of extracting image data belonging to the background." "Chroma key is probably the best known technique for removing the background for a

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
	main object, i.e. participant, in an image. This technique is for mixing two images or frames together, in which a colour (or a small colour range) from one image is removed (or made transparent), revealing another image behind it. Chroma key is also referred to as colour keying, colour-separation overlay, bluescreen, or greenscreen. This technique has the advantage of being simple to comprehend and yield good quality images." "Primatte is a high-end chroma key technology used in motion picture, television and photographic host applications to remove solid coloured backgrounds (usually greenscreen or bluescreen since these colour values are far away from the colour value of the skin) and replace them with transparency to facilitate replacement of the background. It uses a unique algorithm based on three multi-faced polyhedrons floating in RGB colourspace that are used to isolate colour regions in the foreground image. Primatte is often referred to as a compositing technology and is usually used as a plug-in for image editing software." *Id.* at [Page 05]: "The resulting images of the participants will then be presented aligned horizontally and overlapped on a monitor. This process is performed dynamically according to the number of participants in the video conference. Figure 1 illustrates visually the process performed for presenting participants located at different endpoint on a single monitor. As seen from the figure, the participants at endpoints 1 through 3 have different sizes, and different number of participants at the endpoints. When they are presented merged on one monitor, the image data from each end point has been processed and scaled such that all participants appear to have the same size on the monitor. The single monitor shows all participants aligned horizontally, scaled to the same sized and possibly overlapped, giving the impression that they are located in the same conference room. If the number of participants is too great to fit the width of the monitor without being overlapped, the images of the participants will be adjusted by being partly overlapped to be fitted to the width."

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
3[c]. superimposing the first background separated video frames onto corresponding ones of background extended video frames to produce combined video frames of the combined video stream.	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Tysso Provisional at [Page 05]: " When the images of the participants in the video conference are extracted from the background image, they will be subjected to further processing in the MCU by processing the image data of the participants in such a way that the images of each participant located at the endpoints are scaled to the same size, and adjusted to have similar colour balance, contrast and intensity by comparing the image data received from each endpoint and finding a mean value for said parameters. The resulting images of the participants will then be presented aligned horizontally and overlapped on a monitor. This process is performed dynamically according to the number of participants in the video conference." "The resulting images of the participants will then be presented aligned horizontally and overlapped on a monitor. This process is performed dynamically according to the number of participants in the video conference. Figure 1 illustrates visually the process performed for presenting participants located at different endpoint on a single monitor. As seen from the figure, the participants at endpoints 1 through 3 have different sizes, and different number of participants at the endpoints. When they are presented merged on one monitor, the image data from each end point has been processed and scaled such that all participants appear to have the same size on the monitor. The single monitor shows all participants aligned horizontally, scaled to the same sized and possibly overlapped, giving the impression that they are located in the same conference room. If the number of participants is too great to fit the width of the monitor without being overlapped, the images of the participants will be adjusted by being partly overlapped to be fitted to the width." *Id.* at Fig. 2:

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
	

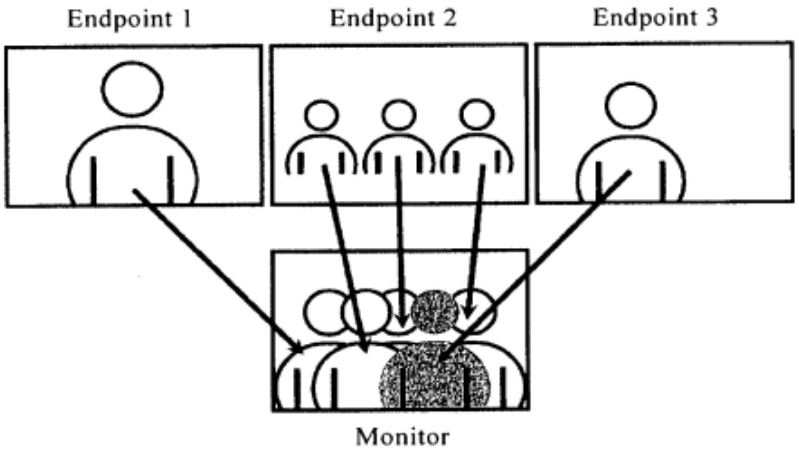
Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
Claim 4	
4[a]. The method of claim 3, wherein the second direction is opposite to the first direction.	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Tysso Provisional at [Page 05]:"The resulting images of the participants will then be presented aligned horizontally and overlapped on a monitor. This process is performed dynamically according to the number of participants in the video conference. Figure 1 illustrates visually the process performed for presenting participants located at different endpoint on a single monitor. As seen from the figure, the participants at endpoints 1 through 3 have different sizes, and different number of participants at the endpoints. When they are presented merged on one monitor, the image data from each end point has been processed and scaled such that all participants appear to have the same size on the monitor. The single monitor shows all participants aligned horizontally, scaled to the same sized and possibly overlapped, giving the impression that they are located in the same conference room. If the number of participants is too great to fit the width of the monitor without being overlapped, the images of the participants will be adjusted by being partly overlapped to be fitted to the width." *Id.* at Fig. 2:

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Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
Claim 5	
5[a]. The method of claim 1, wherein combining further comprises: removing the background image in the video frames of the first and second video streams to produce first and second background separated video frames;	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Tysso Provisional at [Page 03]: "The first step of the inventive method is to receive video signals comprising sound-and image data of the participants at each endpoint, e.g. from end points | to 3. Such video signals may comprise one or more participants at each endpoint including the conference room or surroundings they are located in." "The video signals may also just comprise data of the bodies of the participants in the case where the surroundings have already been removed at the endpoints. In this case the endpoint comprises means for extracting image data from each participant from the background in such a way that only the participant is included in the image data. The surroundings can be extracted form an image by applying a blue- or greenscreen behind the participant(s) that are filmed at the endpoint together with depth information." "The second step is to process and extract image data of participants from their backgrounds, if this has not already been done at one or more endpoints as said above, and processing the extracted image data in such a way that the images of each participant appears to have similar appearance." *Id.* at [Page 04]: "There are different known ways of extracting only the image data of one or more participants from the background of an image. One way of doing this is by using techniques comprising a synthetic blue screen by using an algorithm that analyzes different parameters of the background image. Another way is to use pattern recognition for recognizing faces and bodies. Depth information for each pixel in an image is also a feasible way of extracting image data belonging to the background." *Id.* at [Page 05]: "When the images of the participants in the video conference are extracted from the background image, they will be subjected to further processing in the MCU by processing the image data of the participants in such a way that the images of each participant located at the endpoints are scaled to the same size, and adjusted to have similar colour balance, contrast and intensity by comparing the image data received from each endpoint and finding a mean value for said parameters. The resulting images of the

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
	participants will then be presented aligned horizontally and overlapped on a monitor. This process is performed dynamically according to the number of participants in the video conference."
5[b]. generating supplemental background image video frames that comprise a supplemental background image; and	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.,* Tysso Provisional [Page 04]: "There are different known ways of extracting only the image data of one or more participants from the background of an image. One way of doing this is by using techniques comprising a synthetic blue screen by using an algorithm that analyzes different parameters of the background image. Another way is to use pattern recognition for recognizing faces and bodies. Depth information for each pixel in an image is also a feasible way of extracting image data belonging to the background." "Chroma key is probably the best known technique for removing the background for a main object, i.e. participant, in an image. This technique is for mixing two images or frames together, in which a colour (or a small colour range) from one image is removed (or made transparent), revealing another image behind it. Chroma key is also referred to as colour keying, colour-separation overlay, bluescreen, or greenscreen. This technique has the advantage of being simple to comprehend and yield good quality images." "Primatte is a high-end chroma key technology used in motion picture, television and photographic host applications to remove solid coloured backgrounds (usually greenscreen or bluescreen since these colour values are far away from the colour value of the skin) and replace them with transparency to facilitate replacement of the background. It uses a unique algorithm based on three multi-faced polyhedrons floating in RGB colourspace that are used to isolate colour regions in the foreground image. Primatte is often referred to as a compositing technology and is usually used as a plug-in for image editing software."
5[c]. superimposing corresponding ones of the first background separated video frames and the second background separated video frames onto corresponding	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Tysso Provisional at [Page 05]: " When the images of the participants in the video conference are extracted from the background image, they will be subjected to

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
ones of the supplemental background video frames to produce the combined video frames of the combined video stream.	further processing in the MCU by processing the image data of the participants in such a way that the images of each participant located at the endpoints are scaled to the same size, and adjusted to have similar colour balance, contrast and intensity by comparing the image data received from each endpoint and finding a mean value for said parameters. The resulting images of the participants will then be presented aligned horizontally and overlapped on a monitor. This process is performed dynamically according to the number of participants in the video conference." "The resulting images of the participants will then be presented aligned horizontally and overlapped on a monitor. This process is performed dynamically according to the number of participants in the video conference. Figure 1 illustrates visually the process performed for presenting participants located at different endpoint on a single monitor. As seen from the figure, the participants at endpoints 1 through 3 have different sizes, and different number of participants at the endpoints. When they are presented merged on one monitor, the image data from each end point has been processed and scaled such that all participants appear to have the same size on the monitor. The single monitor shows all participants aligned horizontally, scaled to the same sized and possibly overlapped, giving the impression that they are located in the same conference room. If the number of participants is too great to fit the width of the monitor without being overlapped, the images of the participants will be adjusted by being partly overlapped to be fitted to the width." *Id.* at Fig. 2:

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
	

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
Claim 6	
6[a]. The method of claim 1, wherein the first and second video streams are produced at a same video conferencing site.	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Tysso Provisional at [Page 01]: "The participants are scaled differently, e.g. sites with several participants in a typical meeting room setup make every participant appear smaller next to participants joining from a personal endpoint with only one participant." *Id.* at [Page 02]: "This is achieved by a method for presenting a plurality of participants in a video conference on one monitor in such a way that participants located at at least three endpoints seems to be located in the same room, and where the person currently talking is highlighted on the monitor." "The method is characterized by the following steps performed in an MCU connected to said endpoints through a network: - receiving video signals comprising sound- and image data of the participants at each endpoint; - processing and extracting received image data from each endpoint in such a way that the images of each participant appears to have the same size, colour balance, contrast and intensity;" *Id.* at Fig. 1:

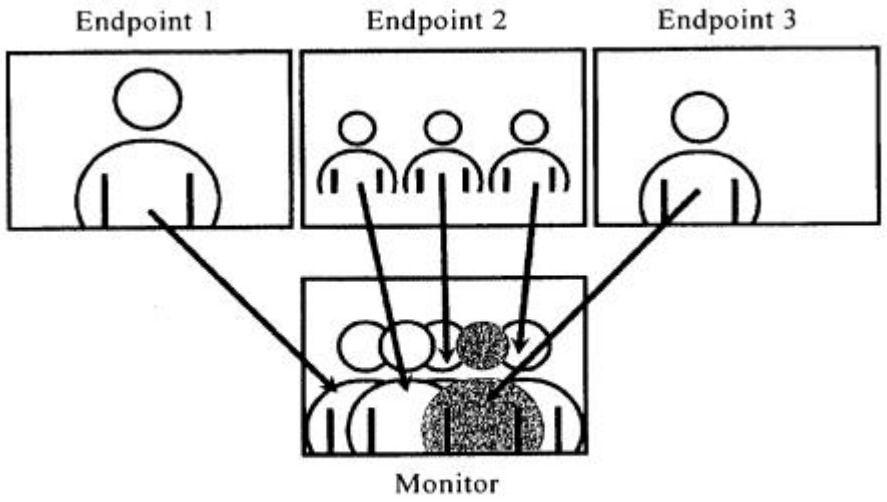
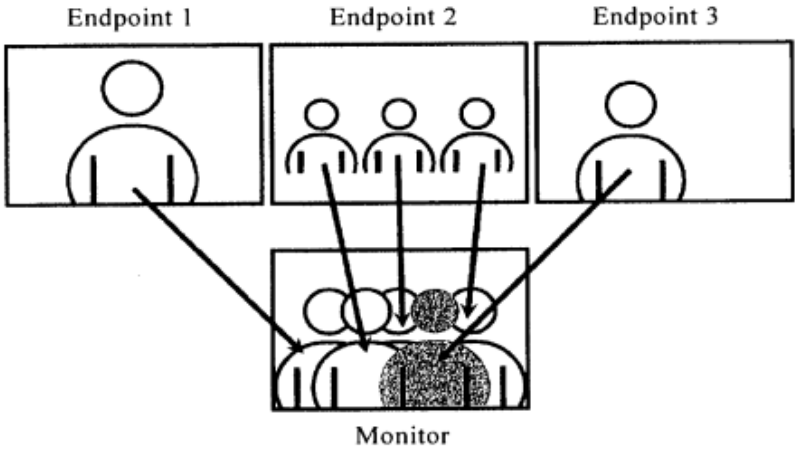


Fig. 1

Id. at [Page 06]: "Figure 2 show the system with end points connected together in a video conference network. The system comprises three endpoints and an MCU connected together. The network shown is Internet, but it could be any type of network."

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
Claim 7	
7[a]. The method of claim 1, wherein the first and second video streams are produced at different video conferencing sites.	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Tysso Provisional at [Page 02]: "This is achieved by a method for presenting a plurality of participants in a video conference on one monitor in such a way that participants located at at least three endpoints seems to be located in the same room, and where the person currently talking is highlighted on the monitor." "The method is characterized by the following steps performed in an MCU connected to said endpoints through a network: - receiving video signals comprising sound- and image data of the participants at each endpoint; - processing and extracting received image data from each endpoint in such a way that the images of each participant appears to have the same size, colour balance, contrast and intensity;" *Id.* at Fig. 2:  *Id.* at [Page 06]: "Figure 2 show the system with end points connected together in a video conference network. The system comprises three endpoints and an MCU connected together. The network shown is Internet, but it could be any type of network."

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
Claim 8	
8[a]. The method of claim 1, wherein combining is performed at a site other than where the first and second video streams are produced.	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.,* Tysso Provisional at [Page 03]: "Simultaneous videoconferencing among three or more remote points, i.e. multipoint videoconferencing is possible by means of a Multipoint Control Unit (MCU). This is a "bridge" that interconnects calls from several sources (in a similar way as in the audio conference call). All parties call the MCU unit, or alternatively the MCU unit can call the parties which are going to participate. There are MCU bridges for IP and ISDN-based videoconferencing. Some MCUs are implemented in software, and others are a combination of hardware and software. An MCU is characterised according to number of simultaneous calls it can handle, its ability to conduct transposing of data rates and protocols, and features such as 'Continuous Presence', in which multiple parties can be seen on-screen at once." *Id.* at [Page 04]: "When the images of the participants in the video conference are extracted from the background image, they will be subjected to further processing in the MCU by processing the image data of the participants in such a way that the images of each participant located at the endpoints are scaled to the same size, and adjusted to have similar colour balance, contrast and intensity by comparing the image data received from each endpoint and finding a mean value for said parameters." *Id.* at Fig. 2:

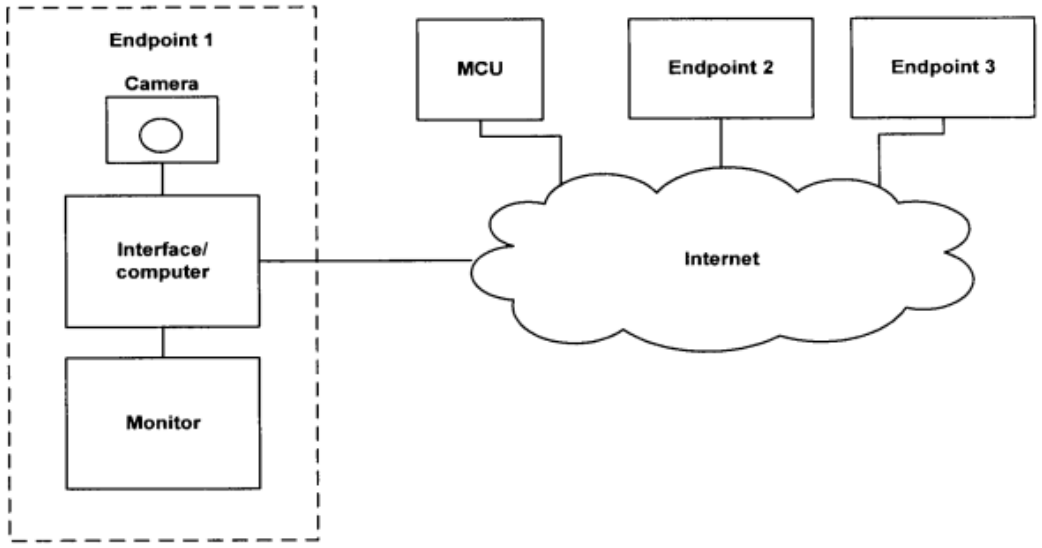
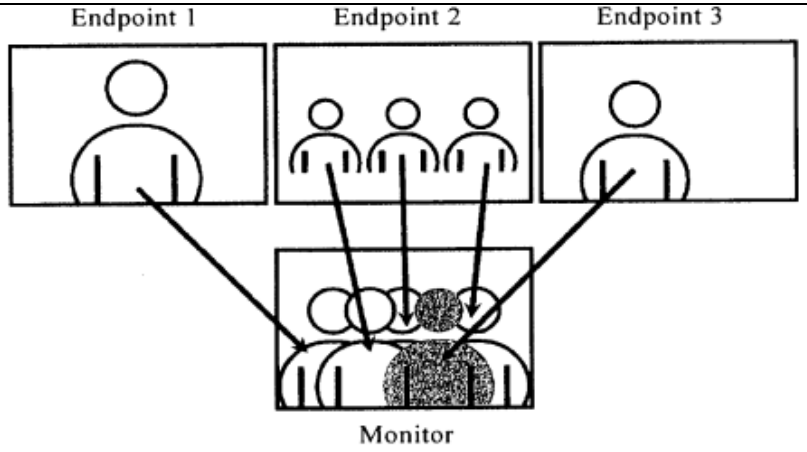
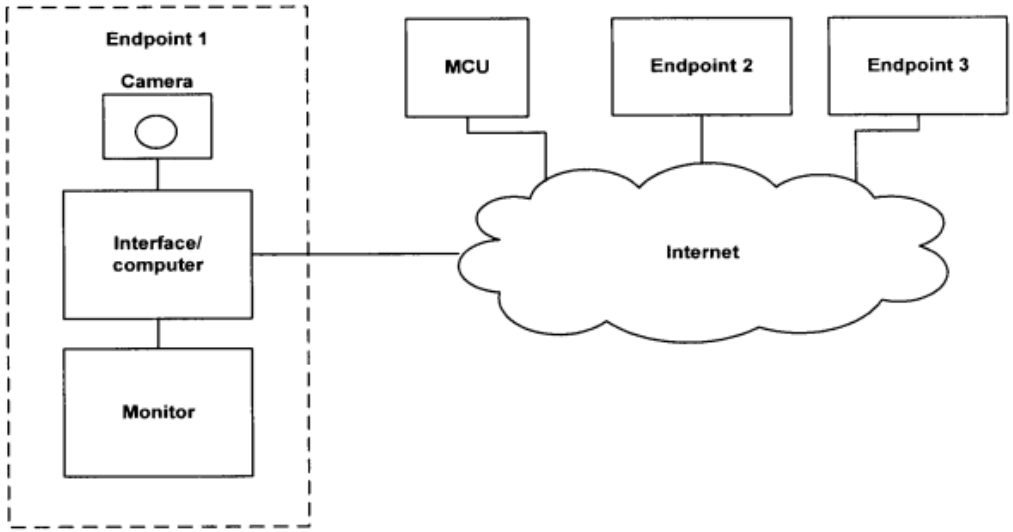

Endpoint 1
Camera
Interface/
computer
Monitor
MCU
Endpoint 2
Endpoint 3
Internet

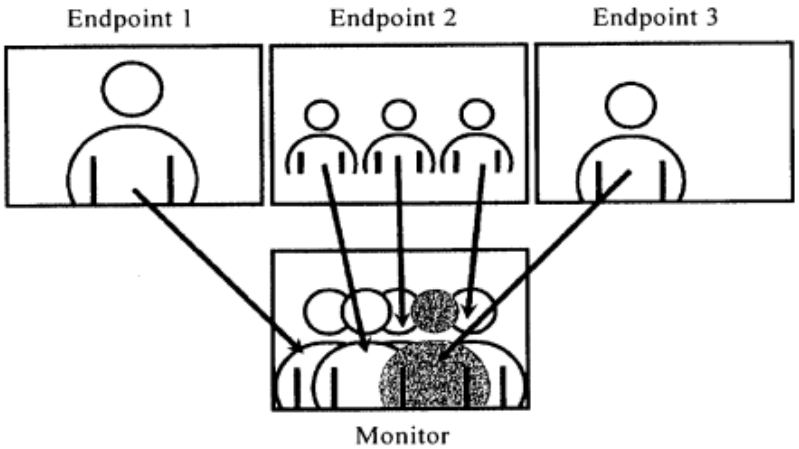
Fig. 2

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
Claim 9	
9[a]. The method of claim 1, wherein the subject images of video frames of the first and second video streams are images of video conference participants.	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Tysso Provisional at [Page 05]: "When the images of the participants in the video conference are extracted from the background image, they will be subjected to further processing in the MCU by processing the image data of the participants in such a way that the images of each participant located at the endpoints are scaled to the same size, and adjusted to have similar colour balance, contrast and intensity by comparing the image data received from each endpoint and finding a mean value for said parameters. The resulting images of the participants will then be presented aligned horizontally and overlapped on a monitor. This process is performed dynamically according to the number of participants in the video conference." "The resulting images of the participants will then be presented aligned horizontally and overlapped on a monitor. This process is performed dynamically according to the number of participants in the video conference. Figure 1 illustrates visually the process performed for presenting participants located at different endpoint on a single monitor. As seen from the figure, the participants at endpoints 1 through 3 have different sizes, and different number of participants at the endpoints. When they are presented merged on one monitor, the image data from each end point has been processed and scaled such that all participants appear to have the same size on the monitor. The single monitor shows all participants aligned horizontally, scaled to the same sized and possibly overlapped, giving the impression that they are located in the same conference room. If the number of participants is too great to fit the width of the monitor without being overlapped, the images of the participants will be adjusted by being partly overlapped to be fitted to the width." *Id*. at Fig. 2:

	 Endpoint 1 Endpoint 2 Endpoint 3 Monitor

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
Claim 10	
10[a]. An apparatus comprising: a first memory configured to store data for at least first and second real-time video streams, each of the first and second real-time video streams comprising video frames containing a picture comprising a subject image and a background image; and	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.,* Tysso Provisional at [Page 06]: "Each endpoint comprises at least a camera with means for recording images and sound from the endpoint, a computer, and a monitor, all connected together through interfaces. The monitor is the means for displaying the other participants in the video conference. The computer is further connected to said MCU that is managing an ongoing conference, and is carrying out the inventive method." *Id.* at [Page 02]: "The method according to the invention is for presenting a plurality of participants in a video conference on a single monitor in such a way that participants located at least three endpoints seems to be located in the same room. This is achieved by merging video images from each end point in such a way that the participants appear to be sitting in the same room. The person currently talking is highlighted on the monitor." *Id.* at [Page 03]: "The first step of the inventive method is to receive video signals comprising sound and image data of the participants at each endpoint, e.g. from end points | to 3. Such video signals may comprise one or more participants at each endpoint including the conference room or surroundings they are located in." *Id.* at [Page 03]: "The video signals may also just comprise data of the bodies of the participants in the case where the surroundings have already been removed at the endpoints. In this case the endpoint comprises means for extracting image data from each participant from the background in such a way that only the participant is included in the image data. The surroundings can be extracted form an image by applying a blue- or greenscreen behind the participant(s) that are filmed at the endpoint together with depth information." "The second step is to process and extract image data of participants from their backgrounds, if this has not already been done at one or more endpoints as said above, and processing the extracted image data in such a way that the images of each participant appears to have similar appearance." *Id.* at Fig. 2:

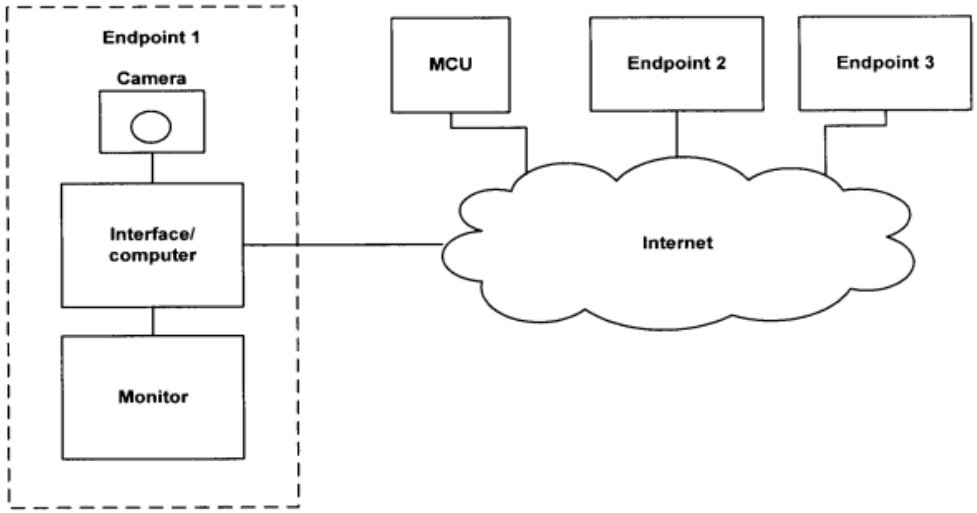
Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
	 Fig. 2
10[b]. at least one data processor configured to: combine the subject images of corresponding video frames of the first and second video streams into a combined frame of a first combined video stream such that the subject image of the first video stream is positioned in an anterior portion of the combined frame and the subject image of the second video stream is positioned in a posterior portion of the combined frame, wherein the at least one data processor is configured to combine the subject images of video frames by:	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Tysso Provisional at [Page 05]: "When the images of the participants in the video conference are extracted from the background image, they will be subjected to further processing in the MCU by processing the image data of the participants in such a way that the images of each participant located at the endpoints are scaled to the same size, and adjusted to have similar colour balance, contrast and intensity by comparing the image data received from each endpoint and finding a mean value for said parameters. The resulting images of the participants will then be presented aligned horizontally and overlapped on a monitor. This process is performed dynamically according to the number of participants in the video conference." "The resulting images of the participants will then be presented aligned horizontally and overlapped on a monitor. This process is performed dynamically according to the number of participants in the video conference. Figure 1 illustrates visually the process performed for presenting participants located at different endpoint on a single monitor. As seen from the figure, the participants at endpoints 1 through 3 have different sizes,

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
	and different number of participants at the endpoints. When they are presented merged on one monitor, the image data from each end point has been processed and scaled such that all participants appear to have the same size on the monitor. The single monitor shows all participants aligned horizontally, scaled to the same sized and possibly overlapped, giving the impression that they are located in the same conference room. If the number of participants is too great to fit the width of the monitor without being overlapped, the images of the participants will be adjusted by being partly overlapped to be fitted to the width." *Id.* at [Page 06]: "Each endpoint comprises at least a camera with means for recording images and sound from the endpoint, a computer, and a monitor, all connected together through interfaces. The monitor is the means for displaying the other participants in the video conference. The computer is further connected to said MCU that is managing an ongoing conference, and is carrying out the inventive method." "The last step of the inventive method is to present processed video signals on said single monitor at respective endpoints showing video images of the participants at other endpoints than the endpoint receiving the video signals, and where all participants in the video conference, appear removed from their surroundings and seems to be located in the same room." *Id*. at Fig. 2: 

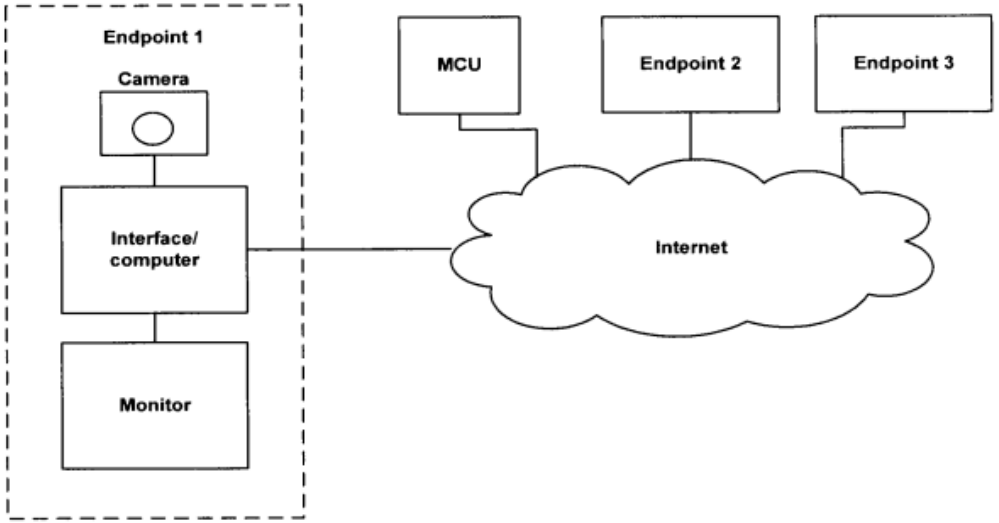
Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
10[c]. scaling the video frames of the first video stream and repositioning in a first direction the resulting pictures in the video frames of the first video stream to produce a first sequence of scaled video frames;	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 1[c] above
10[d]. removing the background image in the first sequence of scaled video frames to produce first background separated video frames to be displayed in the anterior portion of the combined frames of the combined video stream; and	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 1[d] above
10[e]. superimposing the first background separated video frames onto corresponding ones of the video frames of the second video stream to produce combined video frames of the combined video stream.	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 1[e] above

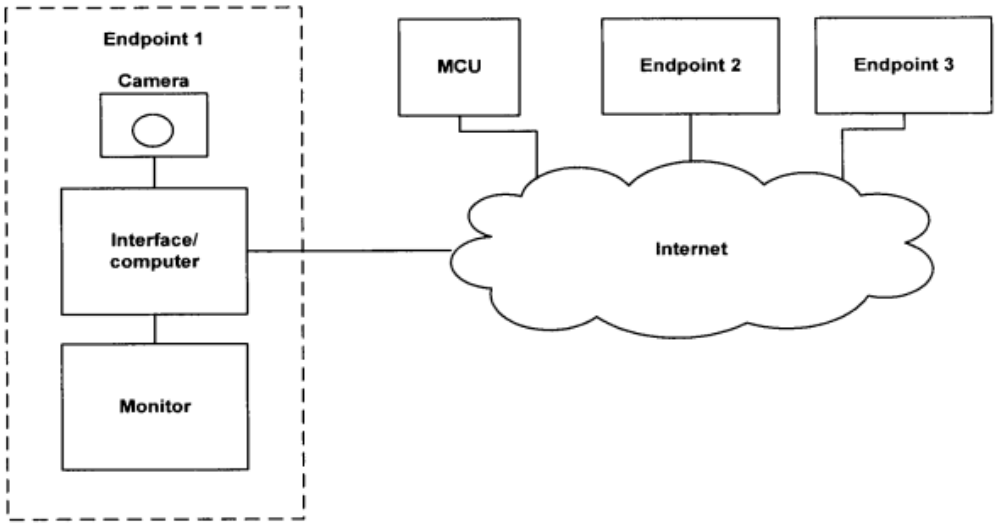
Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
Claim 11	
11[a]. The apparatus of claim 10, wherein the at least one data processor is configured to combine the subject images of video frames by:	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Tysso Provisional at [Page 05]: "When the images of the participants in the video conference are extracted from the background image, they will be subjected to further processing in the MCU by processing the image data of the participants in such a way that the images of each participant located at the endpoints are scaled to the same size, and adjusted to have similar colour balance, contrast and intensity by comparing the image data received from each endpoint and finding a mean value for said parameters. The resulting images of the participants will then be presented aligned horizontally and overlapped on a monitor. This process is performed dynamically according to the number of participants in the video conference." "The resulting images of the participants will then be presented aligned horizontally and overlapped on a monitor. This process is performed dynamically according to the number of participants in the video conference. Figure 1 illustrates visually the process performed for presenting participants located at different endpoint on a single monitor. As seen from the figure, the participants at endpoints 1 through 3 have different sizes, and different number of participants at the endpoints. When they are presented merged on one monitor, the image data from each end point has been processed and scaled such that all participants appear to have the same size on the monitor. The single monitor shows all participants aligned horizontally, scaled to the same sized and possibly overlapped, giving the impression that they are located in the same conference room. If the number of participants is too great to fit the width of the monitor without being overlapped, the images of the participants will be adjusted by being partly overlapped to be fitted to the width." *Id.* at [Page 06]: "Each endpoint comprises at least a camera with means for recording images and sound from the endpoint, a computer, and a monitor, all connected together through interfaces. The monitor is the means for displaying the other participants in the video conference. The computer is further connected to said MCU that is managing an ongoing conference, and is carrying out the inventive method."

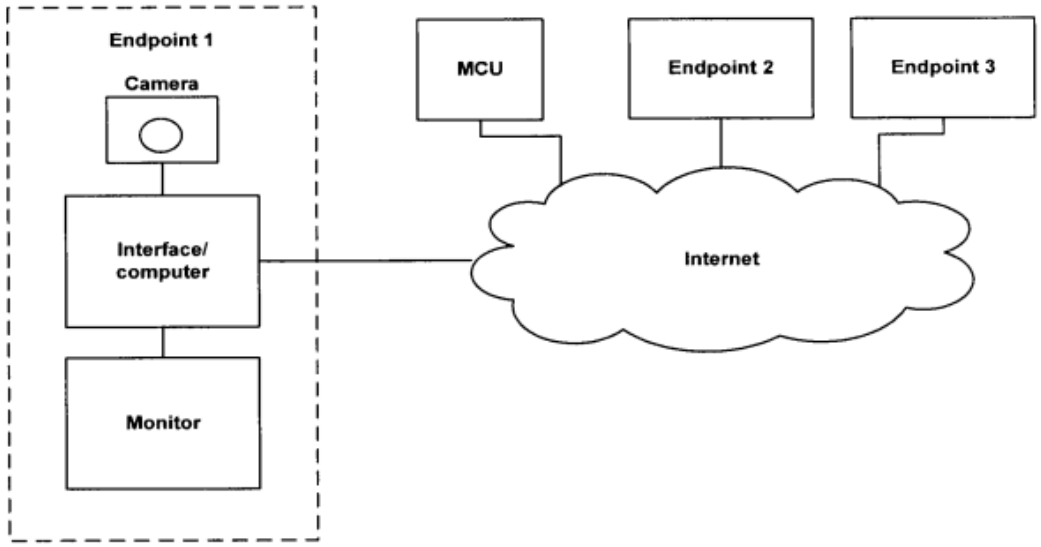
Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
	"The last step of the inventive method is to present processed video signals on said single monitor at respective endpoints showing video images of the participants at other endpoints than the endpoint receiving the video signals, and where all participants in the video conference, appear removed from their surroundings and seems to be located in the same room."
11[b]. scaling the video frames of the second video stream and reposition in a second direction the resulting pictures in the video frames of the second video stream to produce a second sequence of scaled video frames;	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 3[a] above
11[c]. extending the background image in the second sequence of scaled video frames to produce background extended video frames to be displayed in the posterior portion of the combined frames of the combined video stream; and	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 3[b] above
11[d]. superimposing the first background separated video frames onto corresponding ones of background extended video frames to produce combined video frames of the combined video stream.	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 3[c] above

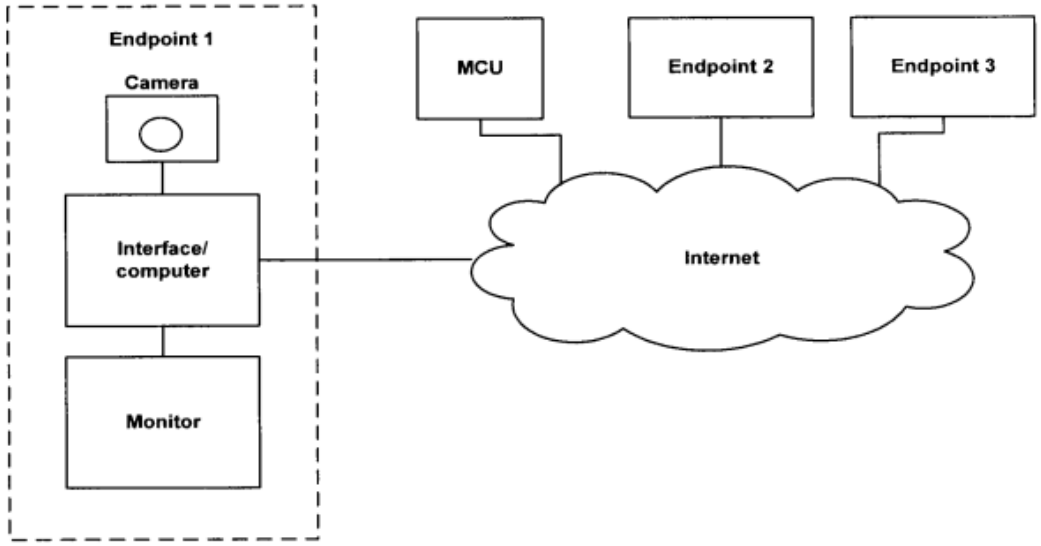
Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
Claim 12	
12[a]. A system comprising the apparatus of claim 10, and further comprising: a first video conferencing endpoint configured to communicate with the apparatus, the first endpoint including:	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Tysso Provisional at [Page 06]: "Figure 2 show the system with end points connected together in a video conference network. The system comprises three endpoints and an MCU connected together. The network shown is Internet, but it could be any type of network." "Each endpoint comprises at least a camera with means for recording images and sound from the endpoint, a computer, and a monitor, all connected together through interfaces. The monitor is the means for displaying the other participants in the video conference. The computer is further connected to said MCU that is managing an ongoing conference, and is carrying out the inventive method." *Id.* at Fig. 2:  Fig. 2

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
12[b]. a first video camera configured to generate the first real-time video stream, wherein the subject image of the first real-time video stream comprises an image of a first video conferencing participant at the first endpoint;	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Tysso Provisional at [Page 06]: "Figure 2 show the system with end points connected together in a video conference network. The system comprises three endpoints and an MCU connected together. The network shown is Internet, but it could be any type of network." "Each endpoint comprises at least a camera with means for recording images and sound from the endpoint, a computer, and a monitor, all connected together through interfaces. The monitor is the means for displaying the other participants in the video conference. The computer is further connected to said MCU that is managing an ongoing conference, and is carrying out the inventive method." *Id.* at [Page 03]: "The first step of the inventive method is to receive video signals comprising soundand image data of the participants at each endpoint, e.g. from end points 1 to 3." "Such video signals may comprise one or more participants at each endpoint including the conference room or surroundings they are located in." "The video signals may also just comprise data of the bodies of the participants in the case where the surroundings have already been removed at the endpoints. In this case the endpoint comprises means for extracting image data from each participant from the background in such a way that only the participant is included in the image data. The surroundings can be extracted form an image by applying a blue- or greenscreen behind the participant(s) that are filmed at the endpoint together with depth information." *Id.* at Fig. 2:

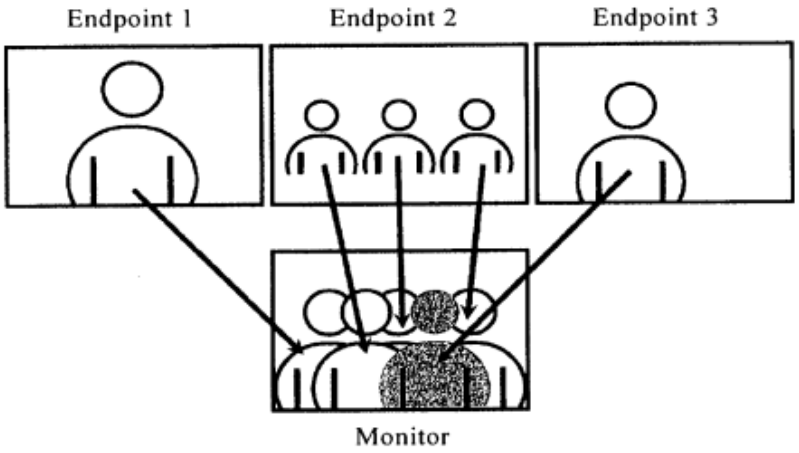
Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
	 Fig. 2
12[c]. a second video camera configured to generate the second real-time video stream, wherein the subject image of the second real-time video stream comprises an image of a second video conferencing participant at the first endpoint; and	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Tysso Provisional at [Page 06]: "Figure 2 show the system with end points connected together in a video conference network. The system comprises three endpoints and an MCU connected together. The network shown is Internet, but it could be any type of network." "Each endpoint comprises at least a camera with means for recording images and sound from the endpoint, a computer, and a monitor, all connected together through interfaces. The monitor is the means for displaying the other participants in the video conference. The computer is further connected to said MCU that is managing an ongoing conference, and is carrying out the inventive method." *Id.* at [Page 03]: "The first step of the inventive method is to receive video signals comprising soundand image data of the participants at each endpoint, e.g. from end points 1 to 3." "Such video signals may comprise one or more participants at each endpoint including

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
	the conference room or surroundings they are located in." "The video signals may also just comprise data of the bodies of the participants in the case where the surroundings have already been removed at the endpoints. In this case the endpoint comprises means for extracting image data from each participant from the background in such a way that only the participant is included in the image data. The surroundings can be extracted form an image by applying a blue- or greenscreen behind the participant(s) that are filmed at the endpoint together with depth information." *Id.* at Fig. 2:  Fig. 2
12[d]. a first control unit configured to forward the first and second real-time video streams to the apparatus; and	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.,* Tysso Provisional at [Page 03]: "Simultaneous videoconferencing among three or more remote points, i.e. multipoint videoconferencing is possible by means ofa Multipoint Control Unit (MCU). This is a "bridge" that interconnects calls from several sources (in a similar way as in the audio conference call). All parties call the MCU unit, or alternatively the MCU unit can call the parties which are going to participate. There are MCU bridges for IP and ISDN-based videoconferencing. Some MCUs are implemented in software, and others

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
	are a combination of hardware and software. An MCU is characterised according to number of simultaneous calls it can handle, its ability to conduct transposing of data rates and protocols, and features such as 'Continuous Presence', in which multiple parties can be seen on-screen at once." *Id.* at [Page 04]: "When the images of the participants in the video conference are extracted from the background image, they will be subjected to further processing in the MCU by processing the image data of the participants in such a way that the images of each participant located at the endpoints are scaled to the same size, and adjusted to have similar colour balance, contrast and intensity by comparing the image data received from each endpoint and finding a mean value for said parameters." *Id.* at Fig. 2:  Fig. 2
12[e]. a second video conferencing endpoint configured to communicate with the apparatus, the second endpoint including:	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.,* Tysso Provisional at [Page 03]: "Simultaneous videoconferencing among three or more remote points, i.e. multipoint videoconferencing is possible by means ofa Multipoint

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
a second control unit configured to receive the combined video stream of the apparatus; and	Control Unit (MCU). This is a "bridge" that interconnects calls from several sources (in a similar way as in the audio conference call). All parties call the MCU unit, or alternatively the MCU unit can call the parties which are going to participate. There are MCU bridges for IP and ISDN-based videoconferencing. Some MCUs are implemented in software, and others are a combination of hardware and software. An MCU is characterised according to number of simultaneous calls it can handle, its ability to conduct transposing of data rates and protocols, and features such as 'Continuous Presence', in which multiple parties can be seen on-screen at once." *Id.* at [Page 04]: "When the images of the participants in the video conference are extracted from the background image, they will be subjected to further processing in the MCU by processing the image data of the participants in such a way that the images of each participant located at the endpoints are scaled to the same size, and adjusted to have similar colour balance, contrast and intensity by comparing the image data received from each endpoint and finding a mean value for said parameters." *Id.* at Fig. 2:  Fig. 2

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
12[f]. a display configured to receive and render the combined video stream from the control unit.	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Tysso Provisional at [Page 10]: *See e.g.*, Tysso Provisional at [Page 05]: " When the images of the participants in the video conference are extracted from the background image, they will be subjected to further processing in the MCU by processing the image data of the participants in such a way that the images of each participant located at the endpoints are scaled to the same size, and adjusted to have similar colour balance, contrast and intensity by comparing the image data received from each endpoint and finding a mean value for said parameters. The resulting images of the participants will then be presented aligned horizontally and overlapped on a monitor. This process is performed dynamically according to the number of participants in the video conference." "The resulting images of the participants will then be presented aligned horizontally and overlapped on a monitor. This process is performed dynamically according to the number of participants in the video conference. Figure 1 illustrates visually the process performed for presenting participants located at different endpoint on a single monitor. As seen from the figure, the participants at endpoints 1 through 3 have different sizes, and different number of participants at the endpoints. When they are presented merged on one monitor, the image data from each end point has been processed and scaled such that all participants appear to have the same size on the monitor. The single monitor shows all participants aligned horizontally, scaled to the same sized and possibly overlapped, giving the impression that they are located in the same conference room. If the number of participants is too great to fit the width of the monitor without being overlapped, the images of the participants will be adjusted by being partly overlapped to be fitted to the width." *Id.* at Fig. 2:

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Claim 13	
13[a]. Logic encoded in one or more tangible non-transitory storage media for execution and when executed operable to:	To the extent the preamble is limiting, Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Tysso Provisional at [Page 03]: "Simultaneous videoconferencing among three or more remote points, i.e. multipoint videoconferencing is possible by means ofa Multipoint Control Unit (MCU). This is a "bridge" that interconnects calls from several sources (in a similar way as in the audio conference call). All parties call the MCU unit, or alternatively the MCU unit can call the parties which are going to participate. There are MCU bridges for IP and ISDN-based videoconferencing. Some MCUs are implemented in software, and others are a combination of hardware and software. An MCU is characterised according to number of simultaneous calls it can handle, its ability to conduct transposing of data rates and protocols, and features such as 'Continuous Presence', in which multiple parties can be seen on-screen at once." "The first step of the inventive method is to receive video signals comprising soundand image data of the participants at each endpoint, e.g. from end points | to 3. Such video signals may comprise one or more participants at each endpoint including the conference room or surroundings they are located in." "The video signals may also just comprise data of the bodies of the participants in the case where the surroundings have already been removed at the endpoints. In this case the endpoint comprises means for extracting image data from each participant from the background in such a way that only the participant is included in the image data. The surroundings can be extracted form an image by applying a blue- or greenscreen behind the participant(s) that are filmed at the endpoint together with depth information." "The second step is to process and extract image data of participants from their backgrounds, if this has not already been done at one or more endpoints as said above, and processing the extracted image data in such a way that the images of each participant appears to have similar appearance." *Id.* at [Page 04]: "There are different known ways of extracting only the image data of

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
	one or more participants from the background of an image. One way of doing this is by using techniques comprising a synthetic blue screen by using an algorithm that analyzes different parameters of the background image. Another way is to use pattern recognition for recognizing faces and bodies. Depth information for each pixel in an image is also a feasible way of extracting image data belonging to the background." "Chroma key is probably the best known technique for removing the background for a main object, i.e. participant, in an image. This technique is for mixing two images or frames together, in which a colour (or a small colour range) from one image is removed (or made transparent), revealing another image behind it. Chroma key is also referred to as colour keying, colour-separation overlay, bluescreen, or greenscreen. This technique has the advantage of being simple to comprehend and yield good quality images." "Primatte is a high-end chroma key technology used in motion picture, television and photographic host applications to remove solid coloured backgrounds (usually greenscreen or bluescreen since these colour values are far away from the colour value of the skin) and replace them with transparency to facilitate replacement of the background. It uses a unique algorithm based on three multi-faced polyhedrons floating in RGB colourspace that are used to isolate colour regions in the foreground image. Primatte is often referred to as a compositing technology and is usually used as a plug-in for image editing software."
13[b]. receive at least first and second real-time video streams, each of the first and second real-time video streams comprising video frames containing a picture comprising a subject image and a background image;	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 1[a] above
13[c]. combine the subject images of corresponding video frames of the first and second video streams into a combined frame of a combined video stream such that the subject image of the first video stream is positioned in an anterior portion of the	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 1[b] above

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combined frame and the subject image of the second video stream is positioned in a posterior portion of the combined frame, wherein the subject images are combined by:	
13[d]. scaling the video frames of the first video stream and repositioning in a first direction the resulting pictures in the video frames of the first video stream to produce a first sequence of scaled video frames;	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 1[c] above
13[e]. removing the background image in the first sequence of scaled video frames to produce first background separated video frames to be displayed in the anterior portion of the combined frames of the combined video stream; and	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 1[d] above
13[f]. superimposing the first background separated video frames onto corresponding ones of the video frames of the second video stream to produce combined video frames of the combined video stream; and	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 1[e] above
13[e]. supply the combined video stream to a video display for displaying the combined video stream.	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 1[f] above

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Claim 14	
14[a]. The logic of claim 13, wherein the logic that receives is configured to receive video frames of the first video stream comprising images of multiple videoconference participants in the subject image and video frames of the second video stream comprising images of multiple videoconference participants in the subject image.	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Tysso Provisional at [Page 03]: "Simultaneous videoconferencing among three or more remote points, i.e. multipoint videoconferencing is possible by means ofa Multipoint Control Unit (MCU). This is a "bridge" that interconnects calls from several sources (in a similar way as in the audio conference call). All parties call the MCU unit, or alternatively the MCU unit can call the parties which are going to participate. There are MCU bridges for IP and ISDN-based videoconferencing. Some MCUs are implemented in software, and others are a combination of hardware and software. An MCU is characterised according to number of simultaneous calls it can handle, its ability to conduct transposing of data rates and protocols, and features such as 'Continuous Presence', in which multiple parties can be seen on-screen at once." "The first step of the inventive method is to receive video signals comprising soundand image data of the participants at each endpoint, e.g. from end points | to 3. Such video signals may comprise one or more participants at each endpoint including the conference room or surroundings they are located in." "The video signals may also just comprise data of the bodies of the participants in the case where the surroundings have already been removed at the endpoints. In this case the endpoint comprises means for extracting image data from each participant from the background in such a way that only the participant is included in the image data. The surroundings can be extracted form an image by applying a blue- or greenscreen behind the participant(s) that are filmed at the endpoint together with depth information." "The second step is to process and extract image data of participants from their backgrounds, if this has not already been done at one or more endpoints as said above, and processing the extracted image data in such a way that the images of each participant appears to have similar appearance." *Id.* at [Page 04]: "There are different known ways of extracting only the image data of one or more participants from the background of an image. One way of doing this is by

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
	using techniques comprising a synthetic blue screen by using an algorithm that analyzes different parameters of the background image. Another way is to use pattern recognition for recognizing faces and bodies. Depth information for each pixel in an image is also a feasible way of extracting image data belonging to the background." "Chroma key is probably the best known technique for removing the background for a main object, i.e. participant, in an image. This technique is for mixing two images or frames together, in which a colour (or a small colour range) from one image is removed (or made transparent), revealing another image behind it. Chroma key is also referred to as colour keying, colour-separation overlay, bluescreen, or greenscreen. This technique has the advantage of being simple to comprehend and yield good quality images." "Primatte is a high-end chroma key technology used in motion picture, television and photographic host applications to remove solid coloured backgrounds (usually greenscreen or bluescreen since these colour values are far away from the colour value of the skin) and replace them with transparency to facilitate replacement of the background. It uses a unique algorithm based on three multi-faced polyhedrons floating in RGB colourspace that are used to isolate colour regions in the foreground image. Primatte is often referred to as a compositing technology and is usually used as a plug-in for image editing software." *Id.* at [Page 02]: "The method according to the invention is for presenting a plurality of participants in a video conference on a single monitor in such a way that participants located at least three endpoints seems to be located in the same room. This is achieved by merging video images from each end point in such a way that the participants appear to be sitting in the same room. The person currently talking is highlighted on the monitor." *Id.* at [Page 03]: "The first step of the inventive method is to receive video signals comprising sound and image data of the participants at each endpoint, e.g. from end points | to 3. Such video signals may comprise one or more participants at each endpoint including the conference room or surroundings they are located in." *Id.* at [Page 03]: "The video signals may also just comprise data of the bodies of the participants in the case where the surroundings have already been removed at the endpoints. In this case the endpoint comprises means for extracting image data from each

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
	participant from the background in such a way that only the participant is included in the image data. The surroundings can be extracted form an image by applying a blue- or greenscreen behind the participant(s) that are filmed at the endpoint together with depth information." "The second step is to process and extract image data of participants from their backgrounds, if this has not already been done at one or more endpoints as said above, and processing the extracted image data in such a way that the images of each participant appears to have similar appearance."

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
Claim 15	
15[a]. The logic of claim 13, wherein the logic that combines is configured to:	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Tysso Provisional at [Page 03]: "Simultaneous videoconferencing among three or more remote points, i.e. multipoint videoconferencing is possible by means ofa Multipoint Control Unit (MCU). This is a "bridge" that interconnects calls from several sources (in a similar way as in the audio conference call). All parties call the MCU unit, or alternatively the MCU unit can call the parties which are going to participate. There are MCU bridges for IP and ISDN-based videoconferencing. Some MCUs are implemented in software, and others are a combination of hardware and software. An MCU is characterised according to number of simultaneous calls it can handle, its ability to conduct transposing of data rates and protocols, and features such as 'Continuous Presence', in which multiple parties can be seen on-screen at once." "The first step of the inventive method is to receive video signals comprising soundand image data of the participants at each endpoint, e.g. from end points | to 3. Such video signals may comprise one or more participants at each endpoint including the conference room or surroundings they are located in." "The video signals may also just comprise data of the bodies of the participants in the case where the surroundings have already been removed at the endpoints. In this case the endpoint comprises means for extracting image data from each participant from the background in such a way that only the participant is included in the image data. The surroundings can be extracted form an image by applying a blue- or greenscreen behind the participant(s) that are filmed at the endpoint together with depth information." "The second step is to process and extract image data of participants from their backgrounds, if this has not already been done at one or more endpoints as said above, and processing the extracted image data in such a way that the images of each participant appears to have similar appearance." *Id.* at [Page 04]: "There are different known ways of extracting only the image data of one or more participants from the background of an image. One way of doing this is by using techniques comprising a synthetic blue screen by using an algorithm that analyzes

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
	different parameters of the background image. Another way is to use pattern recognition for recognizing faces and bodies. Depth information for each pixel in an image is also a feasible way of extracting image data belonging to the background." "Chroma key is probably the best known technique for removing the background for a main object, i.e. participant, in an image. This technique is for mixing two images or frames together, in which a colour (or a small colour range) from one image is removed (or made transparent), revealing another image behind it. Chroma key is also referred to as colour keying, colour-separation overlay, bluescreen, or greenscreen. This technique has the advantage of being simple to comprehend and yield good quality images." "Primatte is a high-end chroma key technology used in motion picture, television and photographic host applications to remove solid coloured backgrounds (usually greenscreen or bluescreen since these colour values are far away from the colour value of the skin) and replace them with transparency to facilitate replacement of the background. It uses a unique algorithm based on three multi-faced polyhedrons floating in RGB colourspace that are used to isolate colour regions in the foreground image. Primatte is often referred to as a compositing technology and is usually used as a plug-in for image editing software."
15[b]. scale the video frames of the second video stream and reposition in a second direction the resulting pictures in the video frames of the second video stream to produce a second sequence of scaled video frames;	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 3[a] above
15[c]. extend the background image in the second sequence of scaled video frames to produce background extended video frames to be displayed in the posterior portion of the combined frames of the combined video stream; and	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 3[b] above

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15[d]. superimpose the first background separated video frames onto corresponding ones of background extended video frames to produce combined video frames of the combined video stream.	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 3[c] above

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Claim 16	
16[a]. The logic of claim 15, wherein the second direction is opposite to the first direction.	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 4[a] above

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
Claim 17	
17[a]. The logic of claim 13, wherein the logic that combines is configured to: remove the background image in the video frames of the first and second video streams to produce first and second background separated video frames;	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 5[a] above
17[b]. generate supplemental background image video frames that comprise a supplemental background image; and	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 5[b] above
17[c]. superimpose corresponding ones of the first background separated video frames, and the second background separated video frames onto corresponding ones of the supplemental background video frames to produce the combined video frames of the combined video stream.	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 5[c] above

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Claim 18	
18[a]. The logic of claim 13, wherein the first and second video streams are produced at the same video conferencing site.	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Tysso Provisional at [Page 01]: "The participants are scaled differently, e.g. sites with several participants in a typical meeting room setup make every participant appear smaller next to participants joining from a personal endpoint with only one participant." *Id.* at [Page 02]: "This is achieved by a method for presenting a plurality of participants in a video conference on one monitor in such a way that participants located at at least three endpoints seems to be located in the same room, and where the person currently talking is highlighted on the monitor." "The method is characterized by the following steps performed in an MCU connected to said endpoints through a network: - receiving video signals comprising sound- and image data of the participants at each endpoint; - processing and extracting received image data from each endpoint in such a way that the images of each participant appears to have the same size, colour balance, contrast and intensity;" *Id.* at Fig. 1:

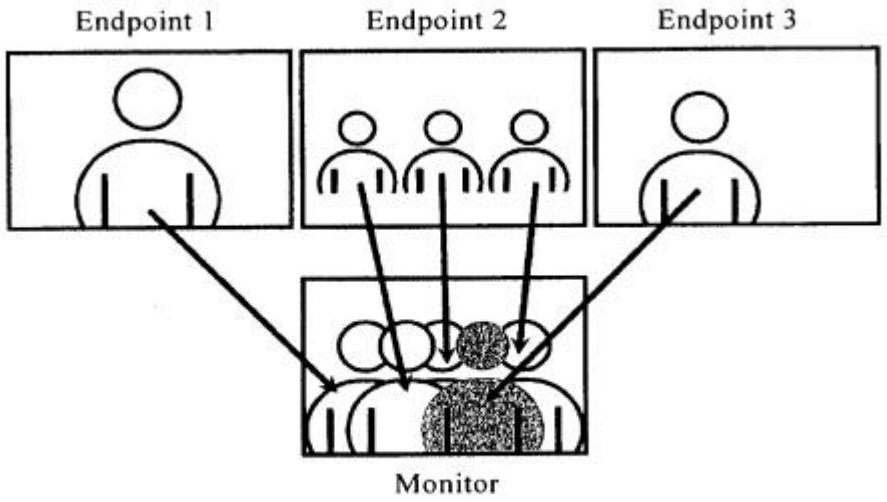
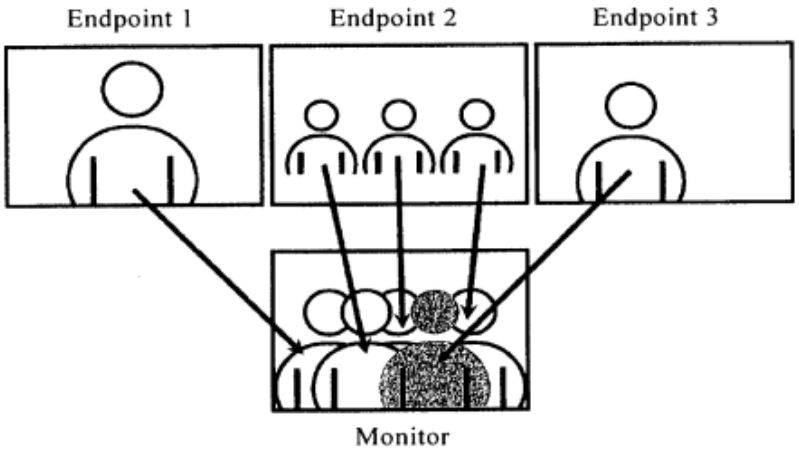


Fig. 1

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
Claim 19	
19[a]. The logic of claim 13, wherein the first and second video streams are produced at different video conferencing sites.	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Tysso Provisional at [Page 02]: "This is achieved by a method for presenting a plurality of participants in a video conference on one monitor in such a way that participants located at at least three endpoints seems to be located in the same room, and where the person currently talking is highlighted on the monitor." "The method is characterized by the following steps performed in an MCU connected to said endpoints through a network: - receiving video signals comprising sound- and image data of the participants at each endpoint; - processing and extracting received image data from each endpoint in such a way that the images of each participant appears to have the same size, colour balance, contrast and intensity;" *Id.* at Fig. 2: 

Asserted Claim of the '293 Patent	Exemplary Citations to Tysso Provisional
Claim 20	
20[a]. The logic of claim 13, wherein the logic that combines is configured to be performed at a site other than where the first and second video streams are produced.	Tysso Provisional, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.,* Tysso Provisional at [Page 03]: "Simultaneous videoconferencing among three or more remote points, i.e. multipoint videoconferencing is possible by means ofa Multipoint Control Unit (MCU). This is a "bridge" that interconnects calls from several sources (in a similar way as in the audio conference call). All parties call the MCU unit, or alternatively the MCU unit can call the parties which are going to participate. There are MCU bridges for IP and ISDN-based videoconferencing. Some MCUs are implemented in software, and others are a combination of hardware and software. An MCU is characterised according to number of simultaneous calls it can handle, its ability to conduct transposing of data rates and protocols, and features such as 'Continuous Presence', in which multiple parties can be seen on-screen at once." *Id.* at [Page 04]: "When the images of the participants in the video conference are extracted from the background image, they will be subjected to further processing in the MCU by processing the image data of the participants in such a way that the images of each participant located at the endpoints are scaled to the same size, and adjusted to have similar colour balance, contrast and intensity by comparing the image data received from each endpoint and finding a mean value for said parameters." *Id.* at Fig. 2:

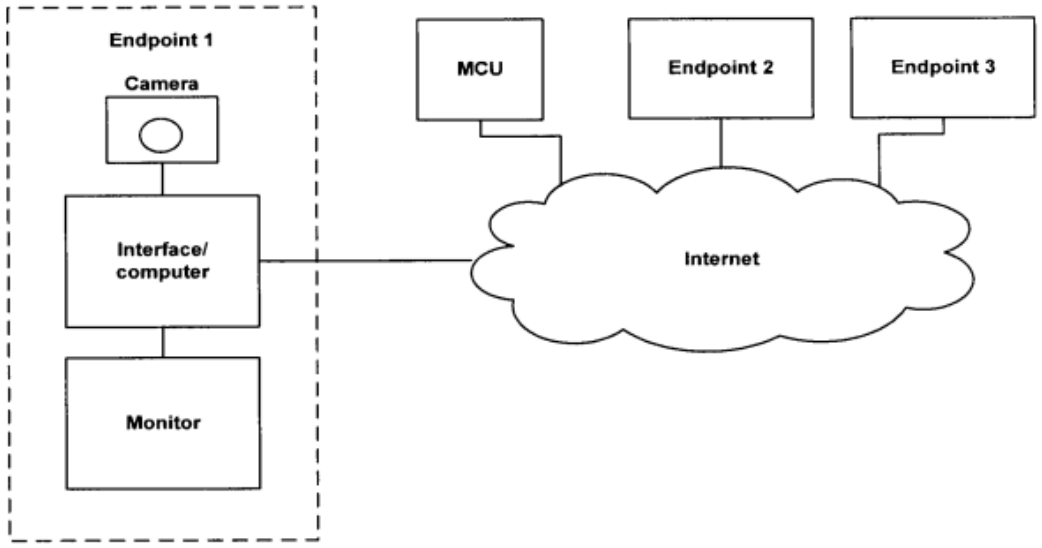

Endpoint 1
Camera
Interface/
computer
Monitor
MCU
Endpoint 2
Endpoint 3
Internet

Fig. 2

Exhibit A-4: Invalidity of U.S. Patent No. 8,830,293 in view of U.S. Patent Application No. 2007/0,064,112 Chatting Provisional et al. ("Chatting") in view of U.S. Patent Application Publication No. 2008/0303949 ("Ciudad") in view of U.S. Patent No. 8,300,081 ("Sawyer")[1]

This chart is subject to all reservations, objections, and disclaimers in Defendant's Invalidity Contentions and any amendment, supplement, or modification thereof, which are incorporated herein by reference in their entirety.

Chatting was originally filed on August 27, 2004 and published as a publication on March 22, 2007 and thus is available as prior art to U.S. Patent No. 8,830,293 (the "'293 Patent") under at least 35 U.S.C. § 103.

The conception of Chatting occurred at least as early as August 27, 2004. Based on information currently available, the persons or entities involved in the conception and diligent reduction to practice of the ideas in Chatting include at least the named inventors and the assignee Discovery is ongoing and Defendant will update this chart pursuant to Federal Rule of Civil Procedure 26(e), the Local Rules, and the Orders of record in this matter subject to further investigation and discovery regarding the reference, the Court's construction of the claims at issue, and discovery generally, including third-party discovery.

Chatting renders obvious at least the asserted claims of the '293 patent under 35 U.S.C. § 103, alone and/or in combination with one or more of the following references:

- U.S. Patent Application Publication No. 2008/0303949 ("CIUDAD"), which was filed June 08, 2007 and issued December 11, 2008.

- U.S. Patent No. 8,300,081 ("SAWYER"), which was filed December 11, 2008 and issued October 30, 2012.

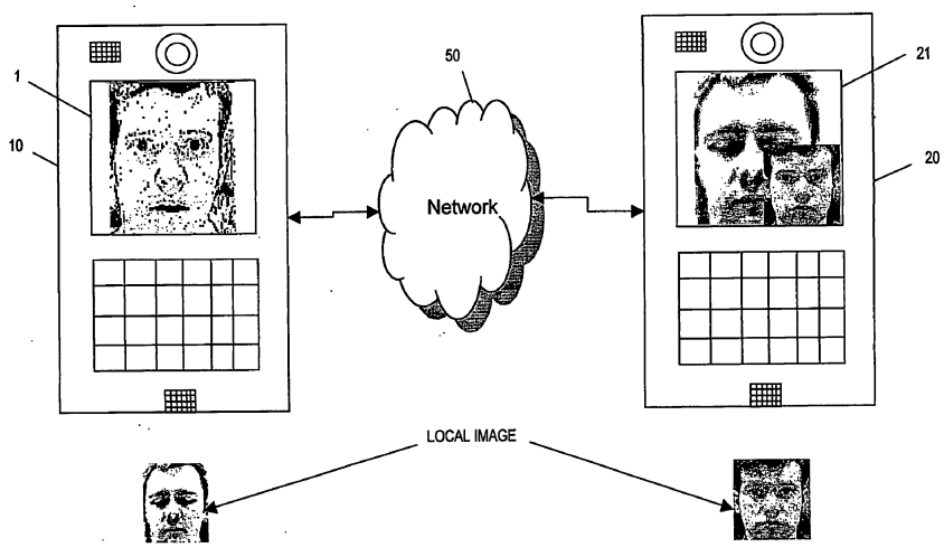
[1] Discovery in this case is ongoing and accordingly, this initial invalidity chart is not final. IPM has conducted its invalidity analysis herein based at least in part and in some instances entirely upon Cisco's apparent application of the claims of the '293 Patent. By charting the prior art against the claims and limitations herein, IPM is neither admitting nor agreeing to Cisco's application of the claims at issue in this case, and these charts should not be interpreted as an admission or concession by IPM that any particular construction or application of any claim limitation by Cisco is correct or proper. Additionally, these charts provide representative examples of portions of the charted references that disclose the indicated limitations under Cisco's application of the claims; additional portions of these references other than the representative examples provided herein may also disclose the indicated limitation(s) and IPM contends that the asserted claims are invalid in light of the charted reference(s) as a whole in its or their entirety. Where a particular figure is cited, the citation should be understood to encompass the caption and description of the figure as well as any text relating to or describing the figure. Conversely, where particular text referring to a figure is cited, the citation should be understood to include the figure as well.

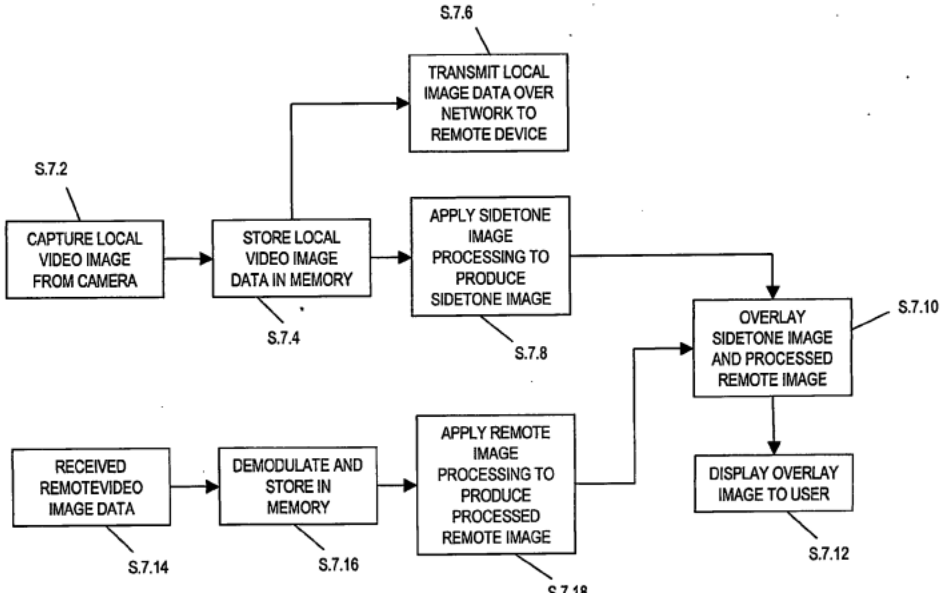
Chatting also renders obvious at least the asserted claims of the '293 patent under 35 U.S.C. § 103 alone or in combination with (1) the general knowledge of one of ordinary skill in the art; (2) the teachings of any of the prior art references set forth in IPM's other invalidity claim charts with respect to the limitation-at-issue; and/or (3) the teachings of any of the prior art references set forth in the cover pleading of IPM's invalidity contentions with respect to the key concepts applicable for the limitation-at-issue.

To the extent that the following invalidity contentions reflect constructions of claim limitations consistent with or suggested by Cisco's Infringement Contentions, no inference is intended, nor should any be drawn that IPM agrees with Cisco's apparent claim constructions or infringement contentions. IPM offers such invalidity contentions solely in the alternative to any position it may ultimately take as to any claim construction issues. IPM denies that the accused products infringe the asserted claim and expressly reserves the right to contest Cisco's apparent claim constructions and infringement contentions.

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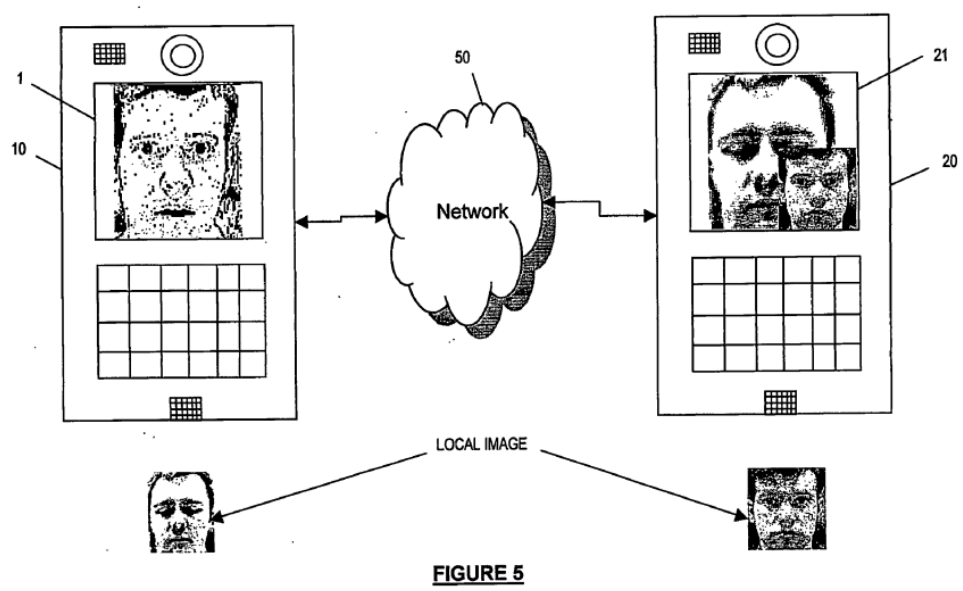
Asserted Claim of the '293 Patent	Exemplary Citations
Claim 1	
1[a]. A method comprising: receiving at least first and second real-time video streams, each of the first and second real-time video streams comprising video frames containing a picture comprising a subject image and a background image;	To the extent the preamble is limiting, Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Chatting at [Abstract]: "The invention provides a method and system wherein first video images are directly overlaid with remote video images to produce a combined video image which is then displayed to the user and/or stored as appropriate. Preferably at least one of the first and/or remote images is subject to an image processing operation prior to the overlay operation being performed, the image processing operation being such that the scenes contained within the images to be overlaid when processed are separably distinguishable to a user within the combined video image when viewed by the user. The overlay operation is performed such that the scenes contained within the respective video images are substantially in alignment on top of each other. By overlaying the respective first and remote video images as described a single image is obtained within which the respective scenes of the respective first and remote images are still separably distinguishable, but which is still of an appropriate size for display on a screen of limited size without occlusion of one or other of the images." *Id.* at [Para 0080]: "A first embodiment of the present invention is shown in FIG. 5. Here, a local video communications apparatus 10 in accordance with the first embodiment is arranged to communicate via a network 50 with a second remote video communications apparatus 20, which operates, for example, in accordance with the prior art. Each of the video communications apparatus 10 and 20 is provided with a camera for capturing local images of the users, a display 1, and 21, and audio input and output such as microphones and speakers. For ease of reference in the following description, the local image of the user captured by each of video communication apparatus's is shown underneath each apparatus." *Id.* at Fig. 5:

Asserted Claim of the '293 Patent	Exemplary Citations
	 FIGURE 5 *Id.* at [Para 0081]: "Within the first embodiment, the video communications apparatus 10 captures a local image of the user using the camera, and also receives a remote image from the remote video communication apparatus 20 via the network 50. The remote video communications apparatus 20 applies no particular processing in the context of the present embodiments to the image that it transmits to the video communications apparatus 10, such that the remote image received via the network 50 at the video communications apparatus 10 is substantially the same as the local image captured at the video communications apparatus 20, and displayed as the visual feedback thereat, subject of course to any effects on the image introduced as a consequence of the transmission. Thus, the remote video communications apparatus 20 operates in accordance with the prior art, whereas the local video communications apparatus 10 operates in accordance with the embodiment of the invention, as described next with respect to FIGS. 7, and 4." *Id.* at Fig. 7:

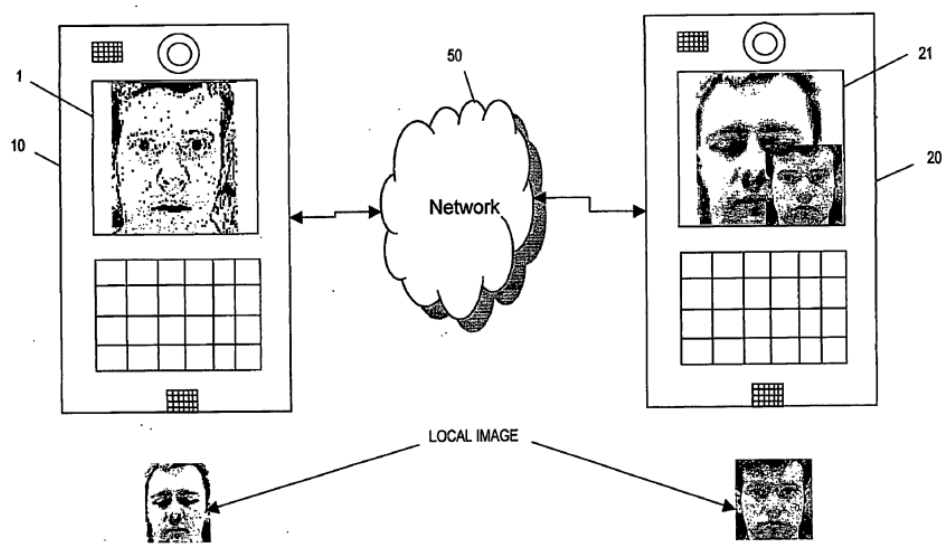
Asserted Claim of the ’293 Patent	Exemplary Citations
	

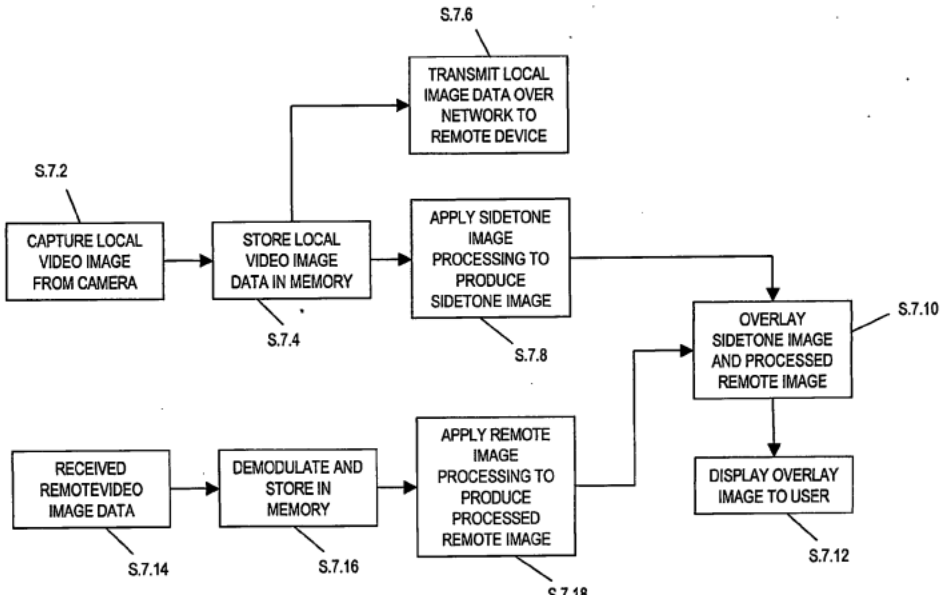
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
1[b]. combining the subject images of corresponding video frames of the first and second video streams into a combined frame of a combined video stream such that the subject image of the first video stream is positioned in an anterior portion of the combined frame and the subject image of the second video stream is positioned in a posterior portion of the combined frame, wherein the combining comprises:	Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Chatting at [Abstract]: "The invention provides a method and system wherein first video images are directly overlaid with remote video images to produce a combined video image which is then displayed to the user and/or stored as appropriate. Preferably at least one of the first and/or remote images is subject to an image processing operation prior to the overlay operation being performed, the image processing operation being such that the scenes contained within the images to be overlaid when processed are separably distinguishable to a user within the combined video image when viewed by the user. The overlay operation is performed such that the scenes contained within the respective video images are substantially in alignment on top of each other. By overlaying the respective first and remote video images as described a single image is obtained within which the respective scenes of the respective first and remote images are still separably distinguishable, but which is still of an appropriate size for display on a screen of limited size without occlusion of one or other of the images." *Id.* at [Para 0009]: "The invention provides a method and system which provides an alternative arrangement of the display of the visual feedback signal with respect to the remote video, which is particularly, but not exclusively, useful for use with small display screens where there is not enough space to display the local and remote signals side by side or otherwise without at least partial occlusion of one of the images, or without the images being so small as to lose detail. In particular the invention provides a method and system wherein the local video images are directly overlaid with the remote video images to produce a combined video image which is then displayed to the user and/or stored as appropriate. Preferably at least one of the local and/or remote images is subject to an image processing operation prior to the overlay operation being performed, the image processing operation being such that the scenes contained within the images to be overlaid when processed are separably distinguishable to a user within the combined video image when viewed by the user. Additionally, the image processing operations may be further arranged such that one of the resulting local or remote images after processing draws less attention from the user than the other. Preferably although not exclusively the local image should draw less attention than the remote image. The overlay operation is performed such that the scenes contained within the respective video

Asserted Claim of the ’293 Patent	Exemplary Citations to Chatting
	images are substantially in alignment on top of each other. By overlaying the respective local and remote video images as described a single composite image is obtained within which the respective scenes of the respective local and remote images are still separably distinguishable, but which is still of an appropriate size for display on a screen of limited size without occlusion of one or other of the images.” *Id.* at [Para 0080]: “A first embodiment of the present invention is shown in FIG. 5. Here, a local video communications apparatus 10 in accordance with the first embodiment is arranged to communicate via a network 50 with a second remote video communications apparatus 20, which operates, for example, in accordance with the prior art. Each of the video communications apparatus 10 and 20 is provided with a camera for capturing local images of the users, a display 1, and 21, and audio input and output such as microphones and speakers. For ease of reference in the following description, the local image of the user captured by each of video communication apparatus's is shown underneath each apparatus.” *Id.* at Fig. 5:

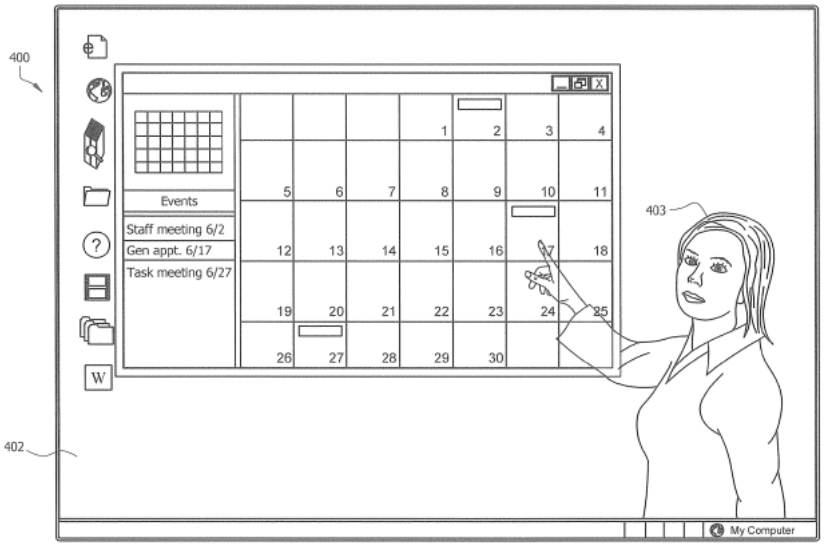
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	 FIGURE 5

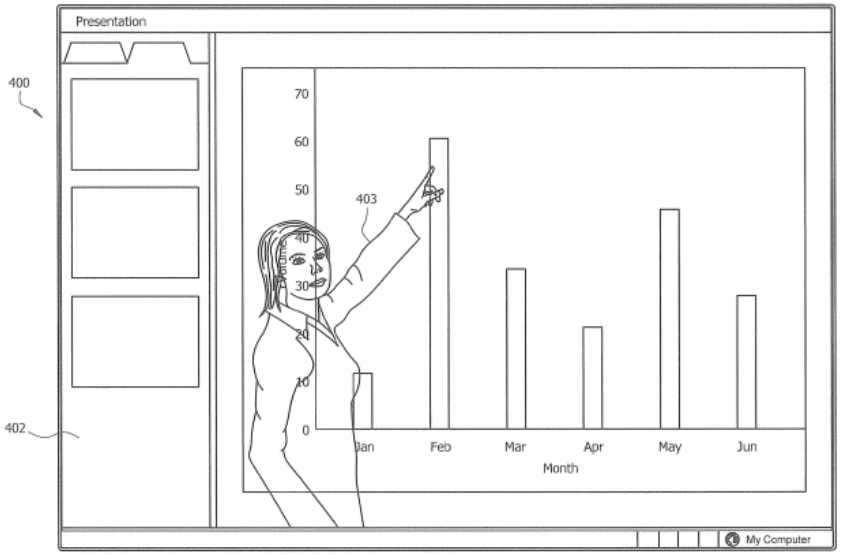
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
1[c]. scaling the video frames of the first video stream and repositioning in a first direction the resulting pictures in the video frames of the first video stream to produce a first sequence of scaled video frames;	Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Chatting at [Abstract]: "The invention provides a method and system wherein first video images are directly overlaid with remote video images to produce a combined video image which is then displayed to the user and/or stored as appropriate. Preferably at least one of the first and/or remote images is subject to an image processing operation prior to the overlay operation being performed, the image processing operation being such that the scenes contained within the images to be overlaid when processed are separably distinguishable to a user within the combined video image when viewed by the user. The overlay operation is performed such that the scenes contained within the respective video images are substantially in alignment on top of each other. By overlaying the respective first and remote video images as described a single image is obtained within which the respective scenes of the respective first and remote images are still separably distinguishable, but which is still of an appropriate size for display on a screen of limited size without occlusion of one or other of the images." *Id.* at [Para 0080]: "A first embodiment of the present invention is shown in FIG. 5. Here, a local video communications apparatus 10 in accordance with the first embodiment is arranged to communicate via a network 50 with a second remote video communications apparatus 20, which operates, for example, in accordance with the prior art. Each of the video communications apparatus 10 and 20 is provided with a camera for capturing local images of the users, a display 1, and 21, and audio input and output such as microphones and speakers. For ease of reference in the following description, the local image of the user captured by each of video communication apparatus's is shown underneath each apparatus." *Id.* at Fig. 5:

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	 FIGURE 5 *Id.* at [Para 0081]: "Within the first embodiment, the video communications apparatus 10 captures a local image of the user using the camera, and also receives a remote image from the remote video communication apparatus 20 via the network 50. The remote video communications apparatus 20 applies no particular processing in the context of the present embodiments to the image that it transmits to the video communications apparatus 10, such that the remote image received via the network 50 at the video communications apparatus 10 is substantially the same as the local image captured at the video communications apparatus 20, and displayed as the visual feedback thereat, subject of course to any effects on the image introduced as a consequence of the transmission. Thus, the remote video communications apparatus 20 operates in accordance with the prior art, whereas the local video communications apparatus 10 operates in accordance with the embodiment of the invention, as described next with respect to FIGS. 7, and 4." *Id.* at Fig. 7:

Asserted Claim of the ’293 Patent	Exemplary Citations to Chatting
	

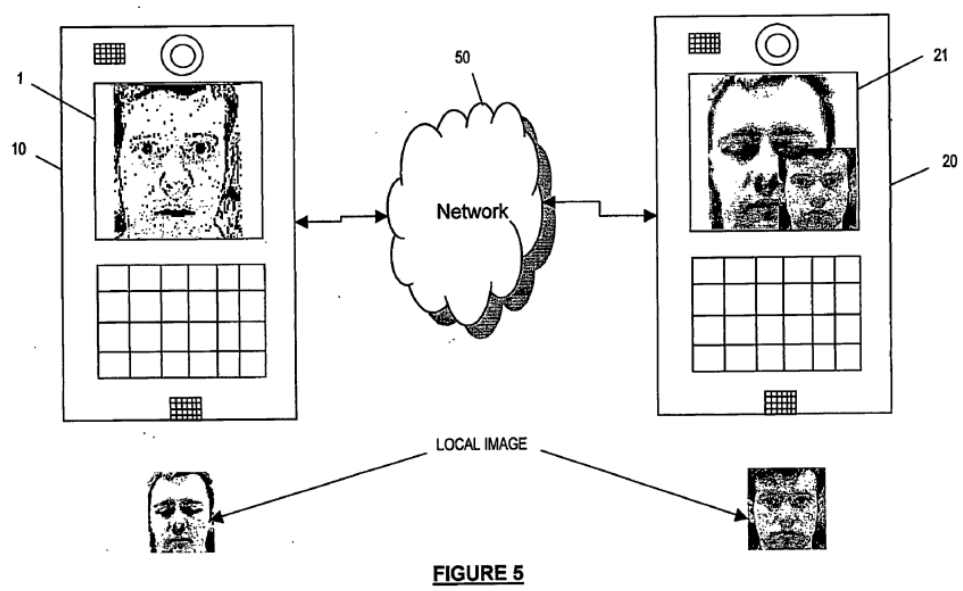
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
1[d]. removing the background image in the first sequence of scaled video frames to produce first background separated video frames to be displayed in the anterior portion of the combined frames of the combined video stream; and	It would have been obvious to a person of ordinary skill in the art to combine Chatting with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including: • See, e.g., Sawyer (Ex. A-1) at [Column 04, Line 35]: "Local computer 101 may be further configured to broadcast the blended signal to other participants in the conference on conference nodes 102 a-n, or to remote server 103, over network medium 100. Local computer 101 may also be configured to subtract out image data representing one or more primary subjects of the video signal from the raw image data of the video signal, and/or subtract out image data representing one or more key frames in the primary desktop feed, before blending the signal with the primary desktop feed. In short, local computer 101 may be configured to implement the functionality of the embodiments discussed in the present teachings herein." *Id.* at [Column 06, Line 07]: "FIGS. 4A and 4B illustrate blended view 400 of camera feed 403 and primary feed 402 according to an embodiment of the present teachings. Blended feed 400 combines both primary feed 402 and camera feed 403. Blending may be accomplished using any means capable of combining such images including alpha compositing, image masks, and the like. As shown in FIGS. 4A and 4B, the blended feeds are able to be viewed in a manner such that a viewer is able to focus on an application from primary feed 402 while viewing gestures and actions occurring in camera feed 403. Thereby, a greatly improved viewing experience is created." *Id*. At Figs. 4A and 4B:

Asserted Claim of the ’293 Patent	Exemplary Citations to Chatting
	 *FIG. 4A*

Asserted Claim of the ’293 Patent	Exemplary Citations to Chatting
	 *FIG. 4B* *Id*. at [Column 06, Line 22]: “It should be noted that, while FIG. 4A illustrates a view of a computer desktop for primary feed 402, as stated above, primary feed 402 or additional and/or alternative embodiments of the teachings herein may include any visual presentation that a user may want to view along with the camera feed such as a streaming video feed, and the like. For example, FIG. 4B illustrates camera feed 403 blended with primary feed 402, which is a full screen professional presentation such as is generated by various presentation software.”

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
1[e]. superimposing the first background separated video frames onto corresponding ones of the video frames of the second video stream to produce combined video frames of the combined video stream; and	Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Chatting at [Abstract]: "The invention provides a method and system wherein first video images are directly overlaid with remote video images to produce a combined video image which is then displayed to the user and/or stored as appropriate. Preferably at least one of the first and/or remote images is subject to an image processing operation prior to the overlay operation being performed, the image processing operation being such that the scenes contained within the images to be overlaid when processed are separably distinguishable to a user within the combined video image when viewed by the user. The overlay operation is performed such that the scenes contained within the respective video images are substantially in alignment on top of each other. By overlaying the respective first and remote video images as described a single image is obtained within which the respective scenes of the respective first and remote images are still separably distinguishable, but which is still of an appropriate size for display on a screen of limited size without occlusion of one or other of the images." *Id.* at [Para 0009]: "The invention provides a method and system which provides an alternative arrangement of the display of the visual feedback signal with respect to the remote video, which is particularly, but not exclusively, useful for use with small display screens where there is not enough space to display the local and remote signals side by side or otherwise without at least partial occlusion of one of the images, or without the images being so small as to lose detail. In particular the invention provides a method and system wherein the local video images are directly overlaid with the remote video images to produce a combined video image which is then displayed to the user and/or stored as appropriate. Preferably at least one of the local and/or remote images is subject to an image processing operation prior to the overlay operation being performed, the image processing operation being such that the scenes contained within the images to be overlaid when processed are separably distinguishable to a user within the combined video image when viewed by the user. Additionally, the image processing operations may be further arranged such that one of the resulting local or remote images after processing draws less attention from the user than the other. Preferably although not exclusively the local image should draw less attention than the remote image. The overlay operation is performed such that the scenes contained within the respective video

Asserted Claim of the ’293 Patent	Exemplary Citations to Chatting
	images are substantially in alignment on top of each other. By overlaying the respective local and remote video images as described a single composite image is obtained within which the respective scenes of the respective local and remote images are still separably distinguishable, but which is still of an appropriate size for display on a screen of limited size without occlusion of one or other of the images.” *Id.* at [Para 0080]: “A first embodiment of the present invention is shown in FIG. 5. Here, a local video communications apparatus 10 in accordance with the first embodiment is arranged to communicate via a network 50 with a second remote video communications apparatus 20, which operates, for example, in accordance with the prior art. Each of the video communications apparatus 10 and 20 is provided with a camera for capturing local images of the users, a display 1, and 21, and audio input and output such as microphones and speakers. For ease of reference in the following description, the local image of the user captured by each of video communication apparatus's is shown underneath each apparatus.” *Id.* at Fig. 5:

Asserted Claim of the ’293 Patent	Exemplary Citations to Chatting
	 FIGURE 5

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
1[f]. supplying the combined video stream to a video display for displaying the combined video stream.	Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Chatting at [Abstract]: "The invention provides a method and system wherein first video images are directly overlaid with remote video images to produce a combined video image which is then displayed to the user and/or stored as appropriate. Preferably at least one of the first and/or remote images is subject to an image processing operation prior to the overlay operation being performed, the image processing operation being such that the scenes contained within the images to be overlaid when processed are separably distinguishable to a user within the combined video image when viewed by the user. The overlay operation is performed such that the scenes contained within the respective video images are substantially in alignment on top of each other. By overlaying the respective first and remote video images as described a single image is obtained within which the respective scenes of the respective first and remote images are still separably distinguishable, but which is still of an appropriate size for display on a screen of limited size without occlusion of one or other of the images." *Id.* at [Para 0009]: "The invention provides a method and system which provides an alternative arrangement of the display of the visual feedback signal with respect to the remote video, which is particularly, but not exclusively, useful for use with small display screens where there is not enough space to display the local and remote signals side by side or otherwise without at least partial occlusion of one of the images, or without the images being so small as to lose detail. In particular the invention provides a method and system wherein the local video images are directly overlaid with the remote video images to produce a combined video image which is then displayed to the user and/or stored as appropriate. Preferably at least one of the local and/or remote images is subject to an image processing operation prior to the overlay operation being performed, the image processing operation being such that the scenes contained within the images to be overlaid when processed are separably distinguishable to a user within the combined video image when viewed by the user. Additionally, the image processing operations may be further arranged such that one of the resulting local or remote images after processing draws less attention from the user than the other. Preferably although not exclusively the local image should draw less attention than the remote image. The overlay operation is performed such that the scenes contained within the respective video

images are substantially in alignment on top of each other. By overlaying the respective local and remote video images as described a single composite image is obtained within which the respective scenes of the respective local and remote images are still separably distinguishable, but which is still of an appropriate size for display on a screen of limited size without occlusion of one or other of the images."

Id. at [Para 0080]: "A first embodiment of the present invention is shown in FIG. 5. Here, a local video communications apparatus 10 in accordance with the first embodiment is arranged to communicate via a network 50 with a second remote video communications apparatus 20, which operates, for example, in accordance with the prior art. Each of the video communications apparatus 10 and 20 is provided with a camera for capturing local images of the users, a display 1, and 21, and audio input and output such as microphones and speakers. For ease of reference in the following description, the local image of the user captured by each of video communication apparatus's is shown underneath each apparatus."

Id. at Fig. 5:

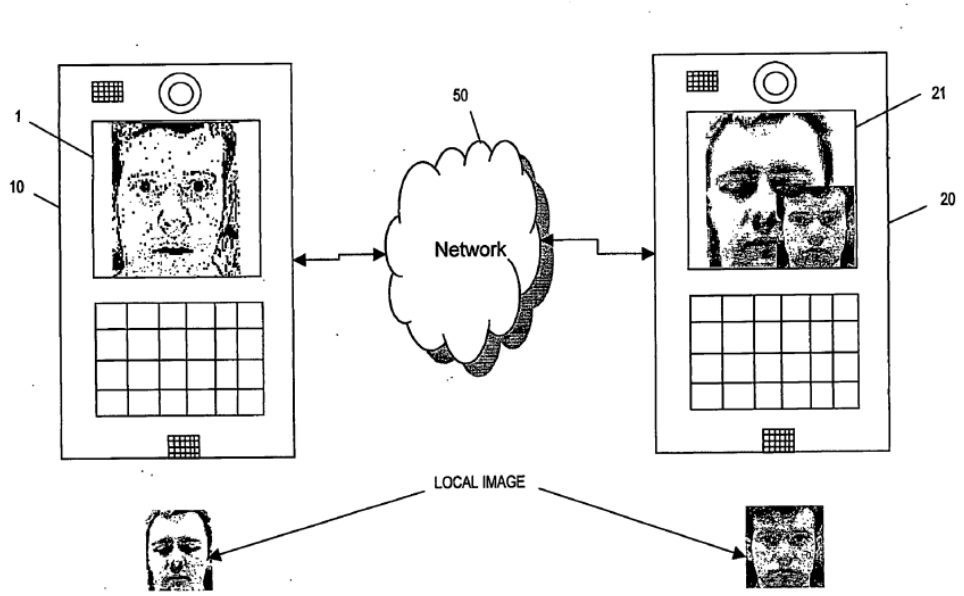


FIGURE 5

Id. at [Para 0057]: "Turning now to FIG. 4, this illustrates in more detail the specific

	system elements required by a video communications apparatus provided by the embodiments of the present invention. More particularly, a video communications video apparatus 10 according to the embodiments comprises a display screen 1, such as an LCD screen or the like, arranged to display a composite sidetone image and remote image to the user. Additionally provided are a camera 18 arranged to capture local images of the local user, and a microphone 14 arranged to capture any local sounds in the vicinity of the apparatus 10. A sounder or speaker 16 is further provided arranged to output sounds from the video communications apparatus to the user. To receive and encode the local images captured by the camera 18, a video coder 32 is provided arranged to receive the output of the camera 18, to digitally encode the data as image data, and to pass the encoded image data to a central control unit 46. Similarly, in order to encode any analogue audio signals generated by the microphone 14, an audio coder 42 is provided arranged to digitally encode the analogue input signals, and to provide a digital audio signal to the controller 46 as an input thereto. In order to reproduce digital audio and video signals, the controller 46 is arranged to pass video image data to a video decoder 34 which decodes the video image data, and supplies a video image to the display 1, as well as an audio decoder 44 which receives encoded digital audio data from the controller 46, decodes the digital audio data to produce an analogue audio signal, which is then used as an input to the speaker or sounder 16. It will be understood that each of the camera 18, microphone 14, display 1, speaker or sounder 16, video coder 32, audio coder 42, video decoder 34, and audio decoder 44 are conventional elements, which are already known in the art, and employed within existing mobile communications apparatus, such as mobile camera telephones produced by Nokia, or the like." *Id* a Fig. 4:

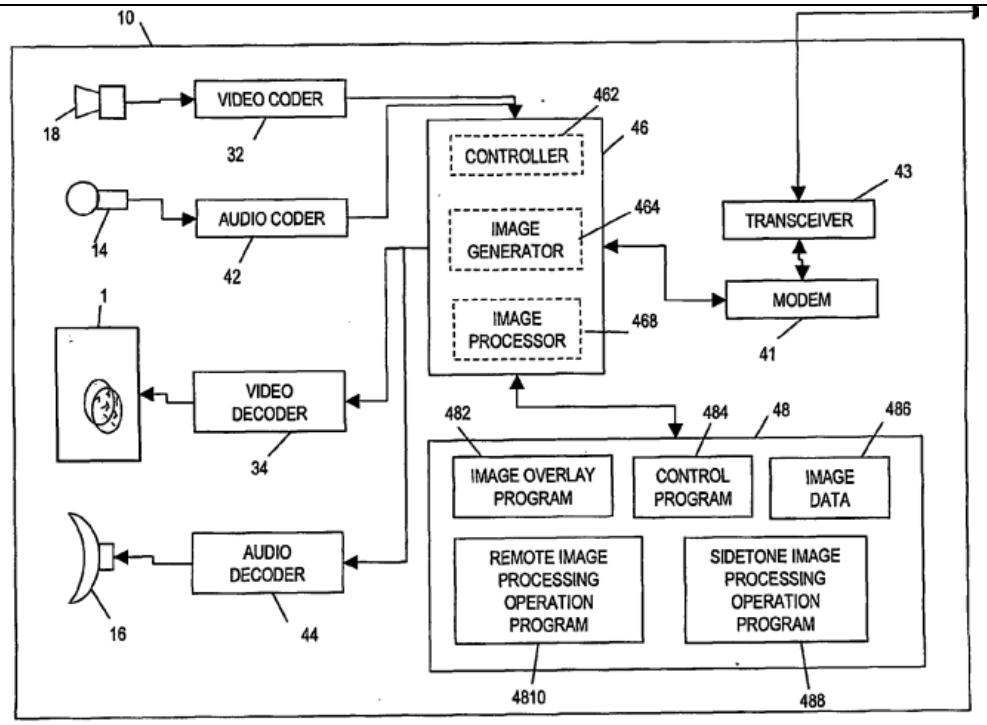
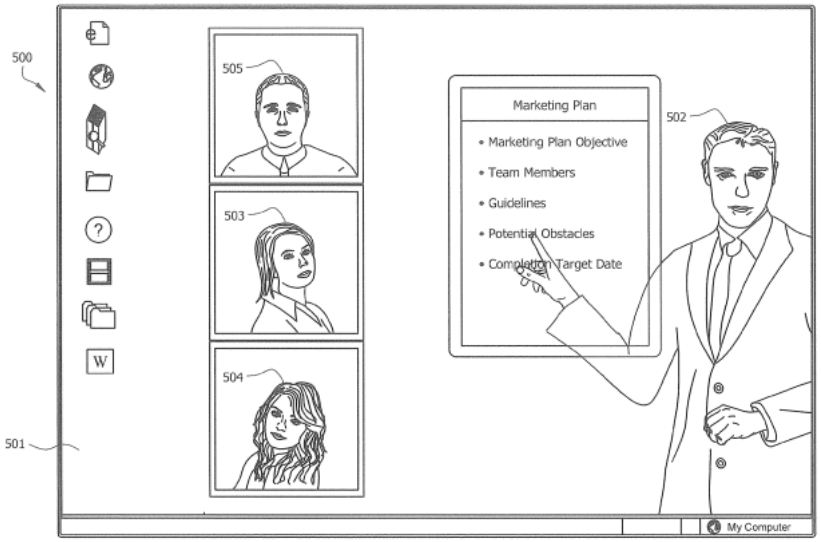
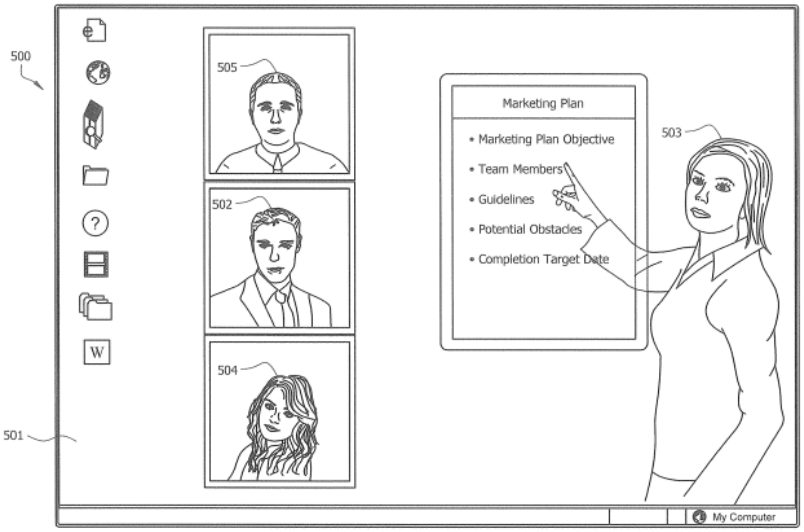
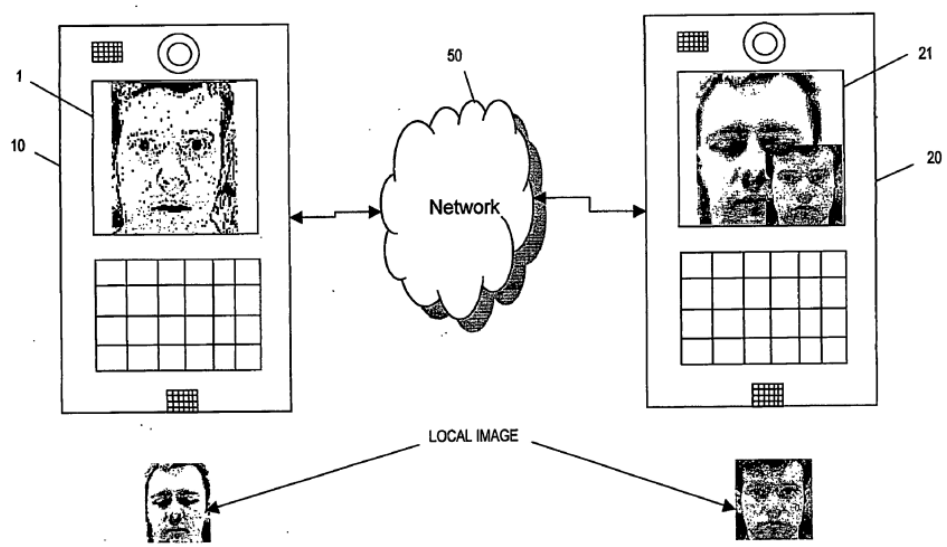

10
VIDEO CODER
18
32
462
46
CONTROLLER
43
TRANSCEIVER
AUDIO CODER
14
42
464
IMAGE GENERATOR
MODEM
1
IMAGE PROCESSOR
468
41
VIDEO DECODER
34
482
484
48
486
IMAGE OVERLAY PROGRAM
CONTROL PROGRAM
IMAGE DATA
AUDIO DECODER
16
44
REMOTE IMAGE PROCESSING OPERATION PROGRAM
SIDETONE IMAGE PROCESSING OPERATION PROGRAM
4810
488

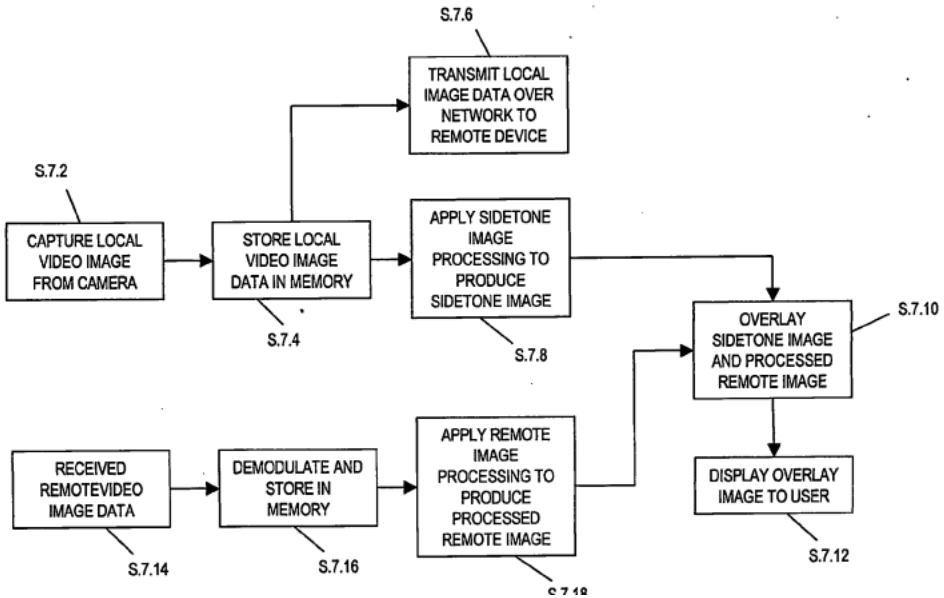
FIGURE 4

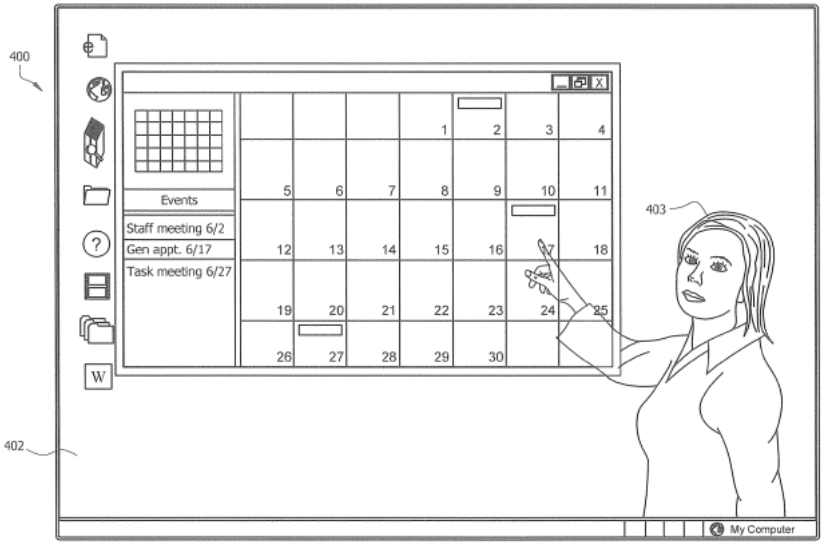
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
Claim 2	
2[a]. The method of claim 1, wherein the subject image of video frames of the first video stream comprises images of multiple videoconference participants and the subject image of video frames of the second video stream comprises images of multiple videoconference participants.	It would have been obvious to a person of ordinary skill in the art to combine Chatting with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including: • See, e.g., Sawyer (Ex. A-1) at [Column 07, Line 50]: "FIGS. 5A and 5B are additional blended illustrations 500 of an embodiment of the present teachings which utilize and blend multiple camera feeds. Multiple camera feeds 502 503 504 505 may be simultaneously blended with primary feed 501 thereby showing multiple conference participants. As shown in FIG. 5A, camera feed 502 is active and is displayed in a blended view with primary feed 501. In FIG. 5B a second camera feed 503 of multiple camera feeds 502 503 504 505 is active and displayed in a blended view with primary feed 501. A feed of multiple camera feeds 502 503 504 505 may become active based on activity within the video conference. For example, camera feed 502 may become active when a user associated with camera feed 502 is speaking. In other embodiments, an active feed may be selected manually. It may also be desirable to provide an indicator proximate to inactive feeds (e.g. 503 504 505 if FIG. 5A) to indicate when a participant desires to speak, or is speaking. Additionally, as shown in FIGS. 5A and 5B embodiments may function to expand the viewable size, or reposition, a camera feed of multiple camera feeds 502 503 504 505, in response a particular feed becoming active. When displaying multiple participants, embodiments may provide for an indicator to signal which participant is speaking." *Id.* at Figs. 5A and 5B:

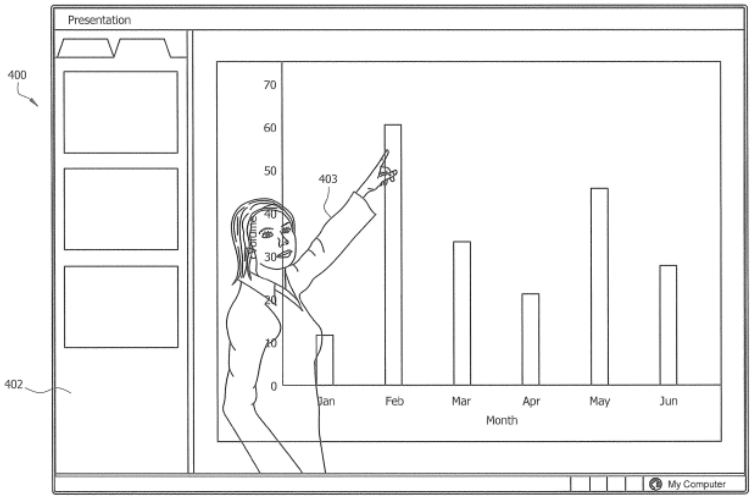
Asserted Claim of the ’293 Patent	Exemplary Citations to Chatting
	 *FIG. 5A*  *FIG. 5B*

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
Claim 03	
3[a]. The method of claim 1, wherein combining comprises: scaling the video frames of the second video stream and repositioning in a second direction the resulting pictures in the video frames of the second video stream to produce a second sequence of scaled video frames;	Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Chatting at [Abstract]: "The invention provides a method and system wherein first video images are directly overlaid with remote video images to produce a combined video image which is then displayed to the user and/or stored as appropriate. Preferably at least one of the first and/or remote images is subject to an image processing operation prior to the overlay operation being performed, the image processing operation being such that the scenes contained within the images to be overlaid when processed are separably distinguishable to a user within the combined video image when viewed by the user. The overlay operation is performed such that the scenes contained within the respective video images are substantially in alignment on top of each other. By overlaying the respective first and remote video images as described a single image is obtained within which the respective scenes of the respective first and remote images are still separably distinguishable, but which is still of an appropriate size for display on a screen of limited size without occlusion of one or other of the images." *Id.* at [Para 0080]: "A first embodiment of the present invention is shown in FIG. 5. Here, a local video communications apparatus 10 in accordance with the first embodiment is arranged to communicate via a network 50 with a second remote video communications apparatus 20, which operates, for example, in accordance with the prior art. Each of the video communications apparatus 10 and 20 is provided with a camera for capturing local images of the users, a display 1, and 21, and audio input and output such as microphones and speakers. For ease of reference in the following description, the local image of the user captured by each of video communication apparatus's is shown underneath each apparatus." *Id.* at Fig. 5:

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	 FIGURE 5 *Id.* at [Para 0081]: "Within the first embodiment, the video communications apparatus 10 captures a local image of the user using the camera, and also receives a remote image from the remote video communication apparatus 20 via the network 50. The remote video communications apparatus 20 applies no particular processing in the context of the present embodiments to the image that it transmits to the video communications apparatus 10, such that the remote image received via the network 50 at the video communications apparatus 10 is substantially the same as the local image captured at the video communications apparatus 20, and displayed as the visual feedback thereat, subject of course to any effects on the image introduced as a consequence of the transmission. Thus, the remote video communications apparatus 20 operates in accordance with the prior art, whereas the local video communications apparatus 10 operates in accordance with the embodiment of the invention, as described next with respect to FIGS. 7, and 4." *Id.* at Fig. 7:

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	
3[b]. extending the background image in the second sequence of scaled video frames to produce background extended video frames to be displayed in the posterior portion of the combined frames of the combined video stream; and	It would have been obvious to a person of ordinary skill in the art to combine Chatting with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including: • See, e.g., Sawyer (Ex. A-1) at [Column 05, Line 49]: "In some embodiments, at least one reference frame may be subtracted from the primary feed. FIGS. 3A-3C illustrate a progressing example of a visual presentation of desktop computer 300. The visual presentation comprises application window 301, background picture 302, and various icons 303 and menus 304. When blending the primary feed with camera feed data captures it may be desirable to minimize the amount of items being displayed with the primary feed. Background picture 302 may be subtracted to display alternate background 302′. Alternate background 302′ may be selected as preferred by a user. Alternate background 302′ is shown as a solid color. A solid background may be desirable as it assists in making any blended visual presentation easier to view. However, any other background could be selected, as desired by the user."

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
3[c]. superimposing the first background separated video frames onto corresponding ones of background extended video frames to produce combined video frames of the combined video stream.	It would have been obvious to a person of ordinary skill in the art to combine Chatting with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including: • See, e.g., Sawyer (Ex. A-1) at Sawyer at [Column 06, Line 07]: "FIGS. 4A and 4B illustrate blended view 400 of camera feed 403 and primary feed 402 according to an embodiment of the present teachings. Blended feed 400 combines both primary feed 402 and camera feed 403. Blending may be accomplished using any means capable of combining such images including alpha compositing, image masks, and the like. As shown in FIGS. 4A and 4B, the blended feeds are able to be viewed in a manner such that a viewer is able to focus on an application from primary feed 402 while viewing gestures and actions occurring in camera feed 403. Thereby, a greatly improved viewing experience is created." *Id*. At Figs. 4A and 4B:  *FIG. 4A*

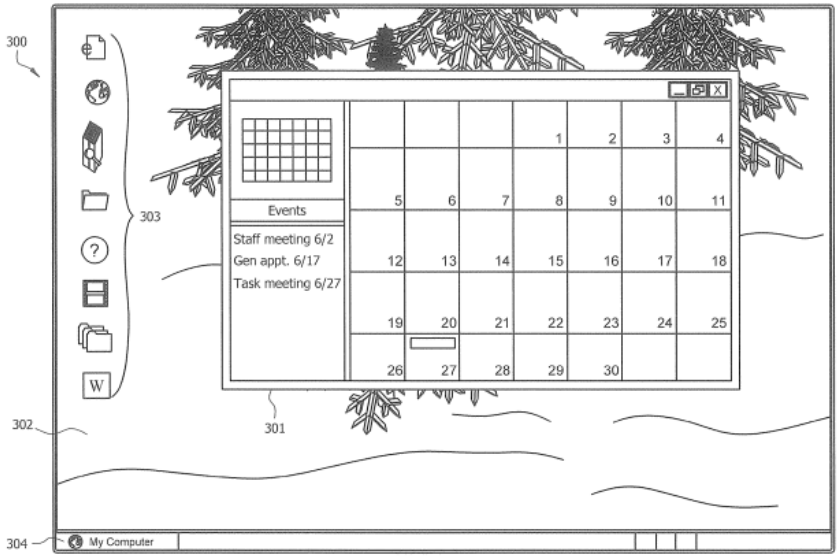
Asserted Claim of the ’293 Patent	Exemplary Citations to Chatting
	 *FIG. 4B* *Id*. at [Column 06, Line 22]: “It should be noted that, while FIG. 4A illustrates a view of a computer desktop for primary feed 402, as stated above, primary feed 402 or additional and/or alternative embodiments of the teachings herein may include any visual presentation that a user may want to view along with the camera feed such as a streaming video feed, and the like. For example, FIG. 4B illustrates camera feed 403 blended with primary feed 402, which is a full screen professional presentation such as is generated by various presentation software.” *Id*. at [Column 06, Line 27]: “Embodiments of the present disclosure are also configured to adjust a transparency value of one of the feeds. FIGS. 4A and 4B illustrate blended primary feed 402 and camera feed 403 wherein camera feed 403 has had its transparency value adjusted either at specific times or all of the time to become more transparent with respect to primary feed 402. As a result, a person displayed on camera feed 403 is able to gesture in a manner that intersects objects displayed in primary feed 402 without completely obscuring such objects. The added transparency of camera feed 403 also allows an observer of blended view 400 to more easily focus on the content of both primary feed 402 and camera feed 403.”

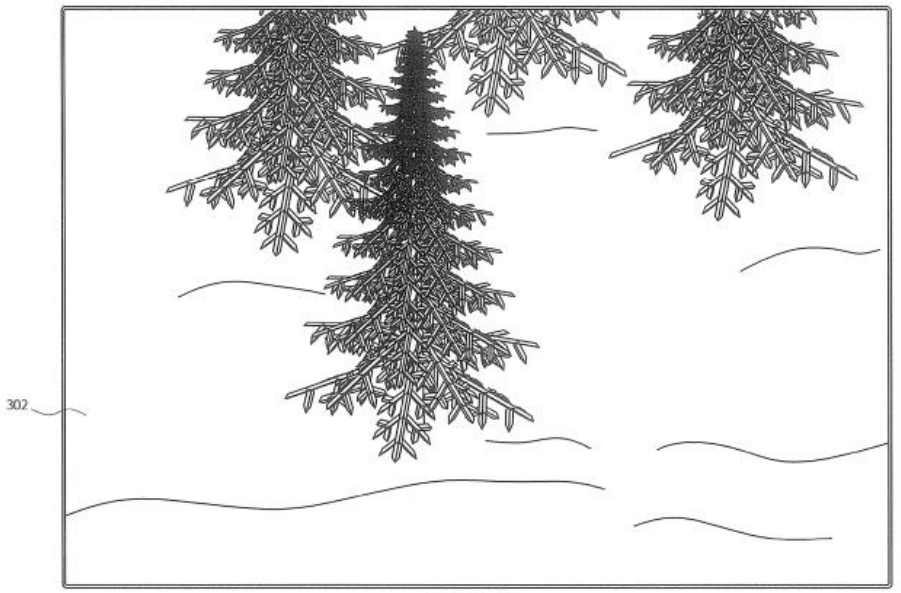
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
Claim 4	
4[a]. The method of claim 3, wherein the second direction is opposite to the first direction.	It would have been obvious to one of ordinary skill in the art to modify the teachings of Chatting, such as by combining with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including: • See, e.g., Ciudad at [Para 14]: "The systems, apparatus, methods and techniques described in this document relate generally to applying image transformations in a captured video stream. One such image transformation can include resizing a foreground area of a captured video stream. The video stream can be captured by a webcam, digital video recorder or other video capture device. Such video capture devices can be attached to a computing or processing device in a variety of ways. For example, a camera can be mounted in a computer monitor frame, such as a built-in iSight camera available from Apple Inc. of Cupertino, Calif. The video capture device can be coupled with a computing device through a wireline connection, such as a universal serial bus (USB) connection, a firewire connection, or the video capture device can be coupled through a wireless connection, to name a few examples. The computing device to which the video capture device is coupled can include a laptop computer, a desktop computer, a phone, or other electronic or processing devices, to name a few examples." *Id.* at [Para 0019]: "Subsequently, the videoconference application 101 can apply one or more image transformations to the video stream. In particular, the foreground areas of the video stream can be manipulated independently of the background areas. For example, the videoconference application 101 can apply a panning, inverting, rotating, blurring, pixelating, resizing, decolorizing, or color-adjusting image transformation to a foreground area 110 of the captured video frame. So as to facilitate transformations of the foreground area that would reveal areas in the field of view that are occluded by the participant, the foreground area 110 of each video frame is composited with the reference background image to generate the desired effect. In such implementations, the composite video stream is sent to the other videoconference participants." *Id.* at [Para 0020]: "The videoconference application 101 can also include a preview area 114. The preview area 114 can show a user of the videoconference application 101 a substantially similar copy of one or more video frames that are sent to other participants

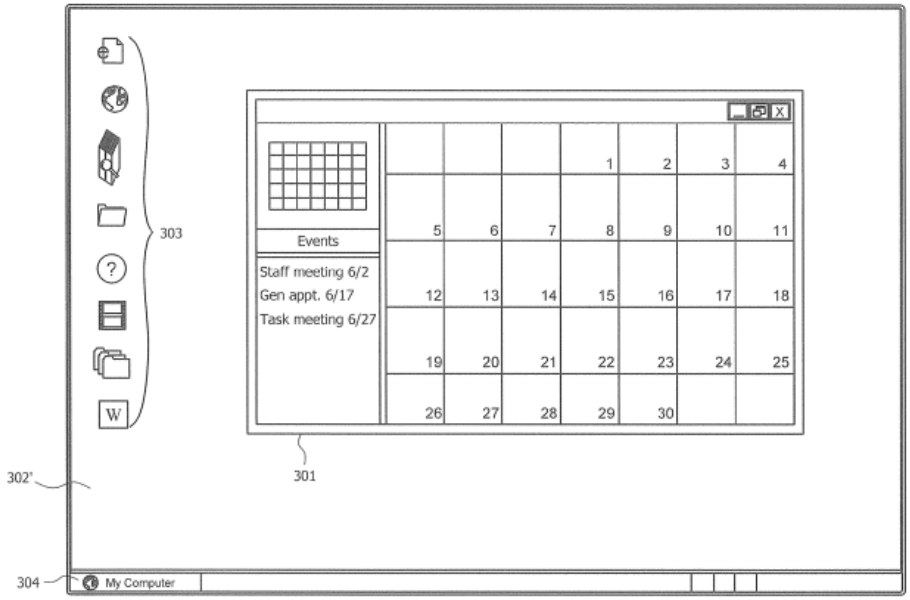
Asserted Claim of the ’293 Patent	Exemplary Citations to Chatting
	of the videoconference. For example, participant 104 can view a copy of the video frames that are sent to participant 108 in preview area 114. In addition, the preview area 114 can show a participant the captured video frames after being altered by one or more image transformations. For example, the preview area 114 can show participant 104 captured video frames after a blurring image transformation is applied to the foreground area 110.”

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
Claim 5	
5[a]. The method of claim 1, wherein combining further comprises: removing the background image in the video frames of the first and second video streams to produce first and second background separated video frames;	It would have been obvious to a person of ordinary skill in the art to combine Chatting with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including: • See, e.g., Sawyer (Ex. A-1) at [Column 01, Line 53]: "Representative embodiments of the present teachings are directed to systems and methods that blend a video feed with a primary feed in a manner which allows a viewer to focus on a primary feed, while also observing the video feed. A blended visual presentation preferably reduces unnecessary portions of the video feed, primary feed, or both. Further, a transparency value of at least one of the video feed and primary feed is adjusted, thereby providing for an improved visual presentation." *Id.* at [Column 01, Line 62]: "Additional representative embodiments of the present teachings are directed to computer implemented methods that include identifying image data representing at least one reference frame in camera feed data captured by a first camera, subtracting the image data representing the at least one identified reference frame from the camera feed data to be blended with primary feed data representing a shared desktop space for a visual collaboration, adjusting a transparency value of at least one of the camera feed data or the primary feed data, blending the camera feed data with the primary feed data to make a broadcast feed, and transmitting the broadcast feed to at least one computer display." *See e.g.,* Sawyer at [Column 05, Line 49]: "In some embodiments, at least one reference frame may be subtracted from the primary feed. FIGS. 3A-3C illustrate a progressing example of a visual presentation of desktop computer 300. The visual presentation comprises application window 301, background picture 302, and various icons 303 and menus 304. When blending the primary feed with camera feed data captures it may be desirable to minimize the amount of items being displayed with the primary feed. Background picture 302 may be subtracted to display alternate background 302′. Alternate background 302′ may be selected as preferred by a user. Alternate background 302′ is shown as a solid color. A solid background may be desirable as it assists in making any blended visual presentation easier to view. However, any other background could be

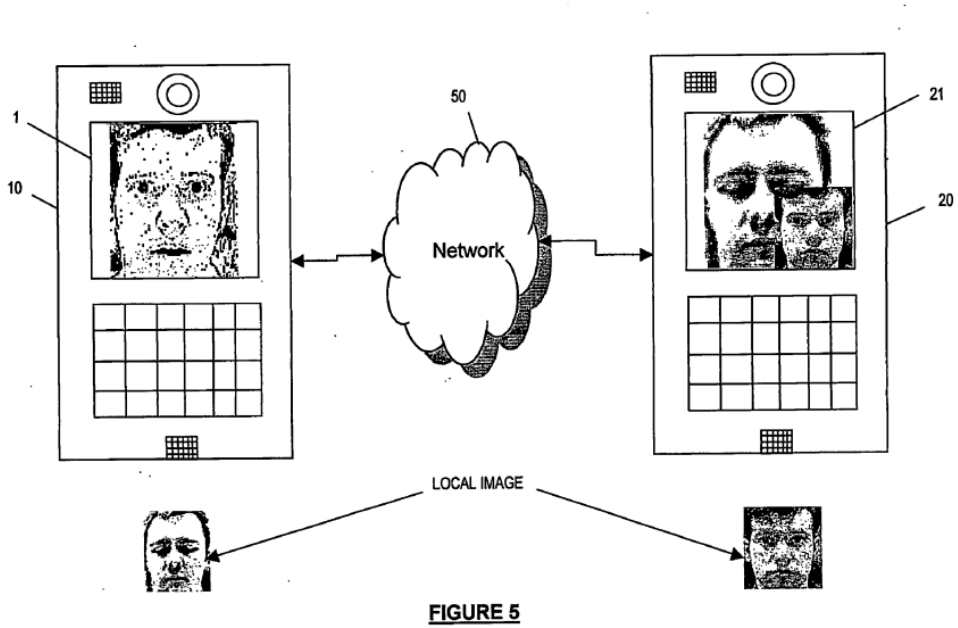
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	selected, as desired by the user."
5[b]. generating supplemental background image video frames that comprise a supplemental background image; and	It would have been obvious to one of ordinary skill in the art to modify the teachings of Chatting, such as by combining with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including: • See, e.g., Sawyer (Ex. A-1) at [Column 05, Line 49]: "In some embodiments, at least one reference frame may be subtracted from the primary feed. FIGS. 3A-3C illustrate a progressing example of a visual presentation of desktop computer 300. The visual presentation comprises application window 301, background picture 302, and various icons 303 and menus 304. When blending the primary feed with camera feed data captures it may be desirable to minimize the amount of items being displayed with the primary feed. Background picture 302 may be subtracted to display alternate background 302′. Alternate background 302′ may be selected as preferred by a user. Alternate background 302′ is shown as a solid color. A solid background may be desirable as it assists in making any blended visual presentation easier to view. However, any other background could be selected, as desired by the user." *Id.* at Figs. 3A-3C:

Asserted Claim of the ’293 Patent	Exemplary Citations to Chatting
	 *FIG. 3A*

Asserted Claim of the ’293 Patent	Exemplary Citations to Chatting
	 FIG. 3B

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	 *FIG. 3C* *Id.* at [Column 04, Line 47]: "Local computer 101 may also act as a conference server, or a separate conference server. Conference server 103 may be used to administer the video conference, blend signals, etc. A conference server may be utilized to switch between, or to simultaneously blend, a plurality of video signals from separate conference users with a primary desktop feed. Switching may be implemented based on the activity occurring within a video conference, such as a participant speaking, an administrator selecting a video signal, and the like."
5[c]. superimposing corresponding ones of the first background separated video frames and the second background separated video frames onto corresponding ones of the supplemental background video frames to produce the combined video frames of the combined video stream.	Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Chatting at [Abstract]: "The invention provides a method and system wherein first video images are directly overlaid with remote video images to produce a combined video image which is then displayed to the user and/or stored as appropriate. Preferably at least one of the first and/or remote images is subject to an image processing operation prior to the overlay operation being performed, the image processing operation being

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	such that the scenes contained within the images to be overlaid when processed are separably distinguishable to a user within the combined video image when viewed by the user. The overlay operation is performed such that the scenes contained within the respective video images are substantially in alignment on top of each other. By overlaying the respective first and remote video images as described a single image is obtained within which the respective scenes of the respective first and remote images are still separably distinguishable, but which is still of an appropriate size for display on a screen of limited size without occlusion of one or other of the images." *Id.* at [Para 0009]: "The invention provides a method and system which provides an alternative arrangement of the display of the visual feedback signal with respect to the remote video, which is particularly, but not exclusively, useful for use with small display screens where there is not enough space to display the local and remote signals side by side or otherwise without at least partial occlusion of one of the images, or without the images being so small as to lose detail. In particular the invention provides a method and system wherein the local video images are directly overlaid with the remote video images to produce a combined video image which is then displayed to the user and/or stored as appropriate. Preferably at least one of the local and/or remote images is subject to an image processing operation prior to the overlay operation being performed, the image processing operation being such that the scenes contained within the images to be overlaid when processed are separably distinguishable to a user within the combined video image when viewed by the user. Additionally, the image processing operations may be further arranged such that one of the resulting local or remote images after processing draws less attention from the user than the other. Preferably although not exclusively the local image should draw less attention than the remote image. The overlay operation is performed such that the scenes contained within the respective video images are substantially in alignment on top of each other. By overlaying the respective local and remote video images as described a single composite image is obtained within which the respective scenes of the respective local and remote images are still separably distinguishable, but which is still of an appropriate size for display on a screen of limited size without occlusion of one or other of the images." *Id.* at [Para 0080]: "A first embodiment of the present invention is shown in FIG. 5. Here, a local video communications apparatus 10 in accordance with the first embodiment is arranged to communicate via a network 50 with a second remote video communications

Asserted Claim of the ’293 Patent	Exemplary Citations to Chatting
	apparatus 20, which operates, for example, in accordance with the prior art. Each of the video communications apparatus 10 and 20 is provided with a camera for capturing local images of the users, a display 1, and 21, and audio input and output such as microphones and speakers. For ease of reference in the following description, the local image of the user captured by each of video communication apparatus's is shown underneath each apparatus.” *Id.* at Fig. 5:  FIGURE 5

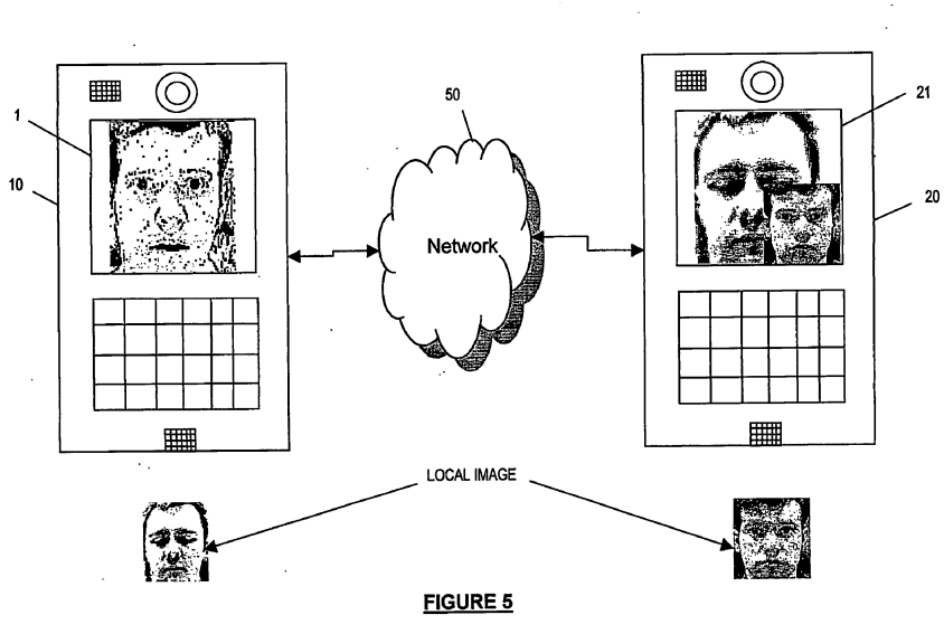
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
Claim 6	
6[a]. The method of claim 1, wherein the first and second video streams are produced at a same video conferencing site.	It would have been obvious to one of ordinary skill in the art to modify the teachings of Chatting, such as by combining with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including: • See, e.g., Sawyer (Ex. A-1) at [Column 04, Line 16]: "Local computer 101 is configured to blend the image data representing the video signal with image data representing primary feed data, such as a feed from its displayed desktop. Primary feed data can be any other visual presentation or shared space that a user may want to view along with the camera feed. In one embodiment, the primary feed data is a shared space from the user's computer in a video conference. The shared space may be the actual full desktop view of a participant's computer or a shared view of an application from a conferencing server or only a shared portion of the participant's desktop view. The primary feed data could also be an active video feed. Moreover, the primary desktop feed may originate at local computer 101, or may originate from any other source on conferencing system 10. The blended signal is configured to incorporate one or more primary subjects of the video signal with the desktop feed. Local computer 101 may be further configured to adjust the transparency level of at least one of the primary desktop feed and the video signal."

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
Claim 7	
7[a]. The method of claim 1, wherein the first and second video streams are produced at different video conferencing sites.	It would have been obvious to one of ordinary skill in the art to modify the teachings of Chatting, such as by combining with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including: • See, e.g., Sawyer (Ex. A-1) at [Column 04, Line 16]: "Local computer 101 is configured to blend the image data representing the video signal with image data representing primary feed data, such as a feed from its displayed desktop. Primary feed data can be any other visual presentation or shared space that a user may want to view along with the camera feed. In one embodiment, the primary feed data is a shared space from the user's computer in a video conference. The shared space may be the actual full desktop view of a participant's computer or a shared view of an application from a conferencing server or only a shared portion of the participant's desktop view. The primary feed data could also be an active video feed. Moreover, the primary desktop feed may originate at local computer 101, or may originate from any other source on conferencing system 10. The blended signal is configured to incorporate one or more primary subjects of the video signal with the desktop feed. Local computer 101 may be further configured to adjust the transparency level of at least one of the primary desktop feed and the video signal." *See e.g.,* Sawyer at [Column 04, Line 35]: "Local computer 101 may be further configured to broadcast the blended signal to other participants in the conference on conference nodes 102 a-n, or to remote server 103, over network medium 100. Local computer 101 may also be configured to subtract out image data representing one or more primary subjects of the video signal from the raw image data of the video signal, and/or subtract out image data representing one or more key frames in the primary desktop feed, before blending the signal with the primary desktop feed. In short, local computer 101 may be configured to implement the functionality of the embodiments discussed in the present teachings herein. Local computer 101 may also act as a conference server, or a separate conference server. Conference server 103 may be used to administer the video conference, blend signals, etc. A conference server may be utilized to switch between, or to simultaneously blend, a plurality of video signals from separate conference users with a primary desktop feed. Switching may be implemented based on the activity

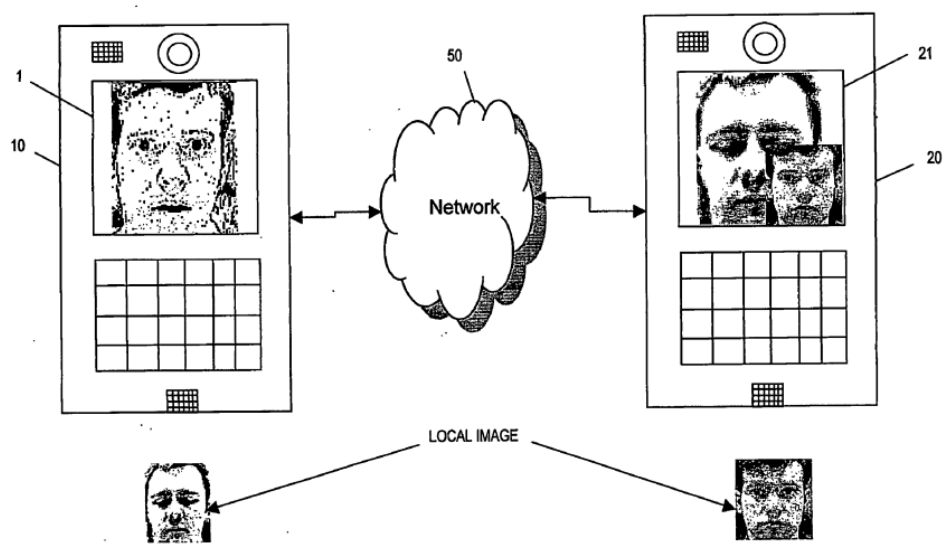
	occurring within a video conference, such as a participant speaking, an administrator selecting a video signal, and the like."

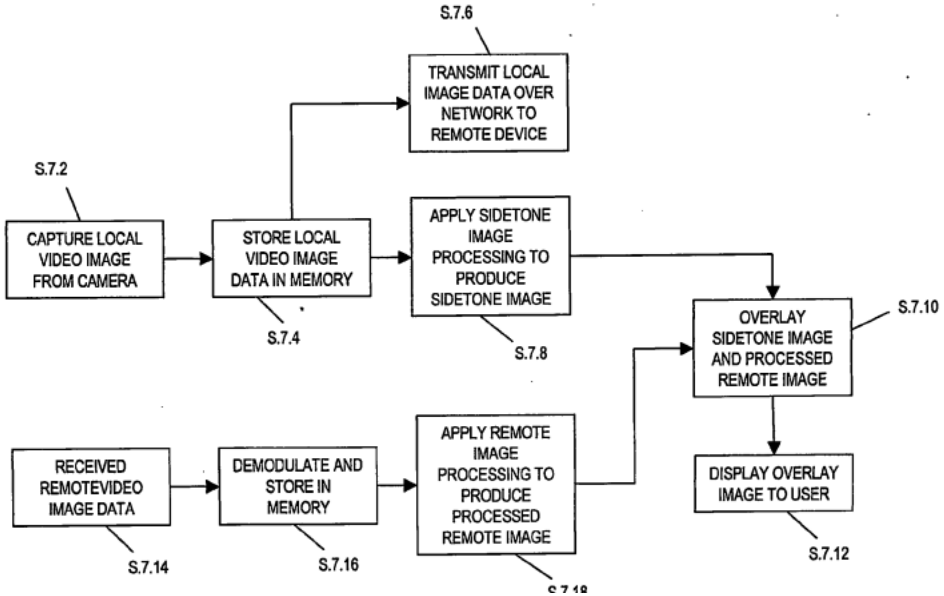
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
Claim 8	
8[a]. The method of claim 1, wherein combining is performed at a site other than where the first and second video streams are produced.	It would have been obvious to one of ordinary skill in the art to modify the teachings of Chatting, such as by combining with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including: • See, e.g., Sawyer (Ex. A-1) at [Column 04, Line 47]: "Local computer 101 may also act as a conference server, or a separate conference server. Conference server 103 may be used to administer the video conference, blend signals, etc. A conference server may be utilized to switch between, or to simultaneously blend, a plurality of video signals from separate conference users with a primary desktop feed. Switching may be implemented based on the activity occurring within a video conference, such as a participant speaking, an administrator selecting a video signal, and the like."

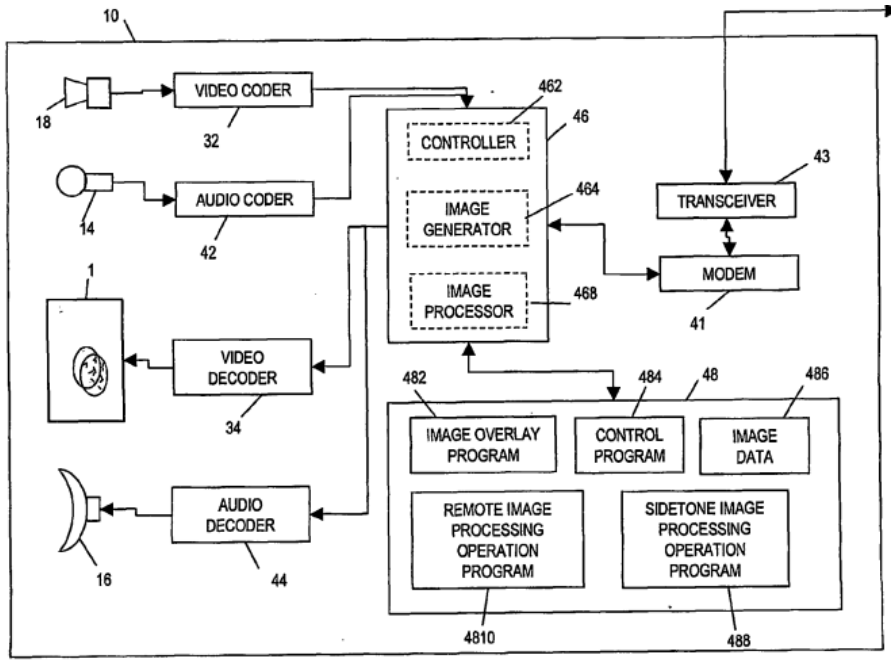
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
Claim 9	
9[a]. The method of claim 1, wherein the subject images of video frames of the first and second video streams are images of video conference participants.	Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Chatting at [Para 0003]: "It is common within video communications systems to provide a video image not only of the remote participant(s) to the video conference or video call, but also of the local participant(s). Such visual feedback allows the local participant to see how the remote party sees them and to see how the video-conferencing system is representing them. Additionally the visual feedback also enables the user to position themselves within the camera's view and ensure their face is well lit and visible." *Id.* at [Abstract]: "The invention provides a method and system wherein first video images are directly overlaid with remote video images to produce a combined video image which is then displayed to the user and/or stored as appropriate. Preferably at least one of the first and/or remote images is subject to an image processing operation prior to the overlay operation being performed, the image processing operation being such that the scenes contained within the images to be overlaid when processed are separably distinguishable to a user within the combined video image when viewed by the user. The overlay operation is performed such that the scenes contained within the respective video images are substantially in alignment on top of each other. By overlaying the respective first and remote video images as described a single image is obtained within which the respective scenes of the respective first and remote images are still separably distinguishable, but which is still of an appropriate size for display on a screen of limited size without occlusion of one or other of the images." *Id.* at [Para 0080]: "A first embodiment of the present invention is shown in FIG. 5. Here, a local video communications apparatus 10 in accordance with the first embodiment is arranged to communicate via a network 50 with a second remote video communications apparatus 20, which operates, for example, in accordance with the prior art. Each of the video communications apparatus 10 and 20 is provided with a camera for capturing local images of the users, a display 1, and 21, and audio input and output such as microphones and speakers. For ease of reference in the following description, the local image of the user captured by each of video communication apparatus's is shown underneath each

	apparatus." *Id.* at Fig. 5:  FIGURE 5

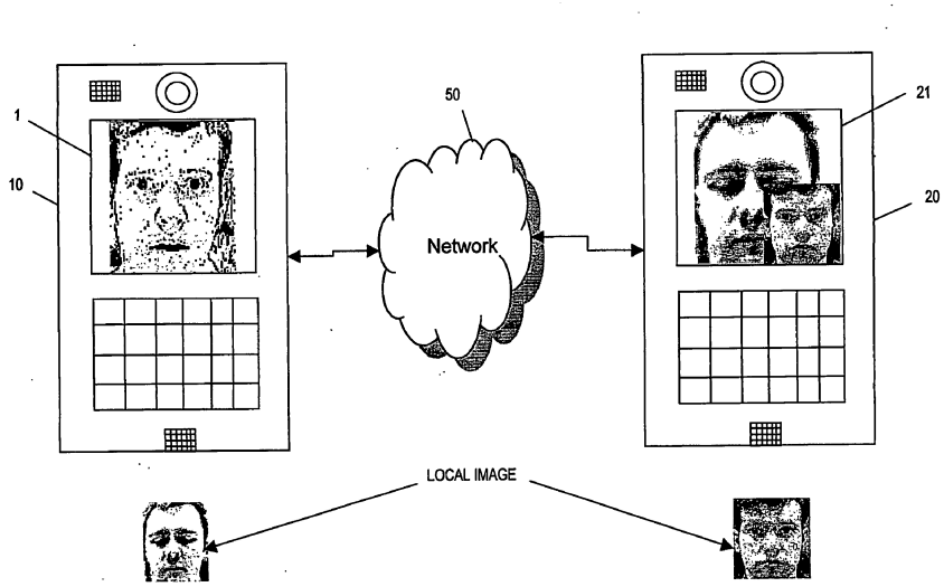
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
Claim 10	
10[a]. An apparatus comprising: a first memory configured to store data for at least first and second real-time video streams, each of the first and second real-time video streams comprising video frames containing a picture comprising a subject image and a background image; and	To the extent the preamble is limiting, Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Chatting at [Abstract]: "The invention provides a method and system wherein first video images are directly overlaid with remote video images to produce a combined video image which is then displayed to the user and/or stored as appropriate. Preferably at least one of the first and/or remote images is subject to an image processing operation prior to the overlay operation being performed, the image processing operation being such that the scenes contained within the images to be overlaid when processed are separably distinguishable to a user within the combined video image when viewed by the user. The overlay operation is performed such that the scenes contained within the respective video images are substantially in alignment on top of each other. By overlaying the respective first and remote video images as described a single image is obtained within which the respective scenes of the respective first and remote images are still separably distinguishable, but which is still of an appropriate size for display on a screen of limited size without occlusion of one or other of the images." *Id.* at [Para 0080]: "A first embodiment of the present invention is shown in FIG. 5. Here, a local video communications apparatus 10 in accordance with the first embodiment is arranged to communicate via a network 50 with a second remote video communications apparatus 20, which operates, for example, in accordance with the prior art. Each of the video communications apparatus 10 and 20 is provided with a camera for capturing local images of the users, a display 1, and 21, and audio input and output such as microphones and speakers. For ease of reference in the following description, the local image of the user captured by each of video communication apparatus's is shown underneath each apparatus." *Id.* at Fig. 5:

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	 FIGURE 5 *Id.* at [Para 0081]: "Within the first embodiment, the video communications apparatus 10 captures a local image of the user using the camera, and also receives a remote image from the remote video communication apparatus 20 via the network 50. The remote video communications apparatus 20 applies no particular processing in the context of the present embodiments to the image that it transmits to the video communications apparatus 10, such that the remote image received via the network 50 at the video communications apparatus 10 is substantially the same as the local image captured at the video communications apparatus 20, and displayed as the visual feedback thereat, subject of course to any effects on the image introduced as a consequence of the transmission. Thus, the remote video communications apparatus 20 operates in accordance with the prior art, whereas the local video communications apparatus 10 operates in accordance with the embodiment of the invention, as described next with respect to FIGS. 7, and 4." *Id.* at Fig. 7:

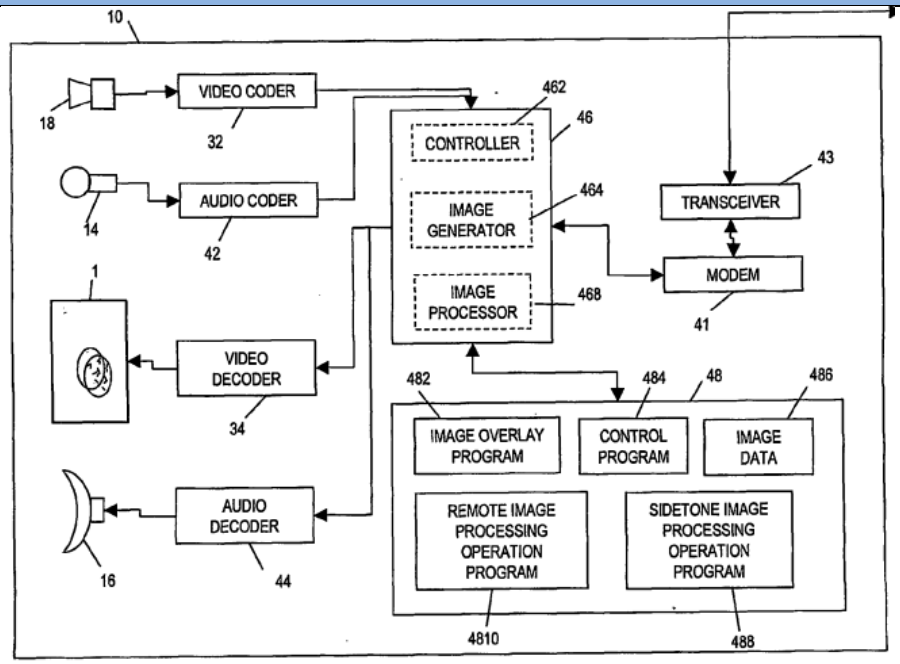
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	 *Id.* at [Para 0057]: "Turning now to FIG. 4, this illustrates in more detail the specific system elements required by a video communications apparatus provided by the embodiments of the present invention. More particularly, a video communications video apparatus 10 according to the embodiments comprises a display screen 1, such as an LCD screen or the like, arranged to display a composite sidetone image and remote image to the user. Additionally provided are a camera 18 arranged to capture local images of the local user, and a microphone 14 arranged to capture any local sounds in the vicinity of the apparatus 10. A sounder or speaker 16 is further provided arranged to output sounds from the video communications apparatus to the user. To receive and encode the local images captured by the camera 18, a video coder 32 is provided arranged to receive the output of the camera 18, to digitally encode the data as image data, and to pass the encoded image data to a central control unit 46. Similarly, in order to encode any analogue audio signals generated by the microphone 14, an audio coder 42 is provided arranged to digitally encode the analogue input signals, and to provide a digital audio signal to the controller 46 as an input thereto. In order to reproduce digital audio and video signals, the controller 46 is arranged to pass video image data to a video decoder 34 which decodes the video image data, and supplies a video image to the

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	display 1, as well as an audio decoder 44 which receives encoded digital audio data from the controller 46, decodes the digital audio data to produce an analogue audio signal, which is then used as an input to the speaker or sounder 16. It will be understood that each of the camera 18, microphone 14, display 1, speaker or sounder 16, video coder 32, audio coder 42, video decoder 34, and audio decoder 44 are conventional elements, which are already known in the art, and employed within existing mobile communications apparatus, such as mobile camera telephones produced by Nokia, or the like." *Id* a Fig. 4:  **FIGURE 4** *Id* at [Para 0059]: "In order to allow the central control unit 46 to operate, a data storage unit 48 is provided in which is stored various software control programs which may be used by the central control unit 46, as well as any image data or audio data which is to be output from the apparatus, or has been captured thereby. More specifically, in the

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	context of the embodiments the data storage unit 48 stores an image overlay program 482 which is used by the image generator unit 464 to generate images for display, a control program 484 which is used by the controller unit 462 to control the overall operation of the video communications apparatus, a remote image processing operation program 481 which is used by the image processor unit 468 to process remote images received from any remote video communications apparatus with which the present apparatus is communicating via the network, and a sidetone image processing operation program 488 which is also used by the image processor 468 to process the local images captured by the camera 18 so as to allow them to be used as sidetone images, as will be described. Additionally provided within the data storage unit 48 is an area 486 for storing image data, which data may be the raw input (and remote) images, as well as the processed images generated by the image processor 468, or the generated images generated by the image generator 464. It will be further understood that the data storage unit 48 also stores other software programs and data to enable the video communications apparatus to perform its standard functions, such as, for example, to communicate over the network."
10[b]. at least one data processor configured to: combine the subject images of corresponding video frames of the first and second video streams into a combined frame of a first combined video stream such that the subject image of the first video stream is positioned in an anterior portion of the combined frame and the subject image of the second video stream is positioned in a posterior portion of the combined frame, wherein the at least one data processor is configured to combine the subject images of video frames by:	Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Chatting at [Abstract]: "The invention provides a method and system wherein first video images are directly overlaid with remote video images to produce a combined video image which is then displayed to the user and/or stored as appropriate. Preferably at least one of the first and/or remote images is subject to an image processing operation prior to the overlay operation being performed, the image processing operation being such that the scenes contained within the images to be overlaid when processed are separably distinguishable to a user within the combined video image when viewed by the user. The overlay operation is performed such that the scenes contained within the respective video images are substantially in alignment on top of each other. By overlaying the respective first and remote video images as described a single image is obtained within which the respective scenes of the respective first and remote images are still separably distinguishable, but which is still of an appropriate size for display on a screen of limited size without occlusion of one or other of the images." *Id.* at [Para 0080]: "A first embodiment of the present invention is shown in FIG. 5. Here,

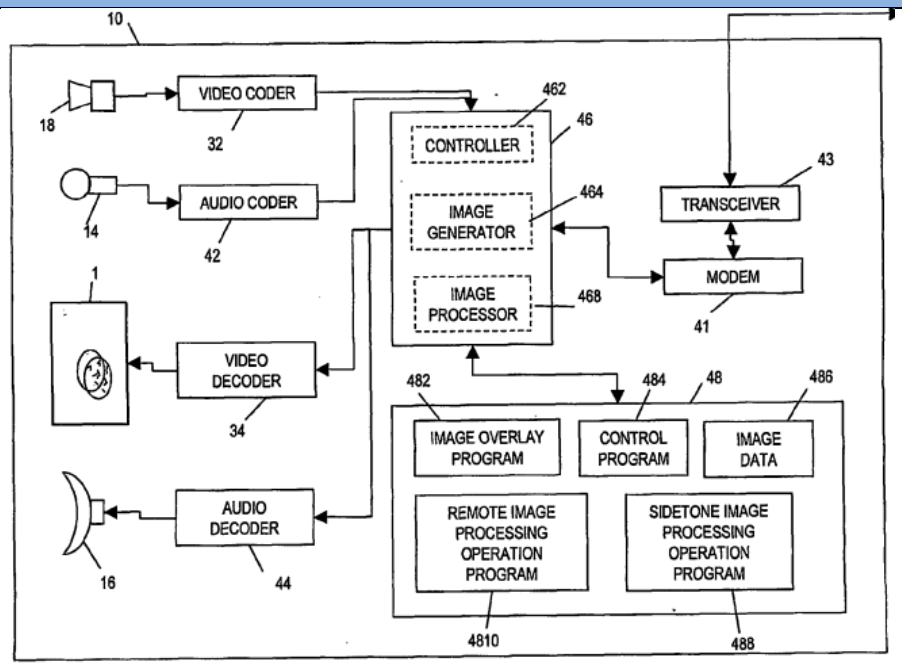
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	a local video communications apparatus 10 in accordance with the first embodiment is arranged to communicate via a network 50 with a second remote video communications apparatus 20, which operates, for example, in accordance with the prior art. Each of the video communications apparatus 10 and 20 is provided with a camera for capturing local images of the users, a display 1, and 21, and audio input and output such as microphones and speakers. For ease of reference in the following description, the local image of the user captured by each of video communication apparatus's is shown underneath each apparatus." *Id.* at Fig. 5:  **FIGURE 5** *Id.* at [Para 0081]: "Within the first embodiment, the video communications apparatus 10 captures a local image of the user using the camera, and also receives a remote image from the remote video communication apparatus 20 via the network 50. The remote video communications apparatus 20 applies no particular processing in the context of the present embodiments to the image that it transmits to the video communications apparatus 10, such that the remote image received via the network 50 at the video

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	communications apparatus 10 is substantially the same as the local image captured at the video communications apparatus 20, and displayed as the visual feedback thereat, subject of course to any effects on the image introduced as a consequence of the transmission. Thus, the remote video communications apparatus 20 operates in accordance with the prior art, whereas the local video communications apparatus 10 operates in accordance with the embodiment of the invention, as described next with respect to FIGS. 7, and 4." *Id.* at [Para 0057]: "Turning now to FIG. 4, this illustrates in more detail the specific system elements required by a video communications apparatus provided by the embodiments of the present invention. More particularly, a video communications video apparatus 10 according to the embodiments comprises a display screen 1, such as an LCD screen or the like, arranged to display a composite sidetone image and remote image to the user. Additionally provided are a camera 18 arranged to capture local images of the local user, and a microphone 14 arranged to capture any local sounds in the vicinity of the apparatus 10. A sounder or speaker 16 is further provided arranged to output sounds from the video communications apparatus to the user. To receive and encode the local images captured by the camera 18, a video coder 32 is provided arranged to receive the output of the camera 18, to digitally encode the data as image data, and to pass the encoded image data to a central control unit 46. Similarly, in order to encode any analogue audio signals generated by the microphone 14, an audio coder 42 is provided arranged to digitally encode the analogue input signals, and to provide a digital audio signal to the controller 46 as an input thereto. In order to reproduce digital audio and video signals, the controller 46 is arranged to pass video image data to a video decoder 34 which decodes the video image data, and supplies a video image to the display 1, as well as an audio decoder 44 which receives encoded digital audio data from the controller 46, decodes the digital audio data to produce an analogue audio signal, which is then used as an input to the speaker or sounder 16. It will be understood that each of the camera 18, microphone 14, display 1, speaker or sounder 16, video coder 32, audio coder 42, video decoder 34, and audio decoder 44 are conventional elements, which are already known in the art, and employed within existing mobile communications apparatus, such as mobile camera telephones produced by Nokia, or the like." *Id* a Fig. 4:

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	 **FIGURE 4** *Id* at [Para 0059]: "In order to allow the central control unit 46 to operate, a data storage unit 48 is provided in which is stored various software control programs which may be used by the central control unit 46, as well as any image data or audio data which is to be output from the apparatus, or has been captured thereby. More specifically, in the context of the embodiments the data storage unit 48 stores an image overlay program 482 which is used by the image generator unit 464 to generate images for display, a control program 484 which is used by the controller unit 462 to control the overall operation of the video communications apparatus, a remote image processing operation program 481 which is used by the image processor unit 468 to process remote images received from any remote video communications apparatus with which the present apparatus is communicating via the network, and a sidetone image processing operation program 488 which is also used by the image processor 468 to process the local images captured by the camera 18 so as to allow them to be used as sidetone images, as will be described. Additionally provided within the data storage unit 48 is an area 486 for storing

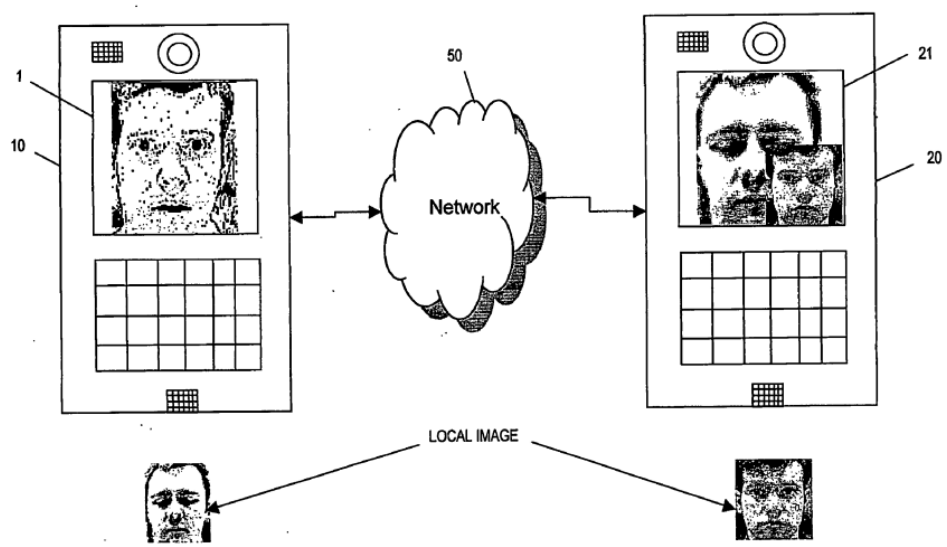
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	image data, which data may be the raw input (and remote) images, as well as the processed images generated by the image processor 468, or the generated images generated by the image generator 464. It will be further understood that the data storage unit 48 also stores other software programs and data to enable the video communications apparatus to perform its standard functions, such as, for example, to communicate over the network."
10[c]. scaling the video frames of the first video stream and repositioning in a first direction the resulting pictures in the video frames of the first video stream to produce a first sequence of scaled video frames;	Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 1[c] above
10[d]. removing the background image in the first sequence of scaled video frames to produce first background separated video frames to be displayed in the anterior portion of the combined frames of the combined video stream; and	Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 1[d] above
10[e]. superimposing the first background separated video frames onto corresponding ones of the video frames of the second video stream to produce combined video frames of the combined video stream.	Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 1[e] above

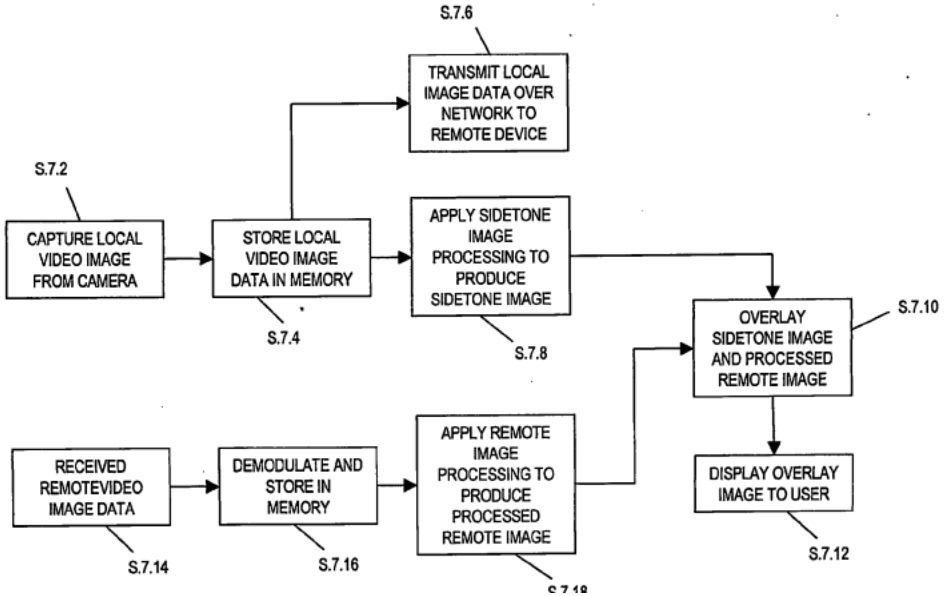
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
Claim 11	
11[a]. The apparatus of claim 10, wherein the at least one data processor is configured to combine the subject images of video frames by:	Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Chatting at [Para 0057]: "Turning now to FIG. 4, this illustrates in more detail the specific system elements required by a video communications apparatus provided by the embodiments of the present invention. More particularly, a video communications video apparatus 10 according to the embodiments comprises a display screen 1, such as an LCD screen or the like, arranged to display a composite sidetone image and remote image to the user. Additionally provided are a camera 18 arranged to capture local images of the local user, and a microphone 14 arranged to capture any local sounds in the vicinity of the apparatus 10. A sounder or speaker 16 is further provided arranged to output sounds from the video communications apparatus to the user. To receive and encode the local images captured by the camera 18, a video coder 32 is provided arranged to receive the output of the camera 18, to digitally encode the data as image data, and to pass the encoded image data to a central control unit 46. Similarly, in order to encode any analogue audio signals generated by the microphone 14, an audio coder 42 is provided arranged to digitally encode the analogue input signals, and to provide a digital audio signal to the controller 46 as an input thereto. In order to reproduce digital audio and video signals, the controller 46 is arranged to pass video image data to a video decoder 34 which decodes the video image data, and supplies a video image to the display 1, as well as an audio decoder 44 which receives encoded digital audio data from the controller 46, decodes the digital audio data to produce an analogue audio signal, which is then used as an input to the speaker or sounder 16. It will be understood that each of the camera 18, microphone 14, display 1, speaker or sounder 16, video coder 32, audio coder 42, video decoder 34, and audio decoder 44 are conventional elements, which are already known in the art, and employed within existing mobile communications apparatus, such as mobile camera telephones produced by Nokia, or the like." *Id* a Fig. 4:

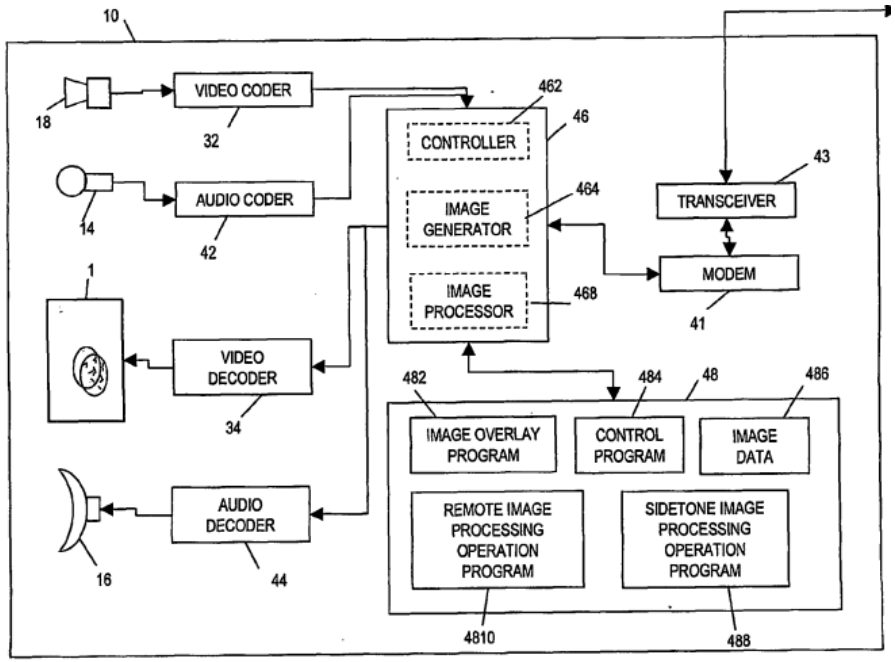
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	 **FIGURE 4**
11[b]. scaling the video frames of the second video stream and reposition in a second direction the resulting pictures in the video frames of the second video stream to produce a second sequence of scaled video frames;	Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 3[a] above
11[c]. extending the background image in the second sequence of scaled video frames to produce background extended video frames to be displayed in the posterior portion of the combined frames of the combined video stream; and	Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 3[b] above

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
11[d]. superimposing the first background separated video frames onto corresponding ones of background extended video frames to produce combined video frames of the combined video stream.	Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 3[c] above

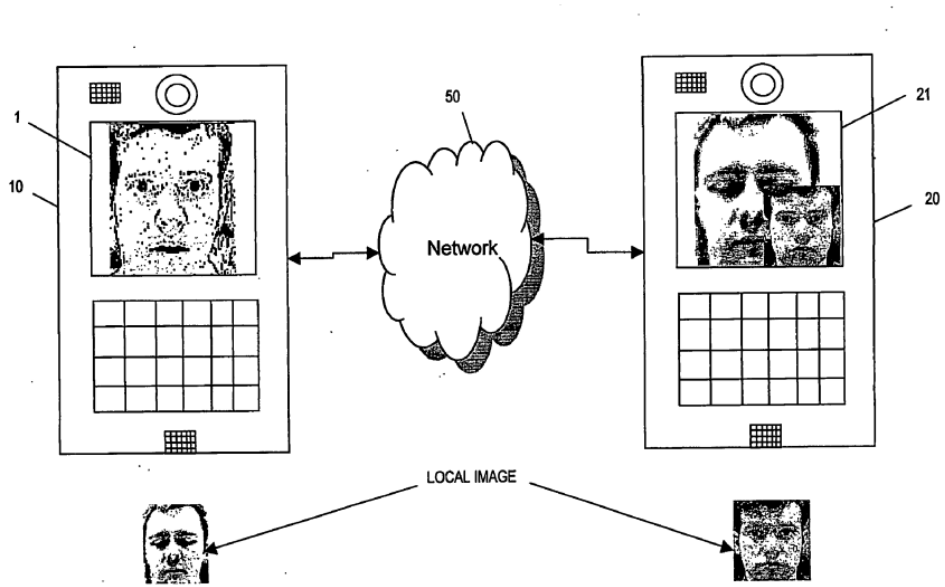
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
Claim 12	
12[a]. A system comprising the apparatus of claim 10, and further comprising: a first video conferencing endpoint configured to communicate with the apparatus, the first endpoint including:	To the extent the preamble is limiting, Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Chatting at [Abstract]: "The invention provides a method and system wherein first video images are directly overlaid with remote video images to produce a combined video image which is then displayed to the user and/or stored as appropriate. Preferably at least one of the first and/or remote images is subject to an image processing operation prior to the overlay operation being performed, the image processing operation being such that the scenes contained within the images to be overlaid when processed are separably distinguishable to a user within the combined video image when viewed by the user. The overlay operation is performed such that the scenes contained within the respective video images are substantially in alignment on top of each other. By overlaying the respective first and remote video images as described a single image is obtained within which the respective scenes of the respective first and remote images are still separably distinguishable, but which is still of an appropriate size for display on a screen of limited size without occlusion of one or other of the images." *Id.* at [Para 0080]: "A first embodiment of the present invention is shown in FIG. 5. Here, a local video communications apparatus 10 in accordance with the first embodiment is arranged to communicate via a network 50 with a second remote video communications apparatus 20, which operates, for example, in accordance with the prior art. Each of the video communications apparatus 10 and 20 is provided with a camera for capturing local images of the users, a display 1, and 21, and audio input and output such as microphones and speakers. For ease of reference in the following description, the local image of the user captured by each of video communication apparatus's is shown underneath each apparatus." *Id.* at Fig. 5:

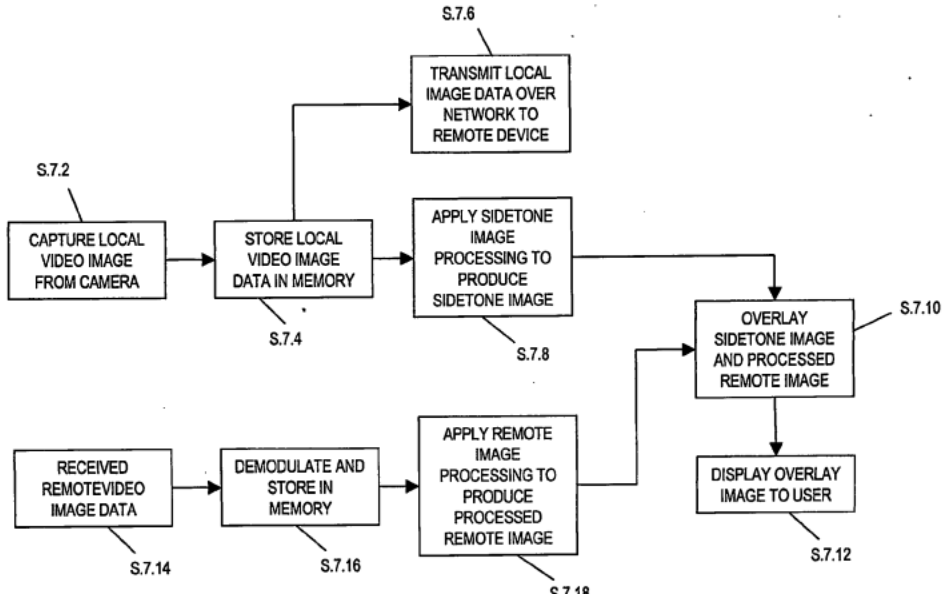
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	 FIGURE 5 *Id.* at [Para 0081]: "Within the first embodiment, the video communications apparatus 10 captures a local image of the user using the camera, and also receives a remote image from the remote video communication apparatus 20 via the network 50. The remote video communications apparatus 20 applies no particular processing in the context of the present embodiments to the image that it transmits to the video communications apparatus 10, such that the remote image received via the network 50 at the video communications apparatus 10 is substantially the same as the local image captured at the video communications apparatus 20, and displayed as the visual feedback thereat, subject of course to any effects on the image introduced as a consequence of the transmission. Thus, the remote video communications apparatus 20 operates in accordance with the prior art, whereas the local video communications apparatus 10 operates in accordance with the embodiment of the invention, as described next with respect to FIGS. 7, and 4." *Id.* at Fig. 7:

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	 *Id.* at [Para 0057]: "Turning now to FIG. 4, this illustrates in more detail the specific system elements required by a video communications apparatus provided by the embodiments of the present invention. More particularly, a video communications video apparatus 10 according to the embodiments comprises a display screen 1, such as an LCD screen or the like, arranged to display a composite sidetone image and remote image to the user. Additionally provided are a camera 18 arranged to capture local images of the local user, and a microphone 14 arranged to capture any local sounds in the vicinity of the apparatus 10. A sounder or speaker 16 is further provided arranged to output sounds from the video communications apparatus to the user. To receive and encode the local images captured by the camera 18, a video coder 32 is provided arranged to receive the output of the camera 18, to digitally encode the data as image data, and to pass the encoded image data to a central control unit 46. Similarly, in order to encode any analogue audio signals generated by the microphone 14, an audio coder 42 is provided arranged to digitally encode the analogue input signals, and to provide a digital audio signal to the controller 46 as an input thereto. In order to reproduce digital audio and video signals, the controller 46 is arranged to pass video image data to a video decoder 34 which decodes the video image data, and supplies a video image to the

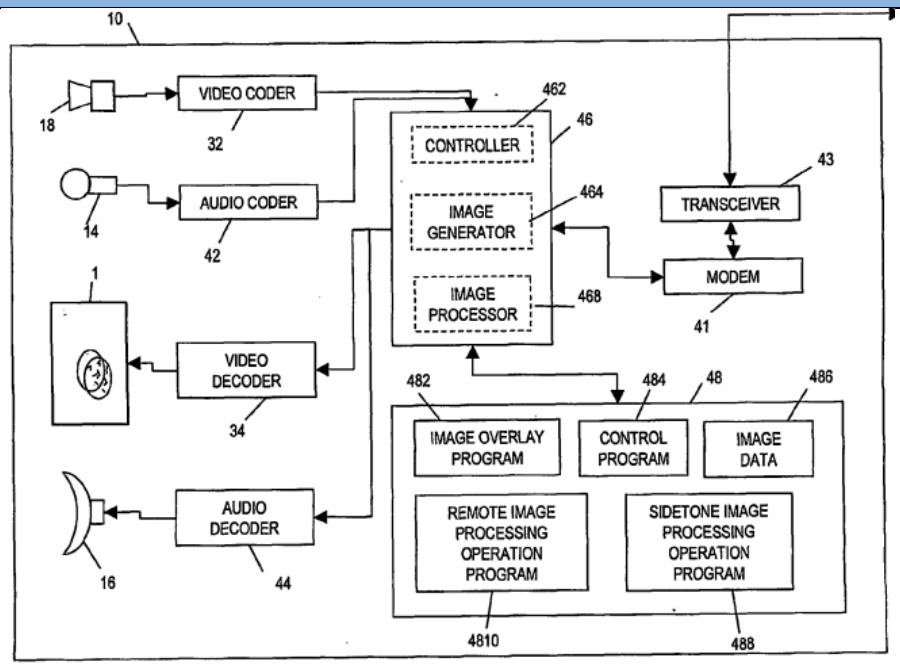
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	display 1, as well as an audio decoder 44 which receives encoded digital audio data from the controller 46, decodes the digital audio data to produce an analogue audio signal, which is then used as an input to the speaker or sounder 16. It will be understood that each of the camera 18, microphone 14, display 1, speaker or sounder 16, video coder 32, audio coder 42, video decoder 34, and audio decoder 44 are conventional elements, which are already known in the art, and employed within existing mobile communications apparatus, such as mobile camera telephones produced by Nokia, or the like." *Id* a Fig. 4:  **FIGURE 4** *Id* at [Para 0059]: "In order to allow the central control unit 46 to operate, a data storage unit 48 is provided in which is stored various software control programs which may be used by the central control unit 46, as well as any image data or audio data which is to be output from the apparatus, or has been captured thereby. More specifically, in the

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	context of the embodiments the data storage unit 48 stores an image overlay program 482 which is used by the image generator unit 464 to generate images for display, a control program 484 which is used by the controller unit 462 to control the overall operation of the video communications apparatus, a remote image processing operation program 481 which is used by the image processor unit 468 to process remote images received from any remote video communications apparatus with which the present apparatus is communicating via the network, and a sidetone image processing operation program 488 which is also used by the image processor 468 to process the local images captured by the camera 18 so as to allow them to be used as sidetone images, as will be described. Additionally provided within the data storage unit 48 is an area 486 for storing image data, which data may be the raw input (and remote) images, as well as the processed images generated by the image processor 468, or the generated images generated by the image generator 464. It will be further understood that the data storage unit 48 also stores other software programs and data to enable the video communications apparatus to perform its standard functions, such as, for example, to communicate over the network."
12[b]. a first video camera configured to generate the first real-time video stream, wherein the subject image of the first real-time video stream comprises an image of a first video conferencing participant at the first endpoint;	To the extent the preamble is limiting, Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Chatting at [Abstract]: "The invention provides a method and system wherein first video images are directly overlaid with remote video images to produce a combined video image which is then displayed to the user and/or stored as appropriate. Preferably at least one of the first and/or remote images is subject to an image processing operation prior to the overlay operation being performed, the image processing operation being such that the scenes contained within the images to be overlaid when processed are separably distinguishable to a user within the combined video image when viewed by the user. The overlay operation is performed such that the scenes contained within the respective video images are substantially in alignment on top of each other. By overlaying the respective first and remote video images as described a single image is obtained within which the respective scenes of the respective first and remote images are still separably distinguishable, but which is still of an appropriate size for display on a screen of limited size without occlusion of one or other of the images."

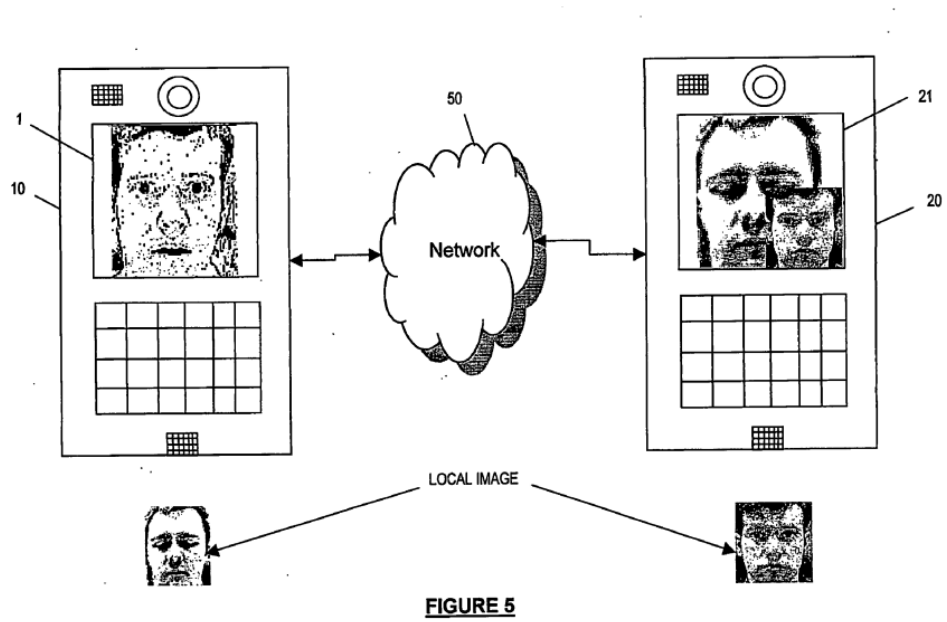
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	Id. at [Para 0080]: "A first embodiment of the present invention is shown in FIG. 5. Here, a local video communications apparatus 10 in accordance with the first embodiment is arranged to communicate via a network 50 with a second remote video communications apparatus 20, which operates, for example, in accordance with the prior art. Each of the video communications apparatus 10 and 20 is provided with a camera for capturing local images of the users, a display 1, and 21, and audio input and output such as microphones and speakers. For ease of reference in the following description, the local image of the user captured by each of video communication apparatus's is shown underneath each apparatus." *Id.* at Fig. 5:  FIGURE 5 *Id.* at [Para 0081]: "Within the first embodiment, the video communications apparatus 10 captures a local image of the user using the camera, and also receives a remote image from the remote video communication apparatus 20 via the network 50. The remote video communications apparatus 20 applies no particular processing in the context of the present embodiments to the image that it transmits to the video communications

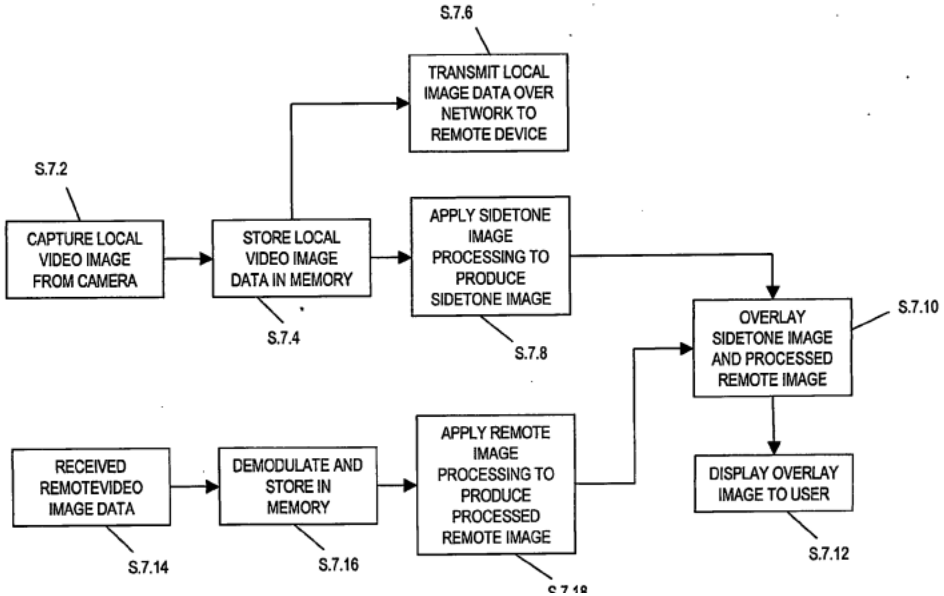
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	apparatus 10, such that the remote image received via the network 50 at the video communications apparatus 10 is substantially the same as the local image captured at the video communications apparatus 20, and displayed as the visual feedback thereat, subject of course to any effects on the image introduced as a consequence of the transmission. Thus, the remote video communications apparatus 20 operates in accordance with the prior art, whereas the local video communications apparatus 10 operates in accordance with the embodiment of the invention, as described next with respect to FIGS. 7, and 4." *Id.* at Fig. 7:  *Id.* at [Para 0057]: "Turning now to FIG. 4, this illustrates in more detail the specific system elements required by a video communications apparatus provided by the embodiments of the present invention. More particularly, a video communications video apparatus 10 according to the embodiments comprises a display screen 1, such as an LCD screen or the like, arranged to display a composite sidetone image and remote image to the user. Additionally provided are a camera 18 arranged to capture local images of the local user, and a microphone 14 arranged to capture any local sounds in the vicinity of the apparatus 10. A sounder or speaker 16 is further provided arranged to

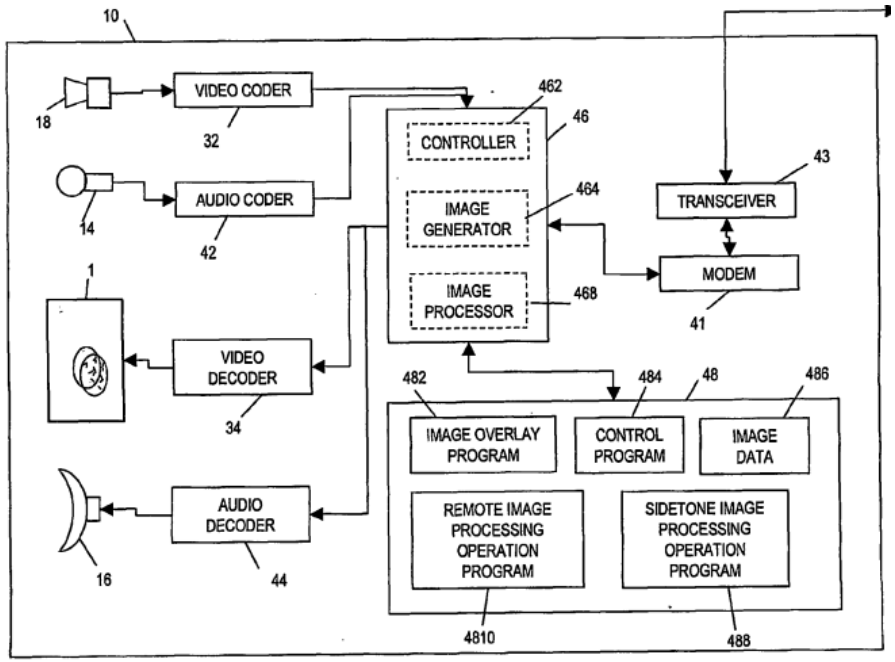
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	output sounds from the video communications apparatus to the user. To receive and encode the local images captured by the camera 18, a video coder 32 is provided arranged to receive the output of the camera 18, to digitally encode the data as image data, and to pass the encoded image data to a central control unit 46. Similarly, in order to encode any analogue audio signals generated by the microphone 14, an audio coder 42 is provided arranged to digitally encode the analogue input signals, and to provide a digital audio signal to the controller 46 as an input thereto. In order to reproduce digital audio and video signals, the controller 46 is arranged to pass video image data to a video decoder 34 which decodes the video image data, and supplies a video image to the display 1, as well as an audio decoder 44 which receives encoded digital audio data from the controller 46, decodes the digital audio data to produce an analogue audio signal, which is then used as an input to the speaker or sounder 16. It will be understood that each of the camera 18, microphone 14, display 1, speaker or sounder 16, video coder 32, audio coder 42, video decoder 34, and audio decoder 44 are conventional elements, which are already known in the art, and employed within existing mobile communications apparatus, such as mobile camera telephones produced by Nokia, or the like." *Id* a Fig. 4:

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	 **FIGURE 4** *Id* at [Para 0059]: "In order to allow the central control unit 46 to operate, a data storage unit 48 is provided in which is stored various software control programs which may be used by the central control unit 46, as well as any image data or audio data which is to be output from the apparatus, or has been captured thereby. More specifically, in the context of the embodiments the data storage unit 48 stores an image overlay program 482 which is used by the image generator unit 464 to generate images for display, a control program 484 which is used by the controller unit 462 to control the overall operation of the video communications apparatus, a remote image processing operation program 481 which is used by the image processor unit 468 to process remote images received from any remote video communications apparatus with which the present apparatus is communicating via the network, and a sidetone image processing operation program 488 which is also used by the image processor 468 to process the local images captured by the camera 18 so as to allow them to be used as sidetone images, as will be described. Additionally provided within the data storage unit 48 is an area 486 for storing

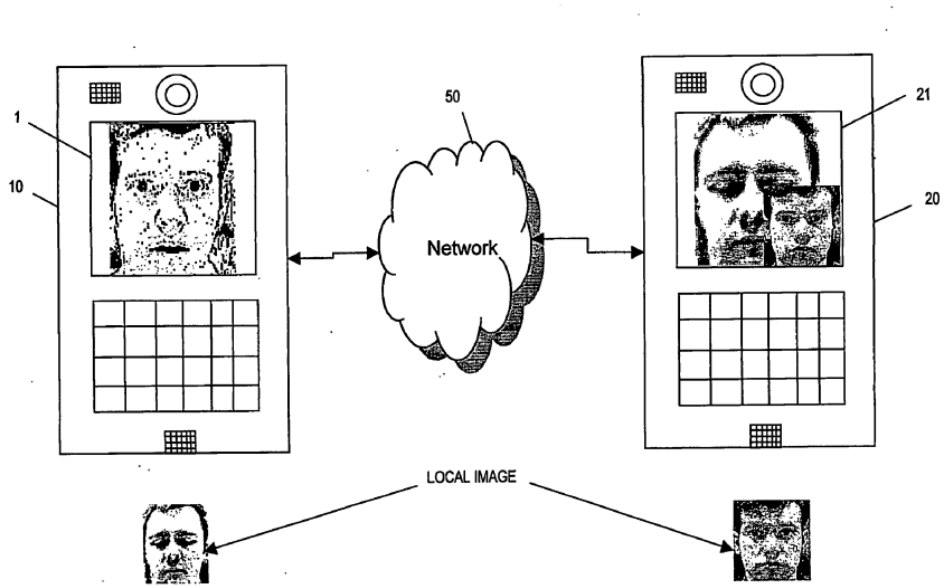
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	image data, which data may be the raw input (and remote) images, as well as the processed images generated by the image processor 468, or the generated images generated by the image generator 464. It will be further understood that the data storage unit 48 also stores other software programs and data to enable the video communications apparatus to perform its standard functions, such as, for example, to communicate over the network."
12[c]. a second video camera configured to generate the second real-time video stream, wherein the subject image of the second real-time video stream comprises an image of a second video conferencing participant at the first endpoint; and	To the extent the preamble is limiting, Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Chatting at [Abstract]: "The invention provides a method and system wherein first video images are directly overlaid with remote video images to produce a combined video image which is then displayed to the user and/or stored as appropriate. Preferably at least one of the first and/or remote images is subject to an image processing operation prior to the overlay operation being performed, the image processing operation being such that the scenes contained within the images to be overlaid when processed are separably distinguishable to a user within the combined video image when viewed by the user. The overlay operation is performed such that the scenes contained within the respective video images are substantially in alignment on top of each other. By overlaying the respective first and remote video images as described a single image is obtained within which the respective scenes of the respective first and remote images are still separably distinguishable, but which is still of an appropriate size for display on a screen of limited size without occlusion of one or other of the images." *Id.* at [Para 0080]: "A first embodiment of the present invention is shown in FIG. 5. Here, a local video communications apparatus 10 in accordance with the first embodiment is arranged to communicate via a network 50 with a second remote video communications apparatus 20, which operates, for example, in accordance with the prior art. Each of the video communications apparatus 10 and 20 is provided with a camera for capturing local images of the users, a display 1, and 21, and audio input and output such as microphones and speakers. For ease of reference in the following description, the local image of the user captured by each of video communication apparatus's is shown underneath each apparatus."

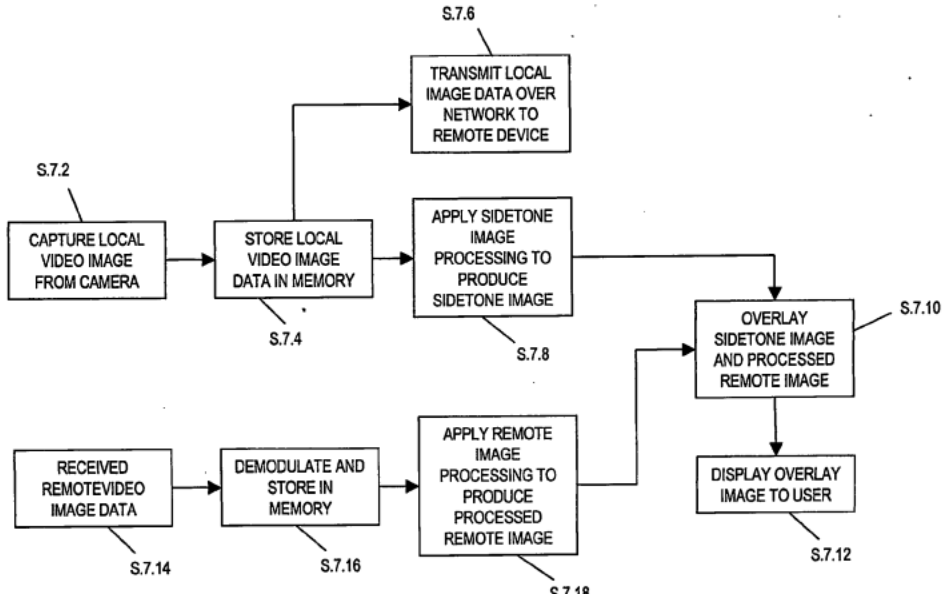
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	Id. at Fig. 5:  FIGURE 5 *Id.* at [Para 0081]: "Within the first embodiment, the video communications apparatus 10 captures a local image of the user using the camera, and also receives a remote image from the remote video communication apparatus 20 via the network 50. The remote video communications apparatus 20 applies no particular processing in the context of the present embodiments to the image that it transmits to the video communications apparatus 10, such that the remote image received via the network 50 at the video communications apparatus 10 is substantially the same as the local image captured at the video communications apparatus 20, and displayed as the visual feedback thereat, subject of course to any effects on the image introduced as a consequence of the transmission. Thus, the remote video communications apparatus 20 operates in accordance with the prior art, whereas the local video communications apparatus 10 operates in accordance with the embodiment of the invention, as described next with respect to FIGS. 7, and 4." *Id.* at Fig. 7:

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	 *Id.* at [Para 0057]: "Turning now to FIG. 4, this illustrates in more detail the specific system elements required by a video communications apparatus provided by the embodiments of the present invention. More particularly, a video communications video apparatus 10 according to the embodiments comprises a display screen 1, such as an LCD screen or the like, arranged to display a composite sidetone image and remote image to the user. Additionally provided are a camera 18 arranged to capture local images of the local user, and a microphone 14 arranged to capture any local sounds in the vicinity of the apparatus 10. A sounder or speaker 16 is further provided arranged to output sounds from the video communications apparatus to the user. To receive and encode the local images captured by the camera 18, a video coder 32 is provided arranged to receive the output of the camera 18, to digitally encode the data as image data, and to pass the encoded image data to a central control unit 46. Similarly, in order to encode any analogue audio signals generated by the microphone 14, an audio coder 42 is provided arranged to digitally encode the analogue input signals, and to provide a digital audio signal to the controller 46 as an input thereto. In order to reproduce digital audio and video signals, the controller 46 is arranged to pass video image data to a video decoder 34 which decodes the video image data, and supplies a video image to the

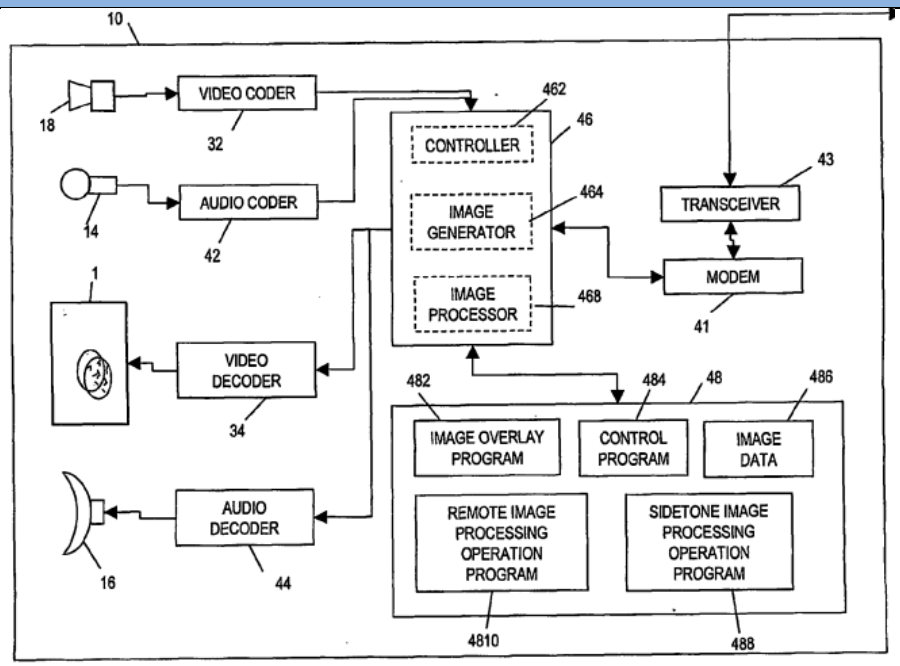
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	display 1, as well as an audio decoder 44 which receives encoded digital audio data from the controller 46, decodes the digital audio data to produce an analogue audio signal, which is then used as an input to the speaker or sounder 16. It will be understood that each of the camera 18, microphone 14, display 1, speaker or sounder 16, video coder 32, audio coder 42, video decoder 34, and audio decoder 44 are conventional elements, which are already known in the art, and employed within existing mobile communications apparatus, such as mobile camera telephones produced by Nokia, or the like." *Id* a Fig. 4:  **FIGURE 4** *Id* at [Para 0059]: "In order to allow the central control unit 46 to operate, a data storage unit 48 is provided in which is stored various software control programs which may be used by the central control unit 46, as well as any image data or audio data which is to be output from the apparatus, or has been captured thereby. More specifically, in the

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	context of the embodiments the data storage unit 48 stores an image overlay program 482 which is used by the image generator unit 464 to generate images for display, a control program 484 which is used by the controller unit 462 to control the overall operation of the video communications apparatus, a remote image processing operation program 481 which is used by the image processor unit 468 to process remote images received from any remote video communications apparatus with which the present apparatus is communicating via the network, and a sidetone image processing operation program 488 which is also used by the image processor 468 to process the local images captured by the camera 18 so as to allow them to be used as sidetone images, as will be described. Additionally provided within the data storage unit 48 is an area 486 for storing image data, which data may be the raw input (and remote) images, as well as the processed images generated by the image processor 468, or the generated images generated by the image generator 464. It will be further understood that the data storage unit 48 also stores other software programs and data to enable the video communications apparatus to perform its standard functions, such as, for example, to communicate over the network."
12[d]. a first control unit configured to forward the first and second real-time video streams to the apparatus; and	To the extent the preamble is limiting, Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Chatting at [Abstract]: "The invention provides a method and system wherein first video images are directly overlaid with remote video images to produce a combined video image which is then displayed to the user and/or stored as appropriate. Preferably at least one of the first and/or remote images is subject to an image processing operation prior to the overlay operation being performed, the image processing operation being such that the scenes contained within the images to be overlaid when processed are separably distinguishable to a user within the combined video image when viewed by the user. The overlay operation is performed such that the scenes contained within the respective video images are substantially in alignment on top of each other. By overlaying the respective first and remote video images as described a single image is obtained within which the respective scenes of the respective first and remote images are still separably distinguishable, but which is still of an appropriate size for display on a screen of limited size without occlusion of one or other of the images."

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	Id. at [Para 0080]: "A first embodiment of the present invention is shown in FIG. 5. Here, a local video communications apparatus 10 in accordance with the first embodiment is arranged to communicate via a network 50 with a second remote video communications apparatus 20, which operates, for example, in accordance with the prior art. Each of the video communications apparatus 10 and 20 is provided with a camera for capturing local images of the users, a display 1, and 21, and audio input and output such as microphones and speakers. For ease of reference in the following description, the local image of the user captured by each of video communication apparatus's is shown underneath each apparatus." *Id.* at Fig. 5:  FIGURE 5 *Id.* at [Para 0081]: "Within the first embodiment, the video communications apparatus 10 captures a local image of the user using the camera, and also receives a remote image from the remote video communication apparatus 20 via the network 50. The remote video communications apparatus 20 applies no particular processing in the context of the present embodiments to the image that it transmits to the video communications

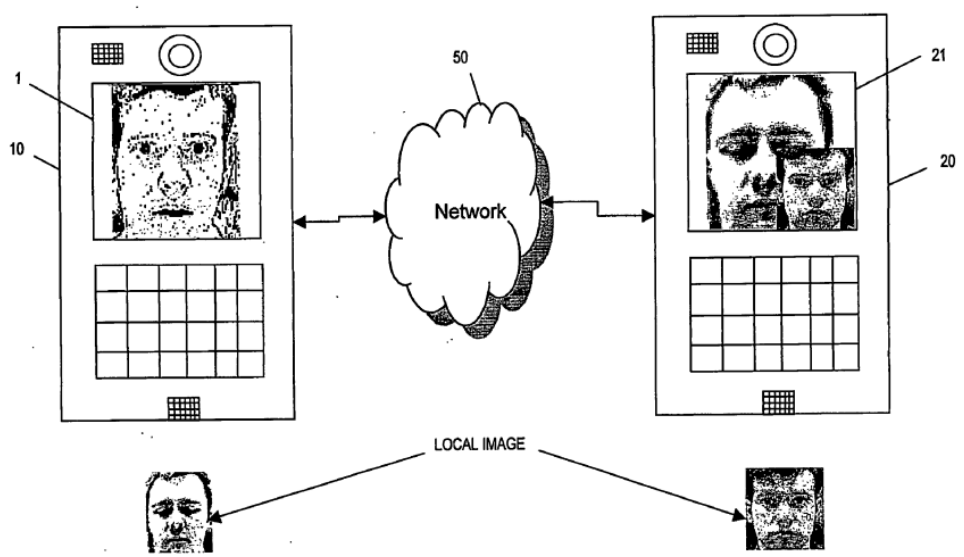
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	apparatus 10, such that the remote image received via the network 50 at the video communications apparatus 10 is substantially the same as the local image captured at the video communications apparatus 20, and displayed as the visual feedback thereat, subject of course to any effects on the image introduced as a consequence of the transmission. Thus, the remote video communications apparatus 20 operates in accordance with the prior art, whereas the local video communications apparatus 10 operates in accordance with the embodiment of the invention, as described next with respect to FIGS. 7, and 4." *Id.* at Fig. 7:  *Id.* at [Para 0057]: "Turning now to FIG. 4, this illustrates in more detail the specific system elements required by a video communications apparatus provided by the embodiments of the present invention. More particularly, a video communications video apparatus 10 according to the embodiments comprises a display screen 1, such as an LCD screen or the like, arranged to display a composite sidetone image and remote image to the user. Additionally provided are a camera 18 arranged to capture local images of the local user, and a microphone 14 arranged to capture any local sounds in the vicinity of the apparatus 10. A sounder or speaker 16 is further provided arranged to

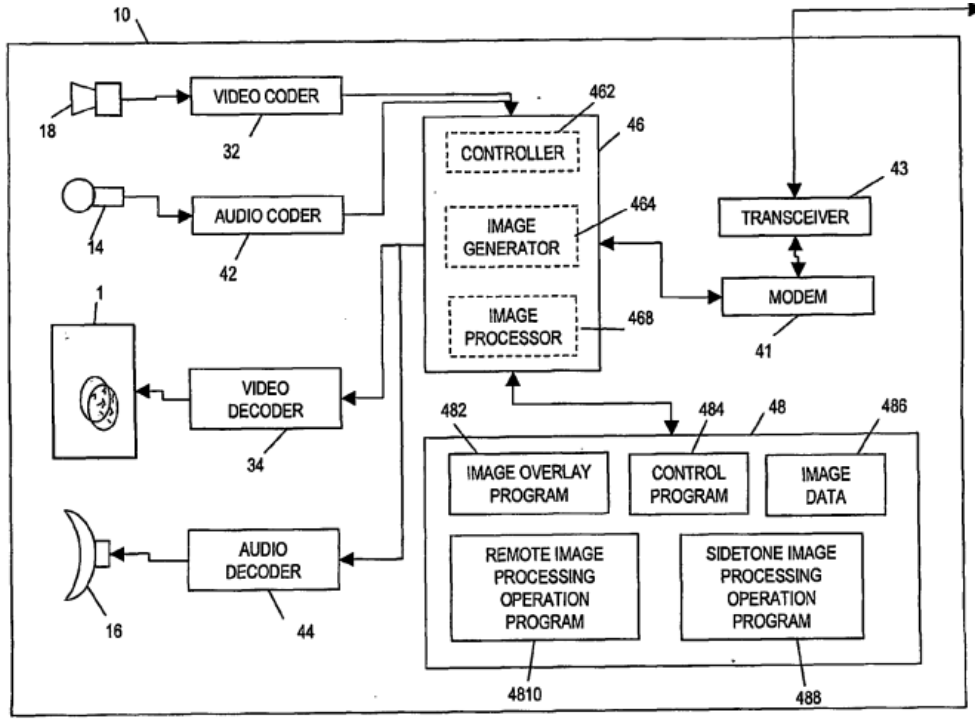
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	output sounds from the video communications apparatus to the user. To receive and encode the local images captured by the camera 18, a video coder 32 is provided arranged to receive the output of the camera 18, to digitally encode the data as image data, and to pass the encoded image data to a central control unit 46. Similarly, in order to encode any analogue audio signals generated by the microphone 14, an audio coder 42 is provided arranged to digitally encode the analogue input signals, and to provide a digital audio signal to the controller 46 as an input thereto. In order to reproduce digital audio and video signals, the controller 46 is arranged to pass video image data to a video decoder 34 which decodes the video image data, and supplies a video image to the display 1, as well as an audio decoder 44 which receives encoded digital audio data from the controller 46, decodes the digital audio data to produce an analogue audio signal, which is then used as an input to the speaker or sounder 16. It will be understood that each of the camera 18, microphone 14, display 1, speaker or sounder 16, video coder 32, audio coder 42, video decoder 34, and audio decoder 44 are conventional elements, which are already known in the art, and employed within existing mobile communications apparatus, such as mobile camera telephones produced by Nokia, or the like." *Id* a Fig. 4:

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	 **FIGURE 4** *Id* at [Para 0059]: "In order to allow the central control unit 46 to operate, a data storage unit 48 is provided in which is stored various software control programs which may be used by the central control unit 46, as well as any image data or audio data which is to be output from the apparatus, or has been captured thereby. More specifically, in the context of the embodiments the data storage unit 48 stores an image overlay program 482 which is used by the image generator unit 464 to generate images for display, a control program 484 which is used by the controller unit 462 to control the overall operation of the video communications apparatus, a remote image processing operation program 481 which is used by the image processor unit 468 to process remote images received from any remote video communications apparatus with which the present apparatus is communicating via the network, and a sidetone image processing operation program 488 which is also used by the image processor 468 to process the local images captured by the camera 18 so as to allow them to be used as sidetone images, as will be described. Additionally provided within the data storage unit 48 is an area 486 for storing

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	image data, which data may be the raw input (and remote) images, as well as the processed images generated by the image processor 468, or the generated images generated by the image generator 464. It will be further understood that the data storage unit 48 also stores other software programs and data to enable the video communications apparatus to perform its standard functions, such as, for example, to communicate over the network."
12[e]. a second video conferencing endpoint configured to communicate with the apparatus, the second endpoint including: a second control unit configured to receive the combined video stream of the apparatus; and	Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Chatting at [Abstract]: "The invention provides a method and system wherein first video images are directly overlaid with remote video images to produce a combined video image which is then displayed to the user and/or stored as appropriate. Preferably at least one of the first and/or remote images is subject to an image processing operation prior to the overlay operation being performed, the image processing operation being such that the scenes contained within the images to be overlaid when processed are separably distinguishable to a user within the combined video image when viewed by the user. The overlay operation is performed such that the scenes contained within the respective video images are substantially in alignment on top of each other. By overlaying the respective first and remote video images as described a single image is obtained within which the respective scenes of the respective first and remote images are still separably distinguishable, but which is still of an appropriate size for display on a screen of limited size without occlusion of one or other of the images." *Id.* at [Para 0009]: "The invention provides a method and system which provides an alternative arrangement of the display of the visual feedback signal with respect to the remote video, which is particularly, but not exclusively, useful for use with small display screens where there is not enough space to display the local and remote signals side by side or otherwise without at least partial occlusion of one of the images, or without the images being so small as to lose detail. In particular the invention provides a method and system wherein the local video images are directly overlaid with the remote video images to produce a combined video image which is then displayed to the user and/or stored as appropriate. Preferably at least one of the local and/or remote images is subject to an image processing operation prior to the overlay operation being performed, the image processing operation being such that the scenes contained within the images to be

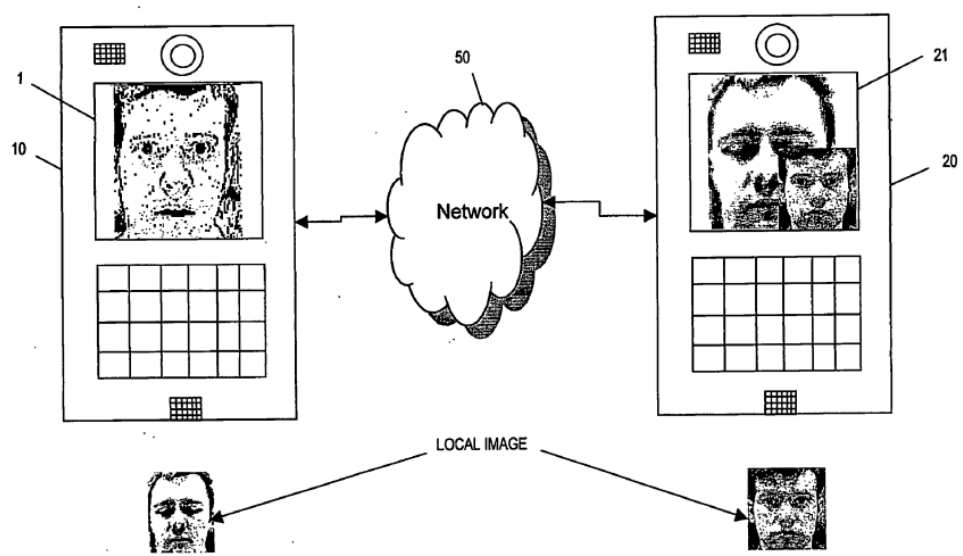
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	overlaid when processed are separably distinguishable to a user within the combined video image when viewed by the user. Additionally, the image processing operations may be further arranged such that one of the resulting local or remote images after processing draws less attention from the user than the other. Preferably although not exclusively the local image should draw less attention than the remote image. The overlay operation is performed such that the scenes contained within the respective video images are substantially in alignment on top of each other. By overlaying the respective local and remote video images as described a single composite image is obtained within which the respective scenes of the respective local and remote images are still separably distinguishable, but which is still of an appropriate size for display on a screen of limited size without occlusion of one or other of the images." *Id.* at [Para 0080]: "A first embodiment of the present invention is shown in FIG. 5. Here, a local video communications apparatus 10 in accordance with the first embodiment is arranged to communicate via a network 50 with a second remote video communications apparatus 20, which operates, for example, in accordance with the prior art. Each of the video communications apparatus 10 and 20 is provided with a camera for capturing local images of the users, a display 1, and 21, and audio input and output such as microphones and speakers. For ease of reference in the following description, the local image of the user captured by each of video communication apparatus's is shown underneath each apparatus." *Id.* at Fig. 5:

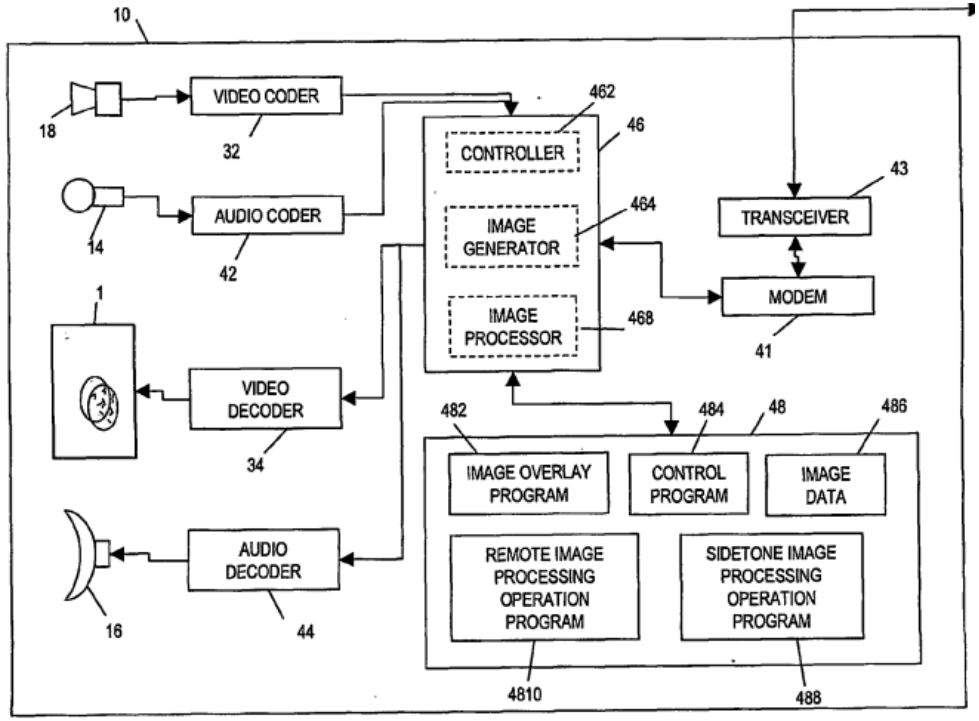
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	 FIGURE 5 *Id.* at [Para 0057]: "Turning now to FIG. 4, this illustrates in more detail the specific system elements required by a video communications apparatus provided by the embodiments of the present invention. More particularly, a video communications video apparatus 10 according to the embodiments comprises a display screen 1, such as an LCD screen or the like, arranged to display a composite sidetone image and remote image to the user. Additionally provided are a camera 18 arranged to capture local images of the local user, and a microphone 14 arranged to capture any local sounds in the vicinity of the apparatus 10. A sounder or speaker 16 is further provided arranged to output sounds from the video communications apparatus to the user. To receive and encode the local images captured by the camera 18, a video coder 32 is provided arranged to receive the output of the camera 18, to digitally encode the data as image data, and to pass the encoded image data to a central control unit 46. Similarly, in order to encode any analogue audio signals generated by the microphone 14, an audio coder 42 is provided arranged to digitally encode the analogue input signals, and to provide a digital audio signal to the controller 46 as an input thereto. In order to reproduce digital audio

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	and video signals, the controller 46 is arranged to pass video image data to a video decoder 34 which decodes the video image data, and supplies a video image to the display 1, as well as an audio decoder 44 which receives encoded digital audio data from the controller 46, decodes the digital audio data to produce an analogue audio signal, which is then used as an input to the speaker or sounder 16. It will be understood that each of the camera 18, microphone 14, display 1, speaker or sounder 16, video coder 32, audio coder 42, video decoder 34, and audio decoder 44 are conventional elements, which are already known in the art, and employed within existing mobile communications apparatus, such as mobile camera telephones produced by Nokia, or the like." *Id* a Fig. 4:  **FIGURE 4**

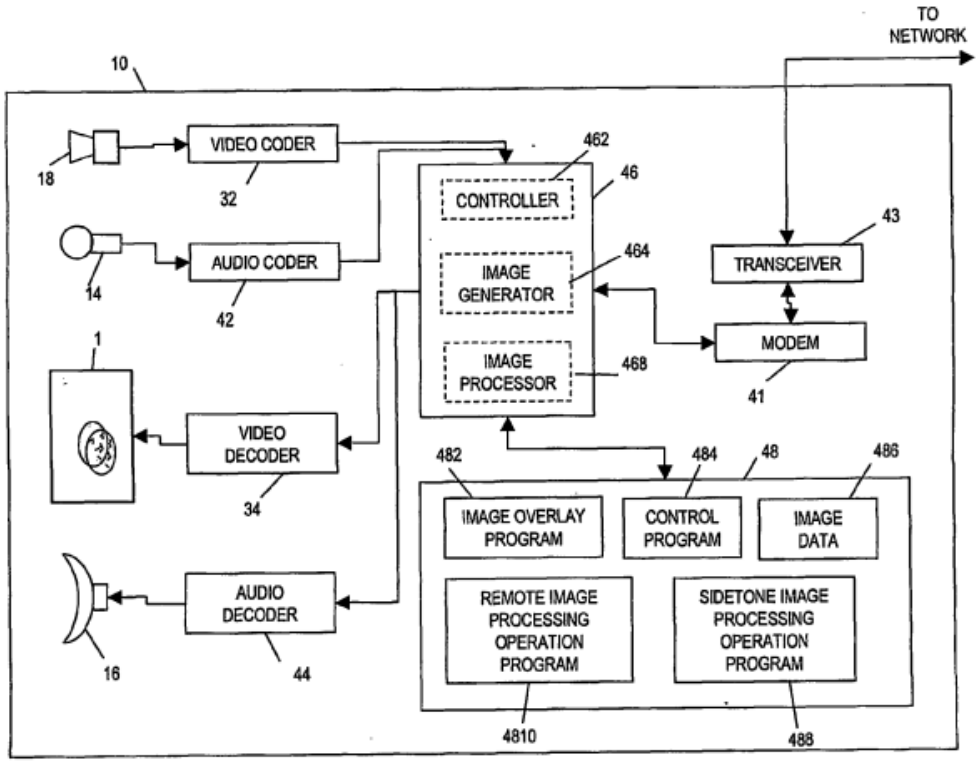
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
12[f]. a display configured to receive and render the combined video stream from the control unit.	Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Chatting at [Abstract]: "The invention provides a method and system wherein first video images are directly overlaid with remote video images to produce a combined video image which is then displayed to the user and/or stored as appropriate. Preferably at least one of the first and/or remote images is subject to an image processing operation prior to the overlay operation being performed, the image processing operation being such that the scenes contained within the images to be overlaid when processed are separably distinguishable to a user within the combined video image when viewed by the user. The overlay operation is performed such that the scenes contained within the respective video images are substantially in alignment on top of each other. By overlaying the respective first and remote video images as described a single image is obtained within which the respective scenes of the respective first and remote images are still separably distinguishable, but which is still of an appropriate size for display on a screen of limited size without occlusion of one or other of the images." *Id.* at [Para 0009]: "The invention provides a method and system which provides an alternative arrangement of the display of the visual feedback signal with respect to the remote video, which is particularly, but not exclusively, useful for use with small display screens where there is not enough space to display the local and remote signals side by side or otherwise without at least partial occlusion of one of the images, or without the images being so small as to lose detail. In particular the invention provides a method and system wherein the local video images are directly overlaid with the remote video images to produce a combined video image which is then displayed to the user and/or stored as appropriate. Preferably at least one of the local and/or remote images is subject to an image processing operation prior to the overlay operation being performed, the image processing operation being such that the scenes contained within the images to be overlaid when processed are separably distinguishable to a user within the combined video image when viewed by the user. Additionally, the image processing operations may be further arranged such that one of the resulting local or remote images after processing draws less attention from the user than the other. Preferably although not exclusively the local image should draw less attention than the remote image. The overlay operation is performed such that the scenes contained within the respective video

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	images are substantially in alignment on top of each other. By overlaying the respective local and remote video images as described a single composite image is obtained within which the respective scenes of the respective local and remote images are still separably distinguishable, but which is still of an appropriate size for display on a screen of limited size without occlusion of one or other of the images." *Id.* at [Para 0080]: "A first embodiment of the present invention is shown in FIG. 5. Here, a local video communications apparatus 10 in accordance with the first embodiment is arranged to communicate via a network 50 with a second remote video communications apparatus 20, which operates, for example, in accordance with the prior art. Each of the video communications apparatus 10 and 20 is provided with a camera for capturing local images of the users, a display 1, and 21, and audio input and output such as microphones and speakers. For ease of reference in the following description, the local image of the user captured by each of video communication apparatus's is shown underneath each apparatus." *Id.* at Fig. 5:

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	 FIGURE 5 *Id.* at [Para 0057]: "Turning now to FIG. 4, this illustrates in more detail the specific system elements required by a video communications apparatus provided by the embodiments of the present invention. More particularly, a video communications video apparatus 10 according to the embodiments comprises a display screen 1, such as an LCD screen or the like, arranged to display a composite sidetone image and remote image to the user. Additionally provided are a camera 18 arranged to capture local images of the local user, and a microphone 14 arranged to capture any local sounds in the vicinity of the apparatus 10. A sounder or speaker 16 is further provided arranged to output sounds from the video communications apparatus to the user. To receive and encode the local images captured by the camera 18, a video coder 32 is provided arranged to receive the output of the camera 18, to digitally encode the data as image data, and to pass the encoded image data to a central control unit 46. Similarly, in order to encode any analogue audio signals generated by the microphone 14, an audio coder 42 is provided arranged to digitally encode the analogue input signals, and to provide a digital audio signal to the controller 46 as an input thereto. In order to reproduce digital audio

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	and video signals, the controller 46 is arranged to pass video image data to a video decoder 34 which decodes the video image data, and supplies a video image to the display 1, as well as an audio decoder 44 which receives encoded digital audio data from the controller 46, decodes the digital audio data to produce an analogue audio signal, which is then used as an input to the speaker or sounder 16. It will be understood that each of the camera 18, microphone 14, display 1, speaker or sounder 16, video coder 32, audio coder 42, video decoder 34, and audio decoder 44 are conventional elements, which are already known in the art, and employed within existing mobile communications apparatus, such as mobile camera telephones produced by Nokia, or the like." *Id* a Fig. 4:  **FIGURE 4**

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
Claim 13	
13[a]. Logic encoded in one or more tangible non-transitory storage media for execution and when executed operable to:	To the extent the preamble is limiting, Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Chatting at [Para 0057]: "Turning now to FIG. 4, this illustrates in more detail the specific system elements required by a video communications apparatus provided by the embodiments of the present invention. More particularly, a video communications video apparatus 10 according to the embodiments comprises a display screen 1, such as an LCD screen or the like, arranged to display a composite sidetone image and remote image to the user. Additionally provided are a camera 18 arranged to capture local images of the local user, and a microphone 14 arranged to capture any local sounds in the vicinity of the apparatus 10. A sounder or speaker 16 is further provided arranged to output sounds from the video communications apparatus to the user. To receive and encode the local images captured by the camera 18, a video coder 32 is provided arranged to receive the output of the camera 18, to digitally encode the data as image data, and to pass the encoded image data to a central control unit 46. Similarly, in order to encode any analogue audio signals generated by the microphone 14, an audio coder 42 is provided arranged to digitally encode the analogue input signals, and to provide a digital audio signal to the controller 46 as an input thereto. In order to reproduce digital audio and video signals, the controller 46 is arranged to pass video image data to a video decoder 34 which decodes the video image data, and supplies a video image to the display 1, as well as an audio decoder 44 which receives encoded digital audio data from the controller 46, decodes the digital audio data to produce an analogue audio signal, which is then used as an input to the speaker or sounder 16. It will be understood that each of the camera 18, microphone 14, display 1, speaker or sounder 16, video coder 32, audio coder 42, video decoder 34, and audio decoder 44 are conventional elements, which are already known in the art, and employed within existing mobile communications apparatus, such as mobile camera telephones produced by Nokia, or the like."

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	 **FIGURE 4** *Id.* at [Para 0058]: "Additionally provided within the apparatus 10 is the controller unit 46 which comprises a processor unit capable of using software programs, so as to process image and audio data according to any relevant programs, and to generally control operation of the video communications apparatus to transmit and receive video and audio data and to receive and output video and audio information from and to the user. For the purposes of the present embodiments, the central control unit 46 can be considered to comprise a controller unit 462 which controls the overall operation of the apparatus, an image generator unit 464 which generates image data for output to the video decoder 34 and subsequent display on the display 1, and an image processor unit 464 which processes input image data in accordance with one of several available image processing

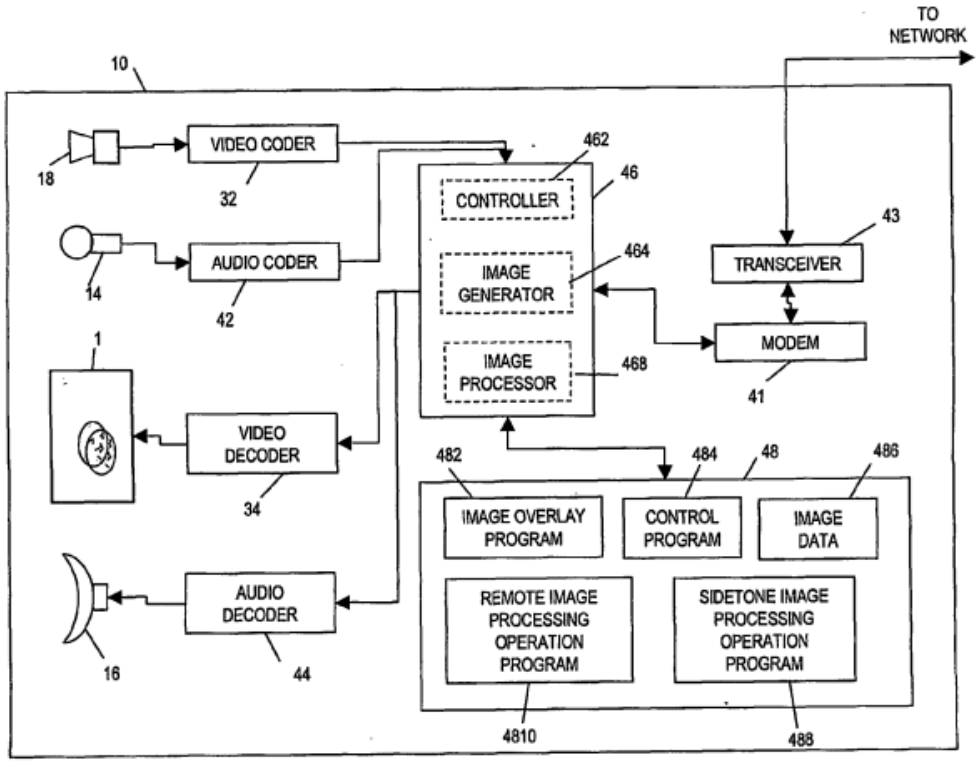
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	operations." *Id.* at [Para 0059]: "In order to allow the central control unit 46 to operate, a data storage unit 48 is provided in which is stored various software control programs which may be used by the central control unit 46, as well as any image data or audio data which is to be output from the apparatus, or has been captured thereby. More specifically, in the context of the embodiments the data storage unit 48 stores an image overlay program 482 which is used by the image generator unit 464 to generate images for display, a control program 484 which is used by the controller unit 462 to control the overall operation of the video communications apparatus, a remote image processing operation program 481 which is used by the image processor unit 468 to process remote images received from any remote video communications apparatus with which the present apparatus is communicating via the network, and a sidetone image processing operation program 488 which is also used by the image processor 468 to process the local images captured by the camera 18 so as to allow them to be used as sidetone images, as will be described. Additionally provided within the data storage unit 48 is an area 486 for storing image data, which data may be the raw input (and remote) images, as well as the processed images generated by the image processor 468, or the generated images generated by the image generator 464. It will be further understood that the data storage unit 48 also stores other software programs and data to enable the video communications apparatus to perform its standard functions, such as, for example, to communicate over the network."
13[b]. receive at least first and second real-time video streams, each of the first and second real-time video streams comprising video frames containing a picture comprising a subject image and a background image;	Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 1[a] above
13[c]. combine the subject images of corresponding video frames of the first and second video streams into a combined frame of a combined video stream such that	Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 1[b] above

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
the subject image of the first video stream is positioned in an anterior portion of the combined frame and the subject image of the second video stream is positioned in a posterior portion of the combined frame, wherein the subject images are combined by:	
13[d]. scaling the video frames of the first video stream and repositioning in a first direction the resulting pictures in the video frames of the first video stream to produce a first sequence of scaled video frames;	Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 1[c] above
13[e]. removing the background image in the first sequence of scaled video frames to produce first background separated video frames to be displayed in the anterior portion of the combined frames of the combined video stream; and	Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 1[d] above
13[f]. superimposing the first background separated video frames onto corresponding ones of the video frames of the second video stream to produce combined video frames of the combined video stream; and	Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 1[e] above
13[e]. supply the combined video stream to a video display for displaying the combined video stream.	Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate:

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	See claim 1[f] above

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
Claim 14	
14[a]. The logic of claim 13, wherein the logic that receives is configured to receive video frames of the first video stream comprising images of multiple videoconference participants in the subject image and video frames of the second video stream comprising images of multiple videoconference participants in the subject image.	Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* Claim 2[a] above

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
Claim 15	
15[a]. The logic of claim 13, wherein the logic that combines is configured to:	To the extent the preamble is limiting, Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See e.g.*, Chatting at [Para 0057]: "Turning now to FIG. 4, this illustrates in more detail the specific system elements required by a video communications apparatus provided by the embodiments of the present invention. More particularly, a video communications video apparatus 10 according to the embodiments comprises a display screen 1, such as an LCD screen or the like, arranged to display a composite sidetone image and remote image to the user. Additionally provided are a camera 18 arranged to capture local images of the local user, and a microphone 14 arranged to capture any local sounds in the vicinity of the apparatus 10. A sounder or speaker 16 is further provided arranged to output sounds from the video communications apparatus to the user. To receive and encode the local images captured by the camera 18, a video coder 32 is provided arranged to receive the output of the camera 18, to digitally encode the data as image data, and to pass the encoded image data to a central control unit 46. Similarly, in order to encode any analogue audio signals generated by the microphone 14, an audio coder 42 is provided arranged to digitally encode the analogue input signals, and to provide a digital audio signal to the controller 46 as an input thereto. In order to reproduce digital audio and video signals, the controller 46 is arranged to pass video image data to a video decoder 34 which decodes the video image data, and supplies a video image to the display 1, as well as an audio decoder 44 which receives encoded digital audio data from the controller 46, decodes the digital audio data to produce an analogue audio signal, which is then used as an input to the speaker or sounder 16. It will be understood that each of the camera 18, microphone 14, display 1, speaker or sounder 16, video coder 32, audio coder 42, video decoder 34, and audio decoder 44 are conventional elements, which are already known in the art, and employed within existing mobile communications apparatus, such as mobile camera telephones produced by Nokia, or the like."

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	 **FIGURE 4** *Id.* at [Para 0058]: "Additionally provided within the apparatus 10 is the controller unit 46 which comprises a processor unit capable of using software programs, so as to process image and audio data according to any relevant programs, and to generally control operation of the video communications apparatus to transmit and receive video and audio data and to receive and output video and audio information from and to the user. For the purposes of the present embodiments, the central control unit 46 can be considered to comprise a controller unit 462 which controls the overall operation of the apparatus, an image generator unit 464 which generates image data for output to the video decoder 34 and subsequent display on the display 1, and an image processor unit 464 which processes input image data in accordance with one of several available image processing

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
	operations." *Id.* at [Para 0059]: "In order to allow the central control unit 46 to operate, a data storage unit 48 is provided in which is stored various software control programs which may be used by the central control unit 46, as well as any image data or audio data which is to be output from the apparatus, or has been captured thereby. More specifically, in the context of the embodiments the data storage unit 48 stores an image overlay program 482 which is used by the image generator unit 464 to generate images for display, a control program 484 which is used by the controller unit 462 to control the overall operation of the video communications apparatus, a remote image processing operation program 481 which is used by the image processor unit 468 to process remote images received from any remote video communications apparatus with which the present apparatus is communicating via the network, and a sidetone image processing operation program 488 which is also used by the image processor 468 to process the local images captured by the camera 18 so as to allow them to be used as sidetone images, as will be described. Additionally provided within the data storage unit 48 is an area 486 for storing image data, which data may be the raw input (and remote) images, as well as the processed images generated by the image processor 468, or the generated images generated by the image generator 464. It will be further understood that the data storage unit 48 also stores other software programs and data to enable the video communications apparatus to perform its standard functions, such as, for example, to communicate over the network."
15[b]. scale the video frames of the second video stream and reposition in a second direction the resulting pictures in the video frames of the second video stream to produce a second sequence of scaled video frames;	Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 3[a] above
15[c]. extend the background image in the second sequence of scaled video frames to produce background extended video frames to be displayed in the posterior	Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 3[b] above

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
portion of the combined frames of the combined video stream; and	
15[d]. superimpose the first background separated video frames onto corresponding ones of background extended video frames to produce combined video frames of the combined video stream.	Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 3[c] above

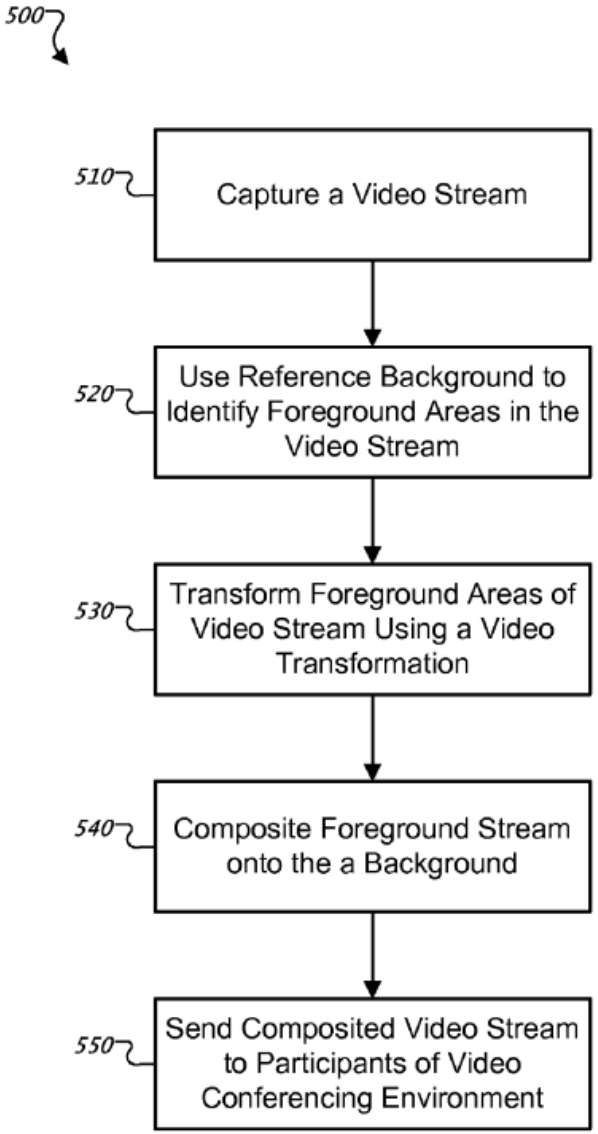
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
Claim 16	
16[a]. The logic of claim 15, wherein the second direction is opposite to the first direction.	To the extent that Chatting does not expressly or inherently disclose this limitation, it would have been obvious to one of ordinary skill in the art to modify the teachings of Chatting, such as by combining with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including: • See, e.g., Ciudad at [Para 14]: "The systems, apparatus, methods and techniques described in this document relate generally to applying image transformations in a captured video stream. One such image transformation can include resizing a foreground area of a captured video stream. The video stream can be captured by a webcam, digital video recorder or other video capture device. Such video capture devices can be attached to a computing or processing device in a variety of ways. For example, a camera can be mounted in a computer monitor frame, such as a built-in iSight camera available from Apple Inc. of Cupertino, Calif. The video capture device can be coupled with a computing device through a wireline connection, such as a universal serial bus (USB) connection, a firewire connection, or the video capture device can be coupled through a wireless connection, to name a few examples. The computing device to which the video capture device is coupled can include a laptop computer, a desktop computer, a phone, or other electronic or processing devices, to name a few examples." *Id.* at [Para 0019]: "Subsequently, the videoconference application 101 can apply one or more image transformations to the video stream. In particular, the foreground areas of the video stream can be manipulated independently of the background areas. For example, the videoconference application 101 can apply a panning, inverting, rotating, blurring, pixelating, resizing, decolorizing, or color-adjusting image transformation to a foreground area 110 of the captured video frame. So as to facilitate transformations of the foreground area that would reveal areas in the field of view that are occluded by the participant, the foreground area 110 of each video frame is composited with the reference background image to generate the desired effect. In such implementations, the composite video stream is sent to the other videoconference participants." *Id.* at [Para 0020]: "The videoconference application 101 can also include a preview area

	114. The preview area 114 can show a user of the videoconference application 101 a substantially similar copy of one or more video frames that are sent to other participants of the videoconference. For example, participant 104 can view a copy of the video frames that are sent to participant 108 in preview area 114. In addition, the preview area 114 can show a participant the captured video frames after being altered by one or more image transformations. For example, the preview area 114 can show participant 104 captured video frames after a blurring image transformation is applied to the foreground area 110."

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
Claim 17	
17[a]. The logic of claim 13, wherein the logic that combines is configured to: remove the background image in the video frames of the first and second video streams to produce first and second background separated video frames;	Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 5[a] above
17[b]. generate supplemental background image video frames that comprise a supplemental background image; and	Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 5[b] above
17[c]. superimpose corresponding ones of the first background separated video frames, and the second background separated video frames onto corresponding ones of the supplemental background video frames to produce the combined video frames of the combined video stream.	Chatting either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *See* claim 5[c] above

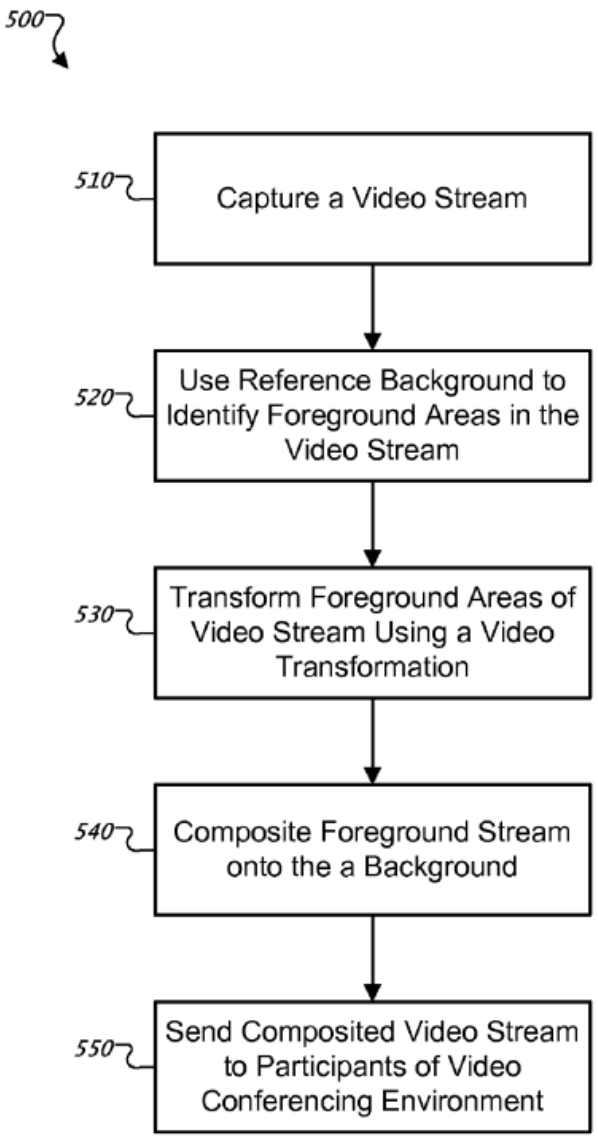
Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
Claim 18	
18[a]. The logic of claim 13, wherein the first and second video streams are produced at the same video conferencing site.	To the extent that Chatting does not expressly or inherently disclose this limitation, it would have been obvious to one of ordinary skill in the art to modify the teachings of Chatting, such as by combining with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including: • See, e.g., Ciudad at [Para 0022]: "FIG. 2 is a flow chart for an example method 200 used to capture a reference background image. In general, a videoconference participant informs the videoconference application 101 that the application should capture a reference background image. The videoconference application 101 can then capture one or more images and determine an absence of motion. If an absence of motion is detected, the video conferencing application 101 can store video frame data as the reference background image. Otherwise, an error message can be displayed. Some or all of method 200 can be repeated as necessary to generate an appropriate reference background image. In some implementations, a user of the videoconference environment can capture a reference background image without participating in a videoconference. In other words, a videoconference need not be in progress to execute any portion of method 200." *Id.* at [Para 0036]: "In some implementations, instead of compositing the transformed foreground area onto the reference background image, the transformed foreground area can be composited over an alternative background image. For example, the participant can select an outdoor scene, a cityscape, an image of Time Square, another video stream, or other background images that the user has captured. Alternatively, the background image used in the composition can be a transformed version of the reference background image. Thus, the background area of the video stream can be separately modified by image transformations. In some implementations, the method 200 can be repeated any number of times to capture any number of alternative background images. For example, a reference background image can be stored as alternative background image. Multiple alternative background images can be presented (e.g., in the preview area 114) so that a user may select one of the images to use as the background image in the composition." *Id.* at [Para 0037]: "In some implementations, when a background image has been

	identified, the background image can be transmitted to once to all participants of a video conference session. Subsequently, only portions of the foreground area of the video stream are transmitted to video conference participants. These foreground area updates are composited with background image separately for each participant. Such an implementation, can advantageously save transmission bandwidth by transmitting at most only the foreground area of the video stream." *Id.* at [Para 0038]: "In step 550, the composited video stream is sent to the participants of the video conferencing environment. This allows the other participants of the videoconference to view the composited video stream. For example, the other participants can view an inverted representation of a participant who has selected to invert the foreground area of their video stream. Moreover, participants can view changes to the video streams in real-time. For example, participant A can view when participant B modifies their selected transformation, their background image, their background image transformation, or combinations thereof." *Id.* at Fig. 5:


500
510
Capture a Video Stream
520
Use Reference Background to Identify Foreground Areas in the Video Stream
530
Transform Foreground Areas of Video Stream Using a Video Transformation
540
Composite Foreground Stream onto the a Background
550
Send Composited Video Stream to Participants of Video Conferencing Environment

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
Claim 19	
19[a]. The logic of claim 13, wherein the first and second video streams are produced at different video conferencing sites.	To the extent that Chatting does not expressly or inherently disclose this limitation, it would have been obvious to one of ordinary skill in the art to modify the teachings of Chatting, such as by combining with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including: • See, e.g., Ciudad at [Para 0022]: "FIG. 2 is a flow chart for an example method 200 used to capture a reference background image. In general, a videoconference participant informs the videoconference application 101 that the application should capture a reference background image. The videoconference application 101 can then capture one or more images and determine an absence of motion. If an absence of motion is detected, the video conferencing application 101 can store video frame data as the reference background image. Otherwise, an error message can be displayed. Some or all of method 200 can be repeated as necessary to generate an appropriate reference background image. In some implementations, a user of the videoconference environment can capture a reference background image without participating in a videoconference. In other words, a videoconference need not be in progress to execute any portion of method 200." *Id.* at [Para 0036]: "In some implementations, instead of compositing the transformed foreground area onto the reference background image, the transformed foreground area can be composited over an alternative background image. For example, the participant can select an outdoor scene, a cityscape, an image of Time Square, another video stream, or other background images that the user has captured. Alternatively, the background image used in the composition can be a transformed version of the reference background image. Thus, the background area of the video stream can be separately modified by image transformations. In some implementations, the method 200 can be repeated any number of times to capture any number of alternative background images. For example, a reference background image can be stored as alternative background image. Multiple alternative background images can be presented (e.g., in the preview area 114) so that a user may select one of the images to use as the background image in the composition." *Id.* at [Para 0037]: "In some implementations, when a background image has been

	identified, the background image can be transmitted to once to all participants of a video conference session. Subsequently, only portions of the foreground area of the video stream are transmitted to video conference participants. These foreground area updates are composited with background image separately for each participant. Such an implementation, can advantageously save transmission bandwidth by transmitting at most only the foreground area of the video stream." *Id.* at [Para 0038]: "In step 550, the composited video stream is sent to the participants of the video conferencing environment. This allows the other participants of the videoconference to view the composited video stream. For example, the other participants can view an inverted representation of a participant who has selected to invert the foreground area of their video stream. Moreover, participants can view changes to the video streams in real-time. For example, participant A can view when participant B modifies their selected transformation, their background image, their background image transformation, or combinations thereof. *Id.* at Fig. 5:


500
510
Capture a Video Stream
520
Use Reference Background to Identify Foreground Areas in the Video Stream
530
Transform Foreground Areas of Video Stream Using a Video Transformation
540
Composite Foreground Stream onto the a Background
550
Send Composited Video Stream to Participants of Video Conferencing Environment

Asserted Claim of the '293 Patent	Exemplary Citations to Chatting
Claim 20	
20[a]. The logic of claim 13, wherein the logic that combines is configured to be performed at a site other than where the first and second video streams are produced.	To the extent that Chatting does not expressly or inherently disclose this limitation, it would have been obvious to one of ordinary skill in the art to modify the teachings of Chatting, such as by combining with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including: • See, e.g., Sawyer (Ex. A-1) at [Column 04, Line 47]: "Local computer 101 may also act as a conference server, or a separate conference server. Conference server 103 may be used to administer the video conference, blend signals, etc. A conference server may be utilized to switch between, or to simultaneously blend, a plurality of video signals from separate conference users with a primary desktop feed. Switching may be implemented based on the activity occurring within a video conference, such as a participant speaking, an administrator selecting a video signal, and the like."

Exhibit B-1: Invalidity of U.S. Patent No. 8,941,708 in view of U.S. Patent Pub. No. 2010/0085416 A1 ("Hegde") [1]

This chart is subject to all reservations, objections, and disclaimers in Defendant's Invalidity Contentions and any amendment, supplement, or modification thereof, which are incorporated herein by reference in their entirety.

Hegde was originally filed October 06, 2008 and published as a publication on April 08, 2010, and thus is available as prior art to U.S. Patent No. 8,941,708 (the "708 Patent") under at least 35 U.S.C. § 102(b).

Hegde is also evidence of prior invention in the United States under 35 U.S.C. § 102(g). The conception of Hegde occurred at least as early as October 06, 2008. Based on information currently available, the persons or entities involved in the conception and diligent reduction to practice of the ideas in Hegde include at least the named inventors and the assignee. Discovery is ongoing and Defendant will update this chart pursuant to Federal Rule of Civil Procedure 26(e), the Local Rules, and the Orders of record in this matter subject to further investigation and discovery regarding the reference, the Court's construction of the claims at issue, and discovery generally, including third-party discovery.

Hegde anticipates the asserted claims of the '708 Patent. Alternatively, Hegde renders obvious the asserted claims, either alone or in combination with other prior art identified in the cover pleading or herein, and/or in combination with (1) the general knowledge of one of ordinary skill in the art; (2) the teachings of any of the prior art references set forth in IPM's other invalidity claim charts with respect to the limitation-at-issue; and/or (3) the teachings of any of the prior art references set forth in the cover pleading of IPM's invalidity contentions with respect to the key concepts applicable for the limitation-at-issue.

[1] Discovery in this case is ongoing and accordingly, this initial invalidity chart is not final. IPM has conducted its invalidity analysis herein based at least in part and in some instances entirely upon Cisco's apparent application of the claims of the '708 Patent. By charting the prior art against the claims and limitations herein, IPM is neither admitting nor agreeing to Cisco's application of the claims at issue in this case, and these charts should not be interpreted as an admission or concession by IPM that any particular construction or application of any claim limitation by Cisco is correct or proper. Additionally, these charts provide representative examples of portions of the charted references that disclose the indicated limitations under Cisco's application of the claims; additional portions of these references other than the representative examples provided herein may also disclose the indicated limitation(s) and IPM contends that the asserted claims are invalid in light of the charted reference(s) as a whole in its or their entirety. Where a particular figure is cited, the citation should be understood to encompass the caption and description of the figure as well as any text relating to or describing the figure. Conversely, where particular text referring to a figure is cited, the citation should be understood to include the figure as well.

To the extent that the following invalidity contentions reflect constructions of claim limitations consistent with or suggested by Cisco's Infringement Contentions, no inference is intended, nor should any be drawn that IPM agrees with Cisco's apparent claim constructions or infringement contentions. IPM offers such invalidity contentions solely in the alternative to any position it may ultimately take as to any claim construction issues. IPM denies that the accused products infringe the asserted claim and expressly reserves the right to contest Cisco's apparent claim constructions and infringement contentions.

Asserted Claim of the '708 Patent	Exemplary Citations
[Claim 1(a)] A method comprising: providing, on a display, an object configured to be moved by a user along an axis extending across video for a plurality of video conference streams;	To the extent the preamble is limiting, Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: "A user viewing the meeting on a display 108 uses an exemplary spatial browser 110, hosted by a conference viewing device or other computing device 112. The computing device 112 can be a desktop or notebook computer, or other device that has a processor, memory, data storage, etc. The spatial browser 110 displays video streams of at least some meeting participant 106 arranged in a 3-dimensional (3-D) representation 114 according the spatial relationships between the actual participants 106. For example, in FIG. 1, "A," "B," "C," "D," and "E" represent one example 3-D representation 114 of the video streams corresponding to Alice, Bob, Charlie, Dave, and Eve, arranged on the display 108 in a spatial analogy of the actual positions of Alice, Bob, Charlie, Dave, and Eve in a meeting. The 3-dimensional representation 114 is dynamic and can be reoriented to emphasize different interesting events, typically events related to the participants during the meeting, or to enable manual navigation around the meeting. The exemplary user interfaces described herein are referred to as 3-D interfaces as they use a 3-D analogy to preserve the spatial relationships among the attendees. Likewise, the conventional interfaces are 2-D interfaces because they display the videos in a non-3-D environment." *Id.* at [Para 0020]. "To achieve spatial browsing, the exemplary system 100 captures the spatial relationships between participants 106 during the conference or meeting. In one implementation, a conference capture engine 116, hosted by a conferencing device or other computing device 118, detects cameras 120 (and microphones) in the meeting space, selects an array of the cameras to capture videos of each of the participants and the spatial characteristics of the meeting space. The conference capture engine 116 combines the video streams from the cameras 120 into a composite media stream, browsable by the user to navigate the 3-

Asserted Claim of the '708 Patent	Exemplary Citations
	dimensional representation 114 of the participants 106 in the meeting space." *Id.* at [Para 0022].

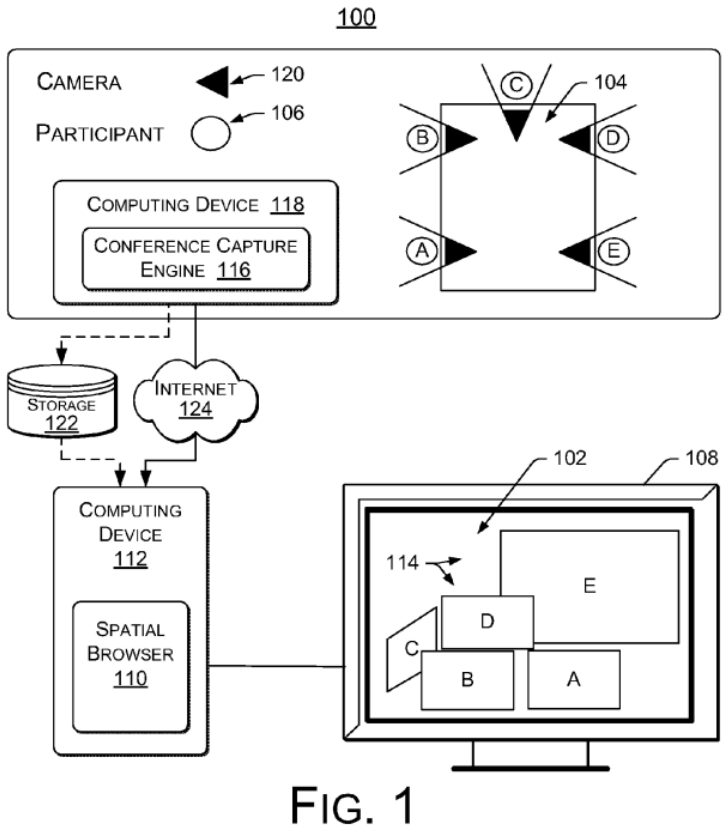
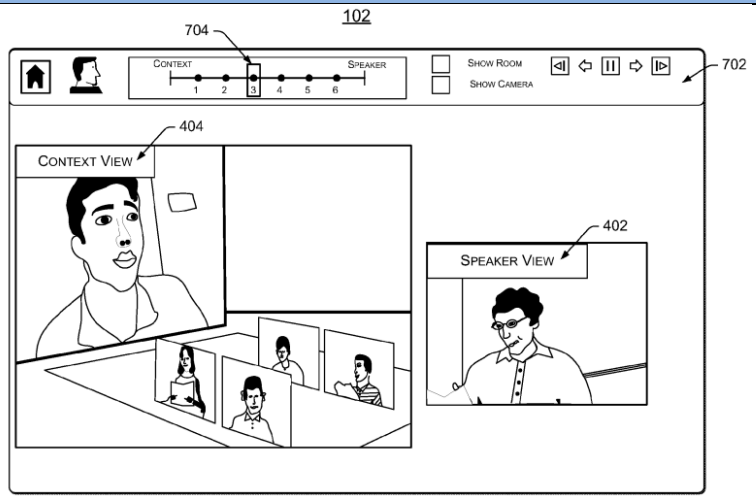
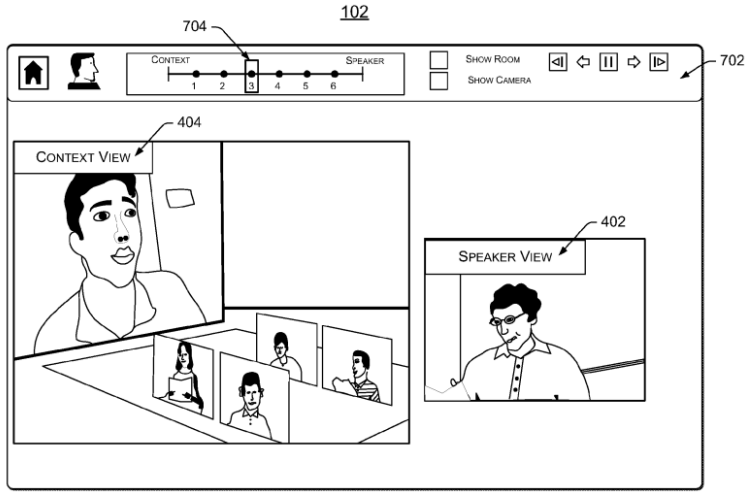
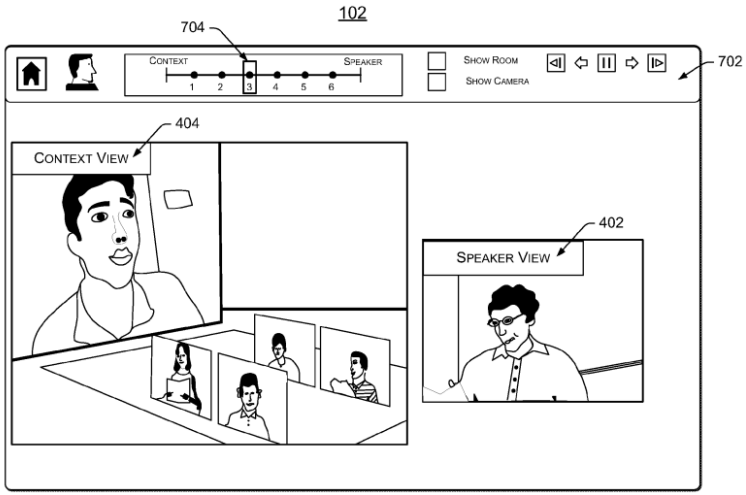


FIG. 1

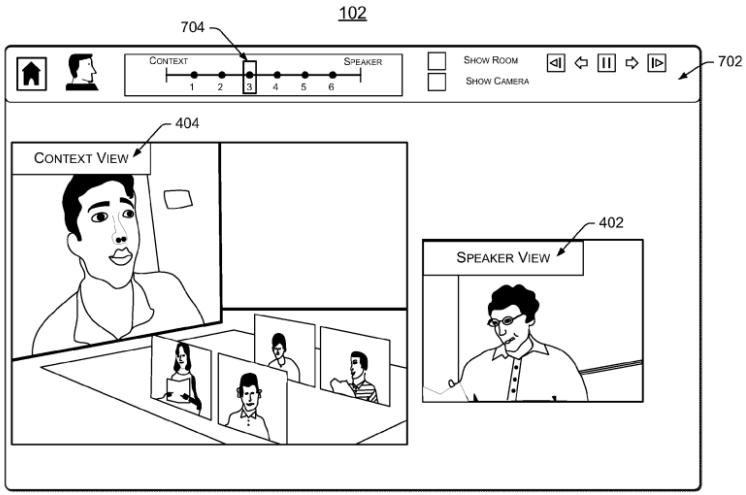
Id. at FIG. 1

Asserted Claim of the ’708 Patent	Exemplary Citations
	 FIG. 7 *Id.* at FIG. 7 “When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the two views (the speaker view 402 and the context view 404) can utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7.” *Id.* at [Para 0060].

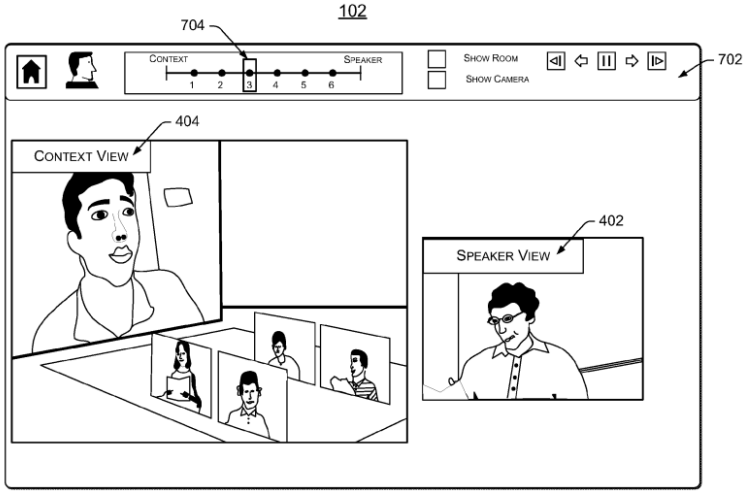
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[Claim 1(b)] associating a plurality of predefined layouts for plurality of video conference streams with respective intervals along the axis;	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: In paragraph 0060, it is explained that users can adjust the relative sizes of two views (the speaker view and context view) using the slider. In Figure 07, "CONTEXT" is positioned at the extreme left of the axis, and "SPEAKER" is positioned at the extreme right. Currently, the slider is placed at the interval marked as 3, making the context view larger than the speaker view. This suggests that, as the slider moves, the layout of the views changes, indicating that a plurality of predefined layouts are associated with respective intervals along the axis.  FIG. 7 *Id.* at FIG. 7 “When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation

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	controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the two views (the speaker view 402 and the context view 404) can utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7.” *Id.* at [Para 0060].
[Claim 1(c)] detecting a user action on the object indicating a position on the axis; and	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate:  FIG. 7 *Id.* at FIG. 7

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	"When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the two views (the speaker view 402 and the context view 404) can utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7." *Id.* at [Para 0060].
[Claim 1(d)] composing, in response to the detecting of the user action, a composite video signal using a layout, of the plurality of predefined layouts, associated with an interval among the intervals within which the position is lying.	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: "To achieve spatial browsing, the exemplary system 100 captures the spatial relationships between participants 106 during the conference or meeting. In one implementation, a conference capture engine 116, hosted by a conferencing device or other computing device 118, detects cameras 120 (and microphones) in the meeting space, selects an array of the cameras to capture videos of each of the participants and the spatial characteristics of the meeting space. The conference capture engine 116 combines the video streams from the cameras 120 into a composite media stream, browsable by the user to navigate the 3-dimensional representation 114 of the participants 106 in the meeting space." *Id.* at [Para 0022]. "In a manual navigation mode, the spatial browser 110 extends navigation controls to the user, so that the user can select which currently interesting event, participant, or part of the meeting space to observe, while spatial relationships between all the participants are preserved, for context. For example, the user may be interested in observing a conversation among the four

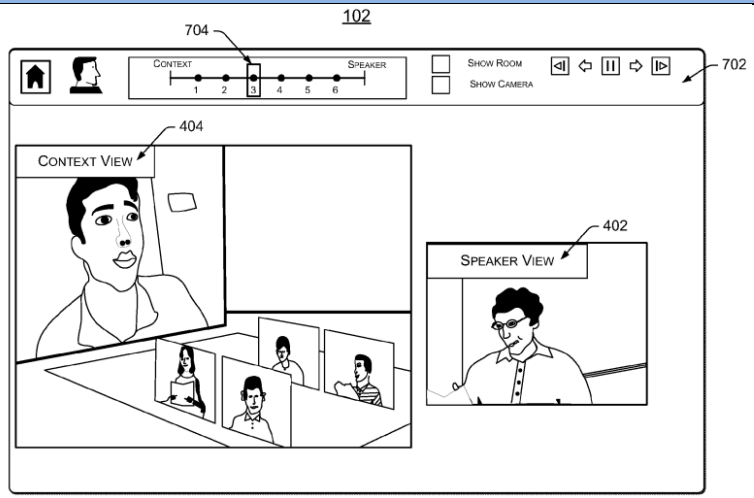
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	people at the end of the table. The user can navigate between participants and/or around the meeting space. The user can also zoom, pan, rotate, and tilt the 3-dimensional environment shown in the context view.” *Id.* at [Para 0029].  FIG. 7 *Id.* at FIG. 7 “When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences

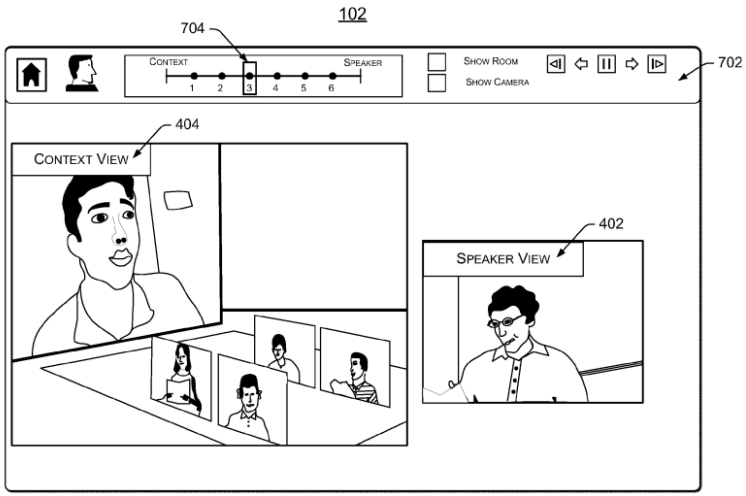
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	for the relative sizes of the two views (the speaker view 402 and the context view 404) can utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7." *Id.* at [Para 0060]. At block **906**, video streams from the capture devices are combined to create a composite media stream. The composite media stream is browsable by a user to navigate a 3-dimensional representation of the meeting space. The conference capture engine **116** combines the video streams from the cameras **120** into a composite media stream, browsable by the user to navigate the 3-dimensional representation **114** of the participants **106** in the meeting space.
[Claim 2] The method according to claim 1, wherein the composite video signal includes a spatial mix of the plurality of video conference streams, and the layout defines one or more frames for containing the plurality of video conference streams, the method further comprising: providing, for at least one of the intervals, a relationship between positions within the at least one of the intervals and a size and position of one or more frames of a respective layout associated with the interval, and calculating, in response to the detecting of the user action, a layout	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: "To achieve spatial browsing, the exemplary system 100 captures the spatial relationships between participants 106 during the conference or meeting. In one implementation, a conference capture engine 116, hosted by a conferencing device or other computing device 118, detects cameras 120 (and microphones) in the meeting space, selects an array of the cameras to capture videos of each of the participants and the spatial characteristics of the meeting space. The conference capture engine 116 combines the video streams from the cameras 120 into a composite media stream, browsable by the user to navigate the 3-dimensional representation 114 of the participants 106 in the meeting space." *Id.* at [Para 0022]. "In a manual navigation mode, the spatial browser 110 extends navigation controls to the user, so that the user can select which currently interesting event, participant, or part of the meeting space to observe, while spatial relationships between all the participants are preserved, for context. For example, the user may be interested in observing a conversation among the four people at the end of the table. The user can navigate between participants and/or around the

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wherein the size and position of each frame of the layout is based on the relationship and the position.	meeting space. The user can also zoom, pan, rotate, and tilt the 3-dimensional environment shown in the context view." *Id.* at [Para 0029].  FIG. 7 *Id.* at FIG. 7 "When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the two views (the speaker view 402 and the context view 404) can

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	utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7." *Id.* at [Para 0060].
[Claim 3] The method according to claim 1, further comprising: associating M numbers of variations of one of the plurality of predefined layouts with M number of sub-intervals within one or more of the intervals; identifying, in response to the detecting of the user action, a sub-interval among the sub-intervals within which the position is lying; selecting a layout, of the plurality of predefined layouts, associated with the sub-interval; and composing the composite video signal using the selected layout.	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: "To achieve spatial browsing, the exemplary system 100 captures the spatial relationships between participants 106 during the conference or meeting. In one implementation, a conference capture engine 116, hosted by a conferencing device or other computing device 118, detects cameras 120 (and microphones) in the meeting space, selects an array of the cameras to capture videos of each of the participants and the spatial characteristics of the meeting space. The conference capture engine 116 combines the video streams from the cameras 120 into a composite media stream, browsable by the user to navigate the 3-dimensional representation 114 of the participants 106 in the meeting space." *Id.* at [Para 0022]. "In a manual navigation mode, the spatial browser 110 extends navigation controls to the user, so that the user can select which currently interesting event, participant, or part of the meeting space to observe, while spatial relationships between all the participants are preserved, for context. For example, the user may be interested in observing a conversation among the four people at the end of the table. The user can navigate between participants and/or around the meeting space. The user can also zoom, pan, rotate, and tilt the 3-dimensional environment shown in the context view." *Id.* at [Para 0029]. "When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still

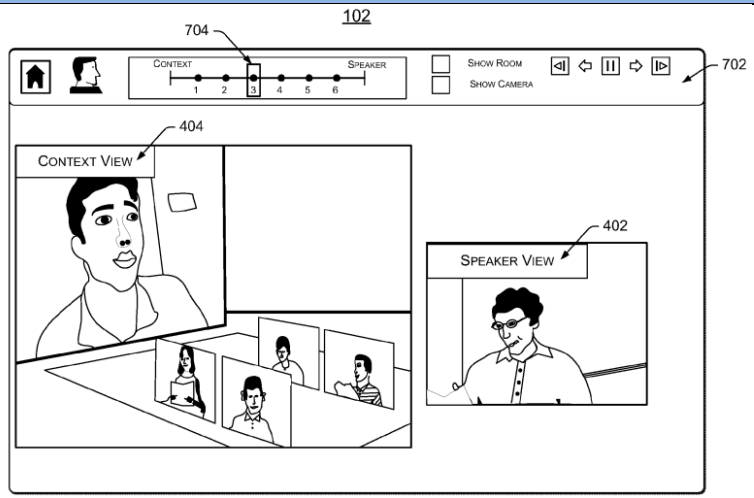
Asserted Claim of the '708 Patent	Exemplary Citations
	provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the two views (the speaker view 402 and the context view 404) can utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7." *Id.* at [Para 0060].
[Claim 4] The method of claim 1, further comprising: identifying the interval among the intervals within which the position is lying.	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: "In a manual navigation mode, the spatial browser 110 extends navigation controls to the user, so that the user can select which currently interesting event, participant, or part of the meeting space to observe, while spatial relationships between all the participants are preserved, for context. For example, the user may be interested in observing a conversation among the four people at the end of the table. The user can navigate between participants and/or around the meeting space. The user can also zoom, pan, rotate, and tilt the 3-dimensional environment shown in the context view." *Id.* at [Para 0029].

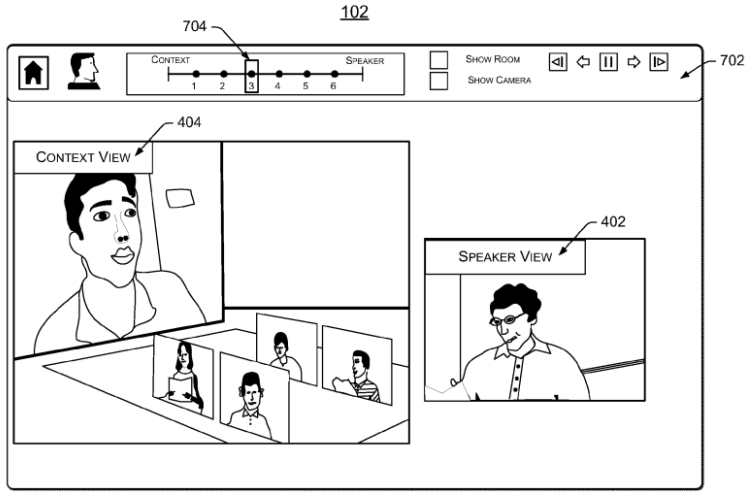
Asserted Claim of the ’708 Patent	Exemplary Citations
	 FIG. 7 *Id.* at FIG. 7 “When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the two views (the speaker view 402 and the context view 404) can

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	utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7." *Id.* at [Para 0060].
[Claim 5] The method of claim 1, further comprising: wherein the composite video signal includes a spatial mix of one or more video conference streams, and the layout defines one or more frames for containing the video conference streams.	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate:  FIG. 7 "To achieve spatial browsing, the exemplary system 100 captures the spatial relationships between participants 106 during the conference or meeting. In one implementation, a conference capture engine 116, hosted by a conferencing device or other computing device 118, detects cameras 120 (and microphones) in the meeting space, selects an array of the cameras to capture videos of each of the participants and the spatial characteristics of the meeting space. The conference capture engine 116 combines the video streams from the cameras 120 into a composite media stream, browsable by the user to navigate the 3-dimensional representation 114 of the participants 106 in the meeting space." *Id.* at [Para 0022].

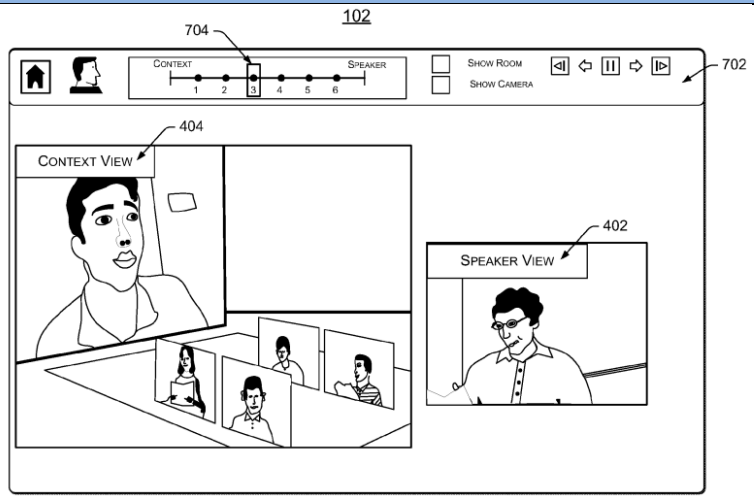
Asserted Claim of the '708 Patent	Exemplary Citations
	"In a manual navigation mode, the spatial browser 110 extends navigation controls to the user, so that the user can select which currently interesting event, participant, or part of the meeting space to observe, while spatial relationships between all the participants are preserved, for context. For example, the user may be interested in observing a conversation among the four people at the end of the table. The user can navigate between participants and/or around the meeting space. The user can also zoom, pan, rotate, and tilt the 3-dimensional environment shown in the context view." *Id.* at [Para 0029].
[Claim 6] The method of claim 5, further comprising: providing, for at least one of the intervals, a relationship between positions within the at least one of the intervals and the size and position of one or more frames of a respective layout associated with the interval.	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: "In a manual navigation mode, the spatial browser 110 extends navigation controls to the user, so that the user can select which currently interesting event, participant, or part of the meeting space to observe, while spatial relationships between all the participants are preserved, for context. For example, the user may be interested in observing a conversation among the four people at the end of the table. The user can navigate between participants and/or around the meeting space. The user can also zoom, pan, rotate, and tilt the 3-dimensional environment shown in the context view." *Id.* at [Para 0029]. "When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the two views (the speaker view 402 and the context view 404) can

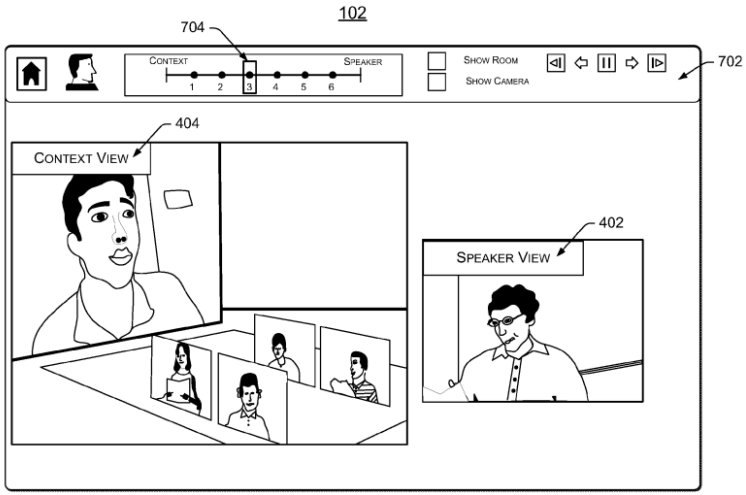
Asserted Claim of the '708 Patent	Exemplary Citations
	utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7." *Id.* at [Para 0060].
[Claim 7] The method of claim 6, further comprising: calculating a layout wherein the size and position of each frame of the layout is based on the relationship and the position.	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: "In a manual navigation mode, the spatial browser 110 extends navigation controls to the user, so that the user can select which currently interesting event, participant, or part of the meeting space to observe, while spatial relationships between all the participants are preserved, for context. For example, the user may be interested in observing a conversation among the four people at the end of the table. The user can navigate between participants and/or around the meeting space. The user can also zoom, pan, rotate, and tilt the 3-dimensional environment shown in the context view." *Id.* at [Para 0029]. "When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the two views (the speaker view 402 and the context view 404) can utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7." *Id.* at [Para 0060].

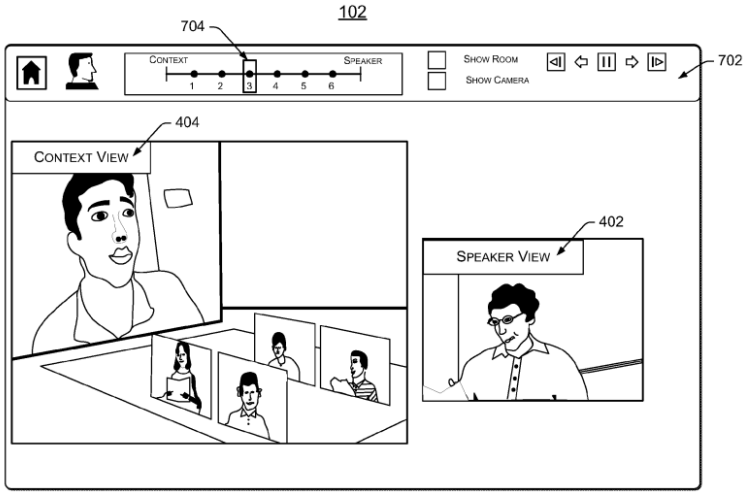
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	 FIG. 7
[Claim 8] The method of claim 1, further comprising: providing, for at least one of the intervals, a relationship between positions within the at least one of the intervals and the size and position of one or more frames of a respective layout associated with the interval.	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: "In a manual navigation mode, the spatial browser 110 extends navigation controls to the user, so that the user can select which currently interesting event, participant, or part of the meeting space to observe, while spatial relationships between all the participants are preserved, for context. For example, the user may be interested in observing a conversation among the four people at the end of the table. The user can navigate between participants and/or around the meeting space. The user can also zoom, pan, rotate, and tilt the 3-dimensional environment shown in the context view." *Id.* at [Para 0029]. "When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to

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	click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the two views (the speaker view 402 and the context view 404) can utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7." *Id.* at [Para 0060].  FIG. 7
[Claim 9] The method of claim 1, further comprising: calculating, in response to the detecting of the user action, a layout wherein a size and position of each	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: "In a manual navigation mode, the spatial browser 110 extends navigation controls to the user, so that the user can select which currently interesting event, participant, or part of the meeting space to observe, while spatial relationships between all the participants are preserved, for context. For example, the user may be interested in observing a conversation among the four

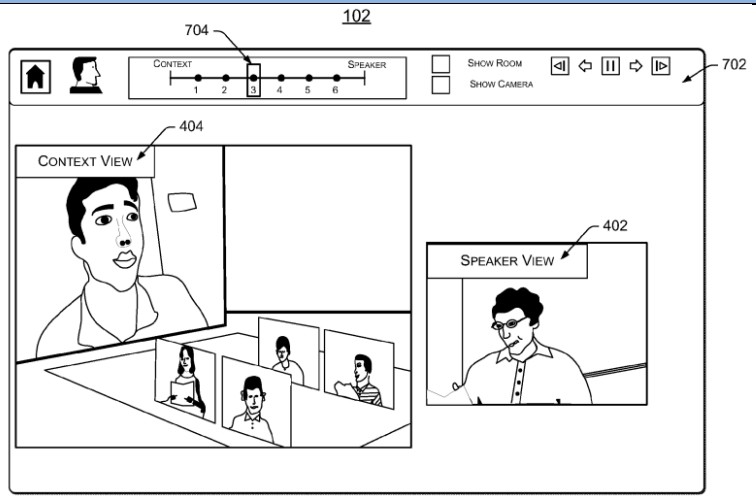
Asserted Claim of the '708 Patent	Exemplary Citations
frame of the layout is based on the relationship and the position.	people at the end of the table. The user can navigate between participants and/or around the meeting space. The user can also zoom, pan, rotate, and tilt the 3-dimensional environment shown in the context view." *Id.* at [Para 0029]. "When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the two views (the speaker view 402 and the context view 404) can utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7." *Id.* at [Para 0060].

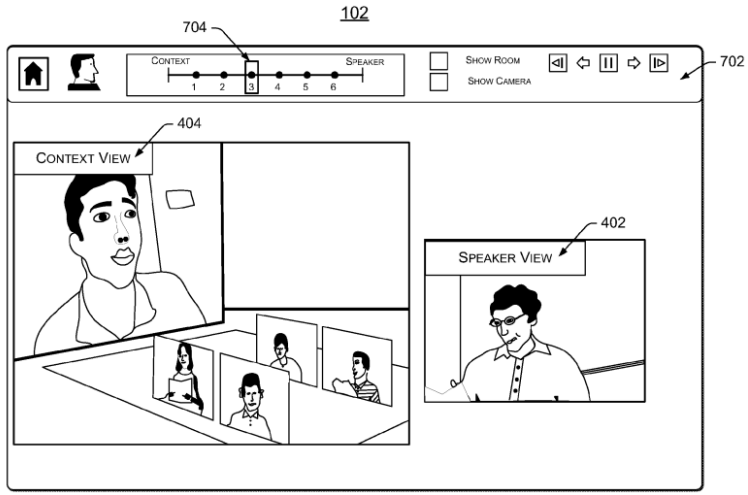
Asserted Claim of the ’708 Patent	Exemplary Citations
	 FIG. 7
[Claim 10(a)] A method comprising: providing, on a display, an object configured to be moved by a user along an axis;	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: “When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the two views (the speaker view 402 and the context view 404) can

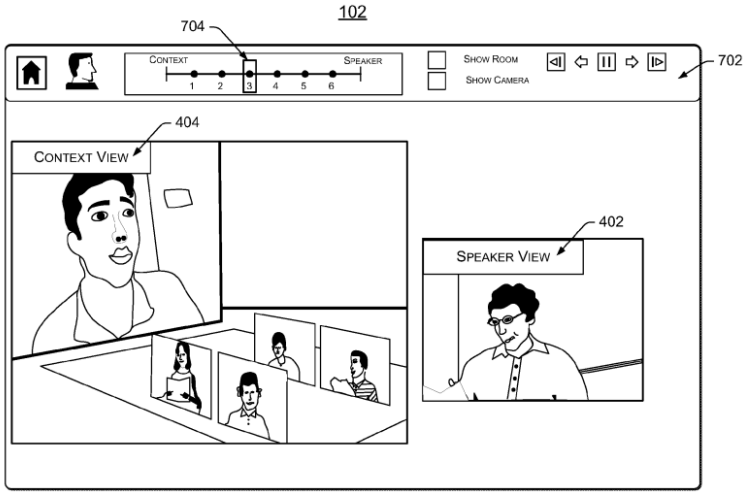
Asserted Claim of the ’708 Patent	Exemplary Citations
	utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7.” *Id.* at [Para 0060].  FIG. 7 *Id.* at FIG. 7.
[Claim 10(b)] associating a plurality of predefined layouts with respective intervals along the axis;	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: In paragraph 0060, it is explained that users can adjust the relative sizes of two views (the speaker view and context view) using the slider. In Figure 07, "CONTEXT" is positioned at the extreme left of the axis, and "SPEAKER" is positioned at the extreme right. Currently, the slider is placed at the interval marked as 3, making the context view larger than the speaker view.

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	"When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the two views (the speaker view 402 and the context view 404) can utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7." *Id.* at [Para 0060].  FIG. 7

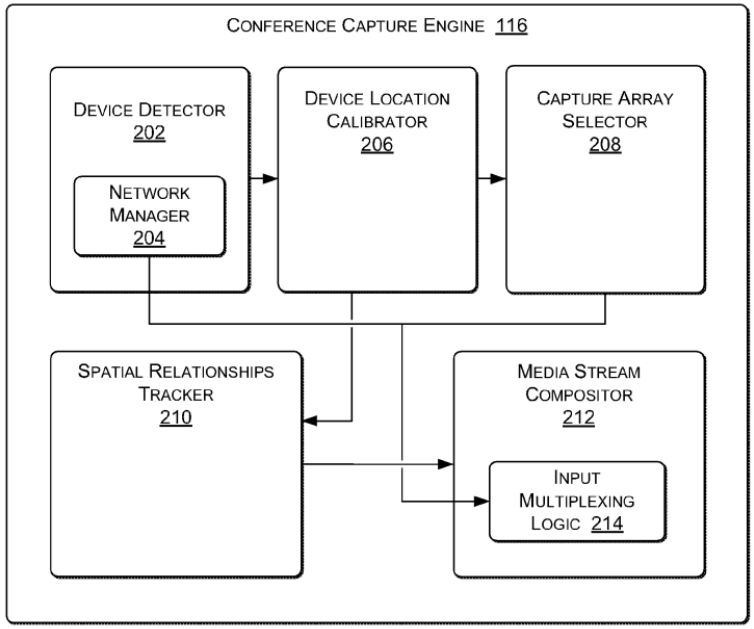
Asserted Claim of the '708 Patent	Exemplary Citations
[Claim 10(c)] detecting a user action on the object indicating a position on the axis;	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: "When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the two views (the speaker view 402 and the context view 404) can utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7." *Id.* at [Para 0060].

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	 FIG. 7
[Claim 10(d)] identifying an interval among the intervals within which the position is lying;	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: “When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the two views (the speaker view 402 and the context view 404) can utilize a control such as a slider

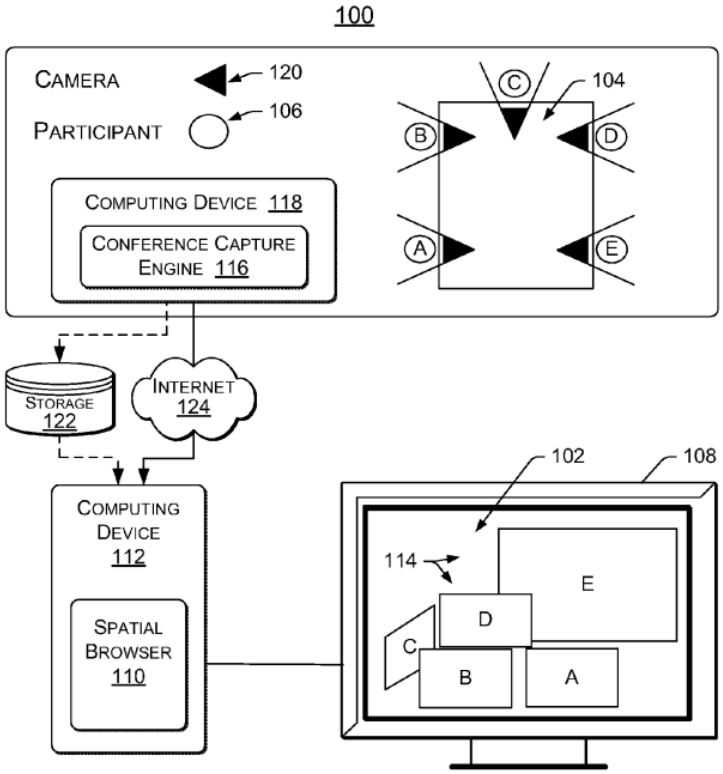
Asserted Claim of the '708 Patent	Exemplary Citations
	704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7." Id. at [Para 0060].  FIG. 7
[Claim 10(e)] selecting the layout associated with the interval; and composing, in response to the detecting of the user action, a composite video signal using the layout, of the plurality of predefined layouts, associated with the interval among the intervals within which the position is lying.	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: "To achieve spatial browsing, the exemplary system 100 captures the spatial relationships between participants 106 during the conference or meeting. In one implementation, a conference capture engine 116, hosted by a conferencing device or other computing device 118, detects cameras 120 (and microphones) in the meeting space, selects an array of the cameras to capture videos of each of the participants and the spatial characteristics of the meeting space. The conference capture engine 116 combines the video streams from the cameras 120 into a composite media stream, browsable by the user to navigate the 3-dimensional representation 114 of the participants 106 in the meeting space." *Id.* at [Para 0022].

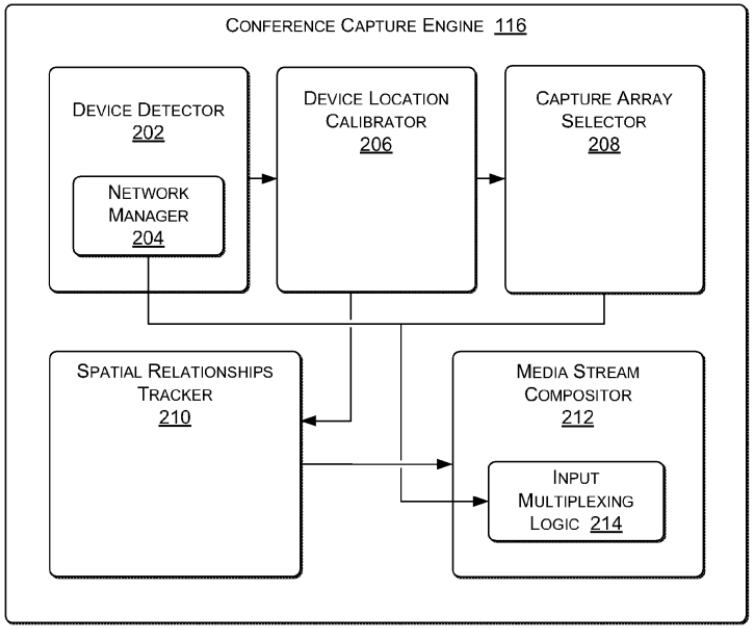
Asserted Claim of the ’708 Patent	Exemplary Citations
	“In a manual navigation mode, the spatial browser 110 extends navigation controls to the user, so that the user can select which currently interesting event, participant, or part of the meeting space to observe, while spatial relationships between all the participants are preserved, for context. For example, the user may be interested in observing a conversation among the four people at the end of the table. The user can navigate between participants and/or around the meeting space. The user can also zoom, pan, rotate, and tilt the 3-dimensional environment shown in the context view.” *Id.* at [Para 0029].  FIG. 7 *Id.* at FIG. 7 “When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual

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	nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the two views (the speaker view 402 and the context view 404) can utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7." *Id.* at [Para 0060]. At block **906**, video streams from the capture devices are combined to create a composite media stream. The composite media stream is browsable by a user to navigate a 3-dimensional representation of the meeting space. *Id.* at [Para 0078]. The conference capture engine **116** combines the video streams from the cameras **120** into a composite media stream, browsable by the user to navigate the 3-dimensional representation **114** of the participants **106** in the meeting space. *Id.* at [Para 0022].
[Claim 11] The method according to claim 10, further comprising: providing the selected layout to a video composing unit, which composes the composite image and which is configured to receive a plurality of video conference streams and output a composite video signal comprising one or more of the received video conference streams based on a layout.	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: "To achieve spatial browsing, the exemplary system 100 captures the spatial relationships between participants 106 during the conference or meeting. In one implementation, a conference capture engine 116, hosted by a conferencing device or other computing device 118, detects cameras 120 (and microphones) in the meeting space, selects an array of the cameras to capture videos of each of the participants and the spatial characteristics of the meeting space. The conference capture engine 116 combines the video streams from the cameras 120 into a composite media stream, browsable by the user to navigate the 3-dimensional representation 114 of the participants 106 in the meeting space." *Id.* at [Para 0022]. "FIG. 2 shows the exemplary conference capture engine 116 of FIG. 1, in greater detail. The configuration of the illustrated conference capture engine 116 is just one example, for the sake

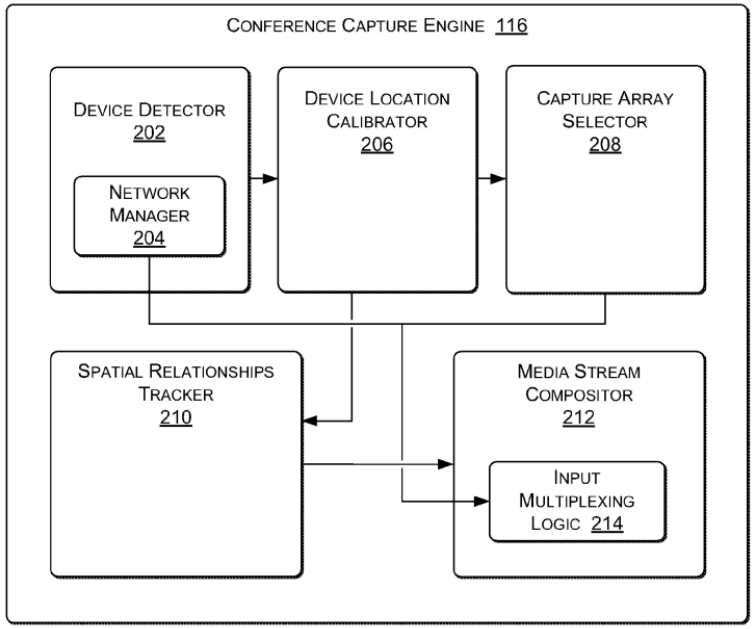
Asserted Claim of the '708 Patent	Exemplary Citations
	of description. Other configurations of hardware and software to capture a conference, including spatial video information and spatial audio information, can also be used." *Id.* at [Para 0031].  FIG. 2
[Claim 12] The method according to claim 10 , further comprising: displaying the composite video signal on the display, the display being of a video conference terminal.	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: "To achieve spatial browsing, the exemplary system 100 captures the spatial relationships between participants 106 during the conference or meeting. In one implementation, a conference capture engine 116, hosted by a conferencing device or other computing device 118, detects cameras 120 (and microphones) in the meeting space, selects an array of

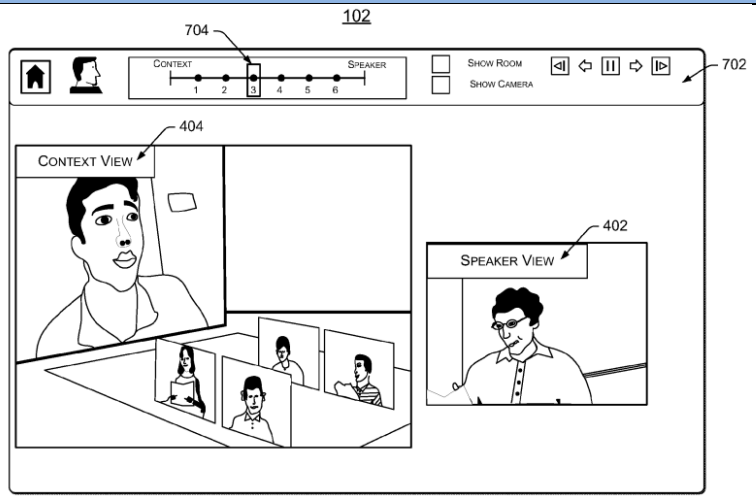
Asserted Claim of the ’708 Patent	Exemplary Citations
	the cameras to capture videos of each of the participants and the spatial characteristics of the meeting space. The conference capture engine 116 combines the video streams from the cameras 120 into a composite media stream, browsable by the user to navigate the 3-dimensional representation 114 of the participants 106 in the meeting space.” *Id.* at [Para 0022]. “FIG. 2 shows the exemplary conference capture engine 116 of FIG. 1, in greater detail. The configuration of the illustrated conference capture engine 116 is just one example, for the sake of description. Other configurations of hardware and software to capture a conference, including spatial video information and spatial audio information, can also be used.” *Id.* at [Para 0031].

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	 FIG. 1

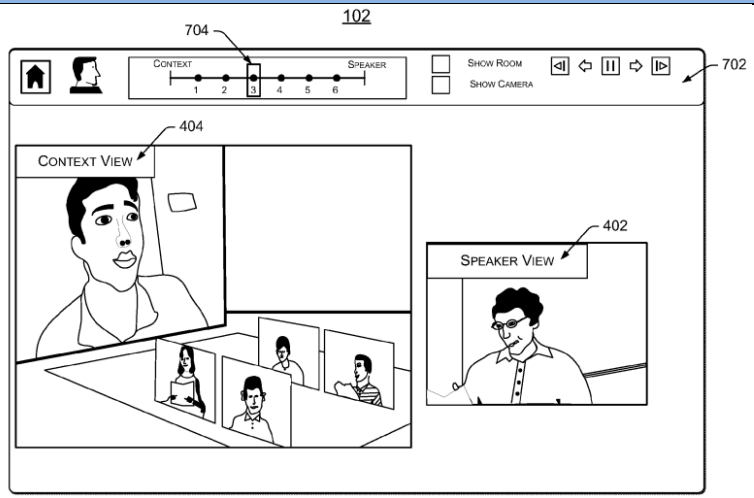
Asserted Claim of the ’708 Patent	Exemplary Citations
	 FIG. 2 In one implementation, videos of views that are displayed in the 3-dimensional arrangement can overlap each other on the display adding to the perception of 3-dimensionality. In FIG. 6, the speaker view **402** displays Alice **602**, the current speaker, while the context view **404** shows an analogy of the seating arrangement **606** of the attendees via the locations of their videos on the display **108**, including an enlarged video of a selected non-speaker **604**, in this case, Charlie. The context view **404** allows the user to focus on a particular attendee by clicking on that attendee's video to enlarge the video. Thus, in user-controlled mode, when Charlie is selected as the focus, the 3-D navigation engine **308** rotates the 3-D arrangement **114** around the center of the table until Charlie's video **604** is positioned at the center, and enlarged.

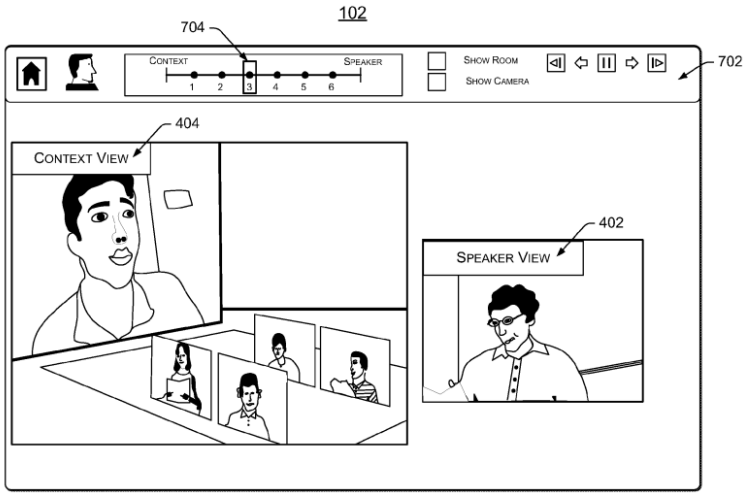
Asserted Claim of the '708 Patent	Exemplary Citations
[Claim 13] The method according to claim 12, further comprising: displaying the object on a display of a control device, which is connected to the video conference terminal, together with a replica of the composite video signal currently displayed on the display of the video conference terminal.	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: "To achieve spatial browsing, the exemplary system 100 captures the spatial relationships between participants 106 during the conference or meeting. In one implementation, a conference capture engine 116, hosted by a conferencing device or other computing device 118, detects cameras 120 (and microphones) in the meeting space, selects an array of the cameras to capture videos of each of the participants and the spatial characteristics of the meeting space. The conference capture engine 116 combines the video streams from the cameras 120 into a composite media stream, browsable by the user to navigate the 3-dimensional representation 114 of the participants 106 in the meeting space." *Id.* at [Para 0022]. "In a manual navigation mode, the spatial browser 110 extends navigation controls to the user, so that the user can select which currently interesting event, participant, or part of the meeting space to observe, while spatial relationships between all the participants are preserved, for context. For example, the user may be interested in observing a conversation among the four people at the end of the table. The user can navigate between participants and/or around the meeting space. The user can also zoom, pan, rotate, and tilt the 3-dimensional environment shown in the context view." *Id.* at [Para 0029]. "FIG. 2 shows the exemplary conference capture engine 116 of FIG. 1, in greater detail. The configuration of the illustrated conference capture engine 116 is just one example, for the sake of description. Other configurations of hardware and software to capture a conference, including spatial video information and spatial audio information, can also be used." *Id.* at [Para 0031].

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	 FIG. 2 *Id.* at FIG. 2

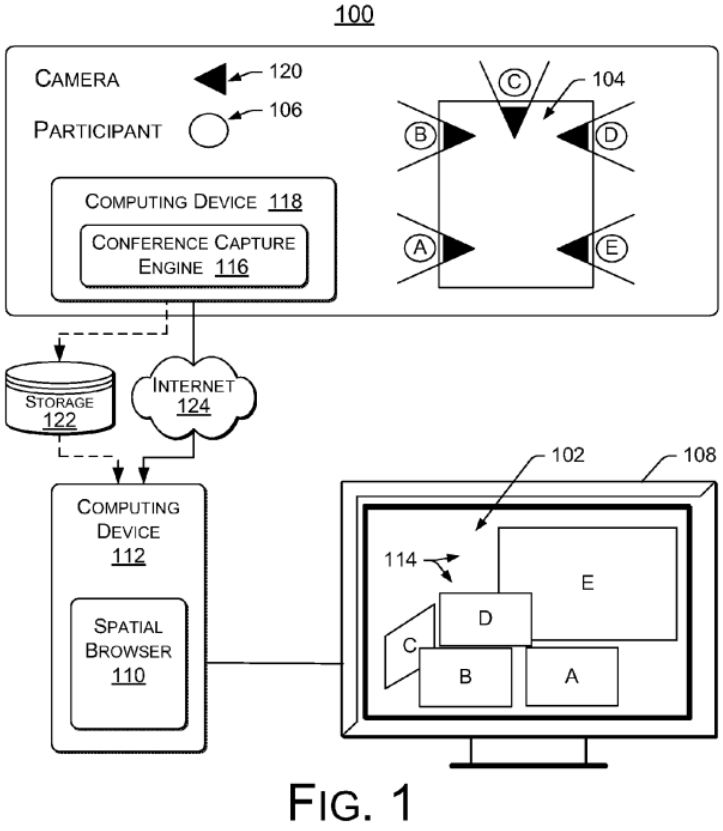
Asserted Claim of the ’708 Patent	Exemplary Citations
	 FIG. 7 *Id.* at FIG. 7 “When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the two views (the speaker view 402 and the context view 404) can utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7.” *Id.* at [Para 0060].

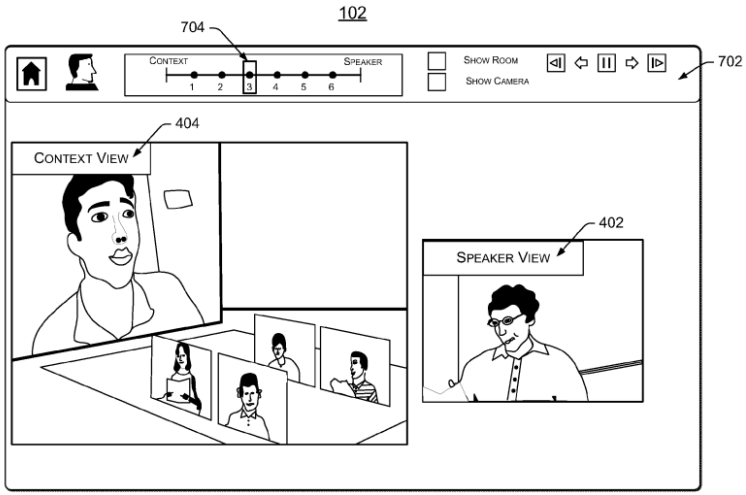
Asserted Claim of the ’708 Patent	Exemplary Citations
[Claim 14] The method according to claim 10 , further comprising: displaying the object on the display, which is of a video conference terminal.	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: “When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the two views (the speaker view 402 and the context view 404) can utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7.” *Id.* at [Para 0060].

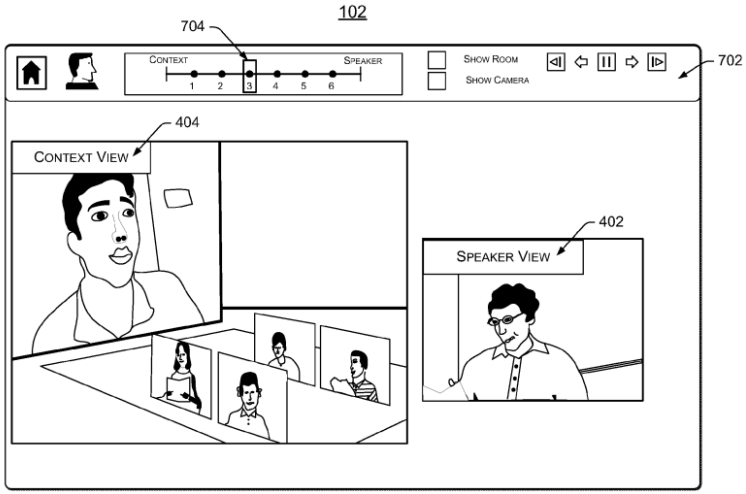
Asserted Claim of the ’708 Patent	Exemplary Citations
	 FIG. 7
[Claim 15] The method according to claim 13, further comprising: updating one of the composite video signal and the replica in real time as the object is moved by the user.	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: “When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the two views (the speaker view 402 and the context view 404) can

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	utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7." *Id.* at [Para 0060].  FIG. 7
[Claim 16(a)] A non-transitory computer-readable storage medium including computer executable instructions, wherein the instructions, when executed by a computer, cause the computer to perform a method, the method comprising:	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: A user viewing the meeting on a display 108 uses an exemplary spatial browser 110, hosted by a conference viewing device or other computing device 112. The computing device 112 can be a desktop or notebook computer, or other device that has a processor, memory, data storage, etc. The spatial browser 110 displays video streams of at least some meeting participant 106 arranged in a 3-dimensional (3-D) representation 114 according the spatial relationships between the actual participants 106. For example, in FIG. 1, "A," "B," "C," "D," and "E" represent one example 3-D representation 114 of the video streams corresponding to Alice, Bob, Charlie, Dave, and Eve, arranged on the display 108 in a spatial analogy of the actual positions of Alice, Bob, Charlie, Dave, and Eve in a meeting. The 3-dimensional

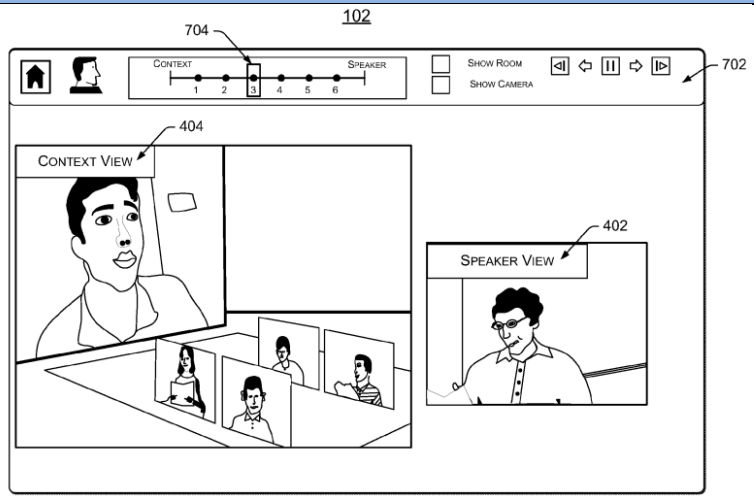
Asserted Claim of the '708 Patent	Exemplary Citations
	representation 114 is dynamic and can be reoriented to emphasize different interesting events, typically events related to the participants during the meeting, or to enable manual navigation around the meeting. The exemplary user interfaces described herein are referred to as 3-D interfaces as they use a 3-D analogy to preserve the spatial relationships among the attendees. Likewise, the conventional interfaces are 2-D interfaces because they display the videos in a non-3-D environment. *Id.* at [Para 0020].
[Claim 16(b)] providing, on a display, an object configured to be moved by a user along an axis;	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: "A user viewing the meeting on a display 108 uses an exemplary spatial browser 110, hosted by a conference viewing device or other computing device 112. The computing device 112 can be a desktop or notebook computer, or other device that has a processor, memory, data storage, etc. The spatial browser 110 displays video streams of at least some meeting participant 106 arranged in a 3-dimensional (3-D) representation 114 according the spatial relationships between the actual participants 106. For example, in FIG. 1, "A," "B," "C," "D," and "E" represent one example 3-D representation 114 of the video streams corresponding to Alice, Bob, Charlie, Dave, and Eve, arranged on the display 108 in a spatial analogy of the actual positions of Alice, Bob, Charlie, Dave, and Eve in a meeting. The 3-dimensional representation 114 is dynamic and can be reoriented to emphasize different interesting events, typically events related to the participants during the meeting, or to enable manual navigation around the meeting. The exemplary user interfaces described herein are referred to as 3-D interfaces as they use a 3-D analogy to preserve the spatial relationships among the attendees. Likewise, the conventional interfaces are 2-D interfaces because they display the videos in a non-3-D environment." *Id.* at [Para 0020]. "To achieve spatial browsing, the exemplary system 100 captures the spatial relationships between participants 106 during the conference or meeting. In one implementation, a conference capture engine 116, hosted by a conferencing device or other computing device 118, detects cameras 120 (and microphones) in the meeting space, selects an array of the cameras to capture videos of each of the participants and the spatial characteristics of the

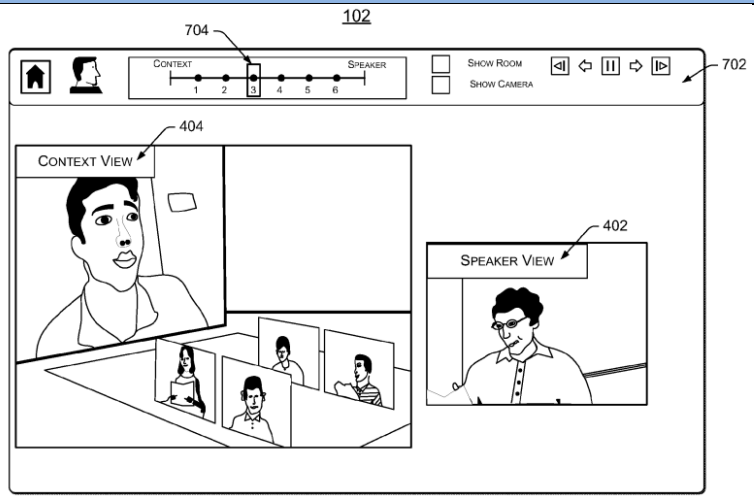
Asserted Claim of the '708 Patent	Exemplary Citations
	meeting space. The conference capture engine 116 combines the video streams from the cameras 120 into a composite media stream, browsable by the user to navigate the 3-dimensional representation 114 of the participants 106 in the meeting space." *Id.* at [Para 0022].  FIG. 1 *Id.* at FIG. 1

Asserted Claim of the ’708 Patent	Exemplary Citations
	 FIG. 7 *Id.* at FIG. 7 “When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the two views (the speaker view 402 and the context view 404) can

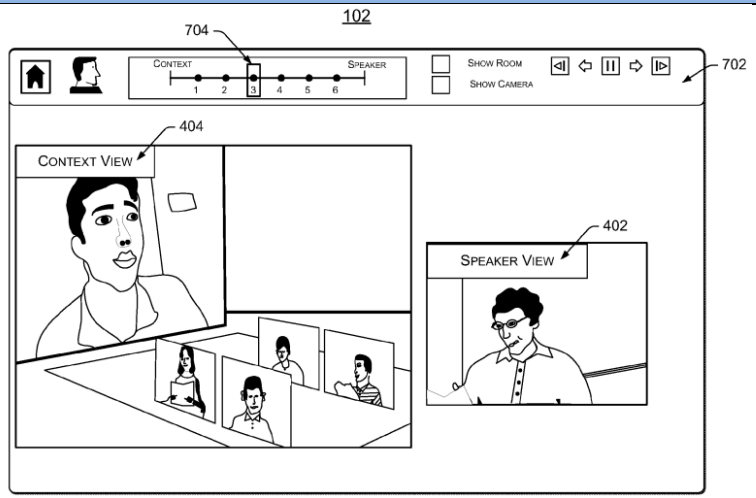
Asserted Claim of the ’708 Patent	Exemplary Citations
	utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7.” *Id.* at [Para 0060].
[Claim 16(c)] associating a plurality of predefined layouts with respective intervals along the axis;	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: In paragraph 0060, it is explained that users can adjust the relative sizes of two views (the speaker view and context view) using the slider. In Figure 07, "CONTEXT" is positioned at the extreme left of the axis, and "SPEAKER" is positioned at the extreme right. Currently, the slider is placed at the interval marked as 3, making the context view larger than the speaker view.  FIG. 7 *Id.* at FIG. 7 “When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing

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	the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the two views (the speaker view 402 and the context view 404) can utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7." *Id.* at [Para 0060].
[Claim 16(d)] detecting a user action on the object indicating a position on the axis;	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: "When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the two views (the speaker view 402 and the context view 404) can utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7." *Id.* at [Para 0060].

Asserted Claim of the ’708 Patent	Exemplary Citations
	 FIG. 7
[Claim 16(e)] selecting a layout, of the plurality of predefined layouts, associated with an interval among the intervals within which the position on the axis is lying; and	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: “In a manual navigation mode, the spatial browser 110 extends navigation controls to the user, so that the user can select which currently interesting event, participant, or part of the meeting space to observe, while spatial relationships between all the participants are preserved, for context. For example, the user may be interested in observing a conversation among the four people at the end of the table. The user can navigate between participants and/or around the meeting space. The user can also zoom, pan, rotate, and tilt the 3-dimensional environment shown in the context view.” *Id.* at [Para 0029].

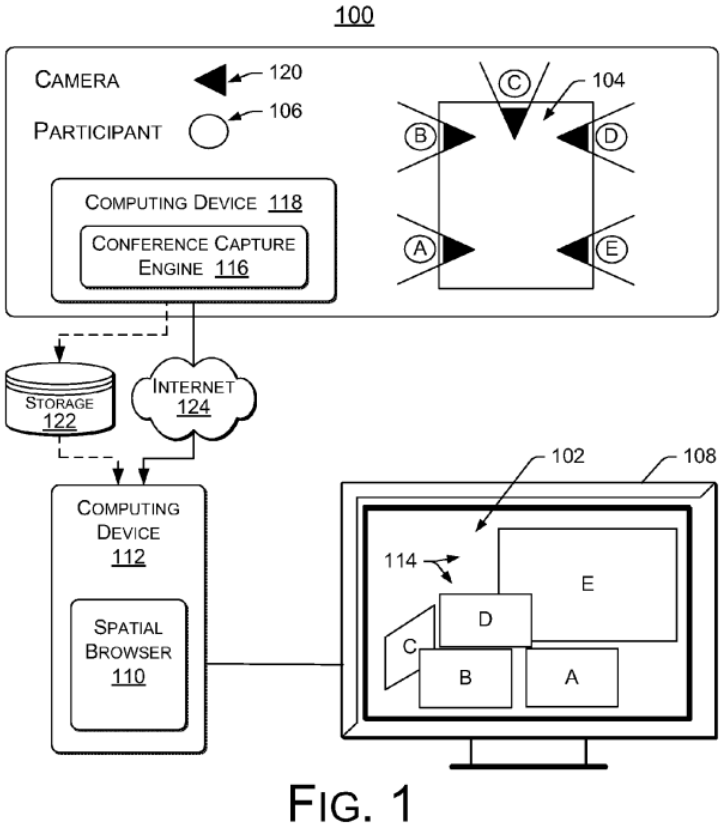
Asserted Claim of the ’708 Patent	Exemplary Citations
	 FIG. 7 *Id.* at FIG. 7. “When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the two views (the speaker view 402 and the context view 404) can

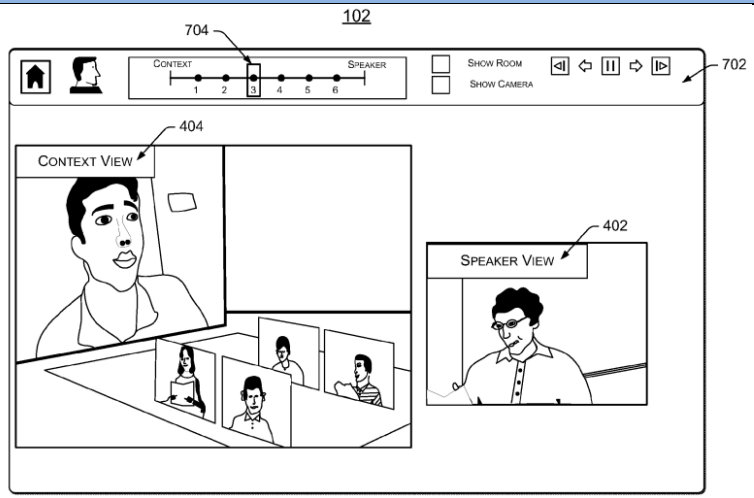
Asserted Claim of the '708 Patent	Exemplary Citations
	utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7." *Id.* at [Para 0060].
[Claim 16(f)] composing, in response to the detecting of the user action, a composite video signal using the layout, of the plurality of predefined layouts, associated with the interval among the intervals within which the position on the axis is lying.	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: "To achieve spatial browsing, the exemplary system 100 captures the spatial relationships between participants 106 during the conference or meeting. In one implementation, a conference capture engine 116, hosted by a conferencing device or other computing device 118, detects cameras 120 (and microphones) in the meeting space, selects an array of the cameras to capture videos of each of the participants and the spatial characteristics of the meeting space. The conference capture engine 116 combines the video streams from the cameras 120 into a composite media stream, browsable by the user to navigate the 3-dimensional representation 114 of the participants 106 in the meeting space." *Id.* at [Para 0022]. "In a manual navigation mode, the spatial browser 110 extends navigation controls to the user, so that the user can select which currently interesting event, participant, or part of the meeting space to observe, while spatial relationships between all the participants are preserved, for context. For example, the user may be interested in observing a conversation among the four people at the end of the table. The user can navigate between participants and/or around the meeting space. The user can also zoom, pan, rotate, and tilt the 3-dimensional environment shown in the context view." *Id.* at [Para 0029].

Asserted Claim of the ’708 Patent	Exemplary Citations
	 FIG. 7 *Id.* at FIG. 7. “When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the two views (the speaker view 402 and the context view 404) can

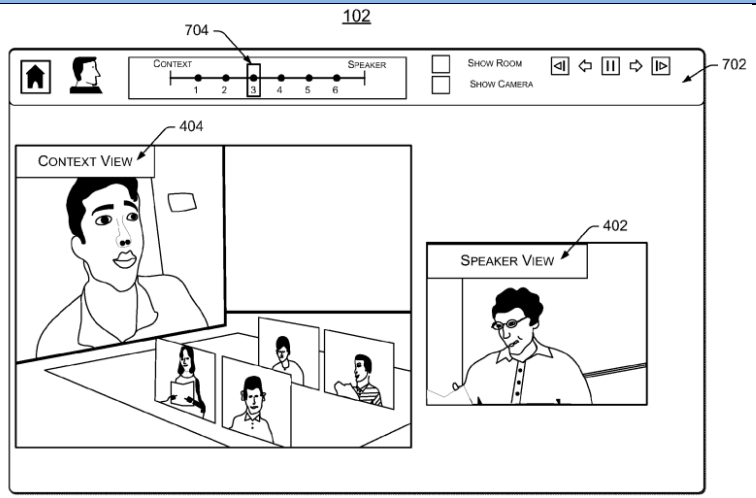
Asserted Claim of the '708 Patent	Exemplary Citations
	utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7." *Id.* at [Para 0060]. At block **906**, video streams from the capture devices are combined to create a composite media stream. The composite media stream is browsable by a user to navigate a 3-dimensional representation of the meeting space. . *Id.* at [Para 0078]. The conference capture engine **116** combines the video streams from the cameras **120** into a composite media stream, browsable by the user to navigate the 3-dimensional representation **114** of the participants **106** in the meeting space. . *Id.* at [Para 0022].
[Claim 17(a)] An apparatus comprising: a processing unit configured to provide, on a display, an object configured to be moved by a user along an axis,	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: "A user viewing the meeting on a display 108 uses an exemplary spatial browser 110, hosted by a conference viewing device or other computing device 112. The computing device 112 can be a desktop or notebook computer, or other device that has a processor, memory, data storage, etc. The spatial browser 110 displays video streams of at least some meeting participant 106 arranged in a 3-dimensional (3-D) representation 114 according the spatial relationships between the actual participants 106. For example, in FIG. 1, "A," "B," "C," "D," and "E" represent one example 3-D representation 114 of the video streams corresponding to Alice, Bob, Charlie, Dave, and Eve, arranged on the display 108 in a spatial analogy of the actual positions of Alice, Bob, Charlie, Dave, and Eve in a meeting. The 3-dimensional representation 114 is dynamic and can be reoriented to emphasize different interesting events, typically events related to the participants during the meeting, or to enable manual navigation around the meeting. The exemplary user interfaces described herein are referred to as 3-D interfaces as they use a 3-D analogy to preserve the spatial relationships among the attendees. Likewise, the conventional interfaces are 2-D interfaces because they display the videos in a non-3-D environment." *Id.* at [Para 0020].

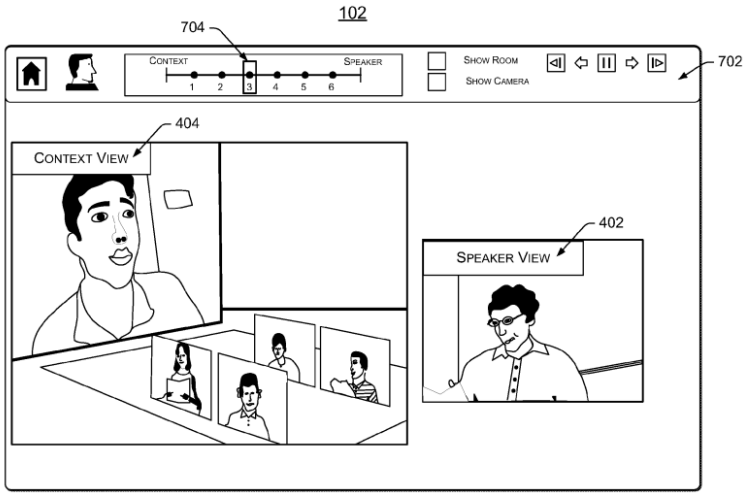
Asserted Claim of the ’708 Patent	Exemplary Citations
	“To achieve spatial browsing, the exemplary system 100 captures the spatial relationships between participants 106 during the conference or meeting. In one implementation, a conference capture engine 116, hosted by a conferencing device or other computing device 118, detects cameras 120 (and microphones) in the meeting space, selects an array of the cameras to capture videos of each of the participants and the spatial characteristics of the meeting space. The conference capture engine 116 combines the video streams from the cameras 120 into a composite media stream, browsable by the user to navigate the 3-dimensional representation 114 of the participants 106 in the meeting space.” *Id.* at [Para 0022].

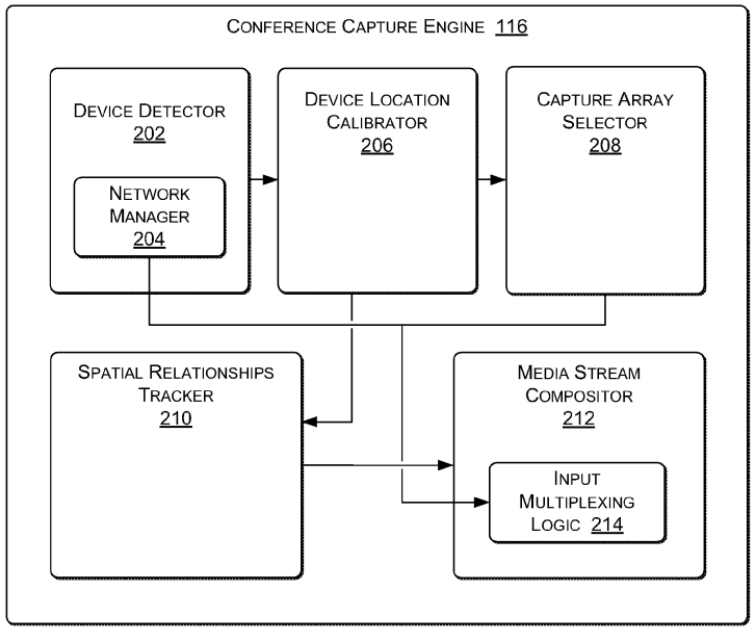
Asserted Claim of the ’708 Patent	Exemplary Citations
	 FIG. 1 *Id.* at FIG. 1

Asserted Claim of the ’708 Patent	Exemplary Citations
	 FIG. 7 *Id.* at FIG. 7 “When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the two views (the speaker view 402 and the context view 404) can

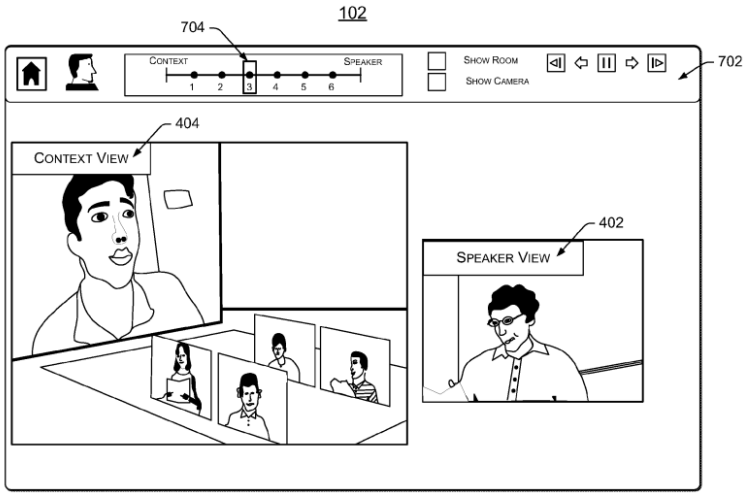
Asserted Claim of the '708 Patent	Exemplary Citations
	utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7." *Id.* at [Para 0060].
[Claim 17(b)] associate a plurality of predefined layouts with respective intervals along the axis, and	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: In paragraph 0060, it is explained that users can adjust the relative sizes of two views (the speaker view and context view) using the slider. In Figure 07, "CONTEXT" is positioned at the extreme left of the axis, and "SPEAKER" is positioned at the extreme right. Currently, the slider is placed at the interval marked as 3, making the context view larger than the speaker view. "When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the two views (the speaker view 402 and the context view 404) can utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7." *Id.* at [Para 0060].

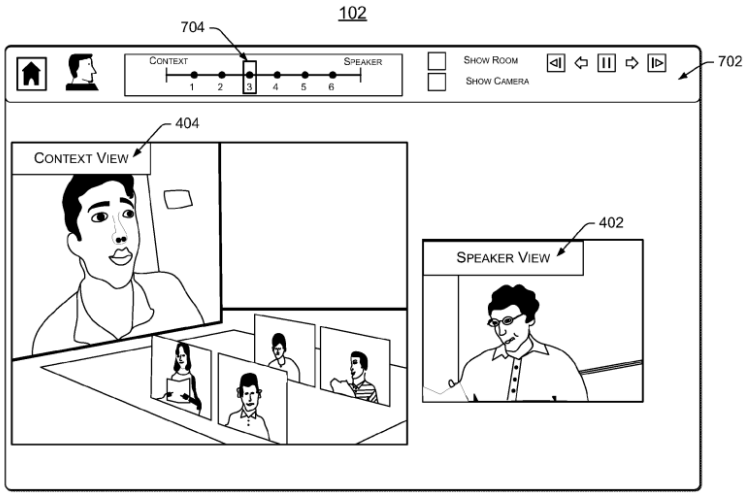
Asserted Claim of the ’708 Patent	Exemplary Citations
	 FIG. 7
[Claim 17(c)] detect a user action on the object indicating a position on the axis; and	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: “When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the two views (the speaker view 402 and the context view 404) can

Asserted Claim of the '708 Patent	Exemplary Citations
	utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7." *Id.* at [Para 0060].  FIG. 7
[Claim 17(d)] a video composing unit configured to compose, in response to the user action being detected by the processing unit, a composite video signal using a layout, of the plurality of predefined layouts, associated with an interval among the intervals within which the position is lying, wherein the processing unit is further configured to	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: "To achieve spatial browsing, the exemplary system 100 captures the spatial relationships between participants 106 during the conference or meeting. In one implementation, a conference capture engine 116, hosted by a conferencing device or other computing device 118, detects cameras 120 (and microphones) in the meeting space, selects an array of the cameras to capture videos of each of the participants and the spatial characteristics of the meeting space. The conference capture engine 116 combines the video streams from the cameras 120 into a composite media stream, browsable by the user to navigate the 3-dimensional representation 114 of the participants 106 in the meeting space." *Id.* at [Para 0022].

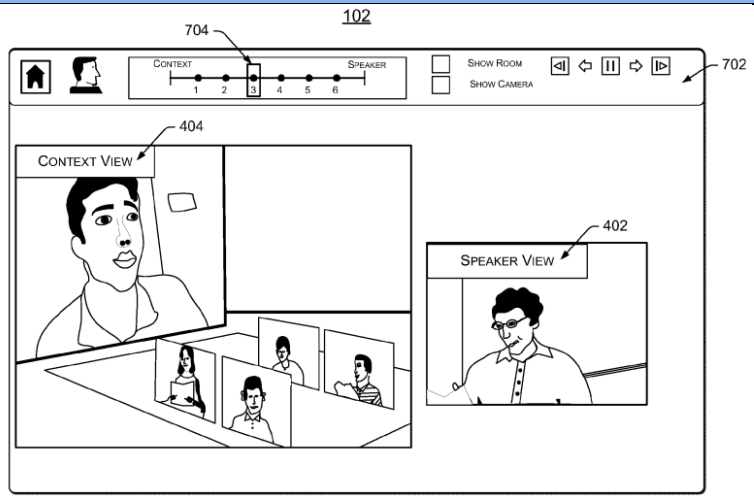
Asserted Claim of the '708 Patent	Exemplary Citations
	"FIG. 2 shows the exemplary conference capture engine 116 of FIG. 1, in greater detail. The configuration of the illustrated conference capture engine 116 is just one example, for the sake of description. Other configurations of hardware and software to capture a conference, including spatial video information and spatial audio information, can also be used." *Id.* at [Para 0031].  FIG. 2 "When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to

Asserted Claim of the '708 Patent	Exemplary Citations
	click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the two views (the speaker view 402 and the context view 404) can utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7." *Id.* at [Para 0060] At block **906**, video streams from the capture devices are combined to create a composite media stream. The composite media stream is browsable by a user to navigate a 3-dimensional representation of the meeting space. . *Id.* at [Para 0078]. The conference capture engine **116** combines the video streams from the cameras **120** into a composite media stream, browsable by the user to navigate the 3-dimensional representation **114** of the participants **106** in the meeting space. . *Id.* at [Para 0022].
[Claim 17(e)] identify an interval among the intervals within which the position is lying,	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: "When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the

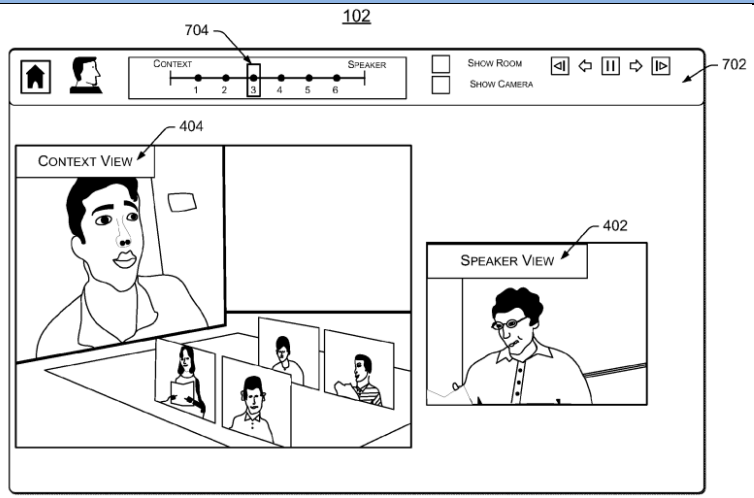
Asserted Claim of the '708 Patent	Exemplary Citations
	two views (the speaker view 402 and the context view 404) can utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7." Id. at [Para 0060].  FIG. 7
[Claim 17(f)] select the layout associated with the interval, and	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate:. "In a manual navigation mode, the spatial browser 110 extends navigation controls to the user, so that the user can select which currently interesting event, participant, or part of the meeting space to observe, while spatial relationships between all the participants are preserved, for context. For example, the user may be interested in observing a conversation among the four people at the end of the table. The user can navigate between participants and/or around the meeting space. The user can also zoom, pan, rotate, and tilt the 3-dimensional environment shown in the context view." *Id.* at [Para 0029].

Asserted Claim of the ’708 Patent	Exemplary Citations
	“When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the two views (the speaker view 402 and the context view 404) can utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7.” *Id.* at [Para 0060].  FIG. 7

Asserted Claim of the '708 Patent	Exemplary Citations
[Claim 17(g)] provide the selected layout to the video composing unit.	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: "In a manual navigation mode, the spatial browser 110 extends navigation controls to the user, so that the user can select which currently interesting event, participant, or part of the meeting space to observe, while spatial relationships between all the participants are preserved, for context. For example, the user may be interested in observing a conversation among the four people at the end of the table. The user can navigate between participants and/or around the meeting space. The user can also zoom, pan, rotate, and tilt the 3-dimensional environment shown in the context view." *Id.* at [Para 0029]. "When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the two views (the speaker view 402 and the context view 404) can utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7." *Id.* at [Para 0060].

Asserted Claim of the '708 Patent	Exemplary Citations
	 FIG. 7
[Claim 18] The apparatus according to claim 17, wherein the composite video signal includes a spatial mix of one of more video conference streams, the layout defines one or more frames for containing the video conference streams, and the processing unit is further configured to provide, for at least one of the intervals, a relationship between positions within the at least one of the intervals and a size and position of one or more frames of a	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: "To achieve spatial browsing, the exemplary system 100 captures the spatial relationships between participants 106 during the conference or meeting. In one implementation, a conference capture engine 116, hosted by a conferencing device or other computing device 118, detects cameras 120 (and microphones) in the meeting space, selects an array of the cameras to capture videos of each of the participants and the spatial characteristics of the meeting space. The conference capture engine 116 combines the video streams from the cameras 120 into a composite media stream, browsable by the user to navigate the 3-dimensional representation 114 of the participants 106 in the meeting space." *Id.* at [Para 0022]. "In a manual navigation mode, the spatial browser 110 extends navigation controls to the user, so that the user can select which currently interesting event, participant, or part of the meeting space to observe, while spatial relationships between all the participants are preserved, for

Asserted Claim of the '708 Patent	Exemplary Citations
respective layout associated with the interval, and calculate, in response to the user action being detected, a layout wherein the size and position of each frame of the layout is based on the relationship and the position.	context. For example, the user may be interested in observing a conversation among the four people at the end of the table. The user can navigate between participants and/or around the meeting space. The user can also zoom, pan, rotate, and tilt the 3-dimensional environment shown in the context view." *Id.* at [Para 0029]. "When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the two views (the speaker view 402 and the context view 404) can utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7." *Id.* at [Para 0060].

Asserted Claim of the ’708 Patent	Exemplary Citations
	 FIG. 7
[Claim 19] The apparatus according to claim 17, wherein the processing unit is further configured to associate M numbers of variations of one of the plurality of predefined layouts with M number of sub-intervals within one or more of the intervals, identify, in response to the user action being detected, a sub-interval among the sub-intervals within which the position is lying, and	Hegde either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: “To achieve spatial browsing, the exemplary system 100 captures the spatial relationships between participants 106 during the conference or meeting. In one implementation, a conference capture engine 116, hosted by a conferencing device or other computing device 118, detects cameras 120 (and microphones) in the meeting space, selects an array of the cameras to capture videos of each of the participants and the spatial characteristics of the meeting space. The conference capture engine 116 combines the video streams from the cameras 120 into a composite media stream, browsable by the user to navigate the 3-dimensional representation 114 of the participants 106 in the meeting space.” *Id.* at [Para 0022]. “In a manual navigation mode, the spatial browser 110 extends navigation controls to the user, so that the user can select which currently interesting event, participant, or part of the meeting space to observe, while spatial relationships between all the participants are preserved, for

Asserted Claim of the '708 Patent	Exemplary Citations
select a layout, of the plurality of predefined layouts, associated with the sub-interval; and the video composing unit is configured to compose the composite video signal using the selected layout.	context. For example, the user may be interested in observing a conversation among the four people at the end of the table. The user can navigate between participants and/or around the meeting space. The user can also zoom, pan, rotate, and tilt the 3-dimensional environment shown in the context view." *Id.* at [Para 0029]. "When separating the speaker and context views, users may have different preferences for the relative sizes of these two views. The spatial browser 110 can address this issue by allowing the user to adjust relative sizes of the two views. FIG. 7 shows an implementation of the exemplary user interface 102, in which the spatial browser 110 extends navigation controls 702. The navigation controls 702 typically include a keyboard and/or a mouse, e.g., to click on videos that the user wants to focus on, emphasize, and/or enlarge. Despite the manual nature of the navigation controls 702, such an implementation of the user interface 102 still provides an automatically updating speaker view 402 and a context view 404 that automatically maintains the spatial relationships between participants no matter which way the view is rotated to enlarge a given participant or speaker. Users who have different preferences for the relative sizes of the two views (the speaker view 402 and the context view 404) can utilize a control such as a slider 704 to adjust the relative sizes of the two views 402, 404, as shown in FIG. 7." *Id.* at [Para 0060].

Exhibit B-2: Invalidity of U.S. Patent No. 8,941,708 in view of U.S. Patent Pub. No. 2008/0235612 A1 ("Nakagawa") in view of U.S. Patent Pub. No. 2006/0158510 A1 (Lia)[1]

This chart is subject to all reservations, objections, and disclaimers in Defendant's Invalidity Contentions and any amendment, supplement, or modification thereof, which are incorporated herein by reference in their entirety.

Nakagawa was originally filed March 18, 2008 and published as a publication on September 25, 2008, and thus is available as prior art to U.S. Patent No. 8,941,708 (the "708 Patent") under at least 35 U.S.C. § 103.

Lia was originally filed March 17, 2006 and published as a publication on July 20, 2006, and thus is available as prior art to the '708 Patent under at least 35 U.S.C. § 103.

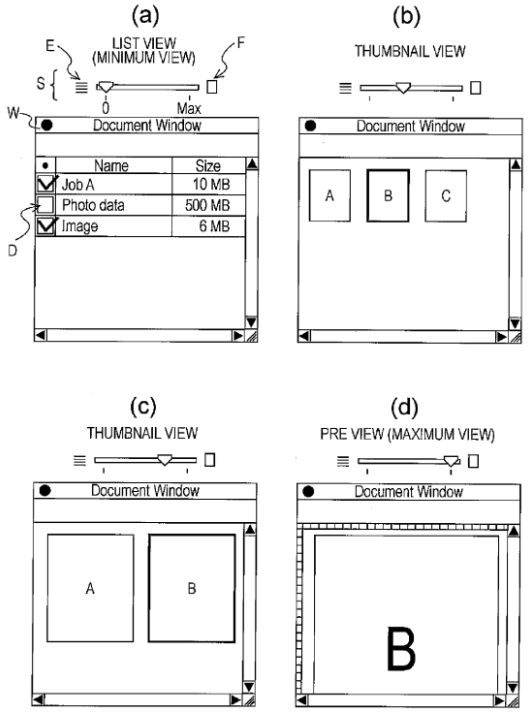
Nakagawa is evidence of prior invention in the United States under 35 U.S.C. § 103. The conception of Nakagawa occurred at least as early as March 18, 2008. Lia is also evidence of prior invention in the United States under 35 U.S.C. § 103. The conception of Lia occurred at least as early as March 17, 2006. Based on information currently available, the persons or entities involved in the conception and diligent reduction to practice of the ideas in Nakagawa and Lia include at least the named inventors and the assignee. Discovery is ongoing and Defendant will update this chart pursuant to Federal Rule of Civil Procedure 26(e), the Local Rules, and the Orders of record in this matter subject to further investigation and discovery regarding the reference, the Court's construction of the claims at issue, and discovery generally, including third-party discovery.

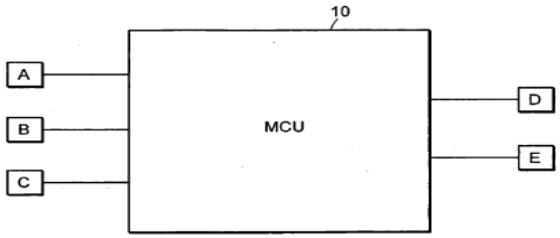
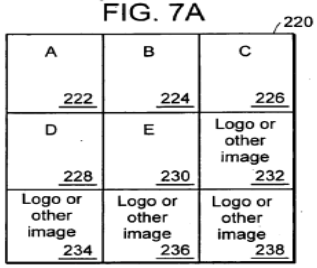
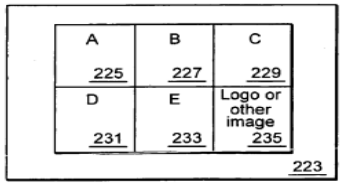
[1] Discovery in this case is ongoing and accordingly, this initial invalidity chart is not final. IPM has conducted its invalidity analysis herein based at least in part and in some instances entirely upon Cisco's apparent application of the claims of the '708 Patent. By charting the prior art against the claims and limitations herein, IPM is neither admitting nor agreeing to Cisco's application of the claims at issue in this case, and these charts should not be interpreted as an admission or concession by IPM that any particular construction or application of any claim limitation by Cisco is correct or proper. Additionally, these charts provide representative examples of portions of the charted references that disclose the indicated limitations under Cisco's application of the claims; additional portions of these references other than the representative examples provided herein may also disclose the indicated limitation(s) and IPM contends that the asserted claims are invalid in light of the charted reference(s) as a whole in its or their entirety. Where a particular figure is cited, the citation should be understood to encompass the caption and description of the figure as well as any text relating to or describing the figure. Conversely, where particular text referring to a figure is cited, the citation should be understood to include the figure as well.

Nakagawa renders obvious the asserted claims of the ’708 Patent, either alone or in combination with other prior art (including U.S. Patent Pub. No. 2006/0158510 A1 (“Lia”) and/or in combination with (1) the general knowledge of one of ordinary skill in the art; (2) the teachings of any of the prior art references set forth in IPM’s other invalidity claim charts with respect to the limitation-at-issue; and/or (3) the teachings of any of the prior art references set forth in the cover pleading of IPM’s invalidity contentions with respect to the key concepts applicable for the limitation-at-issue.

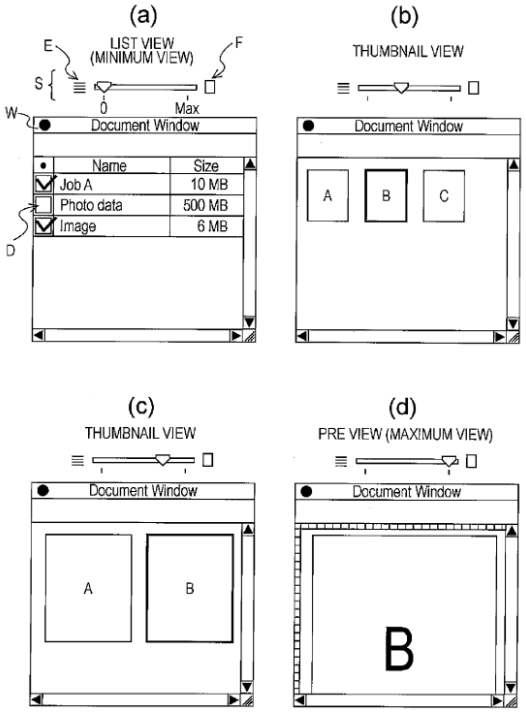
To the extent that the following invalidity contentions reflect constructions of claim limitations consistent with or suggested by Cisco’s Infringement Contentions, no inference is intended, nor should any be drawn that IPM agrees with Cisco’s apparent claim constructions or infringement contentions. IPM offers such invalidity contentions solely in the alternative to any position it may ultimately take as to any claim construction issues. IPM denies that the accused products infringe the asserted claim and expressly reserves the right to contest Cisco’s apparent claim constructions and infringement contentions.

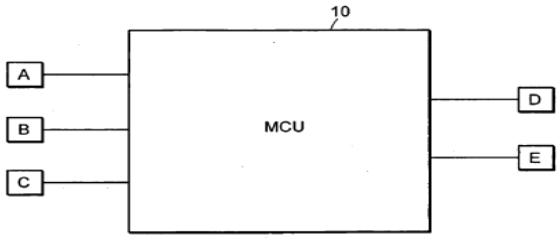
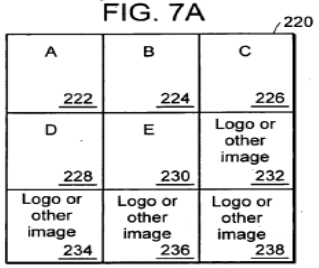
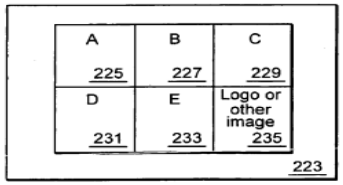
Asserted Claim of the '708 Patent	Exemplary Citations
[Claim 1(a)] A method comprising: providing, on a display, an object configured to be moved by a user along an axis extending across video for a plurality of video conference streams;	To the extent the preamble is limiting, Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012]. "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041].

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]. To the extent that Cisco contends that Nakagawa does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Lia:

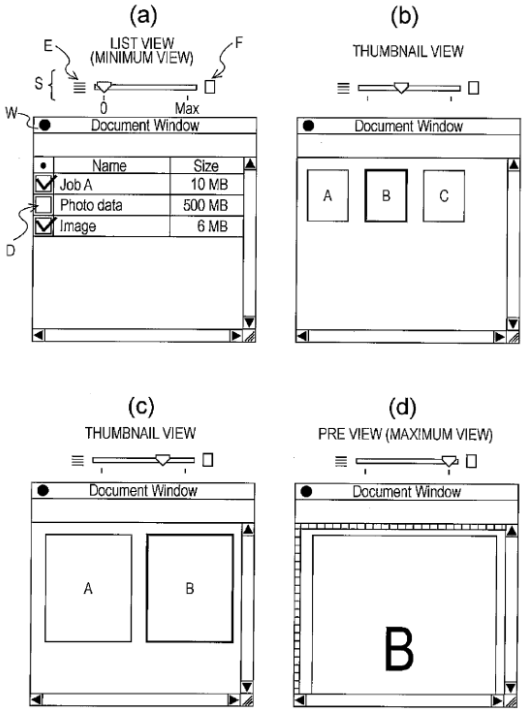
Asserted Claim of the '708 Patent	Exemplary Citations
	Text from US20060158510A1 (Lia) "In the case in which five participants are now included in the conference, the MCU again dynamically changes the picture layout to select the best impression. FIG. 7A shows five participants (sites A, B, C, D, E) connected in a conference. For this case a nine region image layout, referred to as CP9, is selected to form image 220 shown in FIG. 7B. In the CP9 layout, the images from sites A, B, C, D and E are located in respective regions 222, 224, 226, 228 and 230. The remaining regions 232, 234, 236 and 238 contain a logo, background color or other image." *Id.* at [Para 0056].  FIG. 7A  FIG. 7B  FIG. 7C

Asserted Claim of the '708 Patent	Exemplary Citations
	Id. at Fig. 7C
[Claim 1(b)] associating a plurality of predefined layouts for plurality of video conference streams with respective intervals along the axis;	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012]. "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041].

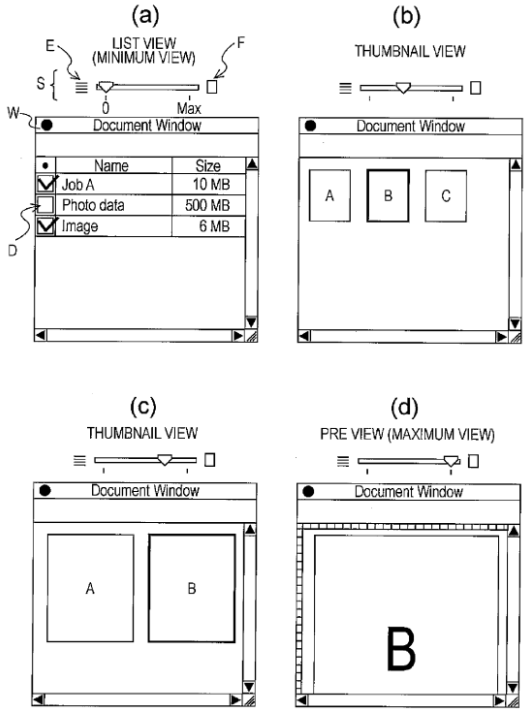
Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]. To the extent that Cisco contends that Nakagawa does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Lia:

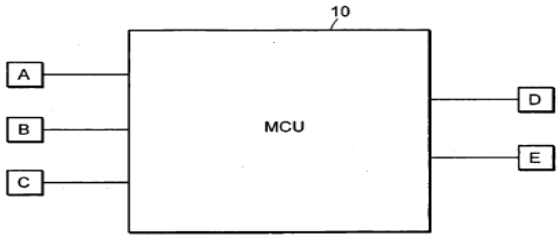
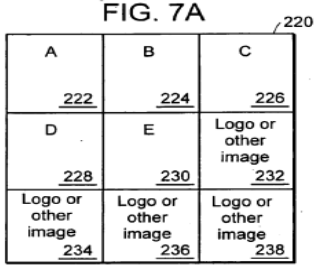
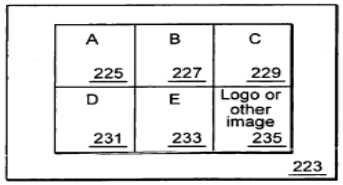
Asserted Claim of the '708 Patent	Exemplary Citations
	Text from US20060158510A1 (Lia) "In the case in which five participants are now included in the conference, the MCU again dynamically changes the picture layout to select the best impression. FIG. 7A shows five participants (sites A, B, C, D, E) connected in a conference. For this case a nine region image layout, referred to as CP9, is selected to form image 220 shown in FIG. 7B. In the CP9 layout, the images from sites A, B, C, D and E are located in respective regions 222, 224, 226, 228 and 230. The remaining regions 232, 234, 236 and 238 contain a logo, background color or other image." *Id.* at [Para 0056]  FIG. 7A  FIG. 7B  FIG. 7C

Asserted Claim of the '708 Patent	Exemplary Citations
	Id. at Fig. 7C.
[Claim 1(c)] detecting a user action on the object indicating a position on the axis; and	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

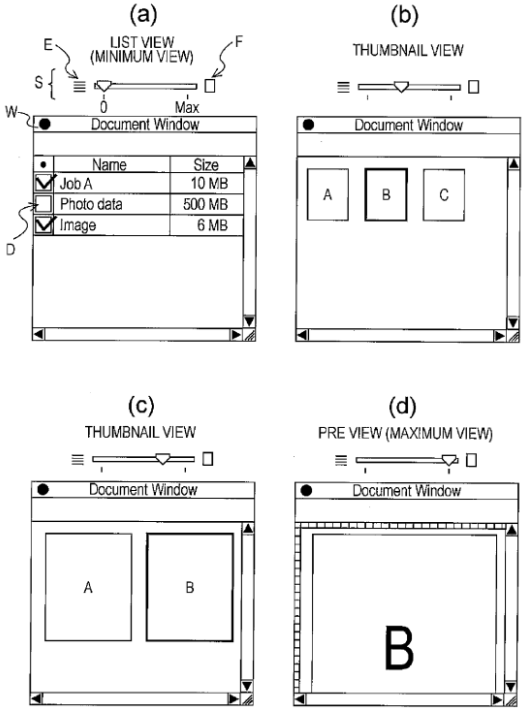
Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 1(d)] composing, in response to the detecting of the user	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate:

Asserted Claim of the '708 Patent	Exemplary Citations
action, a composite video signal using a layout, of the plurality of predefined layouts, associated with an interval among the intervals within which the position is lying.	*Text from US20080235612A1 (Nakagawa)* "According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012]. "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041].

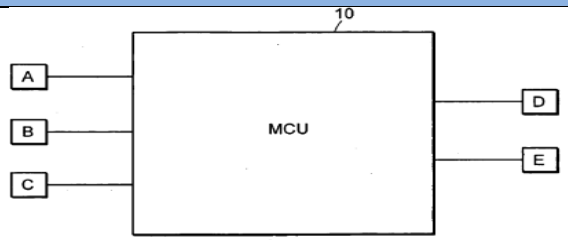
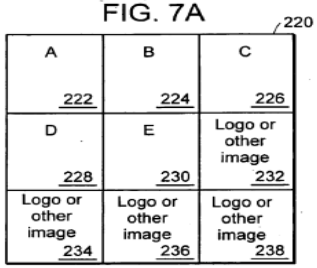
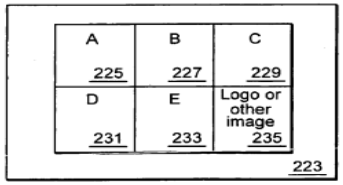
Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]. To the extent that Cisco contends that Nakagawa does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Lia:

Asserted Claim of the '708 Patent	Exemplary Citations
	Text from US20060158510A1 (Lia) "In the case in which five participants are now included in the conference, the MCU again dynamically changes the picture layout to select the best impression. FIG. 7A shows five participants (sites A, B, C, D, E) connected in a conference. For this case a nine region image layout, referred to as CP9, is selected to form image 220 shown in FIG. 7B. In the CP9 layout, the images from sites A, B, C, D and E are located in respective regions 222, 224, 226, 228 and 230. The remaining regions 232, 234, 236 and 238 contain a logo, background color or other image." *Id.* at [Para 0056]  FIG. 7A  FIG. 7B  FIG. 7C

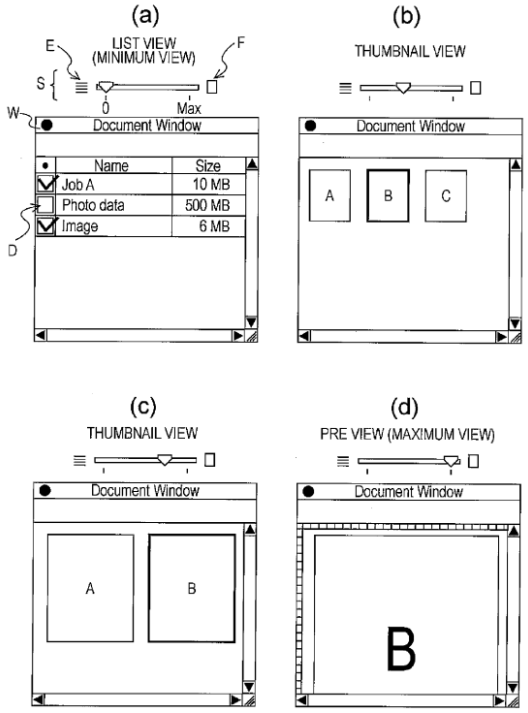
Asserted Claim of the '708 Patent	Exemplary Citations
	Id. at Fig. 7C. "The received video signals are processed to provide a composite video signal according to the defined conference parameters and the composite video signal is transmitted to at least one of the connected sites." *Id*. at [Para 0007] "According to an apparatus of the present approach, a multipoint control unit for conferencing includes an interface unit for receiving video signals from at least two sites connected in a conference; a control processor for dynamically defining one or more conference parameters based on the number of sites or video sources connected in the conference; and a video processor for processing the received video signals to provide a composite video signal according to the defined conference parameters." *Id*. at [Para 0009]
[Claim 2] The method according to claim 1, wherein the composite video signal includes a spatial mix of the plurality of video conference streams, and the layout defines one or more frames for containing the plurality of video conference streams, the method further comprising: providing, for at least one of the intervals, a relationship between positions within the at	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012]. "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial

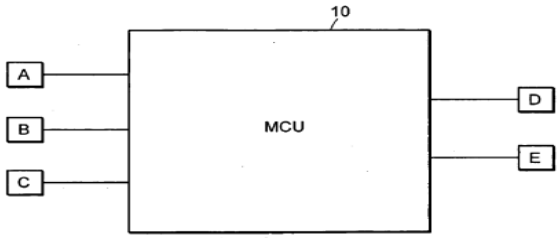
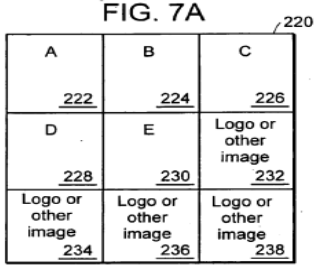
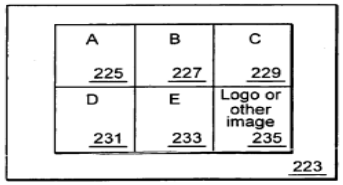
Asserted Claim of the '708 Patent	Exemplary Citations
least one of the intervals and a size and position of one or more frames of a respective layout associated with the interval, and calculating, in response to the detecting of the user action, a layout wherein the size and position of each frame of the layout is based on the relationship and the position.	view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]. FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]. To the extent that Cisco contends that Nakagawa does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation,

Asserted Claim of the '708 Patent	Exemplary Citations
	including Lia: *Text from US20060158510A1 (Lia)* "In the case in which five participants are now included in the conference, the MCU again dynamically changes the picture layout to select the best impression. FIG. 7A shows five participants (sites A, B, C, D, E) connected in a conference. For this case a nine region image layout, referred to as CP9, is selected to form image 220 shown in FIG. 7B. In the CP9 layout, the images from sites A, B, C, D and E are located in respective regions 222, 224, 226, 228 and 230. The remaining regions 232, 234, 236 and 238 contain a logo, background color or other image." *Id.* at [Para 0056].

Asserted Claim of the '708 Patent	Exemplary Citations
	 FIG. 7A  FIG. 7B  FIG. 7C *Id.* at Fig. 7C.
[Claim 3] The method according to claim 1, further comprising: associating M numbers of variations of one of the plurality of predefined layouts with M number of	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes

Asserted Claim of the '708 Patent	Exemplary Citations
sub-intervals within one or more of the intervals; identifying, in response to the detecting of the user action, a sub-interval among the sub-intervals within which the position is lying; selecting a layout, of the plurality of predefined layouts, associated with the sub-interval; and composing the composite video signal using the selected layout.	displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012]. "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041].

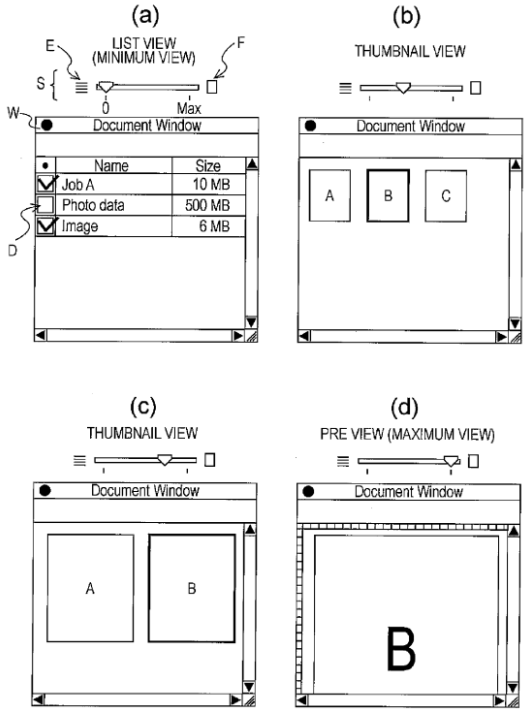
Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]. To the extent that Cisco contends that Nakagawa does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Lia:

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	Text from US20060158510A1 (Lia) "In the case in which five participants are now included in the conference, the MCU again dynamically changes the picture layout to select the best impression. FIG. 7A shows five participants (sites A, B, C, D, E) connected in a conference. For this case a nine region image layout, referred to as CP9, is selected to form image 220 shown in FIG. 7B. In the CP9 layout, the images from sites A, B, C, D and E are located in respective regions 222, 224, 226, 228 and 230. The remaining regions 232, 234, 236 and 238 contain a logo, background color or other image." *Id.* at [Para 0056].  FIG. 7A  FIG. 7B  FIG. 7C

Asserted Claim of the '708 Patent	Exemplary Citations
	Id. at Fig. 7C.
[Claim 4] The method of claim 1, further comprising: identifying the interval among the intervals within which the position is lying.	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 3

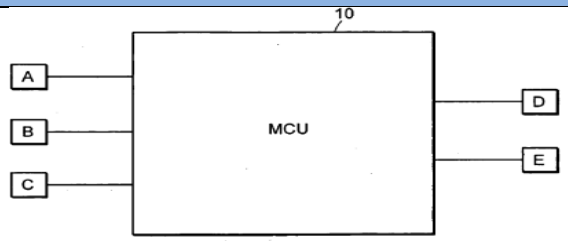
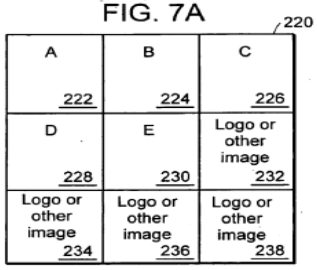
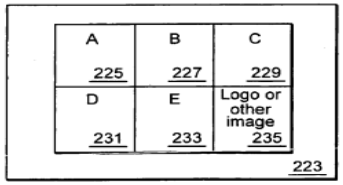


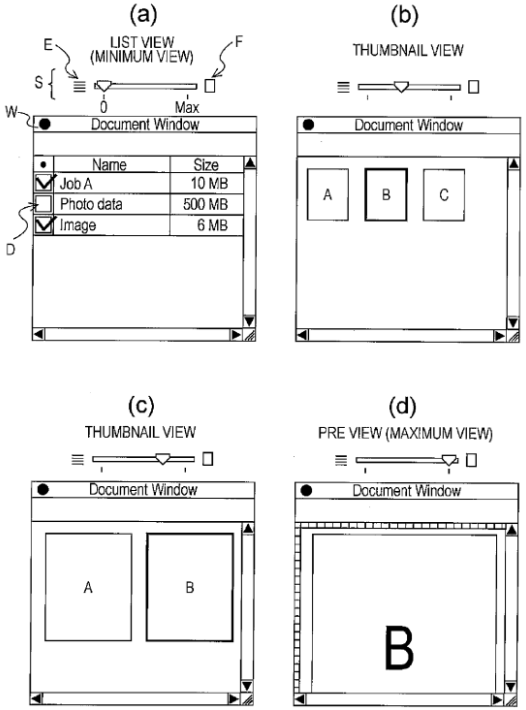
Id. at Fig. 3

"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two

Asserted Claim of the '708 Patent	Exemplary Citations
	print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]
[Claim 5] The method of claim 1, further comprising: wherein the composite video signal includes a spatial mix of one or more video conference streams, and the layout defines one or more frames for containing the video conference streams.	It would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Lia: *Text from US20060158510A1 (Lia)* "In the case in which five participants are now included in the conference, the MCU again dynamically changes the picture layout to select the best impression. FIG. 7A shows five participants (sites A, B, C, D, E) connected in a conference. For this case a nine region image layout, referred to as CP9, is selected to form image 220 shown in FIG. 7B. In the CP9 layout, the images from sites A, B, C, D and E are located in respective regions 222, 224, 226, 228 and 230. The remaining regions 232, 234, 236 and 238 contain a logo, background color or other image." *Id.* at [Para 0056]

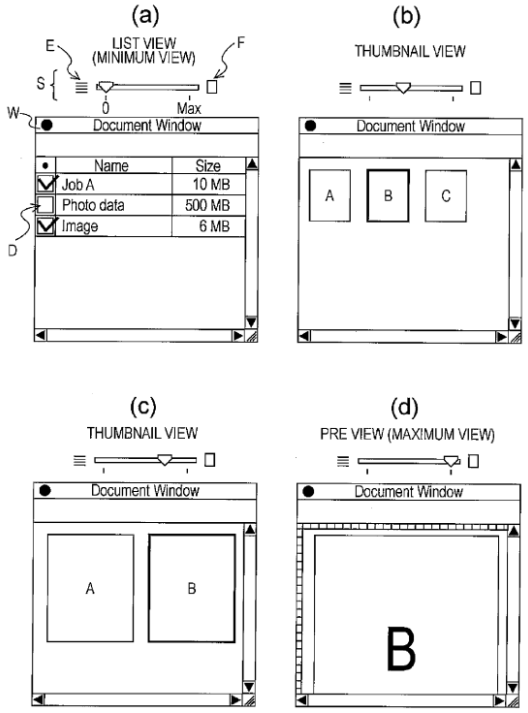
Asserted Claim of the '708 Patent	Exemplary Citations
	 FIG. 7A  FIG. 7B  FIG. 7C *Id.* at Fig. 7C
[Claim 6] The method of claim 5, further comprising: providing, for at least one of the intervals, a relationship between positions within the at least one of the intervals	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial

Asserted Claim of the '708 Patent	Exemplary Citations
and the size and position of one or more frames of a respective layout associated with the interval.	view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]. FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043] For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target

Asserted Claim of the '708 Patent	Exemplary Citations
	data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052].
[Claim 7] The method of claim 6, further comprising: calculating a layout wherein the size and position of each frame of the layout is based on the relationship and the position.	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041].

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 3

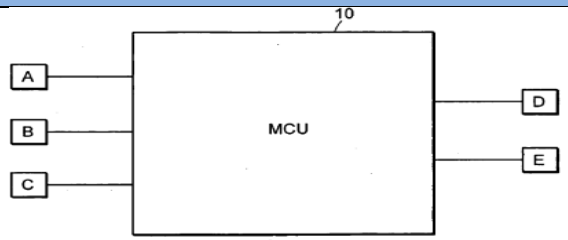
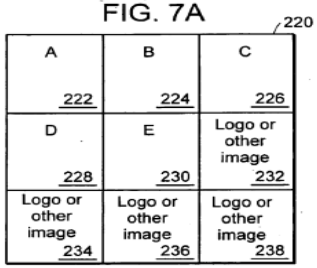
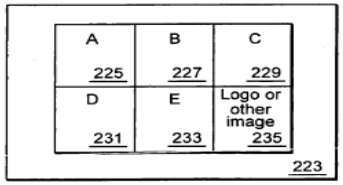


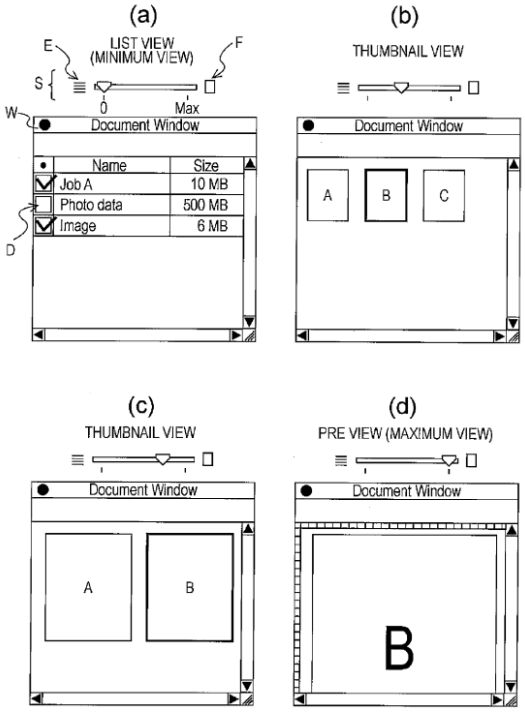
Id. at Fig. 3

"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two

Asserted Claim of the '708 Patent	Exemplary Citations
	print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]. To the extent that Cisco contends that Nakagawa does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Lia: *Text from US20060158510A1 (Lia)* "In the case in which five participants are now included in the conference, the MCU again dynamically changes the picture layout to select the best impression. FIG. 7A shows five participants (sites A, B, C, D, E) connected in a conference. For this case a nine region image layout, referred to as CP9, is selected to form image 220 shown in FIG. 7B. In the CP9 layout, the images from sites A, B, C, D and E are located in respective regions 222, 224, 226, 228 and 230. The remaining regions 232, 234, 236 and 238 contain a logo, background color or other image." *Id.* at [Para 0056]

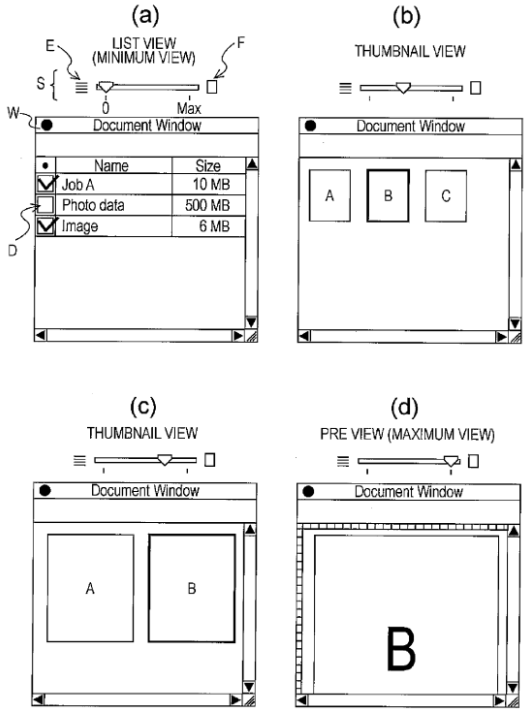
Asserted Claim of the '708 Patent	Exemplary Citations
	 FIG. 7A  FIG. 7B  FIG. 7C *Id.* at Fig. 7C
[Claim 8] The method of claim 1, further comprising: providing, for at least one of the intervals, a relationship between positions within the at least one of the intervals	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the

Asserted Claim of the '708 Patent	Exemplary Citations
and the size and position of one or more frames of a respective layout associated with the interval.	slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043] For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the

Asserted Claim of the '708 Patent	Exemplary Citations
	example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]
[Claim 9] The method of claim 1, further comprising: calculating, in response to the detecting of the user action, a layout wherein a size and position of each frame of the layout is based on the relationship and the position.	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 3

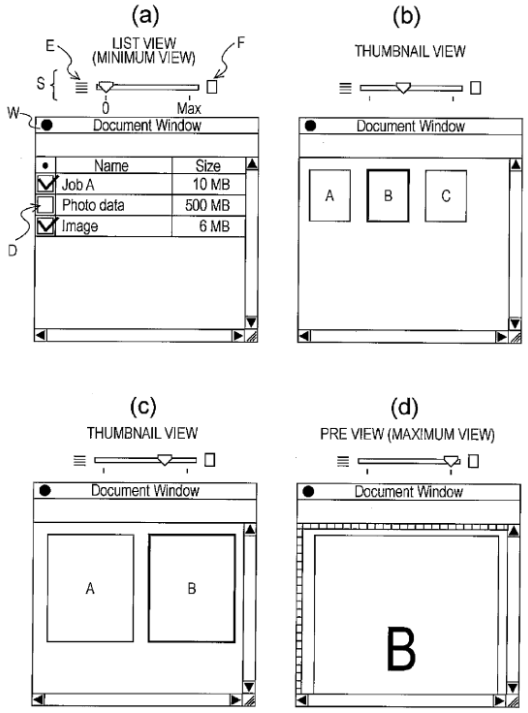


Id. at Fig. 3

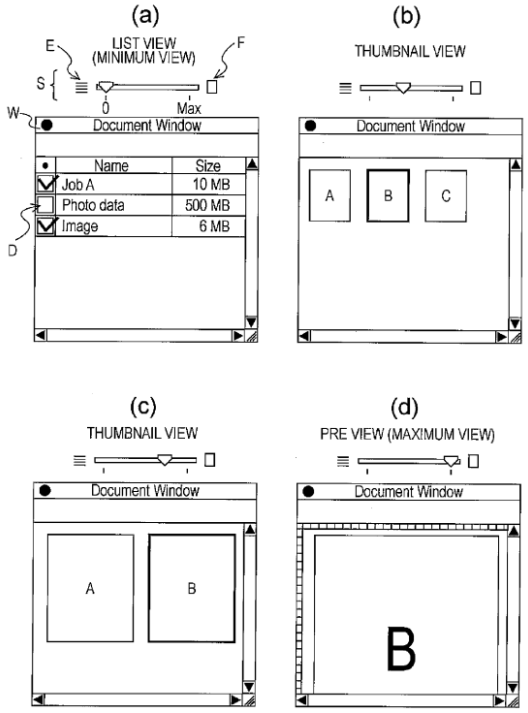
"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

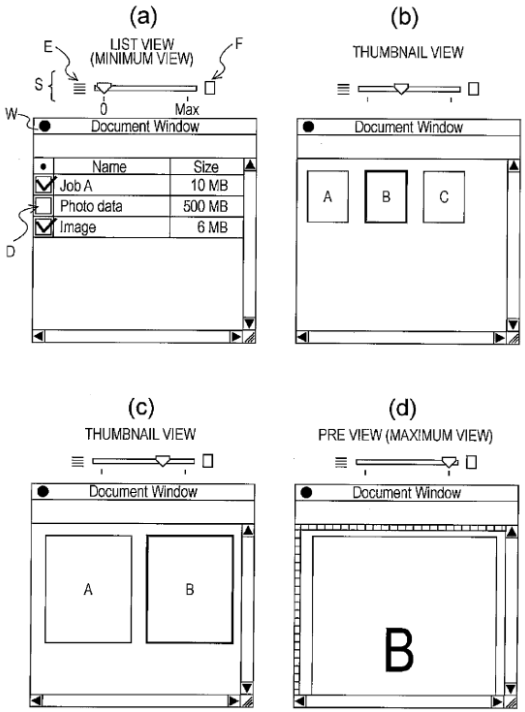
For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two

Asserted Claim of the '708 Patent	Exemplary Citations
	print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052].
[Claim 10(a)] A method comprising: providing, on a display, an object configured to be moved by a user along an axis;	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043].
[Claim 10(b)] associating a plurality of predefined layouts with respective intervals along the axis;	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)*

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	"According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

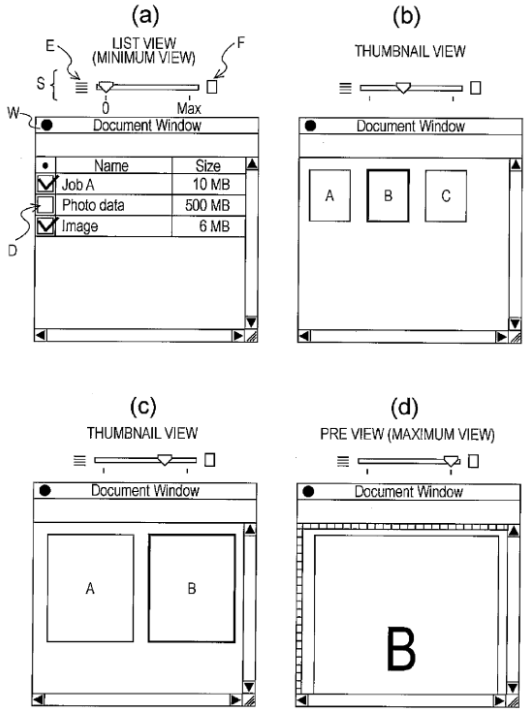
Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043].
[Claim 10(c)] detecting a user action on the object indicating a position on the axis;	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)*

Asserted Claim of the '708 Patent	Exemplary Citations
	"Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3

Asserted Claim of the '708 Patent	Exemplary Citations
	"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043].
[Claim 10(d)] identifying an interval among the intervals within which the position is lying;	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 3



Id. at Fig. 3

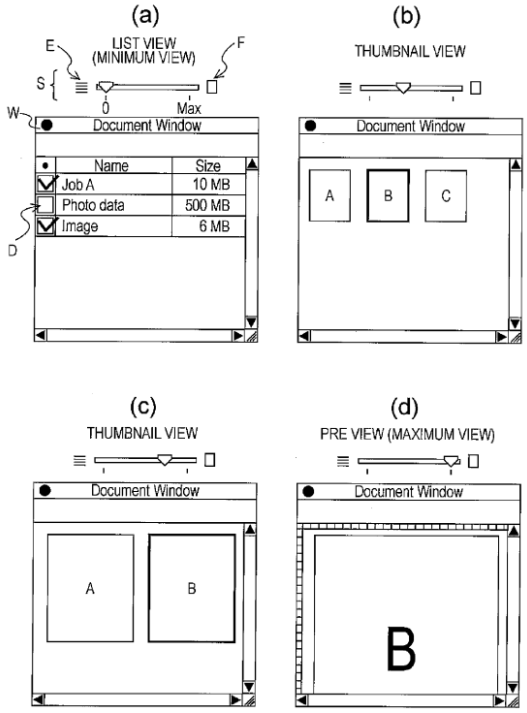
"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two

Asserted Claim of the '708 Patent	Exemplary Citations
	print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052].
[Claim 10(e)] selecting the layout associated with the interval; and composing, in response to the detecting of the user action, a composite video signal using the layout, of the plurality of predefined layouts, associated with the interval among the intervals within which the position is lying.	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 3



Id. at Fig. 3

"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two

Asserted Claim of the '708 Patent	Exemplary Citations
	print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]. To the extent that Cisco contends that Nakagawa does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Lia: *Text from US20060158510A1 (Lia)* In cases where the audiovisual terminals operate at different transmission rates or with different compression algorithms or are to be mixed into a composite image, multiple video inputs are sent to the VPU 124 where the video inputs are decompressed, mixed and recompressed into a single video stream. This single video stream is then passed back through the BPU 122 which switches the video stream to the appropriate endpoint terminals. *Id.* at [Para 0039] "In the case in which five participants are now included in the conference, the MCU again dynamically changes the picture layout to select the best impression. FIG. 7A shows five participants (sites A, B, C, D, E) connected in a conference. For this case a nine region image layout, referred to as CP9, is selected to form image 220 shown in FIG. 7B. In the CP9 layout, the images from sites A, B, C, D and E are located in respective regions 222, 224, 226, 228 and 230. The remaining regions 232, 234, 236 and 238 contain a logo, background color or other image." *Id.* at [Para 0056]

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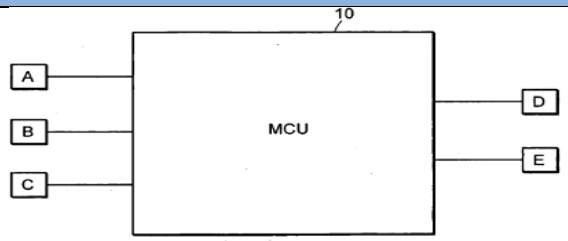


FIG. 7A

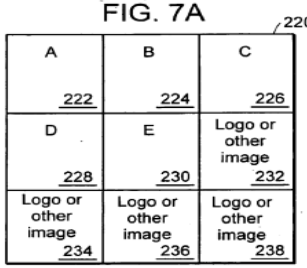


FIG. 7B

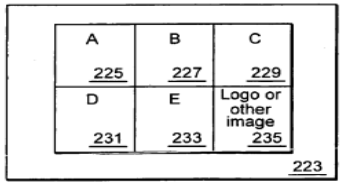
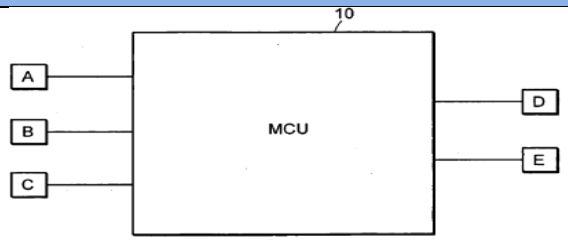
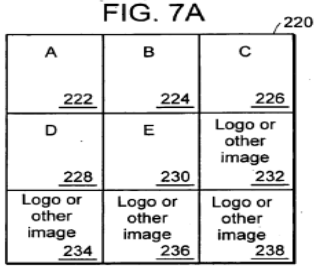
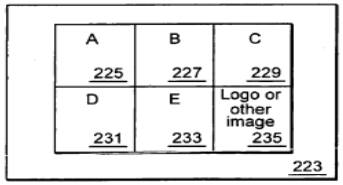


FIG. 7C

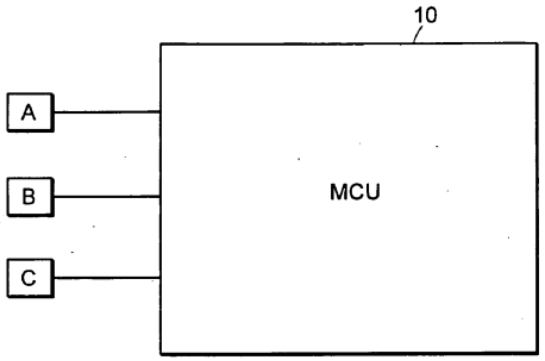
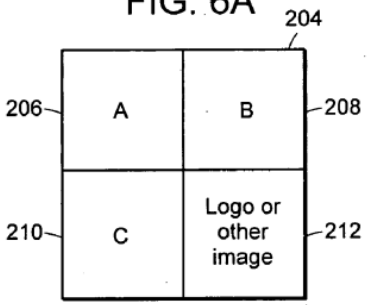
Id. at Fig. 7C.

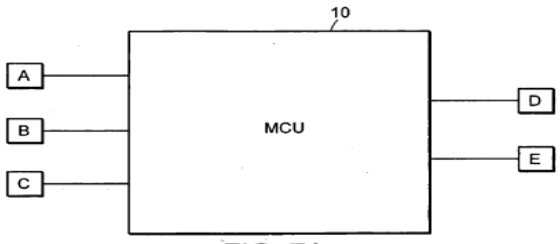
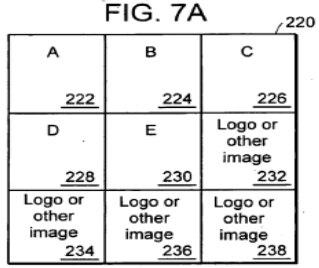
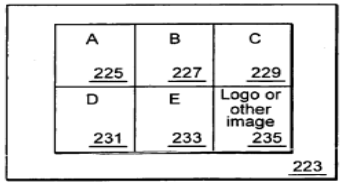
The received video signals are processed to provide a composite video signal according to the defined conference parameters and the composite video signal is transmitted to at least one of the connected sites.

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	According to an apparatus of the present approach, a multipoint control unit for conferencing includes an interface unit for receiving video signals from at least two sites connected in a conference; a control processor for dynamically defining one or more conference parameters based on the number of sites or video sources connected in the conference; and a video processor for processing the received video signals to provide a composite video signal according to the defined conference parameters.
[Claim 11] The method according to claim 10, further comprising: providing the selected layout to a video composing unit, which composes the composite image and which is configured to receive a plurality of video conference streams and output a composite video signal comprising one or more of the received video conference streams based on a layout.	It would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Lia: *Text from US20060158510A1 (Lia)* In cases where the audiovisual terminals operate at different transmission rates or with different compression algorithms or are to be mixed into a composite image, multiple video inputs are sent to the VPU 124 where the video inputs are decompressed, mixed and recompressed into a single video stream. This single video stream is then passed back through the BPU 122 which switches the video stream to the appropriate endpoint terminals. *Id.* at [Para 0039] "In the case in which five participants are now included in the conference, the MCU again dynamically changes the picture layout to select the best impression. FIG. 7A shows five participants (sites A, B, C, D, E) connected in a conference. For this case a nine region image layout, referred to as CP9, is selected to form image 220 shown in FIG. 7B. In the CP9 layout, the images from sites A, B, C, D and E are located in respective regions 222, 224, 226, 228 and 230. The remaining regions 232, 234, 236 and 238 contain a logo, background color or other image." *Id.* at [Para 0056]

Asserted Claim of the '708 Patent	Exemplary Citations
	 FIG. 7A  FIG. 7B  FIG. 7C *Id.* at Fig. 7C
[Claim 12] The method according to claim 10, further comprising: displaying the composite video signal on the display, the display being	It would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Lia: *Text from US20060158510A1 (Lia)* "In cases where the audiovisual terminals operate at different transmission rates or with different compression algorithms or are to be mixed into a composite image, multiple video inputs are sent to

Asserted Claim of the '708 Patent	Exemplary Citations
of a video conference terminal.	the VPU 124 where the video inputs are decompressed, mixed and recompressed into a single video stream. This single video stream is then passed back through the BPU 122 which switches the video stream to the appropriate endpoint terminals." *Id.* at [Para 0039] "When more participants join the conference, the MCU may automatically change the picture layout to display more participants, depending on the number of participants now connected in the conference. FIG. 6A shows an example in which three participants (sites A, B, C) are joined in the conference. In this case, a four region or quadrant image layout, referred to as CP4, is selected to form the image 204 shown in FIG. 6B. In the particular 3/4 split layout shown, the image from site A is located in quadrant 206, the image from site B is located in quadrant 208 and the image from site C is located in quadrant 210. Quadrant 212 contains a logo, background color or other image. If a fourth site next joins the conference, the layout remains the same except that the image from the fourth site is placed in quadrant 212." *Id.* at [Para 0054]

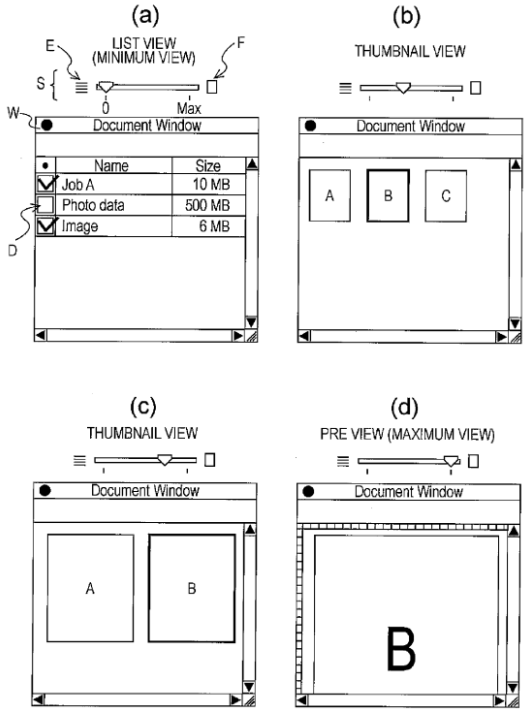
Asserted Claim of the '708 Patent	Exemplary Citations
	 FIG. 6A  FIG. 6B *Id.* at Fig. 6A and 6B "In the case in which five participants are now included in the conference, the MCU again dynamically changes the picture layout to select the best impression. FIG. 7A shows five participants (sites A, B, C, D, E) connected in a conference. For this case a nine region image layout, referred to as CP9, is selected to form image 220 shown in FIG. 7B. In the CP9 layout, the images from sites A, B, C, D and E are located in respective regions 222, 224, 226, 228 and 230.

Asserted Claim of the '708 Patent	Exemplary Citations
	The remaining regions 232, 234, 236 and 238 contain a logo, background color or other image." *Id.* at [Para 0056].  FIG. 7A  FIG. 7B  FIG. 7C *Id.* at Fig. 7C "With one or two participants, the MCU processes the video signals from the participants to display a picture layout with full screen showing each participant." *Id.* at [Para 0052]

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	"When more participants join the conference, the MCU may automatically change the picture layout to display more participants, depending on the number of participants now connected in the conference." *Id*. at [Para 0054]
[Claim 13] The method according to claim 12, further comprising: displaying the object on a display of a control device, which is connected to the video conference terminal, together with a replica of the composite video signal currently displayed on the display of the video conference terminal.	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

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FIG. 3

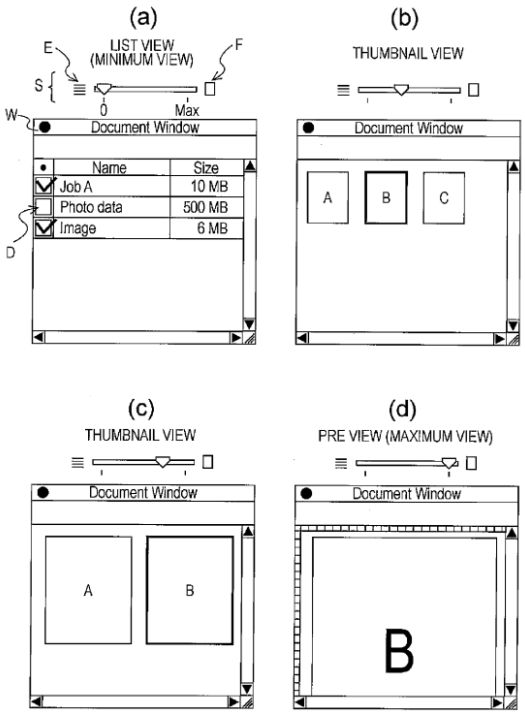


Id. at Fig. 3

"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two

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	print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]. To the extent that Cisco contends that Nakagawa does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Lia: *Text from US20060158510A1 (Lia)* "In cases where the audiovisual terminals operate at different transmission rates or with different compression algorithms or are to be mixed into a composite image, multiple video inputs are sent to the VPU 124 where the video inputs are decompressed, mixed and recompressed into a single video stream. This single video stream is then passed back through the BPU 122 which switches the video stream to the appropriate endpoint terminals." *Id.* at [Para 0039] "In the case in which five participants are now included in the conference, the MCU again dynamically changes the picture layout to select the best impression. FIG. 7A shows five participants (sites A, B, C, D, E) connected in a conference. For this case a nine region image layout, referred to as CP9, is selected to form image 220 shown in FIG. 7B. In the CP9 layout, the images from sites A, B, C, D and E are located in respective regions 222, 224, 226, 228 and 230. The remaining regions 232, 234, 236 and 238 contain a logo, background color or other image." *Id.* at [Para 0056].
[Claim 14]	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate:

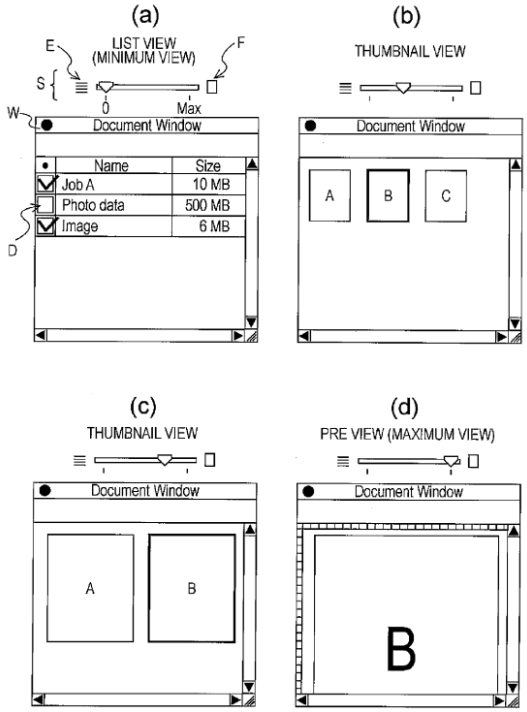
Asserted Claim of the '708 Patent	Exemplary Citations
The method according to claim 10, further comprising: displaying the object on the display, which is of a video conference terminal.	*Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3

Asserted Claim of the '708 Patent	Exemplary Citations
	"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043] "The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id*. at [Para 0012] To the extent that Cisco contends that Nakagawa does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Lia: *Text from US20060158510A1 (Lia)* "In cases where the audiovisual terminals operate at different transmission rates or with different compression algorithms or are to be mixed into a composite image, multiple video inputs are sent to the VPU 124 where the video inputs are decompressed, mixed and recompressed into a single video stream. This single video stream is then passed back through the BPU 122 which switches the video stream to the appropriate endpoint terminals." *Id.* at [Para 0039] "In the case in which five participants are now included in the conference, the MCU again dynamically changes the picture layout to select the best impression. FIG. 7A shows five participants (sites A, B, C, D, E) connected in a conference. For this case a nine region image layout, referred to as CP9, is selected to form image 220 shown in FIG. 7B. In the CP9 layout, the images from sites A, B, C, D and E are located in respective regions 222, 224, 226, 228 and 230. The

Asserted Claim of the '708 Patent	Exemplary Citations
	remaining regions 232, 234, 236 and 238 contain a logo, background color or other image." *Id.* at [Para 0056].
[Claim 15] The method according to claim 13, further comprising: updating one of the composite video signals and the replica in real time as the object is moved by the user.	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041].

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FIG. 3

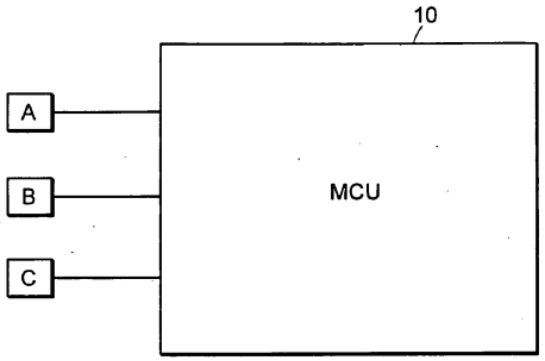
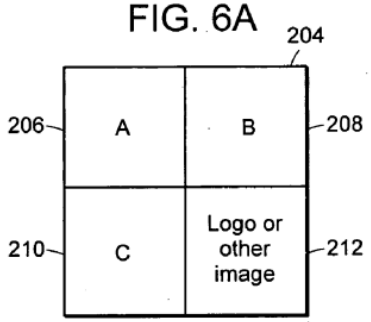


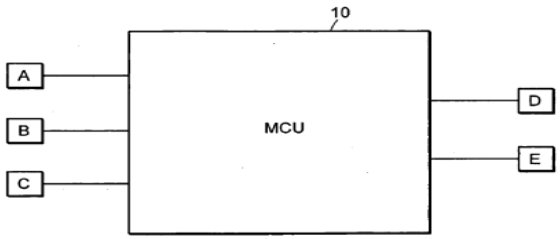
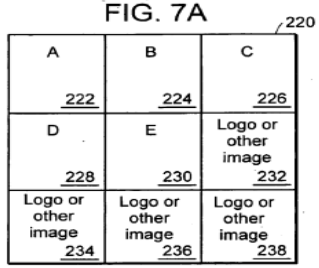
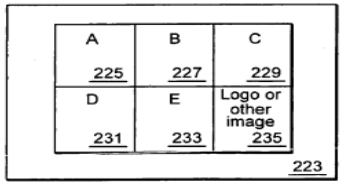
Id. at Fig. 3

"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

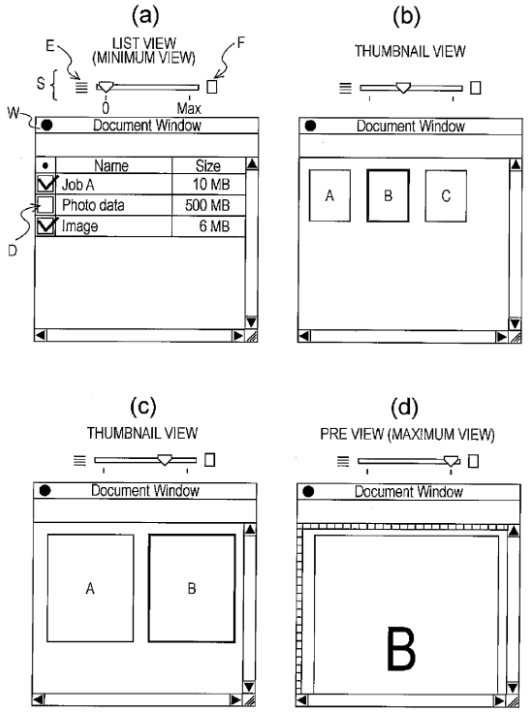
To the extent that Cisco contends that Nakagawa does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Lia:

Asserted Claim of the '708 Patent	Exemplary Citations
	Text from US20060158510A1 (Lia) "In cases where the audiovisual terminals operate at different transmission rates or with different compression algorithms or are to be mixed into a composite image, multiple video inputs are sent to the VPU 124 where the video inputs are decompressed, mixed and recompressed into a single video stream. This single video stream is then passed back through the BPU 122 which switches the video stream to the appropriate endpoint terminals." *Id.* at [Para 0039] "When more participants join the conference, the MCU may automatically change the picture layout to display more participants, depending on the number of participants now connected in the conference. FIG. 6A shows an example in which three participants (sites A, B, C) are joined in the conference. In this case, a four region or quadrant image layout, referred to as CP4, is selected to form the image 204 shown in FIG. 6B. In the particular 3/4 split layout shown, the image from site A is located in quadrant 206, the image from site B is located in quadrant 208 and the image from site C is located in quadrant 210. Quadrant 212 contains a logo, background color or other image. If a fourth site next joins the conference, the layout remains the same except that the image from the fourth site is placed in quadrant 212." *Id.* at [Para 0054]

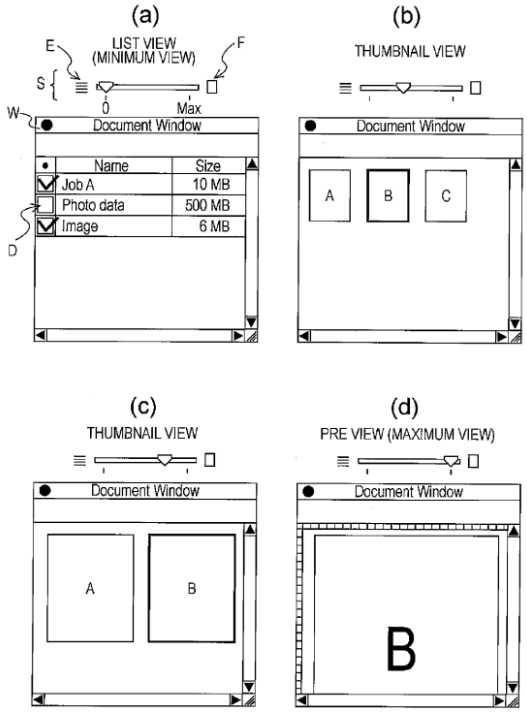
Asserted Claim of the '708 Patent	Exemplary Citations
	 FIG. 6A  FIG. 6B *Id.* at Fig. 6A and 6B "In the case in which five participants are now included in the conference, the MCU again dynamically changes the picture layout to select the best impression. FIG. 7A shows five participants (sites A, B, C, D, E) connected in a conference. For this case a nine region image layout, referred to as CP9, is selected to form image 220 shown in FIG. 7B. In the CP9 layout, the images from sites A, B, C, D and E are located in respective regions 222, 224, 226, 228 and 230. The

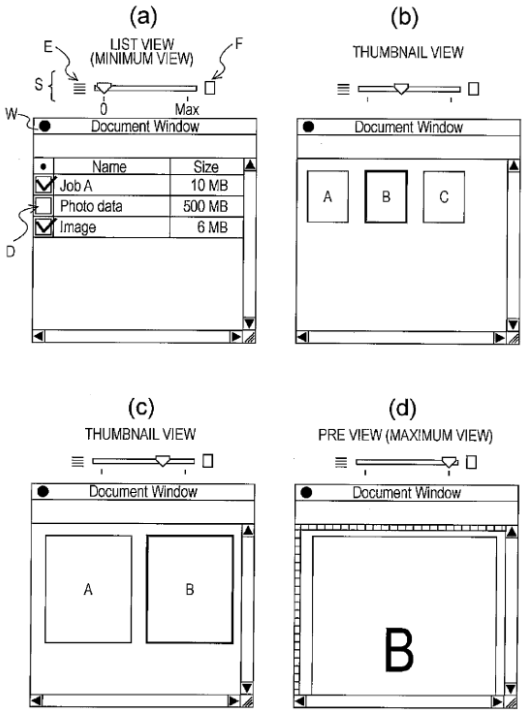
Asserted Claim of the '708 Patent	Exemplary Citations
	remaining regions 232, 234, 236 and 238 contain a logo, background color or other image." *Id.* at [Para 0056]  FIG. 7A  FIG. 7B  FIG. 7C *Id.* at Fig. 7C
[Claim 16(a)] A non-transitory computer-readable storage medium including computer executable	It would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Lia:

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instructions, wherein the instructions, when executed by a computer, cause the computer to perform a method, the method comprising:	*Text from US20060158510A1 (Lia)* "Those skilled in the art should readily appreciate that the present conferencing approach described herein is deliverable to a computer in many forms, including but not limited to a) information permanently stored on non-writeable storage media such as ROM devices, b) information alterably stored on writeable storage media such as floppy disks, magnetic tapes, CDs, RAM devices, and other magnetic and optical media, or c) information conveyed to a computer through communication media, for example using baseband signaling or broadband signaling techniques, as in an electronic network such as the Internet or telephone modem lines. The operations and methods may be implemented in a software entity executable by a processor or as a set of instructions embedded in a carrier wave. Alternatively, the operations and methods may be embodied in whole or in part using hardware components, such as Application Specific Integrated Circuits (ASICs), state machines, controllers or other hardware components or devices, or a combination of hardware, software, and firmware components." *Id.* at [Para 0073].
[Claim 16(b)] providing, on a display, an object configured to be moved by a user along an axis;	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 16(c)] associating a plurality of predefined layouts with	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)*

Asserted Claim of the '708 Patent	Exemplary Citations
respective intervals along the axis;	"According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

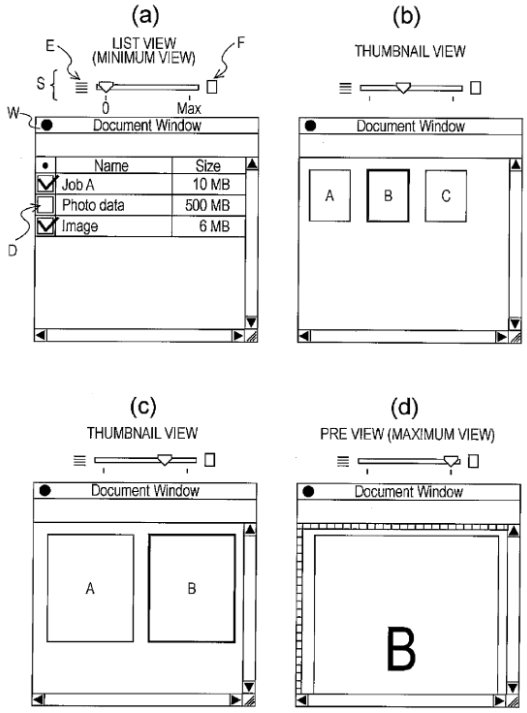
Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 16(d)] detecting a user action on the object indicating a position on the axis;	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)*

Asserted Claim of the '708 Patent	Exemplary Citations
	"Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3

Asserted Claim of the '708 Patent	Exemplary Citations
	"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043].
[Claim 16(e)] selecting a layout, of the plurality of predefined layouts, associated with an interval among the intervals within which the position on the axis is lying; and	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 3

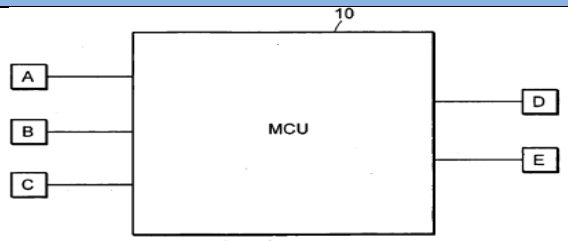
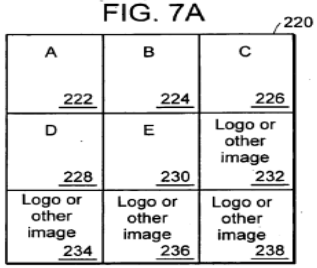
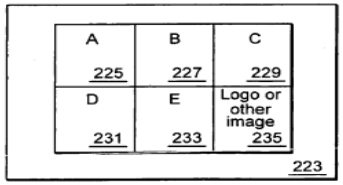


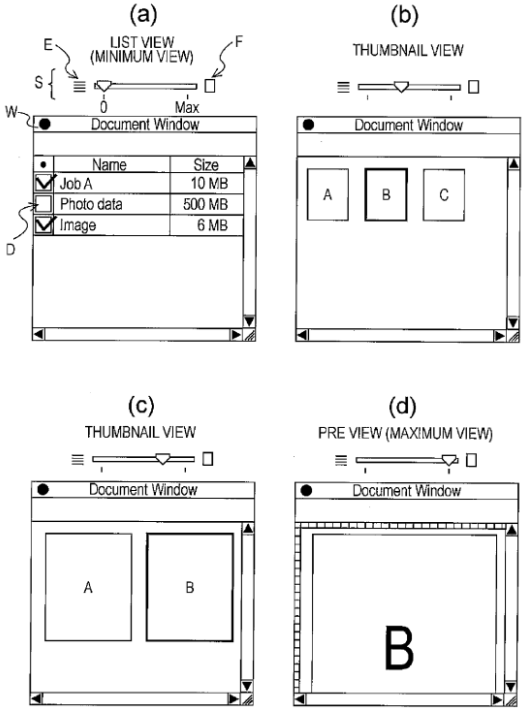
Id. at Fig. 3

"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

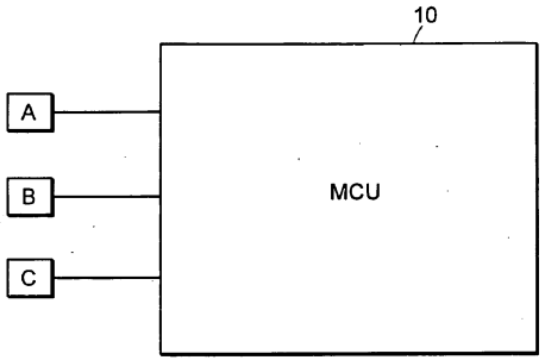
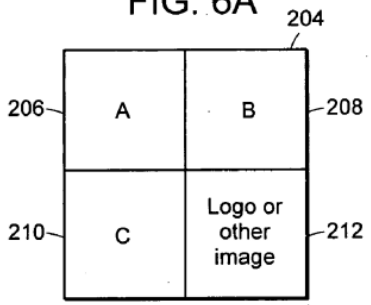
For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two

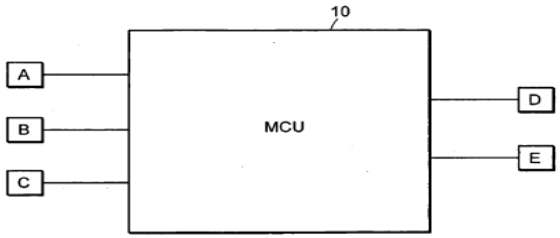
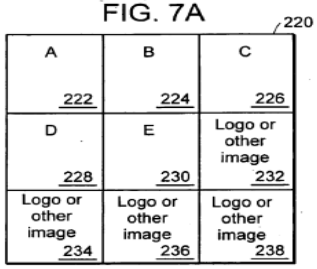
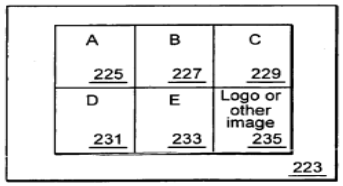
Asserted Claim of the '708 Patent	Exemplary Citations
	print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]. To the extent that Cisco contends that Nakagawa does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Lia: *Text from US20060158510A1 (Lia)* In cases where the audiovisual terminals operate at different transmission rates or with different compression algorithms or are to be mixed into a composite image, multiple video inputs are sent to the VPU 124 where the video inputs are decompressed, mixed and recompressed into a single video stream. This single video stream is then passed back through the BPU 122 which switches the video stream to the appropriate endpoint terminals. *Id.* at [Para 0039] "In the case in which five participants are now included in the conference, the MCU again dynamically changes the picture layout to select the best impression. FIG. 7A shows five participants (sites A, B, C, D, E) connected in a conference. For this case a nine region image layout, referred to as CP9, is selected to form image 220 shown in FIG. 7B. In the CP9 layout, the images from sites A, B, C, D and E are located in respective regions 222, 224, 226, 228 and 230. The remaining regions 232, 234, 236 and 238 contain a logo, background color or other image." *Id.* at [Para 0056]

Asserted Claim of the '708 Patent	Exemplary Citations
	 FIG. 7A  FIG. 7B  FIG. 7C *Id.* at Fig. 7C.
[Claim 16(f)] composing, in response to the detecting of the user action, a composite video signal using the layout, of the plurality of predefined layouts, associated with the interval among the	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial

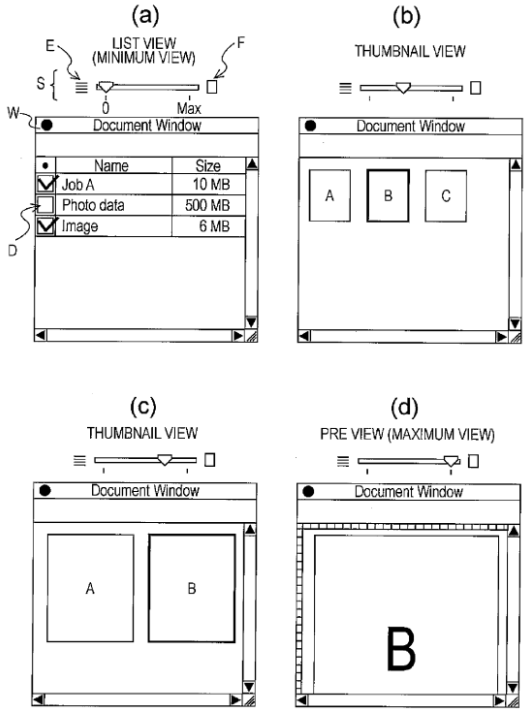
Asserted Claim of the '708 Patent	Exemplary Citations
intervals within which the position on the axis is lying.	view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043] For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target

Asserted Claim of the '708 Patent	Exemplary Citations
	data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]. To the extent that Cisco contends that Nakagawa does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Lia: *Text from US20060158510A1 (Lia)* "In cases where the audiovisual terminals operate at different transmission rates or with different compression algorithms or are to be mixed into a composite image, multiple video inputs are sent to the VPU 124 where the video inputs are decompressed, mixed and recompressed into a single video stream. This single video stream is then passed back through the BPU 122 which switches the video stream to the appropriate endpoint terminals." *Id.* at [Para 0039] "When more participants join the conference, the MCU may automatically change the picture layout to display more participants, depending on the number of participants now connected in the conference. FIG. 6A shows an example in which three participants (sites A, B, C) are joined in the conference. In this case, a four region or quadrant image layout, referred to as CP4, is selected to form the image 204 shown in FIG. 6B. In the particular 3/4 split layout shown, the image from site A is located in quadrant 206, the image from site B is located in quadrant 208 and the image from site C is located in quadrant 210. Quadrant 212 contains a logo, background color or other image. If a fourth site next joins

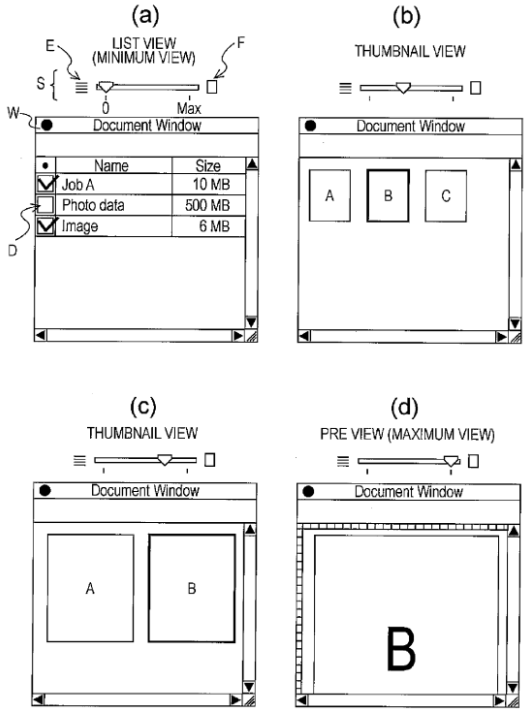
Asserted Claim of the '708 Patent	Exemplary Citations
	the conference, the layout remains the same except that the image from the fourth site is placed in quadrant 212." *Id.* at [Para 0054]  FIG. 6A  FIG. 6B *Id.* at Fig. 6A and 6B. "In the case in which five participants are now included in the conference, the MCU again dynamically changes the picture layout to select the best impression. FIG. 7A shows five participants (sites A, B, C, D, E) connected in a conference. For this case a nine region image layout, referred to as CP9, is selected to form image 220 shown in FIG. 7B. In the CP9 layout, the images from sites A, B, C, D and E are

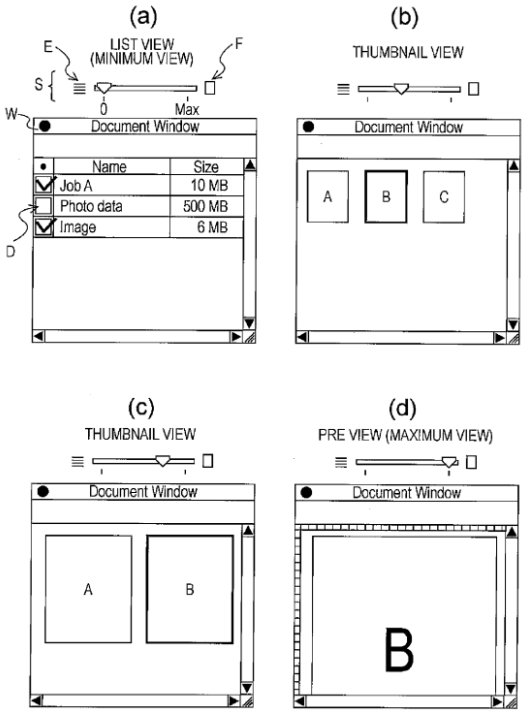
Asserted Claim of the '708 Patent	Exemplary Citations
	located in respective regions 222, 224, 226, 228 and 230. The remaining regions 232, 234, 236 and 238 contain a logo, background color or other image." *Id.* at [Para 0056].  FIG. 7A  FIG. 7B  FIG. 7C *Id.* at Fig. 7C "The received video signals are processed to provide a composite video signal according to the defined conference parameters and the composite video signal is transmitted to at least one of the connected sites." *Id*. at [Para 0007]

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	"According to an apparatus of the present approach, a multipoint control unit for conferencing includes an interface unit for receiving video signals from at least two sites connected in a conference; a control processor for dynamically defining one or more conference parameters based on the number of sites or video sources connected in the conference; and a video processor for processing the received video signals to provide a composite video signal according to the defined conference parameters." *Id*. at [Para 0009]
[Claim 17(a)] An apparatus comprising: a processing unit configured to provide, on a display, an object configured to be moved by a user along an axis,	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

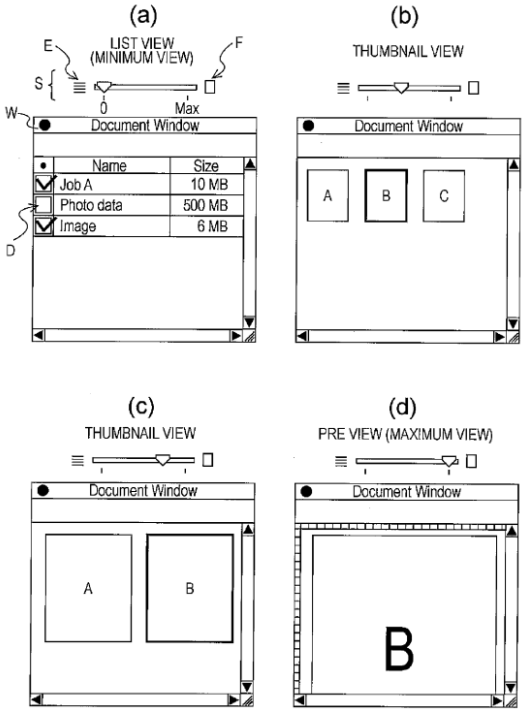
Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043].
[Claim 17(b)] associate a plurality of predefined layouts with	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)*

Asserted Claim of the '708 Patent	Exemplary Citations
respective intervals along the axis, and	"According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

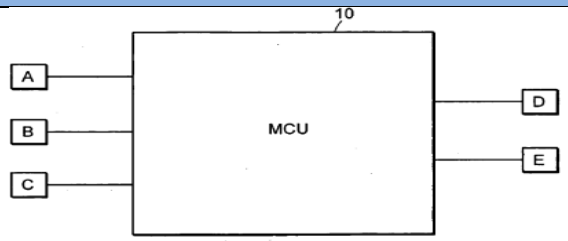
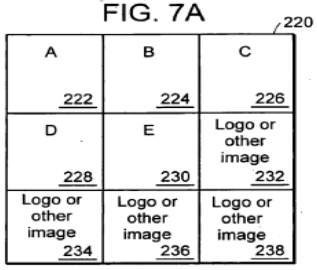
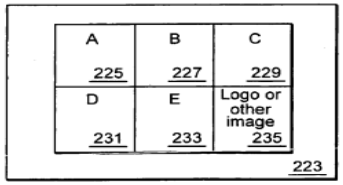
Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043].
[Claim 17(c)] detect a user action on the object indicating a position on the axis; and	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)*

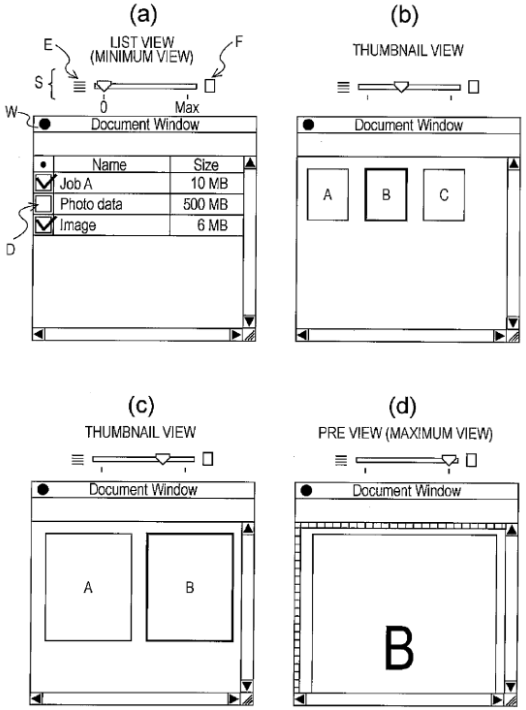
Asserted Claim of the '708 Patent	Exemplary Citations
	"Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3

Asserted Claim of the '708 Patent	Exemplary Citations
	"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043].
[Claim 17(d)] a video composing unit configured to compose, in response to the user action being detected by the processing unit, a composite video signal using a layout, of the plurality of predefined layouts, associated with an interval among the intervals within which the position is lying, wherein the processing unit is further configured to	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]. To the extent that Cisco contends that Nakagawa does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Lia:

Asserted Claim of the '708 Patent	Exemplary Citations
	Text from US20060158510A1 (Lia) In cases where the audiovisual terminals operate at different transmission rates or with different compression algorithms or are to be mixed into a composite image, multiple video inputs are sent to the VPU 124 where the video inputs are decompressed, mixed and recompressed into a single video stream. This single video stream is then passed back through the BPU 122 which switches the video stream to the appropriate endpoint terminals. *Id.* at [Para 0039] "In the case in which five participants are now included in the conference, the MCU again dynamically changes the picture layout to select the best impression. FIG. 7A shows five participants (sites A, B, C, D, E) connected in a conference. For this case a nine region image layout, referred to as CP9, is selected to form image 220 shown in FIG. 7B. In the CP9 layout, the images from sites A, B, C, D and E are located in respective regions 222, 224, 226, 228 and 230. The remaining regions 232, 234, 236 and 238 contain a logo, background color or other image." *Id.* at [Para 0056].

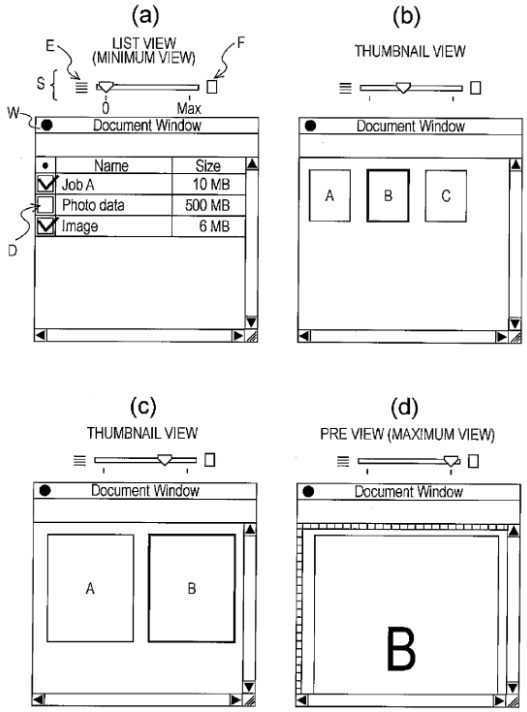
Asserted Claim of the '708 Patent	Exemplary Citations
	 FIG. 7A  FIG. 7B  FIG. 7C *Id.* at Fig. 7C.
[Claim 17(e)] identify an interval among the intervals within which the position is lying,	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial

Asserted Claim of the '708 Patent	Exemplary Citations
	view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043] For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target

Asserted Claim of the '708 Patent	Exemplary Citations
	data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052].
[Claim 17(f)] select the layout associated with the interval, and	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

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FIG. 3



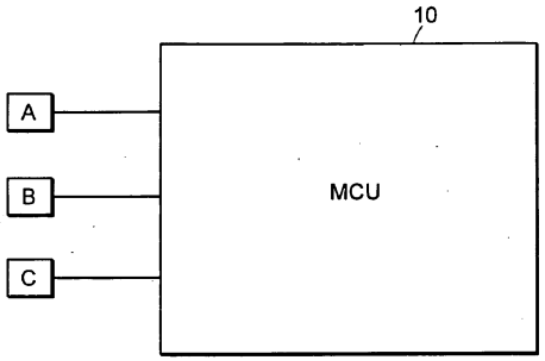
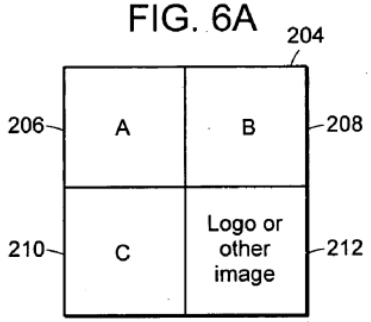
Id. at Fig. 3

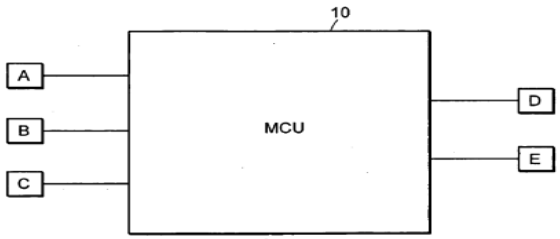
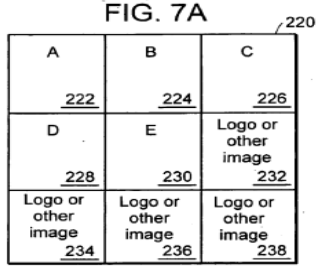
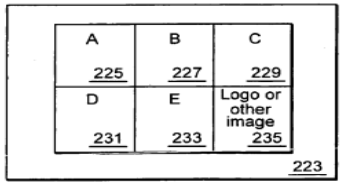
"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

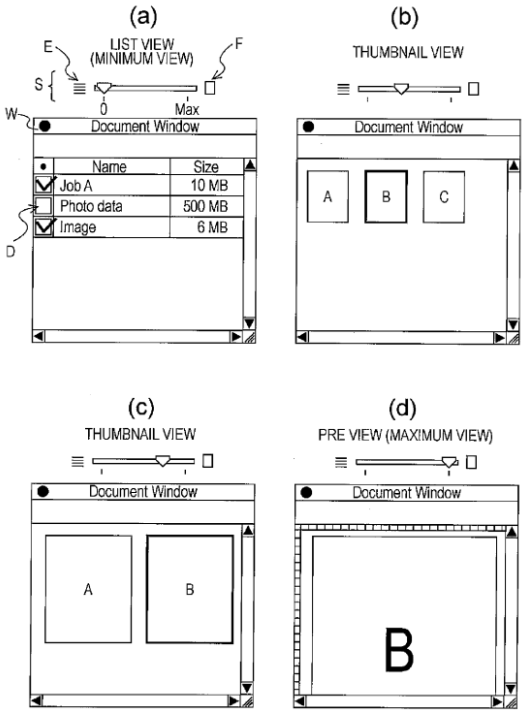
For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two

Asserted Claim of the '708 Patent	Exemplary Citations
	print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052].
[Claim 17(g)] provide the selected layout to the video composing unit.	It would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Lia: *Text from US20060158510A1 (Lia)* "In cases where the audiovisual terminals operate at different transmission rates or with different compression algorithms or are to be mixed into a composite image, multiple video inputs are sent to the VPU 124 where the video inputs are decompressed, mixed and recompressed into a single video stream. This single video stream is then passed back through the BPU 122 which switches the video stream to the appropriate endpoint terminals." *Id.* at [Para 0039] "Aligned H.221 frames are received by the VPU 124 for processing by encoder/decoder elements called video compression processors (VCPs). The VPU 124 has five VCPs (FIG. 2) which in this example are respectively assigned to sites A, B, C, D, E. A VCP on the VPU 124 which is assigned to site E is functionally illustrated in FIG. 4. Compressed video information (H.261) is extracted from the H.221 frames and decoded by the VCP as image X. The decoder video image X is placed on the pixel bus 182 through a scaling block. FIG. 4 shows the pixel bus 182 with decoded video frames from each site A, B, C, D, E successively retrieved from memory 123 identified by their respective RAM addresses. The VCP assigned to site E receives the decoded video frames from sites A, B, C and D which are then tiled (spatially mixed) into a single composite image I. The tiled image I is then encoded as H.261 video within H.221 framing and placed on the BPU bus 136 (FIG. 3) for BPU processing as described above." *Id.* at [Para 0047]

Asserted Claim of the '708 Patent	Exemplary Citations
	"When more participants join the conference, the MCU may automatically change the picture layout to display more participants, depending on the number of participants now connected in the conference. FIG. 6A shows an example in which three participants (sites A, B, C) are joined in the conference. In this case, a four region or quadrant image layout, referred to as CP4, is selected to form the image 204 shown in FIG. 6B. In the particular 3/4 split layout shown, the image from site A is located in quadrant 206, the image from site B is located in quadrant 208 and the image from site C is located in quadrant 210. Quadrant 212 contains a logo, background color or other image. If a fourth site next joins the conference, the layout remains the same except that the image from the fourth site is placed in quadrant 212." *Id.* at [Para 0054].

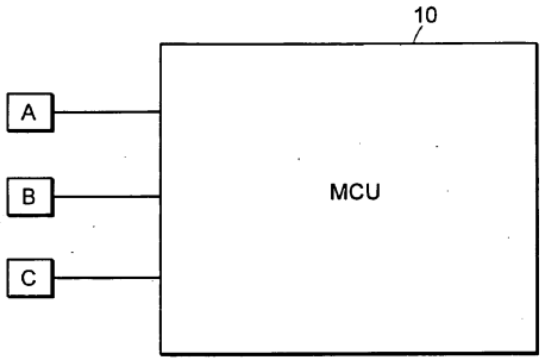
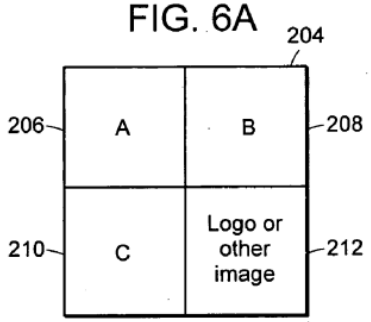
Asserted Claim of the '708 Patent	Exemplary Citations
	 FIG. 6A  FIG. 6B *Id.* at Fig. 6A and 6B "In the case in which five participants are now included in the conference, the MCU again dynamically changes the picture layout to select the best impression. FIG. 7A shows five participants (sites A, B, C, D, E) connected in a conference. For this case a nine region image layout, referred to as CP9, is selected to form image 220 shown in FIG. 7B. In the CP9 layout, the images from sites A, B, C, D and E are located in respective regions 222, 224, 226, 228 and 230. The

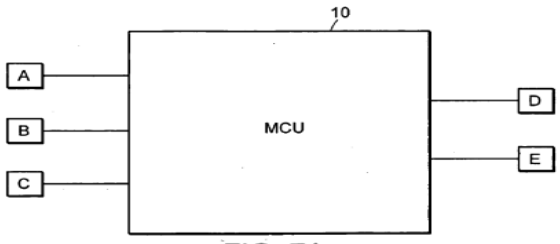
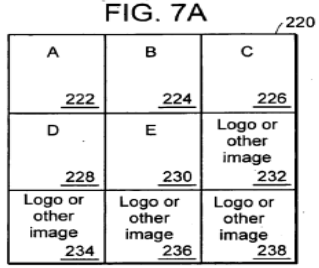
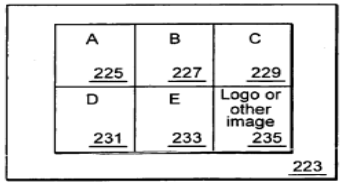
Asserted Claim of the '708 Patent	Exemplary Citations
	remaining regions 232, 234, 236 and 238 contain a logo, background color or other image." *Id.* at [Para 0056].  FIG. 7A  FIG. 7B  FIG. 7C *Id.* at Fig. 7C.
[Claim 18] The apparatus according to claim 17, wherein the composite video signal includes a spatial	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)*

Asserted Claim of the '708 Patent	Exemplary Citations
mix of one of more video conference streams, the layout defines one or more frames for containing the video conference streams, and the processing unit is further configured to provide, for at least one of the intervals, a relationship between positions within the at least one of the intervals and a size and position of one or more frames of a respective layout associated with the interval, and calculate, in response to the user action being detected, a layout wherein the size and position of each frame of the layout is based on the relationship and the position.	"Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3

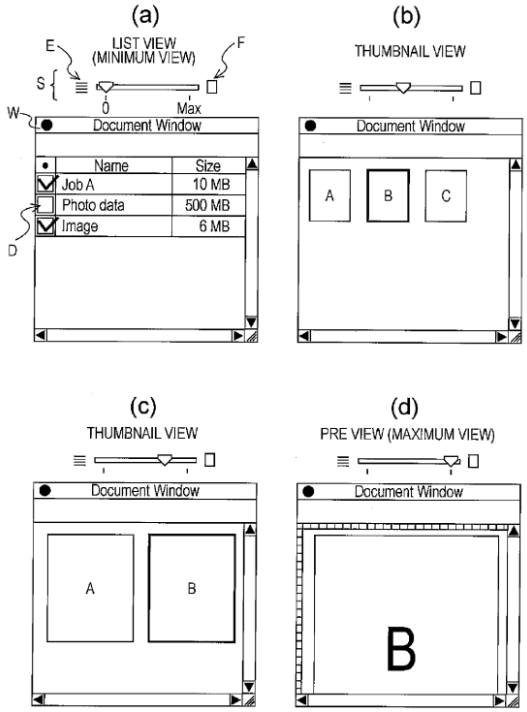
Asserted Claim of the '708 Patent	Exemplary Citations
	"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]. To the extent that Cisco contends that Nakagawa does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Lia: *Text from US20060158510A1 (Lia)* "In cases where the audiovisual terminals operate at different transmission rates or with different compression algorithms or are to be mixed into a composite image, multiple video inputs are sent to the VPU 124 where the video inputs are decompressed, mixed and recompressed into a single video stream. This single video stream is then passed back through the BPU 122 which switches the video stream to the appropriate endpoint terminals." *Id.* at [Para 0039] "Aligned H.221 frames are received by the VPU 124 for processing by encoder/decoder elements called video compression processors (VCPs). The VPU 124 has five VCPs (FIG. 2) which in this example are respectively assigned to sites A, B, C, D, E. A VCP on the VPU 124 which is assigned to site E is functionally illustrated in FIG. 4. Compressed video information (H.261) is extracted from the H.221 frames and decoded by the VCP as image X. The decoder video image X is placed on the pixel bus 182 through a scaling block. FIG. 4 shows the pixel bus 182 with decoded video frames from each site A, B, C, D, E successively retrieved from memory 123 identified by their respective RAM addresses. The VCP assigned to site E receives the decoded video frames from sites A, B, C and D which are then tiled (spatially mixed) into a single composite image I. The tiled image I is then encoded as H.261 video within H.221 framing and placed on the BPU bus 136 (FIG. 3) for BPU processing as described above." *Id.* at [Para 0047]

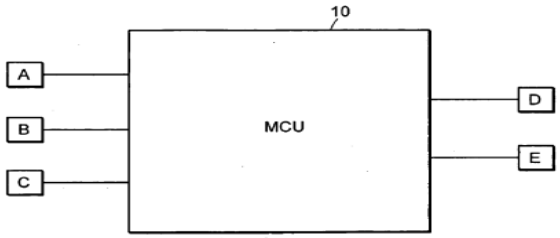
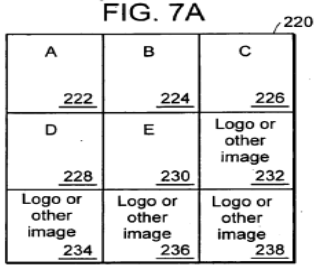
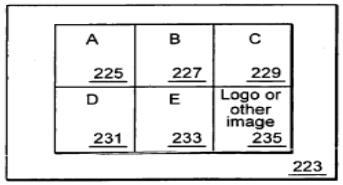
Asserted Claim of the '708 Patent	Exemplary Citations
	"When more participants join the conference, the MCU may automatically change the picture layout to display more participants, depending on the number of participants now connected in the conference. FIG. 6A shows an example in which three participants (sites A, B, C) are joined in the conference. In this case, a four region or quadrant image layout, referred to as CP4, is selected to form the image 204 shown in FIG. 6B. In the particular 3/4 split layout shown, the image from site A is located in quadrant 206, the image from site B is located in quadrant 208 and the image from site C is located in quadrant 210. Quadrant 212 contains a logo, background color or other image. If a fourth site next joins the conference, the layout remains the same except that the image from the fourth site is placed in quadrant 212." *Id.* at [Para 0054].

Asserted Claim of the '708 Patent	Exemplary Citations
	 FIG. 6A  FIG. 6B *Id.* at Fig. 6A and 6B. "In the case in which five participants are now included in the conference, the MCU again dynamically changes the picture layout to select the best impression. FIG. 7A shows five participants (sites A, B, C, D, E) connected in a conference. For this case a nine region image layout, referred to as CP9, is selected to form image 220 shown in FIG. 7B. In the CP9 layout, the images from sites A, B, C, D and E are located in respective regions 222, 224, 226, 228 and 230. The

Asserted Claim of the '708 Patent	Exemplary Citations
	remaining regions 232, 234, 236 and 238 contain a logo, background color or other image." *Id.* at [Para 0056].  FIG. 7A  FIG. 7B  FIG. 7C *Id.* at Fig. 7C
[Claim 19] The apparatus according to claim 17, wherein the processing unit is further configured to	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)*

Asserted Claim of the '708 Patent	Exemplary Citations
associate M numbers of variations of one of the plurality of predefined layouts with M number of sub-intervals within one or more of the intervals, identify, in response to the user action being detected, a sub-interval among the sub-intervals within which the position is lying, and select a layout, of the plurality of predefined layouts, associated with the sub-interval; and the video composing unit is configured to compose the composite video signal using the selected layout.	"According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012]. "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041].

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]. To the extent that Cisco contends that Nakagawa does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Lia:

Asserted Claim of the '708 Patent	Exemplary Citations
	Text from US20060158510A1 (Lia) "In the case in which five participants are now included in the conference, the MCU again dynamically changes the picture layout to select the best impression. FIG. 7A shows five participants (sites A, B, C, D, E) connected in a conference. For this case a nine region image layout, referred to as CP9, is selected to form image 220 shown in FIG. 7B. In the CP9 layout, the images from sites A, B, C, D and E are located in respective regions 222, 224, 226, 228 and 230. The remaining regions 232, 234, 236 and 238 contain a logo, background color or other image." *Id.* at [Para 0056]  FIG. 7A  FIG. 7B  FIG. 7C

Asserted Claim of the '708 Patent	Exemplary Citations
	Id. at Fig. 7C.

Exhibit B-3: Invalidity of U.S. Patent No. 8,941,708 in view of U.S. Patent Pub. No. 2008/0235612 A1 ("Nakagawa") in view of LifeSize Video Communications Systems User and Administrator Guide[1]

This chart is subject to all reservations, objections, and disclaimers in Defendant's Invalidity Contentions and any amendment, supplement, or modification thereof, which are incorporated herein by reference in their entirety.

Nakagawa was originally filed March 18, 2008 and published as a publication on September 25, 2008, and thus is available as prior art to U.S. Patent No. 8,941,708 (the "708 Patent") under at least 35 U.S.C. § 103.

LifeSize Video Communications Systems User and Administrator Guide ("LifeSize") was originally published as a publication on February, 2011, and thus is available as prior art to the '708 Patent under at least 35 U.S.C. § 103.

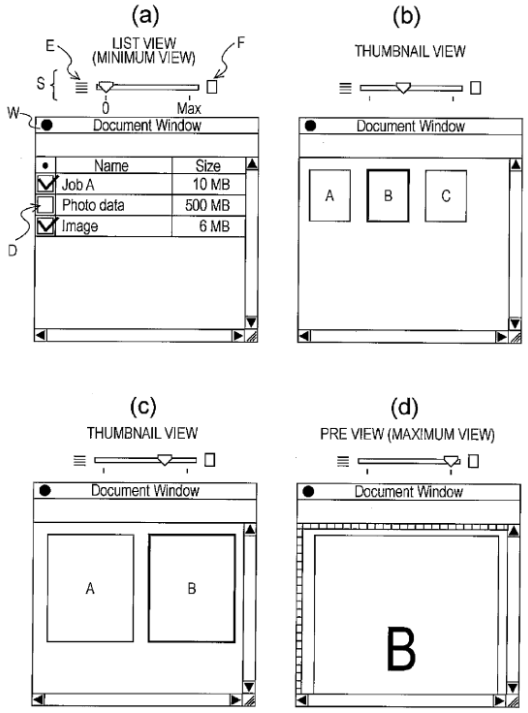
Nakagawa is evidence of prior invention in the United States under 35 U.S.C. § 103. The conception of Nakagawa occurred at least as early as March 18, 2008. The conception of LifeSize occurred at least as early as February 2011. Based on information currently available, the persons or entities involved in the conception and diligent reduction to practice of the ideas in Nakagawa and LifeSize include at least the named inventors and the assignee. Discovery is ongoing and Defendant will update this chart pursuant to Federal Rule of Civil Procedure 26(e), the Local Rules, and the Orders of record in this matter subject to further investigation and discovery regarding the reference, the Court's construction of the claims at issue, and discovery generally, including third-party discovery.

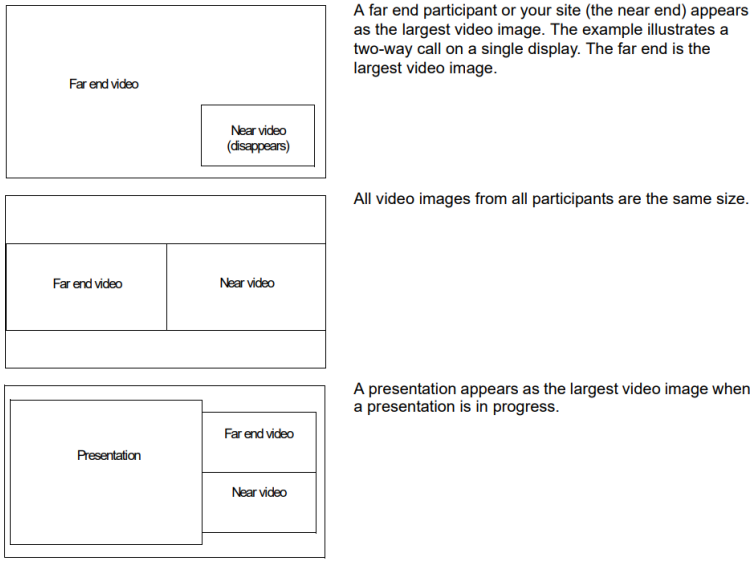
[1] Discovery in this case is ongoing and accordingly, this initial invalidity chart is not final. IPM has conducted its invalidity analysis herein based at least in part and in some instances entirely upon Cisco's apparent application of the claims of the '708 Patent. By charting the prior art against the claims and limitations herein, IPM is neither admitting nor agreeing to Cisco's application of the claims at issue in this case, and these charts should not be interpreted as an admission or concession by IPM that any particular construction or application of any claim limitation by Cisco is correct or proper. Additionally, these charts provide representative examples of portions of the charted references that disclose the indicated limitations under Cisco's application of the claims; additional portions of these references other than the representative examples provided herein may also disclose the indicated limitation(s) and IPM contends that the asserted claims are invalid in light of the charted reference(s) as a whole in its or their entirety. Where a particular figure is cited, the citation should be understood to encompass the caption and description of the figure as well as any text relating to or describing the figure. Conversely, where particular text referring to a figure is cited, the citation should be understood to include the figure as well.

Nakagawa renders obvious the asserted claims of the ’708 Patent, either alone or in combination with other prior art (including LifeSize) and/or in combination with (1) the general knowledge of one of ordinary skill in the art; (2) the teachings of any of the prior art references set forth in IPM’s other invalidity claim charts with respect to the limitation-at-issue; and/or (3) the teachings of any of the prior art references set forth in the cover pleading of IPM’s invalidity contentions with respect to the key concepts applicable for the limitation-at-issue.

To the extent that the following invalidity contentions reflect constructions of claim limitations consistent with or suggested by Cisco’s Infringement Contentions, no inference is intended, nor should any be drawn that IPM agrees with Cisco’s apparent claim constructions or infringement contentions. IPM offers such invalidity contentions solely in the alternative to any position it may ultimately take as to any claim construction issues. IPM denies that the accused products infringe the asserted claim and expressly reserves the right to contest Cisco’s apparent claim constructions and infringement contentions.

Asserted Claim of the '708 Patent	Exemplary Citations
[Claim 1(a)] A method comprising: providing, on a display, an object configured to be moved by a user along an axis extending across video for a plurality of video conference streams;	To the extent the preamble is limiting, Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]. To the extent that Cisco contends that Nakagawa does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including LifeSize:

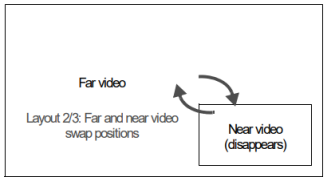
Asserted Claim of the '708 Patent	Exemplary Citations
	Text from LifeSize "Managing Video Layouts To change the screen layout of near and far end video images, press  at any time during a call. The number of the selected screen layout (x) and the total number of available screen layouts (y) appear in the center of the screen above the status bar as x/y. The total number of available screen layouts depends on the number of connected callers, whether a single display or a dual display is used, and whether a presentation is being viewed." *Id.* at [Page 10 of 99] Screen layouts appear as one of the following types:  "Multiway Call Layouts LifeSize video conferencing systems that support multiway video calls can show video from a maximum of four callers: three far end participants and the near end participant. If LifeSize Bridge is hosting the call, video from additional callers may appear."

Asserted Claim of the '708 Patent	Exemplary Citations

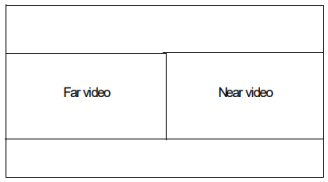
Single Display Screen Layouts

Two-way Call

Layouts 1/3 and 2/3



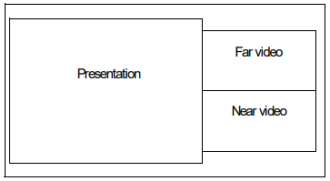
Layout 3/3



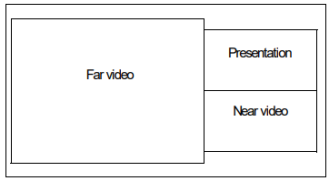
Id. at [Page 11 of 99]

Two-way Call with Presentation

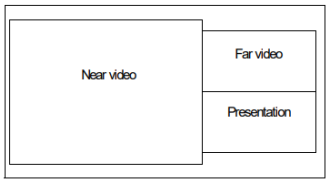
Layout 1/7



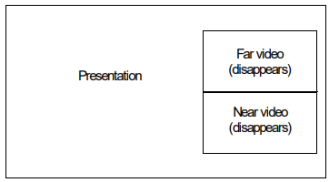
Layout 2/7



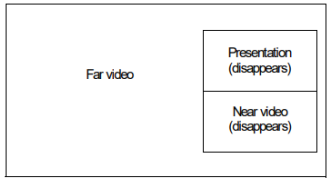
Layout 3/7



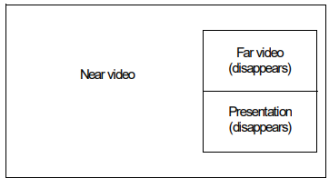
Layout 4/7



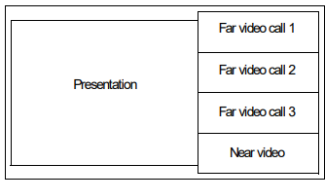
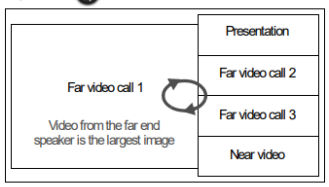
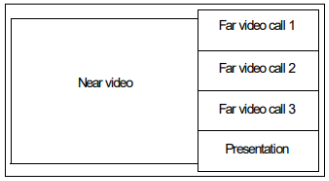
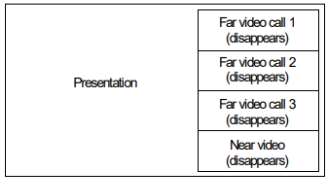
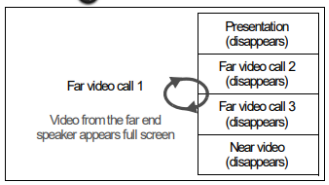
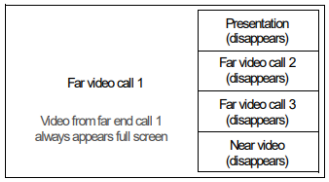
Layout 5/7

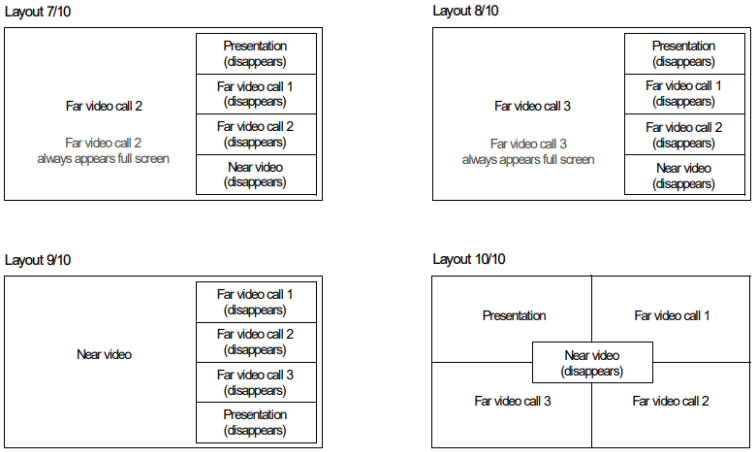


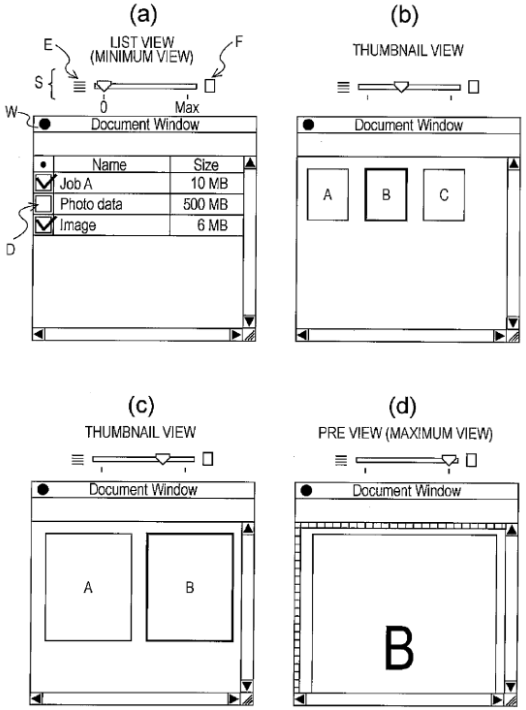
Layout 6/7

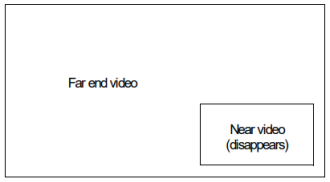
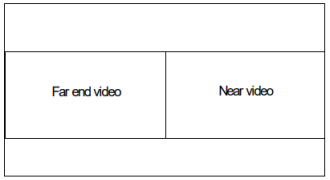
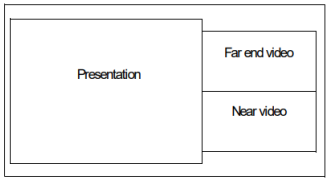


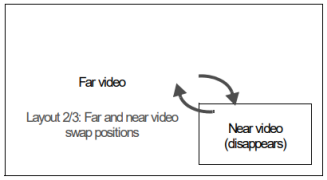
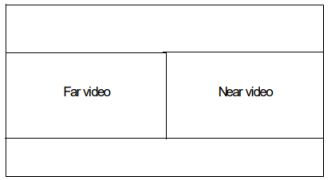
Asserted Claim of the '708 Patent	Exemplary Citations
	Id. at [Page 12 of 99] Three-way Call Layout 1/7 Far video call 1 Far video call 2 Near video Layout 2/7 Far video call 1 Far video call 2 Video from the far end speaker is the largest image Near video Layout 3/7 Near video Far video call 1 Far video call 2 Layout 4/7 Far video call 1 Far video call 2 (disappears) Video from the far end speaker appears full screen Near video (disappears) Layout 5/7 Far video call 1 Far video call 2 (disappears) Far video call 1 always appears full screen Near video (disappears) Layout 6/7 Far video call 2 Far video call 1 (disappears) Far video call 2 always appears full screen Near video (disappears) *Id.* at [Page 13 of 99]

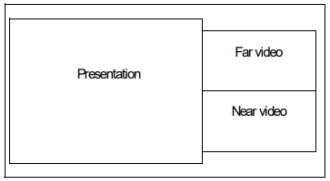
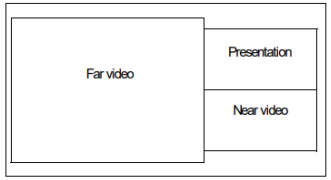
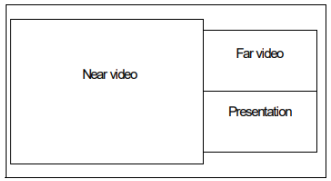
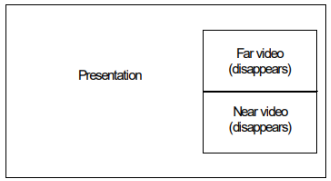
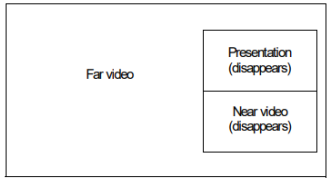
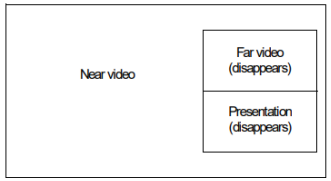
Asserted Claim of the '708 Patent	Exemplary Citations
	Four-way Call with Presentation Layout 1/10  Layout 2/10  Layout 3/10  Layout 4/10  Layout 5/10  Layout 6/10  *Id.* at [Page 16 of 99]

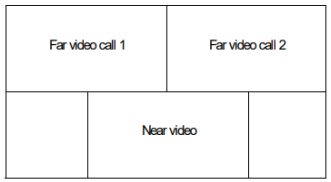
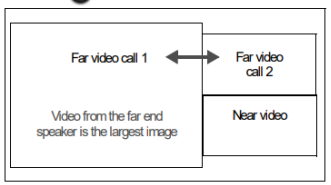
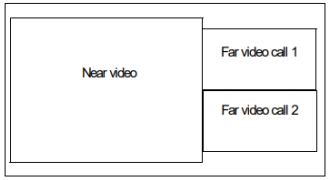
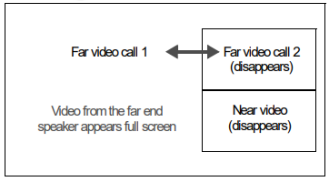
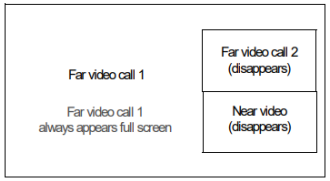
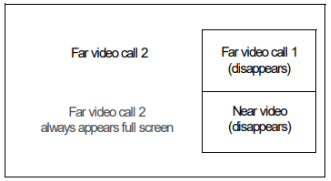
Asserted Claim of the '708 Patent	Exemplary Citations
	
[Claim 1(b)] associating a plurality of predefined layouts for plurality of video conference streams with respective intervals along the axis;	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial

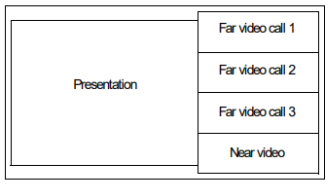
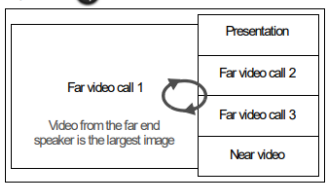
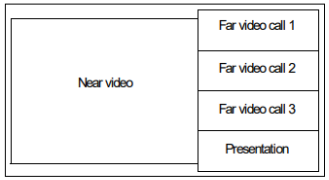
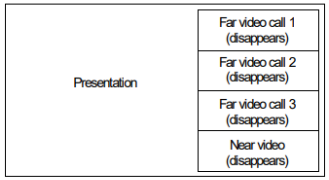
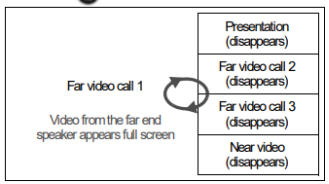
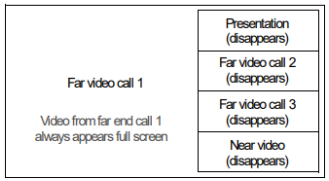
Asserted Claim of the '708 Patent	Exemplary Citations
	view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]. To the extent that Cisco contends that Nakagawa does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation,

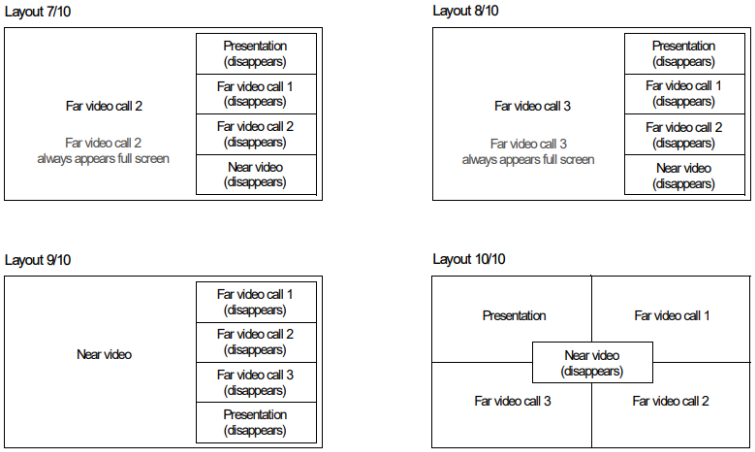
Asserted Claim of the '708 Patent	Exemplary Citations
	including LifeSize: *Text from LifeSize* "Managing Video Layouts To change the screen layout of near and far end video images, press  at any time during a call. The number of the selected screen layout (x) and the total number of available screen layouts (y) appear in the center of the screen above the status bar as x/y. The total number of available screen layouts depends on the number of connected callers, whether a single display or a dual display is used, and whether a presentation is being viewed." *Id.* at [Page 10 of 99] Screen layouts appear as one of the following types:  A far end participant or your site (the near end) appears as the largest video image. The example illustrates a two-way call on a single display. The far end is the largest video image.  All video images from all participants are the same size.  A presentation appears as the largest video image when a presentation is in progress. "Multiway Call Layouts

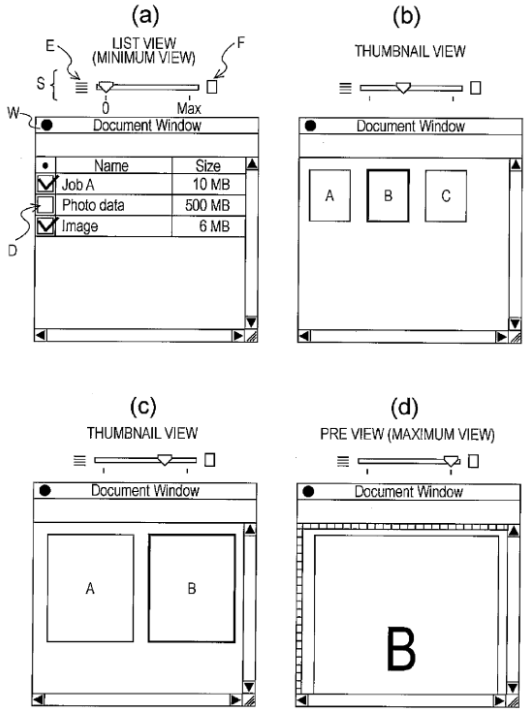
Asserted Claim of the '708 Patent	Exemplary Citations
	LifeSize video conferencing systems that support multiway video calls can show video from a maximum of four callers: three far end participants and the near end participant. If LifeSize Bridge is hosting the call, video from additional callers may appear." Single Display Screen Layouts Two-way Call Layouts 1/3 and 2/3  Layout 3/3  *Id.* at [Page 11 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations
	Two-way Call with Presentation Layout 1/7  Layout 2/7  Layout 3/7  Layout 4/7  Layout 5/7  Layout 6/7  *Id.* at [Page 12 of 99]

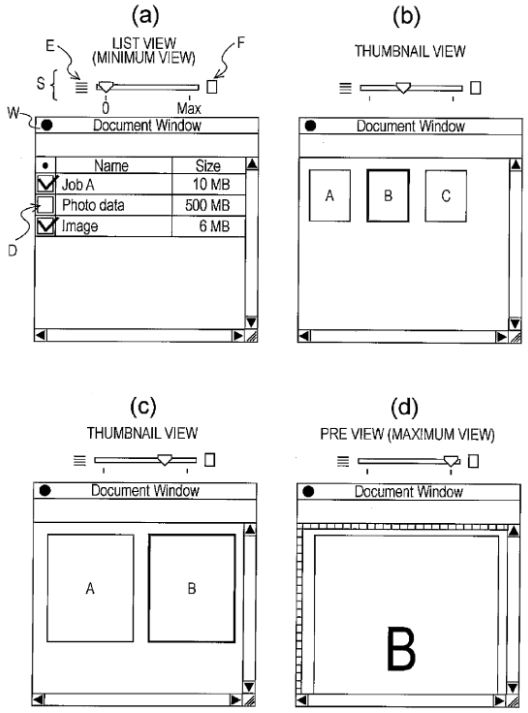
Asserted Claim of the '708 Patent	Exemplary Citations
	Three-way Call Layout 1/7  Layout 2/7  Layout 3/7  Layout 4/7  Layout 5/7  Layout 6/7  *Id.* at [Page 13 of 99]

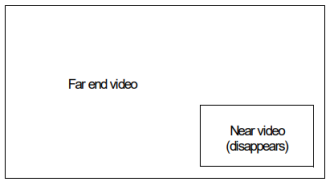
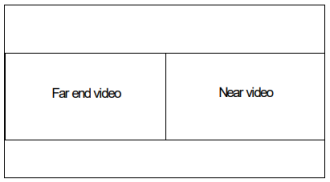
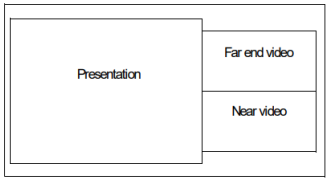
Asserted Claim of the '708 Patent	Exemplary Citations
	Four-way Call with Presentation Layout 1/10  Layout 2/10  Layout 3/10  Layout 4/10  Layout 5/10  Layout 6/10  *Id.* at [Page 16 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations
	
[Claim 1(c)] detecting a user action on the object indicating a position on the axis; and	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 1(d)] composing, in response to the detecting of the user action, a composite video signal using a layout, of	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)*

Asserted Claim of the '708 Patent	Exemplary Citations
the plurality of predefined layouts, associated with an interval among the intervals within which the position is lying.	"According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]. To the extent that Cisco contends that Nakagawa does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including LifeSize:

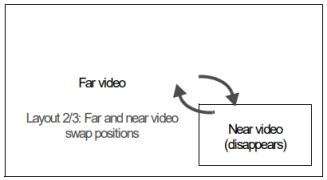
Asserted Claim of the '708 Patent	Exemplary Citations
	Text from LifeSize "Managing Video Layouts To change the screen layout of near and far end video images, press  at any time during a call. The number of the selected screen layout (x) and the total number of available screen layouts (y) appear in the center of the screen above the status bar as x/y. The total number of available screen layouts depends on the number of connected callers, whether a single display or a dual display is used, and whether a presentation is being viewed." *Id.* at [Page 10 of 99] Screen layouts appear as one of the following types:  A far end participant or your site (the near end) appears as the largest video image. The example illustrates a two-way call on a single display. The far end is the largest video image.  All video images from all participants are the same size.  A presentation appears as the largest video image when a presentation is in progress. "Multiway Call Layouts LifeSize video conferencing systems that support multiway video calls can show video from a maximum of four callers: three far end participants and the near end participant. If LifeSize Bridge is hosting the call, video from additional callers may appear."

Asserted Claim of the '708 Patent	Exemplary Citations

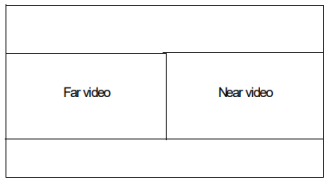
Single Display Screen Layouts

Two-way Call

Layouts 1/3 and 2/3



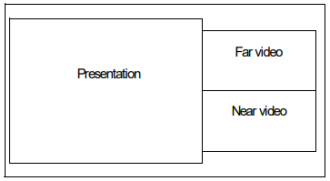
Layout 3/3



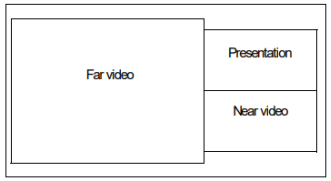
Id. at [Page 11 of 99]

Two-way Call with Presentation

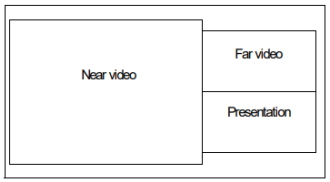
Layout 1/7



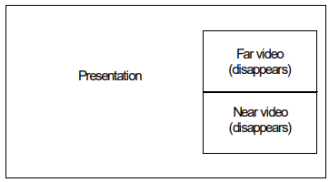
Layout 2/7



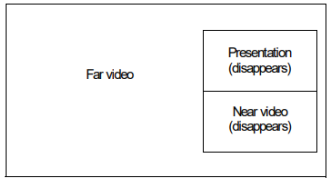
Layout 3/7



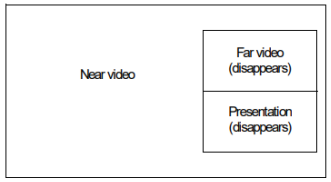
Layout 4/7



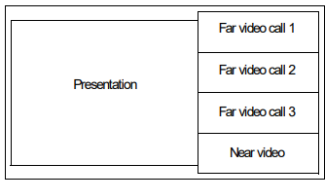
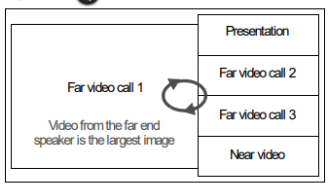
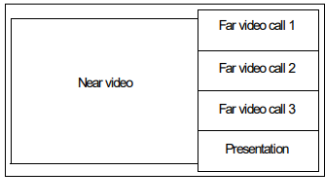
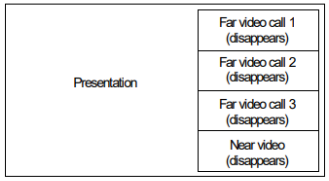
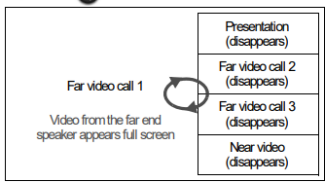
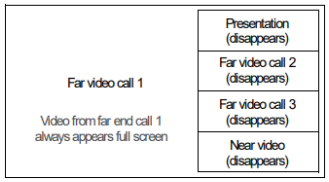
Layout 5/7

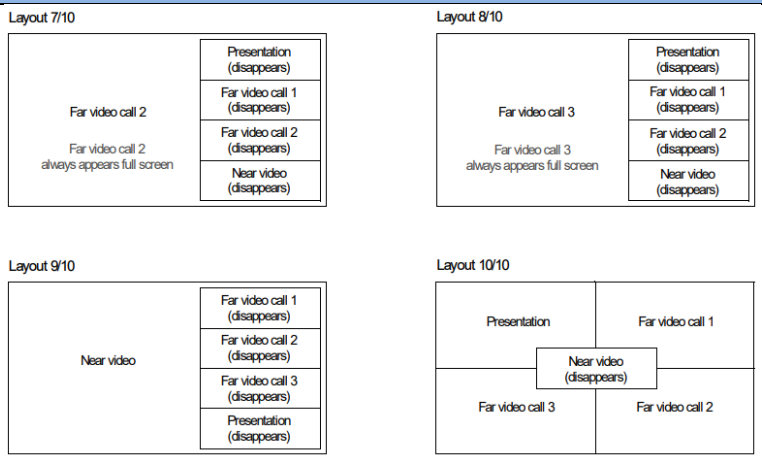


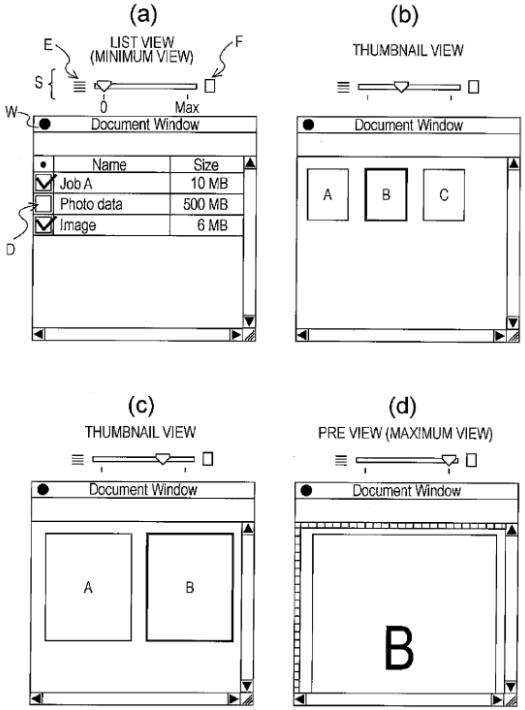
Layout 6/7

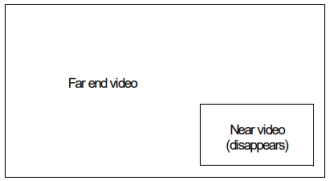
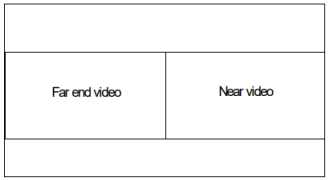
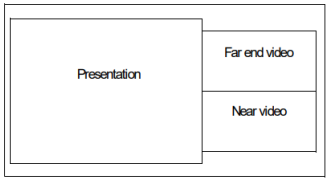


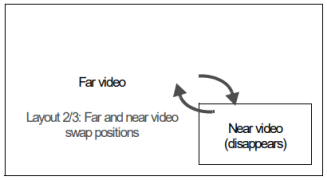
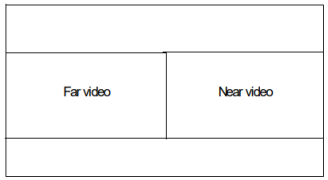
Asserted Claim of the '708 Patent	Exemplary Citations
	Id. at [Page 12 of 99] Three-way Call Layout 1/7 Far video call 1 Far video call 2 Near video Layout 2/7 Far video call 1 Far video call 2 Video from the far end speaker is the largest image Near video Layout 3/7 Near video Far video call 1 Far video call 2 Layout 4/7 Far video call 1 Far video call 2 (disappears) Video from the far end speaker appears full screen Near video (disappears) Layout 5/7 Far video call 1 Far video call 2 (disappears) Far video call 1 always appears full screen Near video (disappears) Layout 6/7 Far video call 2 Far video call 1 (disappears) Far video call 2 always appears full screen Near video (disappears) *Id.* at [Page 13 of 99]

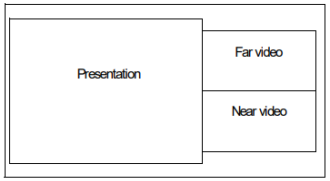
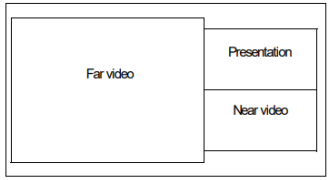
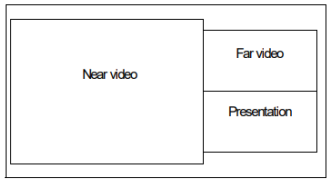
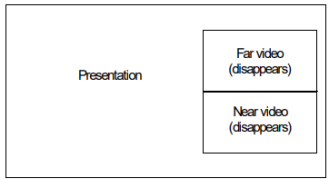
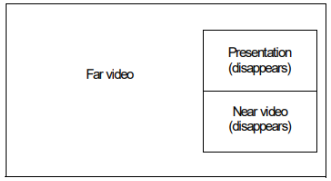
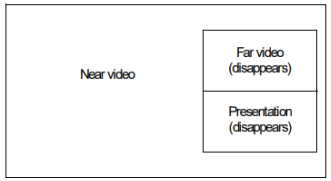
Asserted Claim of the '708 Patent	Exemplary Citations
	Four-way Call with Presentation Layout 1/10  Layout 2/10  Layout 3/10  Layout 4/10  Layout 5/10  Layout 6/10  *Id.* at [Page 16 of 99]

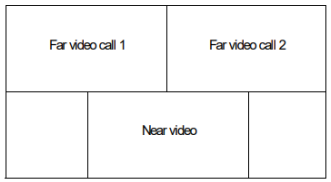
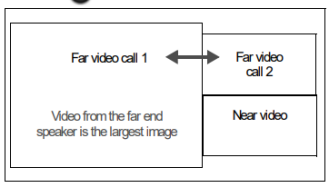
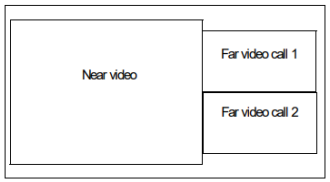
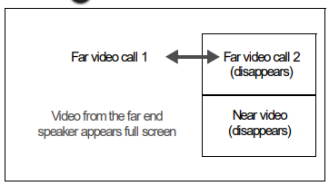
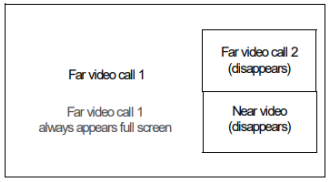
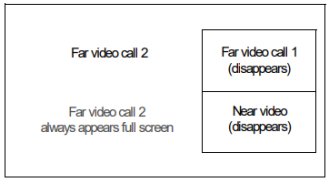
Asserted Claim of the '708 Patent	Exemplary Citations
	
[Claim 2] The method according to claim 1, wherein the composite video signal includes a spatial mix of the plurality of video conference streams, and the layout defines one or more frames for containing the plurality of video conference streams, the method further comprising: providing, for at least one of the intervals, a relationship between	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial

Asserted Claim of the '708 Patent	Exemplary Citations
positions within the at least one of the intervals and a size and position of one or more frames of a respective layout associated with the interval, and calculating, in response to the detecting of the user action, a layout wherein the size and position of each frame of the layout is based on the relationship and the position.	view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]. FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]. To the extent that Cisco contends that Nakagawa does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation,

Asserted Claim of the '708 Patent	Exemplary Citations
	including LifeSize: *Text from LifeSize* "Managing Video Layouts To change the screen layout of near and far end video images, press  at any time during a call. The number of the selected screen layout (x) and the total number of available screen layouts (y) appear in the center of the screen above the status bar as x/y. The total number of available screen layouts depends on the number of connected callers, whether a single display or a dual display is used, and whether a presentation is being viewed." *Id.* at [Page 10 of 99] Screen layouts appear as one of the following types:  A far end participant or your site (the near end) appears as the largest video image. The example illustrates a two-way call on a single display. The far end is the largest video image.  All video images from all participants are the same size.  A presentation appears as the largest video image when a presentation is in progress. "Multiway Call Layouts

Asserted Claim of the '708 Patent	Exemplary Citations
	LifeSize video conferencing systems that support multiway video calls can show video from a maximum of four callers: three far end participants and the near end participant. If LifeSize Bridge is hosting the call, video from additional callers may appear." Single Display Screen Layouts Two-way Call Layouts 1/3 and 2/3  Layout 3/3  *Id.* at [Page 11 of 99]

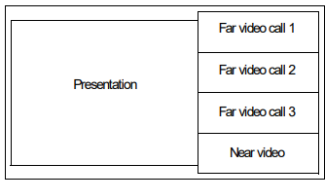
Asserted Claim of the '708 Patent	Exemplary Citations
	Two-way Call with Presentation Layout 1/7  Layout 2/7  Layout 3/7  Layout 4/7  Layout 5/7  Layout 6/7  *Id.* at [Page 12 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations
	Three-way Call Layout 1/7  Layout 2/7  Layout 3/7  Layout 4/7  Layout 5/7  Layout 6/7  *Id.* at [Page 13 of 99]

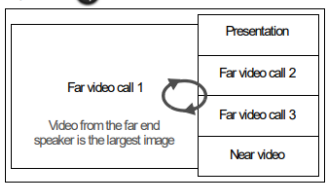
Asserted Claim of the '708 Patent	Exemplary Citations

Four-way Call with Presentation

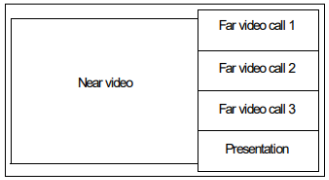
Layout 1/10



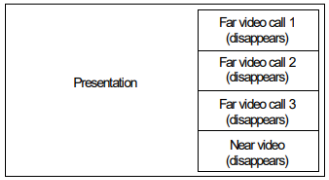
Layout 2/10



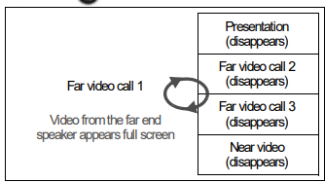
Layout 3/10



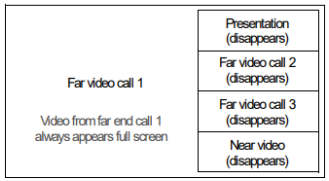
Layout 4/10



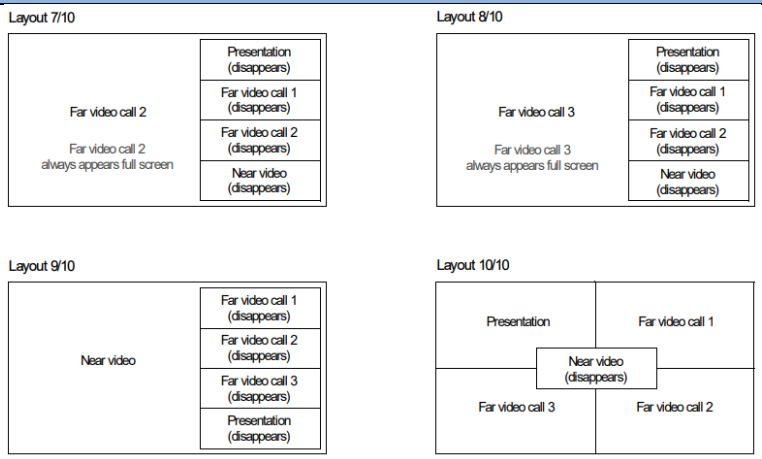
Layout 5/10

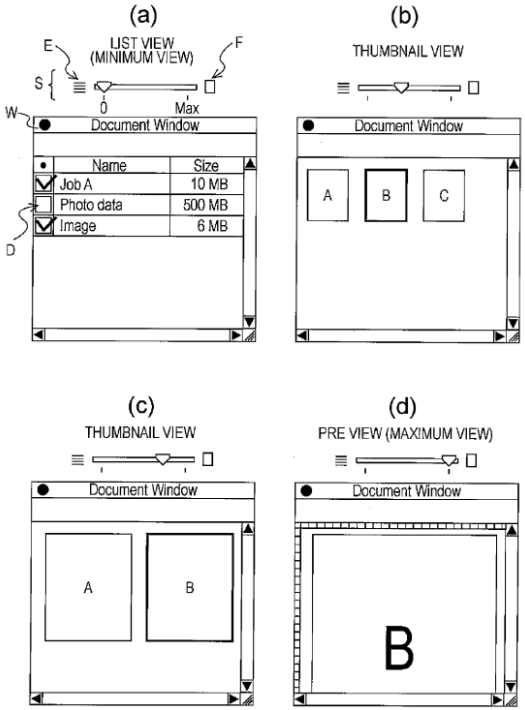


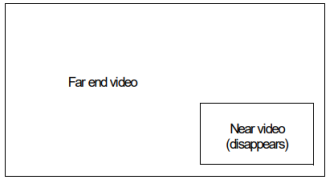
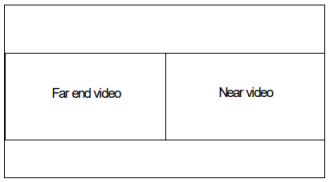
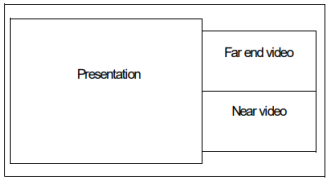
Layout 6/10

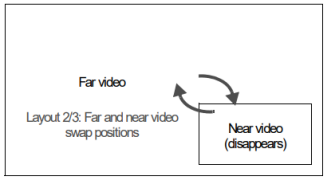
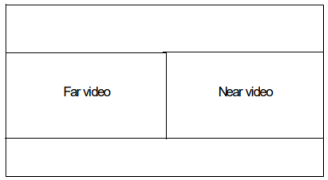


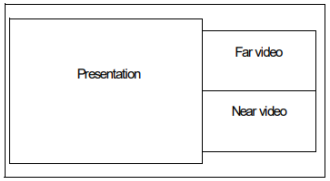
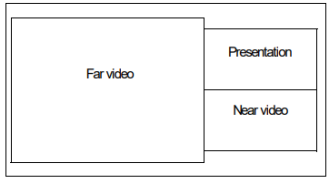
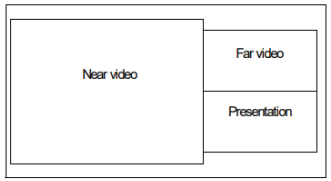
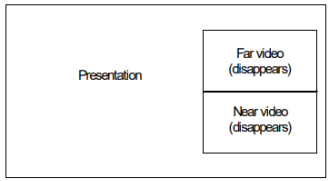
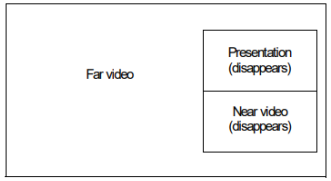
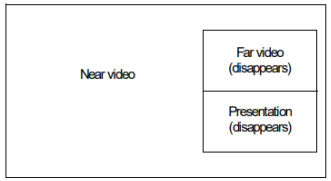
Id. at [Page 16 of 99]

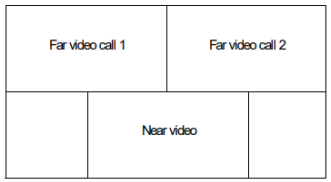
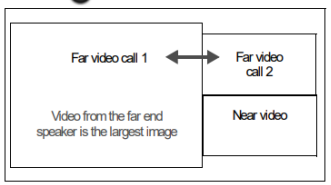
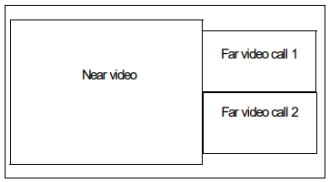
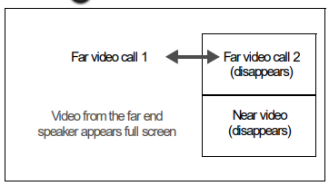
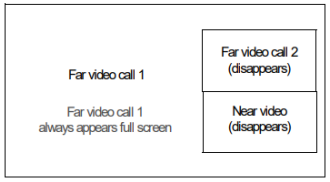
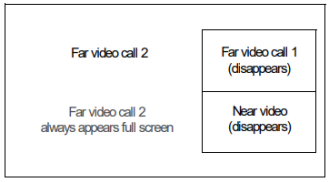
Asserted Claim of the '708 Patent	Exemplary Citations
	
[Claim 3] The method according to claim 1, further comprising: associating M numbers of variations of one of the plurality of predefined layouts with M number of sub-intervals within one or more of the intervals; identifying, in response to the detecting of the user action, a sub-interval among the sub-intervals within which the position is lying;	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the

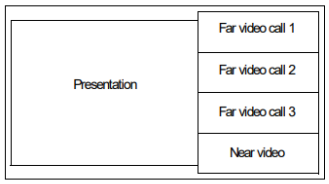
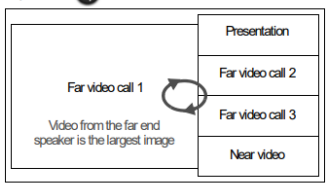
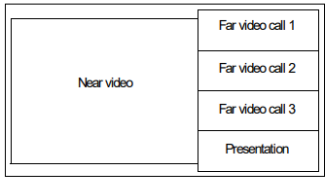
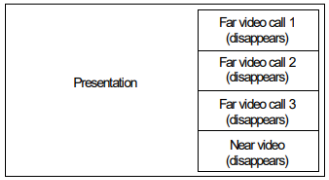
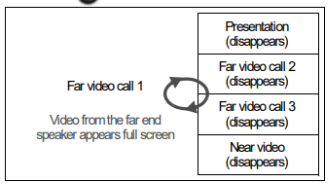
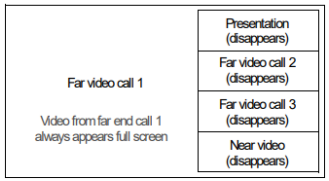
Asserted Claim of the '708 Patent	Exemplary Citations
selecting a layout, of the plurality of predefined layouts, associated with the sub-interval; and composing the composite video signal using the selected layout.	slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]. To the extent that Cisco contends that Nakagawa does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common

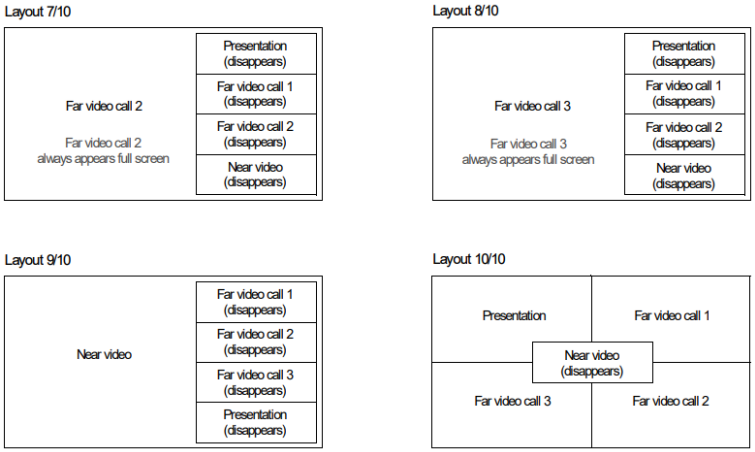
Asserted Claim of the '708 Patent	Exemplary Citations
	general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including LifeSize: *Text from LifeSize* "Managing Video Layouts To change the screen layout of near and far end video images, press  at any time during a call. The number of the selected screen layout (x) and the total number of available screen layouts (y) appear in the center of the screen above the status bar as x/y. The total number of available screen layouts depends on the number of connected callers, whether a single display or a dual display is used, and whether a presentation is being viewed." *Id.* at [Page 10 of 99] Screen layouts appear as one of the following types:  A far end participant or your site (the near end) appears as the largest video image. The example illustrates a two-way call on a single display. The far end is the largest video image.  All video images from all participants are the same size.  A presentation appears as the largest video image when a presentation is in progress. "Multiway Call Layouts

Asserted Claim of the '708 Patent	Exemplary Citations
	LifeSize video conferencing systems that support multiway video calls can show video from a maximum of four callers: three far end participants and the near end participant. If LifeSize Bridge is hosting the call, video from additional callers may appear." Single Display Screen Layouts Two-way Call Layouts 1/3 and 2/3  Layout 3/3  *Id.* at [Page 11 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations
	Two-way Call with Presentation Layout 1/7  Layout 2/7  Layout 3/7  Layout 4/7  Layout 5/7  Layout 6/7  *Id.* at [Page 12 of 99]

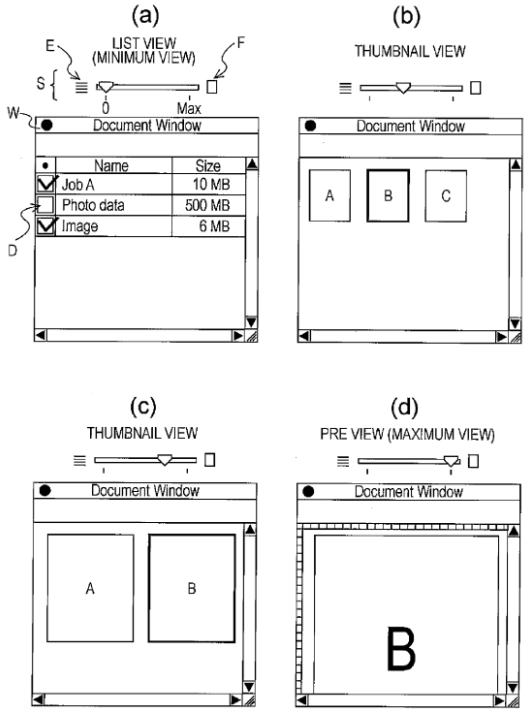
Asserted Claim of the '708 Patent	Exemplary Citations
	Three-way Call Layout 1/7  Layout 2/7  Layout 3/7  Layout 4/7  Layout 5/7  Layout 6/7  *Id.* at [Page 13 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations
	Four-way Call with Presentation Layout 1/10  Layout 2/10  Layout 3/10  Layout 4/10  Layout 5/10  Layout 6/10  *Id.* at [Page 16 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations
	
[Claim 4] The method of claim 1, further comprising: identifying the interval among the intervals within which the position is lying.	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 3



Id. at Fig. 3

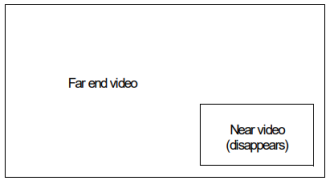
"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two

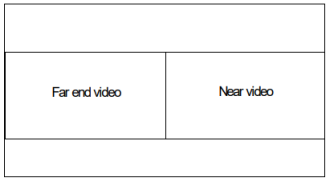
Asserted Claim of the '708 Patent	Exemplary Citations
	print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052].
[Claim 5] The method of claim 1, further comprising: wherein the composite video signal includes a spatial mix of one or more video conference streams, and the layout defines one or more frames for containing the video conference streams.	It would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including LifeSize: *Text from LifeSize* "Managing Video Layouts To change the screen layout of near and far end video images, press  at any time during a call. The number of the selected screen layout (x) and the total number of available screen layouts (y) appear in the center of the screen above the status bar as x/y. The total number of available screen layouts depends on the number of connected callers, whether a single display or a dual display is used, and whether a presentation is being viewed." *Id.* at [Page 10 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations

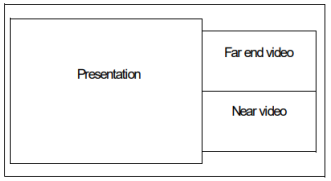
Screen layouts appear as one of the following types:



A far end participant or your site (the near end) appears as the largest video image. The example illustrates a two-way call on a single display. The far end is the largest video image.



All video images from all participants are the same size.



A presentation appears as the largest video image when a presentation is in progress.

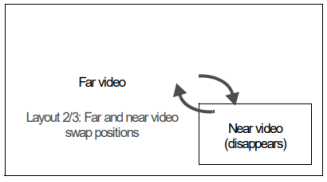
"Multiway Call Layouts

LifeSize video conferencing systems that support multiway video calls can show video from a maximum of four callers: three far end participants and the near end participant. If LifeSize Bridge is hosting the call, video from additional callers may appear."

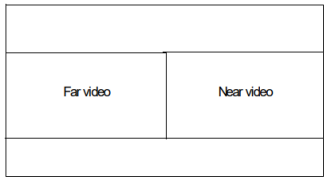
Single Display Screen Layouts

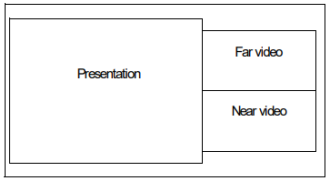
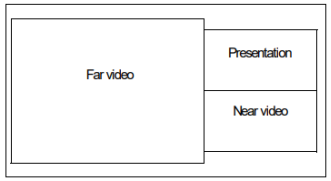
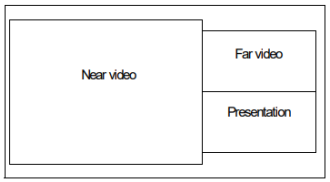
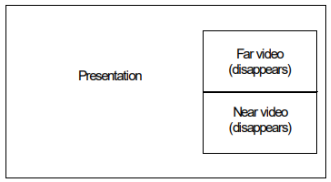
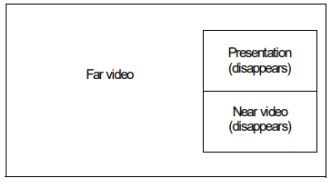
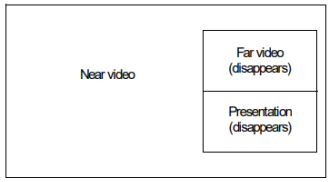
Two-way Call

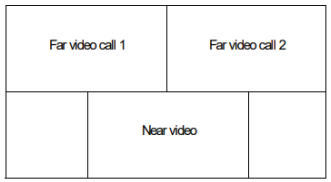
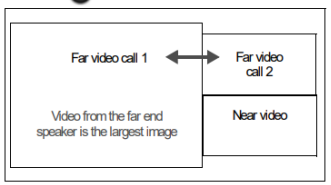
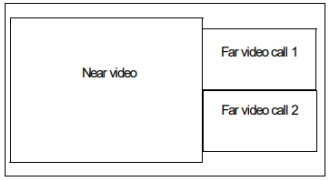
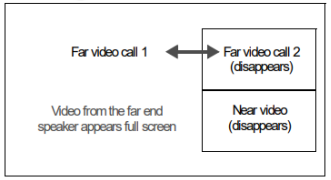
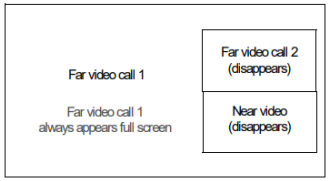
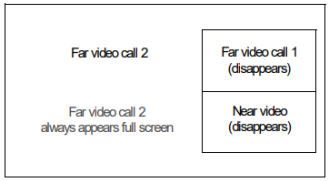
Layouts 1/3 and 2/3

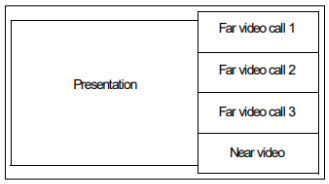
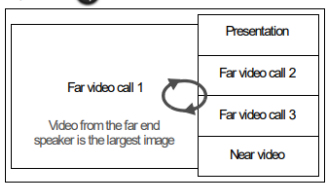
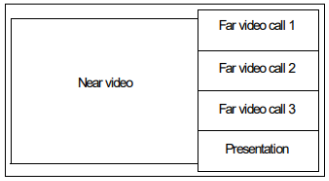
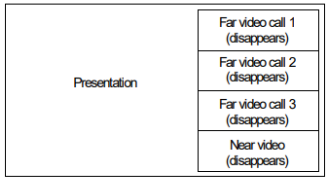
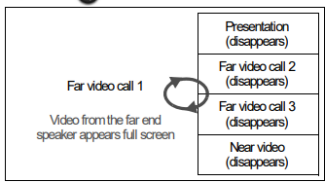
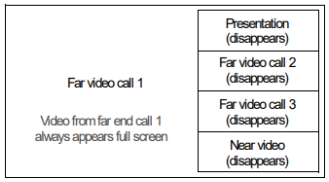


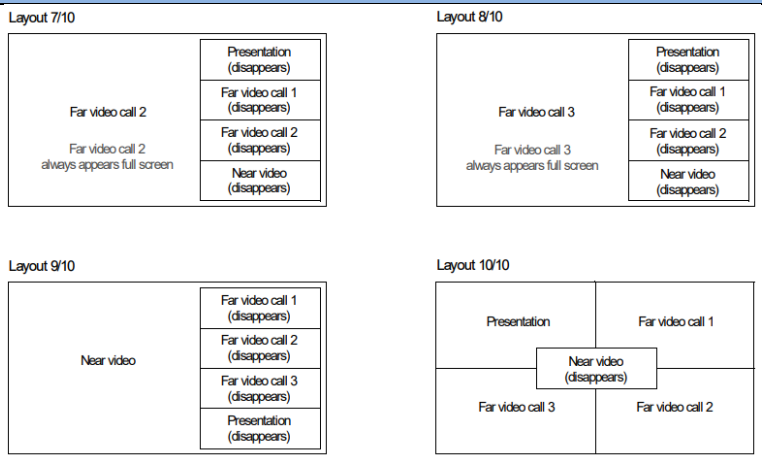
Layout 3/3



Asserted Claim of the '708 Patent	Exemplary Citations
	Id. at [Page 11 of 99] Two-way Call with Presentation Layout 1/7  Layout 2/7  Layout 3/7  Layout 4/7  Layout 5/7  Layout 6/7  *Id.* at [Page 12 of 99]

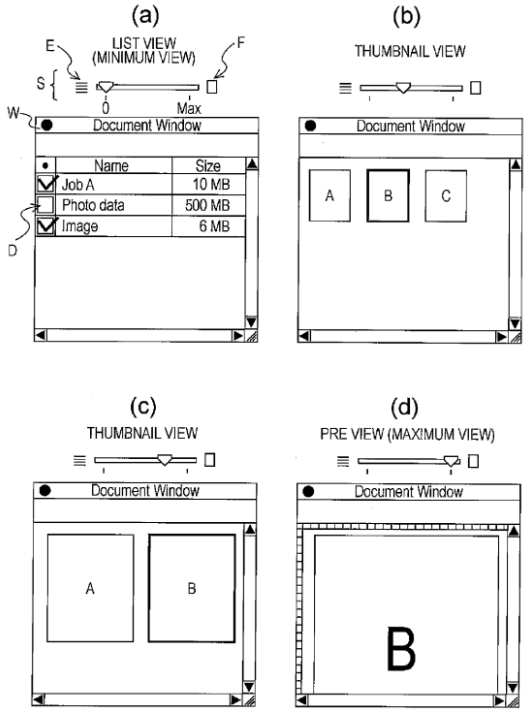
Asserted Claim of the '708 Patent	Exemplary Citations
	Three-way Call Layout 1/7  Layout 2/7  Layout 3/7  Layout 4/7  Layout 5/7  Layout 6/7  *Id.* at [Page 13 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations
	Four-way Call with Presentation Layout 1/10  Layout 2/10  Layout 3/10  Layout 4/10  Layout 5/10  Layout 6/10  *Id.* at [Page 16 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations
	
[Claim 6] The method of claim 5, further comprising: providing, for at least one of the intervals, a relationship between positions within the at least one of the intervals and the size and position of one or more frames of a respective layout associated with the interval.	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 3



Id. at Fig. 3

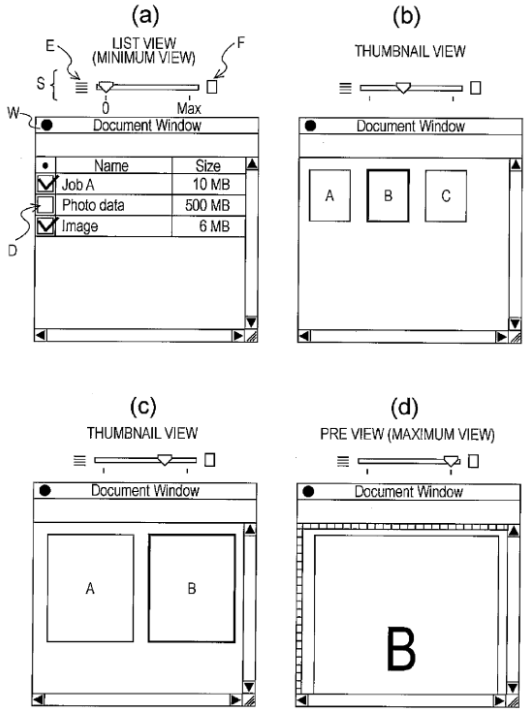
"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two

Asserted Claim of the '708 Patent	Exemplary Citations
	print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052].
[Claim 7] The method of claim 6, further comprising: calculating a layout wherein the size and position of each frame of the layout is based on the relationship and the position.	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 3



Id. at Fig. 3

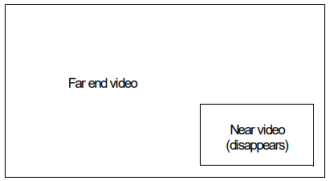
"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two

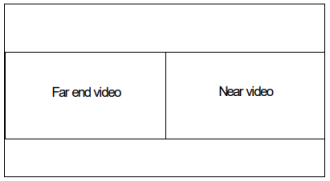
Asserted Claim of the '708 Patent	Exemplary Citations
	print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]. To the extent that Cisco contends that Nakagawa does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including LifeSize: *Text from LifeSize* "Managing Video Layouts To change the screen layout of near and far end video images, press  at any time during a call. The number of the selected screen layout (x) and the total number of available screen layouts (y) appear in the center of the screen above the status bar as x/y. The total number of available screen layouts depends on the number of connected callers, whether a single display or a dual display is used, and whether a presentation is being viewed." *Id.* at [Page 10 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations

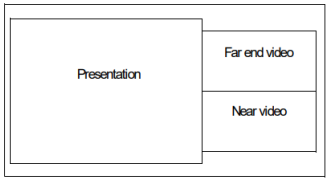
Screen layouts appear as one of the following types:



A far end participant or your site (the near end) appears as the largest video image. The example illustrates a two-way call on a single display. The far end is the largest video image.



All video images from all participants are the same size.



A presentation appears as the largest video image when a presentation is in progress.

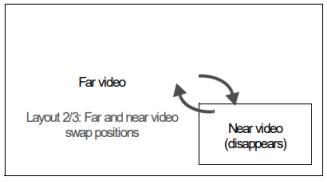
"Multiway Call Layouts

LifeSize video conferencing systems that support multiway video calls can show video from a maximum of four callers: three far end participants and the near end participant. If LifeSize Bridge is hosting the call, video from additional callers may appear."

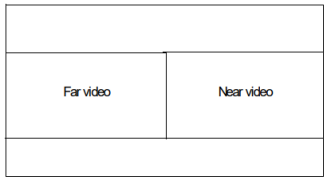
Single Display Screen Layouts

Two-way Call

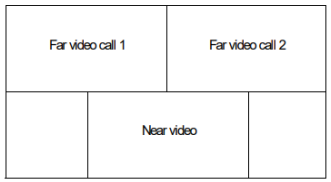
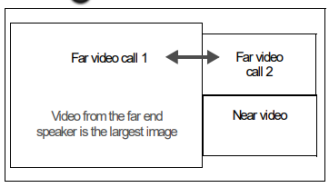
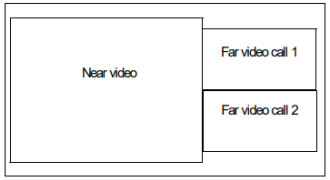
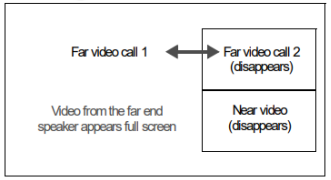
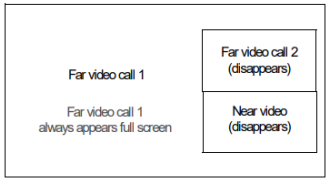
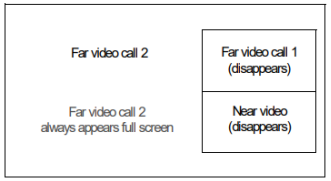
Layouts 1/3 and 2/3

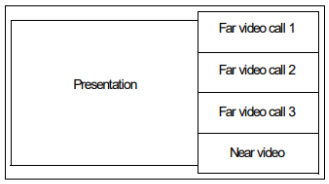
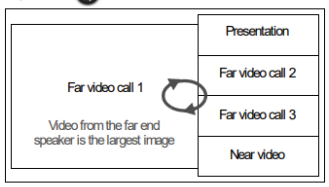
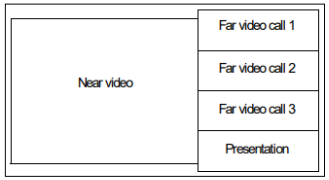
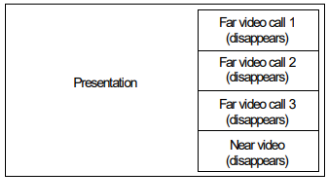
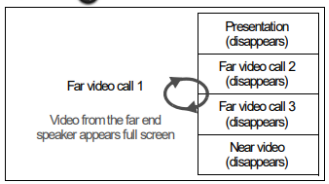
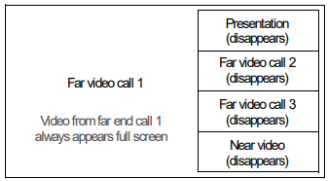


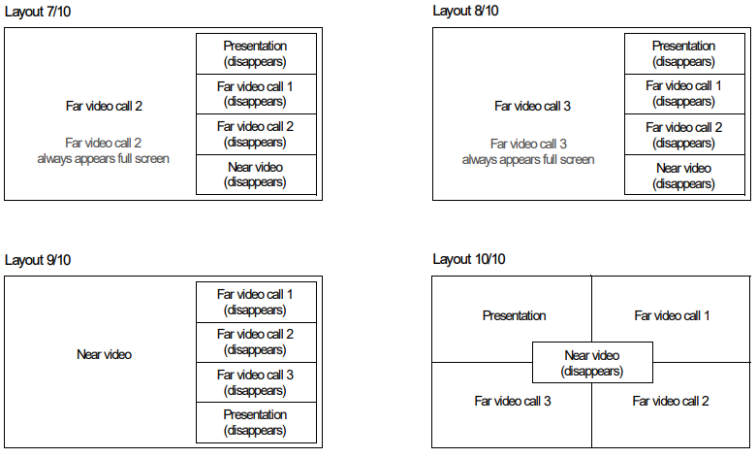
Layout 3/3



Asserted Claim of the '708 Patent	Exemplary Citations
	Id. at [Page 11 of 99] Two-way Call with Presentation Layout 1/7 Presentation Far video Near video Layout 2/7 Far video Presentation Near video Layout 3/7 Near video Far video Presentation Layout 4/7 Presentation Far video (disappears) Near video (disappears) Layout 5/7 Far video Presentation (disappears) Near video (disappears) Layout 6/7 Near video Far video (disappears) Presentation (disappears) *Id.* at [Page 12 of 99]

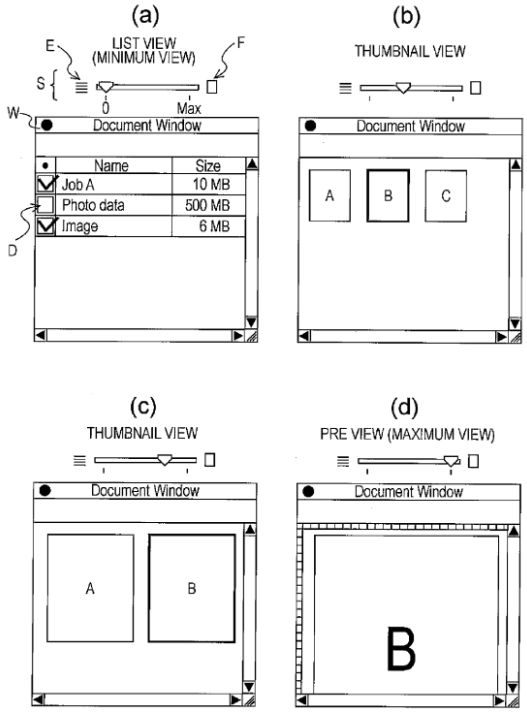
Asserted Claim of the '708 Patent	Exemplary Citations
	Three-way Call Layout 1/7  Layout 2/7  Layout 3/7  Layout 4/7  Layout 5/7  Layout 6/7  *Id.* at [Page 13 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations
	Four-way Call with Presentation Layout 1/10  Layout 2/10  Layout 3/10  Layout 4/10  Layout 5/10  Layout 6/10  *Id.* at [Page 16 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations
	
[Claim 8] The method of claim 1, further comprising: providing, for at least one of the intervals, a relationship between positions within the at least one of the intervals and the size and position of one or more frames of a respective layout associated with the interval.	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 3



Id. at Fig. 3

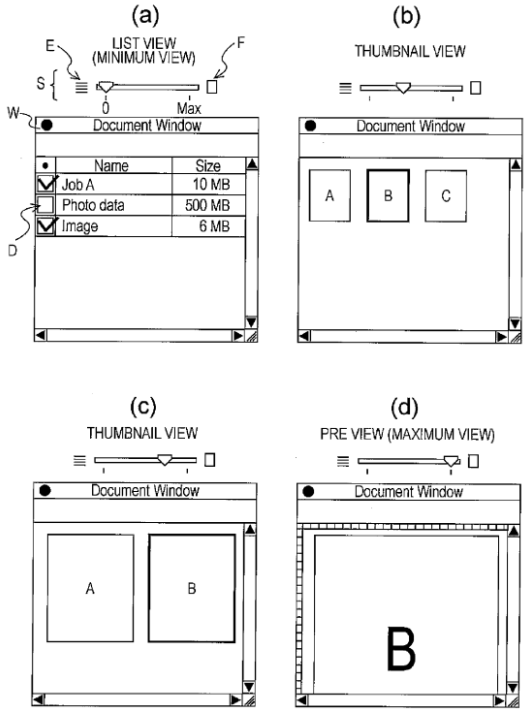
"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two

Asserted Claim of the '708 Patent	Exemplary Citations
	print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052].
[Claim 9] The method of claim 1, further comprising: calculating, in response to the detecting of the user action, a layout wherein a size and position of each frame of the layout is based on the relationship and the position.	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 3

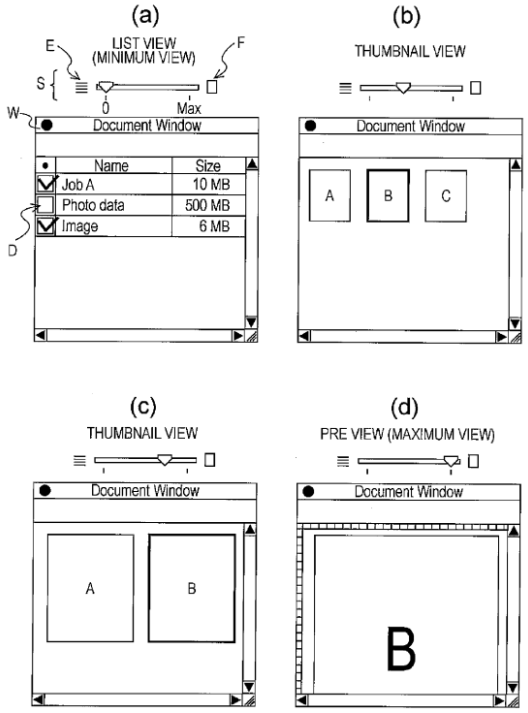


Id. at Fig. 3

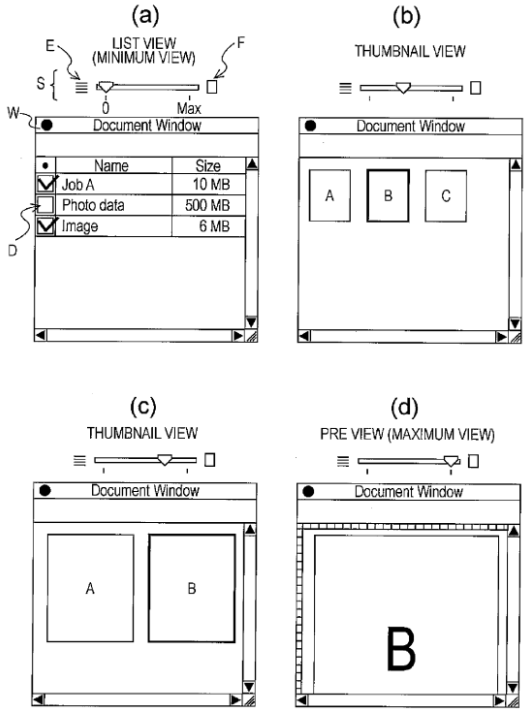
"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

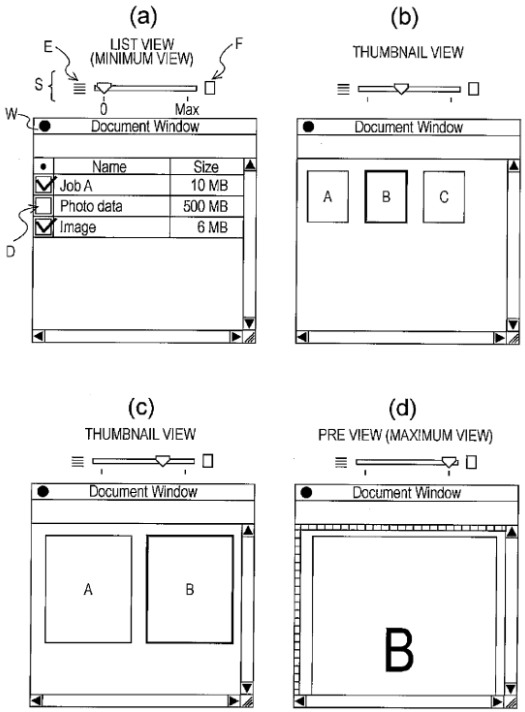
For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two

Asserted Claim of the '708 Patent	Exemplary Citations
	print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052].
[Claim 10(a)] A method comprising: providing, on a display, an object configured to be moved by a user along an axis;	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 10(b)] associating a plurality of predefined layouts with respective intervals along the axis;	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)*

Asserted Claim of the '708 Patent	Exemplary Citations
	"According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

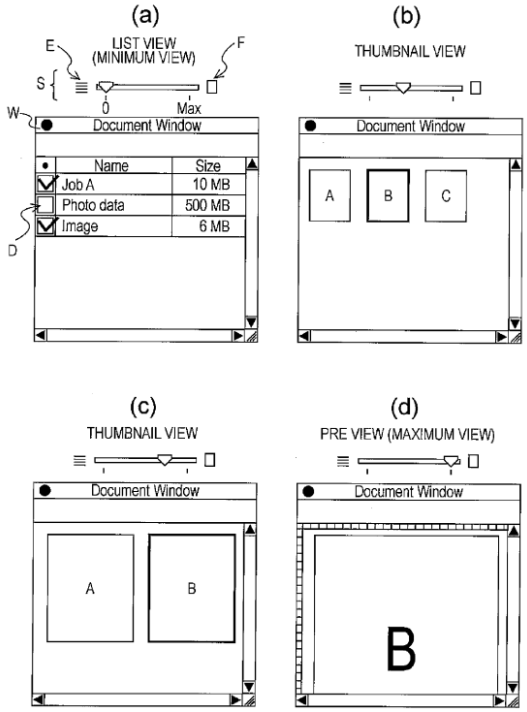
Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043].
[Claim 10(c)] detecting a user action on the object indicating a position on the axis;	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)*

Asserted Claim of the '708 Patent	Exemplary Citations
	"Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3

Asserted Claim of the '708 Patent	Exemplary Citations
	"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043].
[Claim 10(d)] identifying an interval among the intervals within which the position is lying;	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 3



Id. at Fig. 3

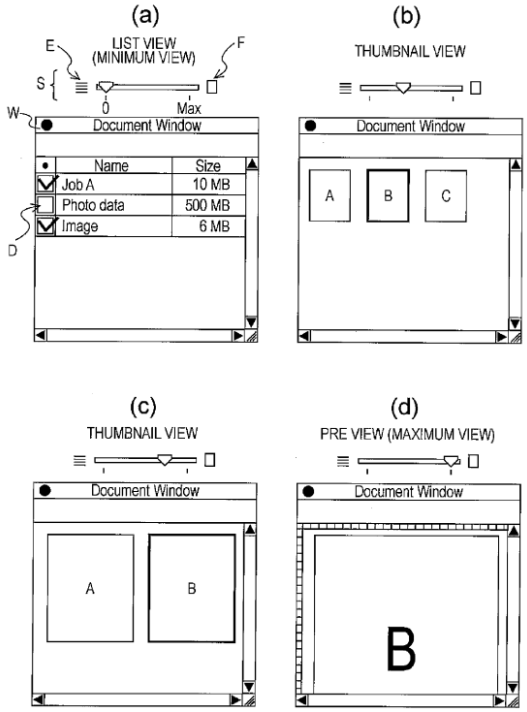
"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two

Asserted Claim of the '708 Patent	Exemplary Citations
	print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052].
[Claim 10(e)] selecting the layout associated with the interval; and composing, in response to the detecting of the user action, a composite video signal using the layout, of the plurality of predefined layouts, associated with the interval among the intervals within which the position is lying.	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 3



Id. at Fig. 3

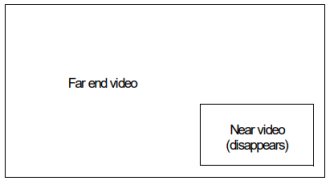
"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two

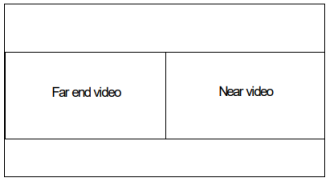
Asserted Claim of the '708 Patent	Exemplary Citations
	print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]. To the extent that Cisco contends that Nakagawa does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including LifeSize: *Text from LifeSize* "Managing Video Layouts To change the screen layout of near and far end video images, press  at any time during a call. The number of the selected screen layout (x) and the total number of available screen layouts (y) appear in the center of the screen above the status bar as x/y. The total number of available screen layouts depends on the number of connected callers, whether a single display or a dual display is used, and whether a presentation is being viewed." *Id.* at [Page 10 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations

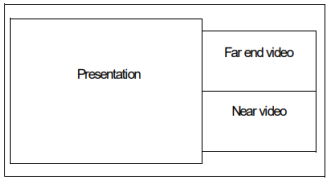
Screen layouts appear as one of the following types:



A far end participant or your site (the near end) appears as the largest video image. The example illustrates a two-way call on a single display. The far end is the largest video image.



All video images from all participants are the same size.



A presentation appears as the largest video image when a presentation is in progress.

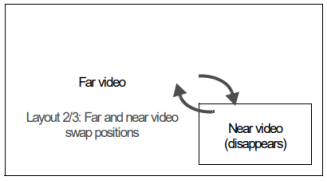
"Multiway Call Layouts

LifeSize video conferencing systems that support multiway video calls can show video from a maximum of four callers: three far end participants and the near end participant. If LifeSize Bridge is hosting the call, video from additional callers may appear."

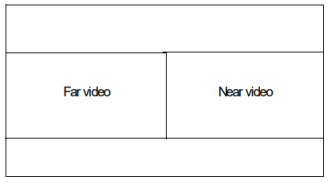
Single Display Screen Layouts

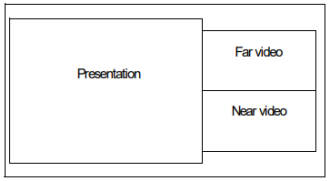
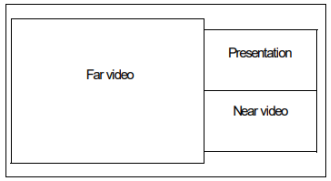
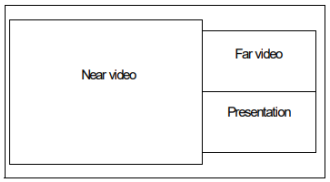
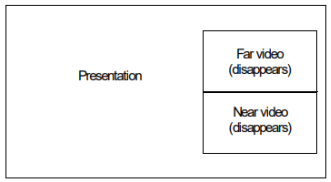
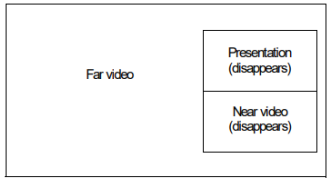
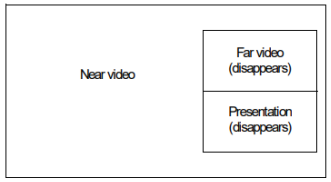
Two-way Call

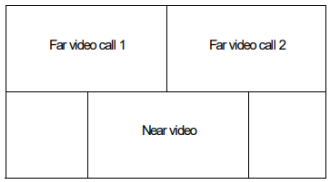
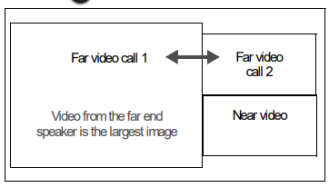
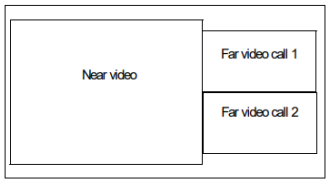
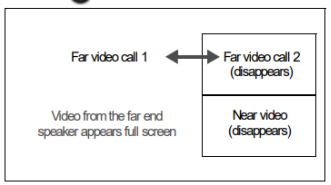
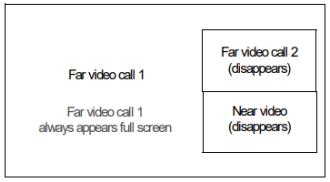
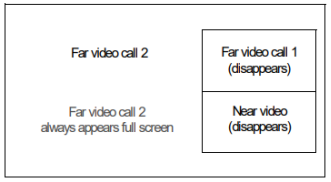
Layouts 1/3 and 2/3

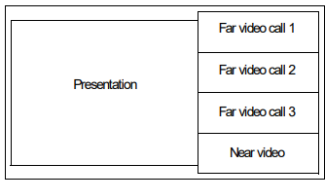
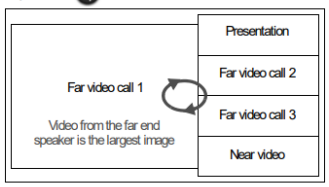
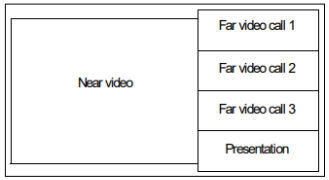
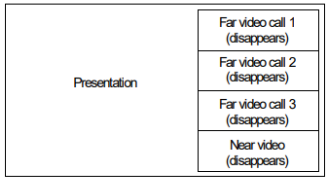
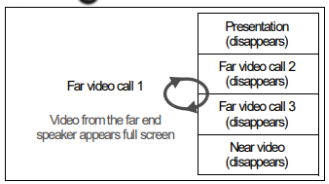
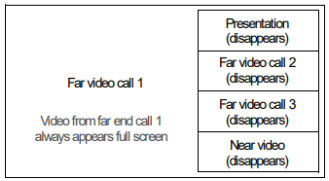


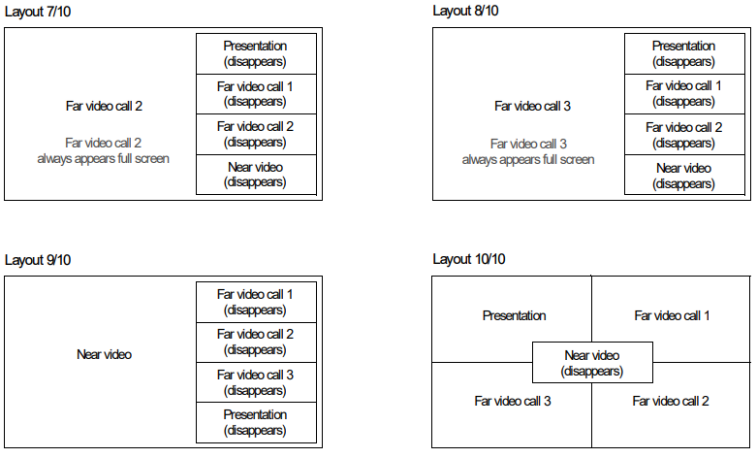
Layout 3/3



Asserted Claim of the '708 Patent	Exemplary Citations
	Id. at [Page 11 of 99] Two-way Call with Presentation Layout 1/7  Layout 2/7  Layout 3/7  Layout 4/7  Layout 5/7  Layout 6/7  *Id.* at [Page 12 of 99]

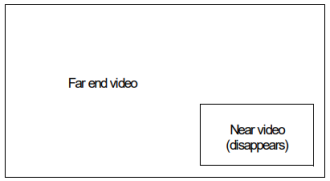
Asserted Claim of the '708 Patent	Exemplary Citations
	Three-way Call Layout 1/7  Layout 2/7  Layout 3/7  Layout 4/7  Layout 5/7  Layout 6/7  *Id.* at [Page 13 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations
	Four-way Call with Presentation Layout 1/10  Layout 2/10  Layout 3/10  Layout 4/10  Layout 5/10  Layout 6/10  *Id.* at [Page 16 of 99]

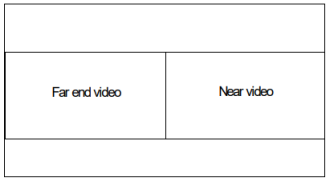
Asserted Claim of the '708 Patent	Exemplary Citations
	
[Claim 11] The method according to claim 10, further comprising: providing the selected layout to a video composing unit, which composes the composite image and which is configured to receive a plurality of video conference streams and output a composite video signal comprising one or more of the received video conference streams based on a layout.	It would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including LifeSize: *Text from LifeSize* "Managing Video Layouts To change the screen layout of near and far end video images, press  at any time during a call. The number of the selected screen layout (x) and the total number of available screen layouts (y) appear in the center of the screen above the status bar as x/y. The total number of available screen layouts depends on the number of connected callers, whether a single display or a dual display is used, and whether a presentation is being viewed." *Id.* at [Page 10 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations

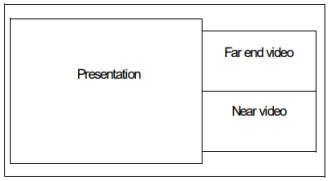
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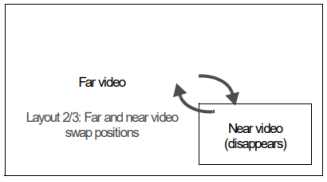
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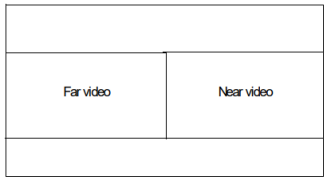
Single Display Screen Layouts

Two-way Call

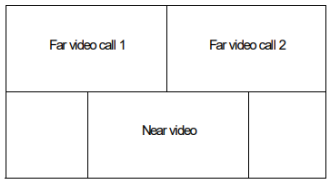
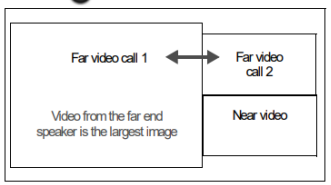
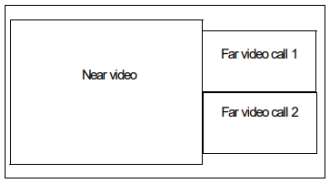
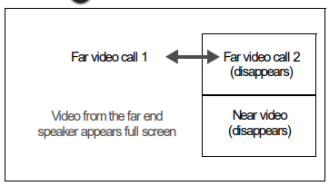
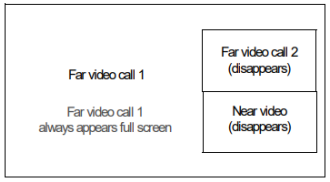
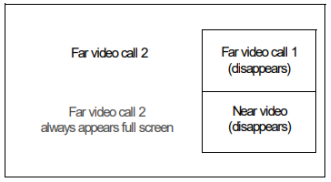
Layouts 1/3 and 2/3

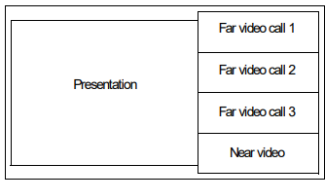
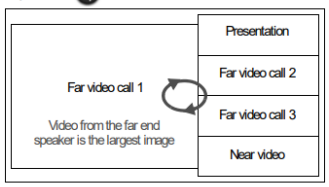
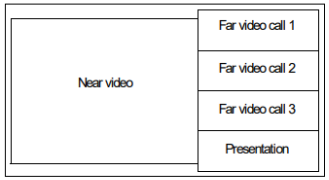
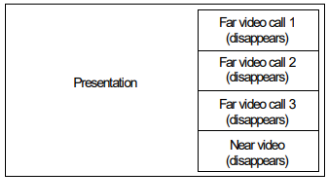
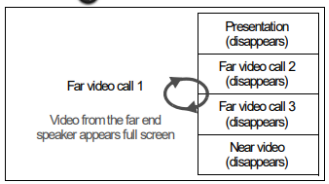
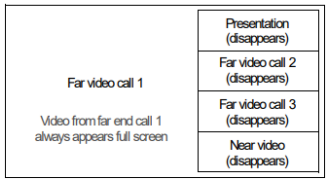


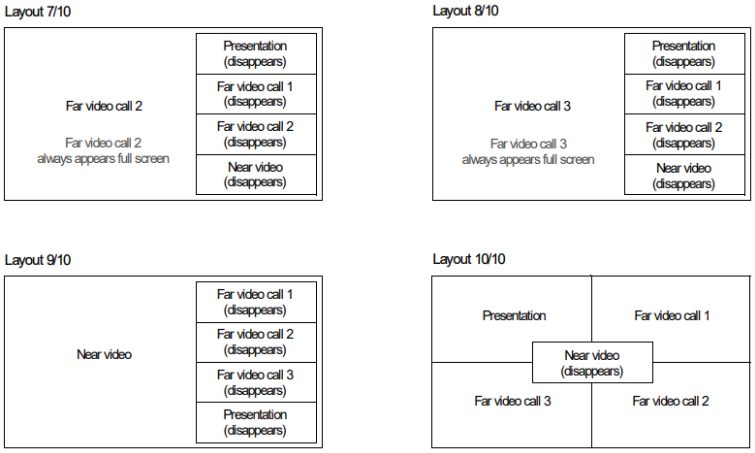
Layout 3/3

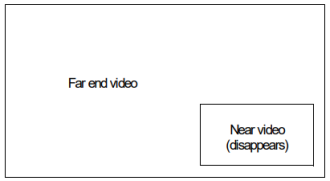
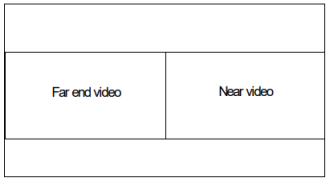
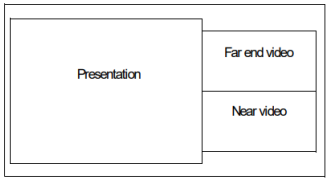


Asserted Claim of the '708 Patent	Exemplary Citations
	Id. at [Page 11 of 99] Two-way Call with Presentation Layout 1/7 Presentation Far video Near video Layout 2/7 Far video Presentation Near video Layout 3/7 Near video Far video Presentation Layout 4/7 Presentation Far video (disappears) Near video (disappears) Layout 5/7 Far video Presentation (disappears) Near video (disappears) Layout 6/7 Near video Far video (disappears) Presentation (disappears) *Id.* at [Page 12 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations
	Three-way Call Layout 1/7  Layout 2/7  Layout 3/7  Layout 4/7  Layout 5/7  Layout 6/7  *Id.* at [Page 13 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations
	Four-way Call with Presentation Layout 1/10  Layout 2/10  Layout 3/10  Layout 4/10  Layout 5/10  Layout 6/10  *Id.* at [Page 16 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations
	 "Multiway Call Layout of Video Images LifeSize Room 220 supports multiway video calls that can show video from a maximum of four callers: three far end participants and the near end participant. Set the layout for multiway calls in Administrator Preferences : Appearance : Layout. If Multiway Call Layout is set to the default of All Callers, video from up to four participants appears: the last three far end speakers and the near end participant. The video image from an additional far end participant who joins the call appears in the display only when that participant becomes the current speaker and replaces the video image of the earliest far end speaker. LifeSize Room 220 as MCU: With Multiway Call Layout set to Last Speaker, the system transmits video only from the current speaker to all participants in the conference and transmits the video from the last speaker to the participant who is currently speaking. You must enable this feature before placing or receiving the first call in the conference." *Id.* at [Page 43 of 99].
[Claim 12] The method according to claim 10, further comprising:	It would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including LifeSize:

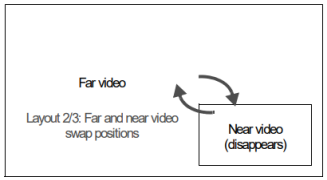
Asserted Claim of the '708 Patent	Exemplary Citations
displaying the composite video signal on the display, the display being of a video conference terminal.	*Text from LifeSize* "Managing Video Layouts To change the screen layout of near and far end video images, press  at any time during a call. The number of the selected screen layout (x) and the total number of available screen layouts (y) appear in the center of the screen above the status bar as x/y. The total number of available screen layouts depends on the number of connected callers, whether a single display or a dual display is used, and whether a presentation is being viewed." *Id.* at [Page 10 of 99] Screen layouts appear as one of the following types:  A far end participant or your site (the near end) appears as the largest video image. The example illustrates a two-way call on a single display. The far end is the largest video image.  All video images from all participants are the same size.  A presentation appears as the largest video image when a presentation is in progress. "Multiway Call Layouts LifeSize video conferencing systems that support multiway video calls can show video from a maximum of four callers: three far end participants and the near end participant. If LifeSize Bridge is hosting the call, video from additional callers may appear."

Asserted Claim of the '708 Patent	Exemplary Citations

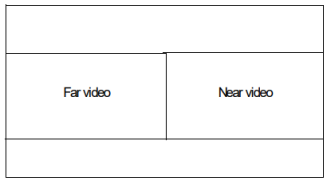
Single Display Screen Layouts

Two-way Call

Layouts 1/3 and 2/3



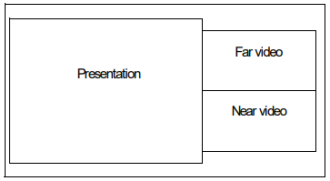
Layout 3/3



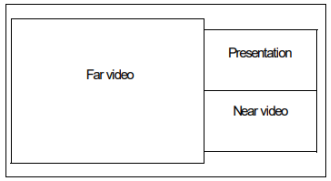
Id. at [Page 11 of 99]

Two-way Call with Presentation

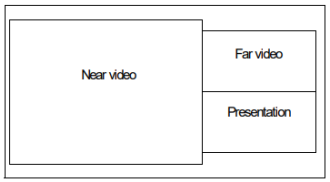
Layout 1/7



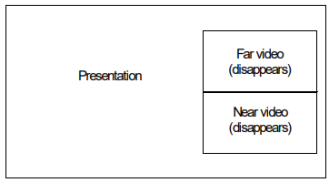
Layout 2/7



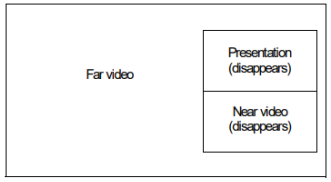
Layout 3/7



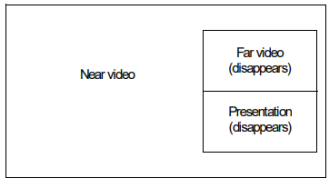
Layout 4/7



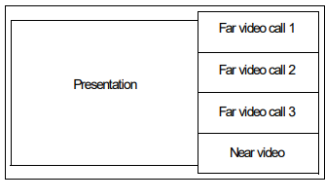
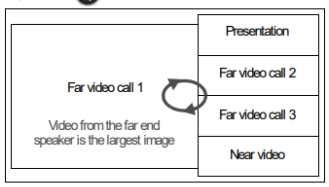
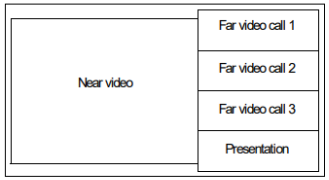
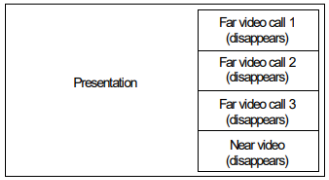
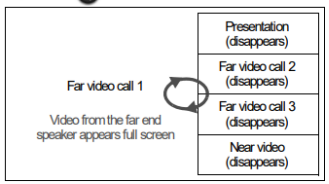
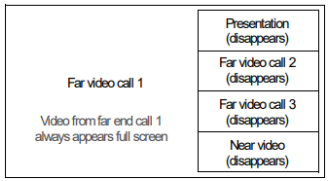
Layout 5/7

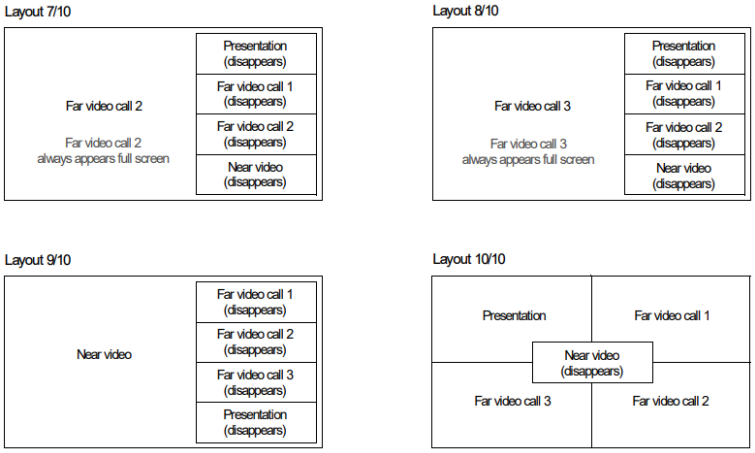


Layout 6/7



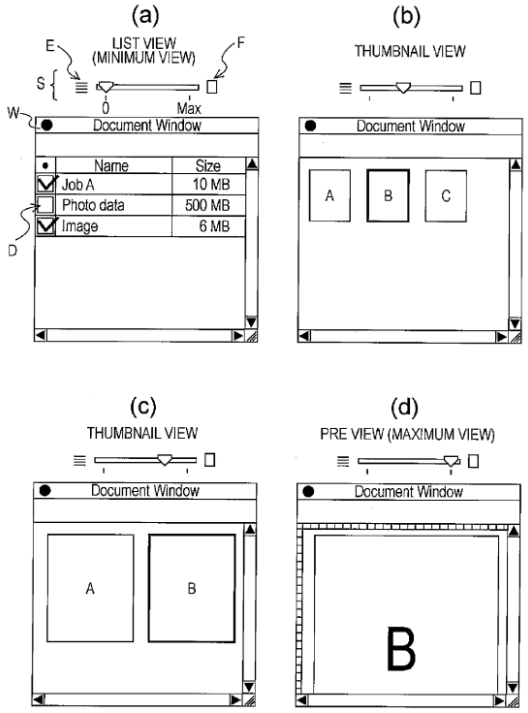
Asserted Claim of the '708 Patent	Exemplary Citations
	Id. at [Page 12 of 99] Three-way Call Layout 1/7 Far video call 1 Far video call 2 Near video Layout 2/7 Far video call 1 Far video call 2 Video from the far end speaker is the largest image Near video Layout 3/7 Near video Far video call 1 Far video call 2 Layout 4/7 Far video call 1 Far video call 2 (disappears) Video from the far end speaker appears full screen Near video (disappears) Layout 5/7 Far video call 1 Far video call 2 (disappears) Far video call 1 always appears full screen Near video (disappears) Layout 6/7 Far video call 2 Far video call 1 (disappears) Far video call 2 always appears full screen Near video (disappears) *Id.* at [Page 13 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations
	Four-way Call with Presentation Layout 1/10  Layout 2/10  Layout 3/10  Layout 4/10  Layout 5/10  Layout 6/10  *Id.* at [Page 16 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations
	
[Claim 13] The method according to claim 12, further comprising: displaying the object on a display of a control device, which is connected to the video conference terminal, together with a replica of the composite video signal currently displayed on the display of the video conference terminal.	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 3



Id. at Fig. 3

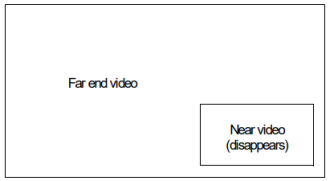
"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two

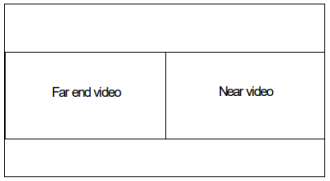
Asserted Claim of the '708 Patent	Exemplary Citations
	print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]. To the extent that Cisco contends that Nakagawa does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including LifeSize: *Text from LifeSize* "Managing Video Layouts To change the screen layout of near and far end video images, press  at any time during a call. The number of the selected screen layout (x) and the total number of available screen layouts (y) appear in the center of the screen above the status bar as x/y. The total number of available screen layouts depends on the number of connected callers, whether a single display or a dual display is used, and whether a presentation is being viewed." *Id.* at [Page 10 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations

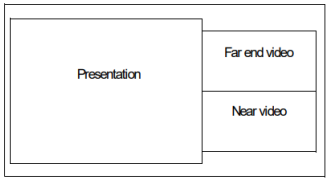
Screen layouts appear as one of the following types:



A far end participant or your site (the near end) appears as the largest video image. The example illustrates a two-way call on a single display. The far end is the largest video image.



All video images from all participants are the same size.



A presentation appears as the largest video image when a presentation is in progress.

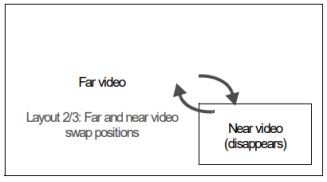
"Multiway Call Layouts

LifeSize video conferencing systems that support multiway video calls can show video from a maximum of four callers: three far end participants and the near end participant. If LifeSize Bridge is hosting the call, video from additional callers may appear."

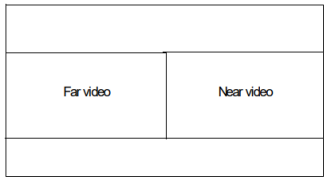
Single Display Screen Layouts

Two-way Call

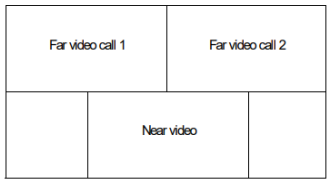
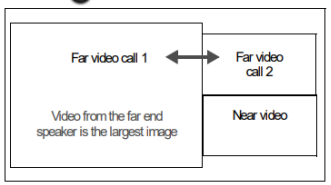
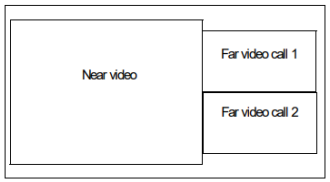
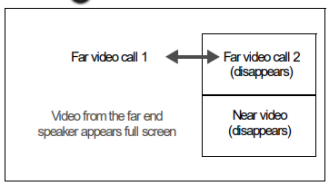
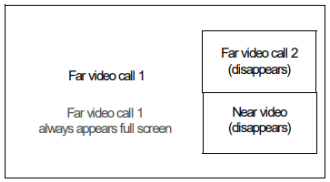
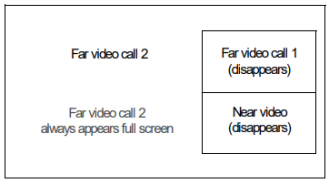
Layouts 1/3 and 2/3

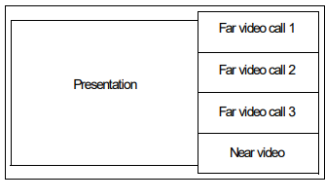
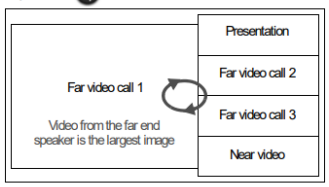
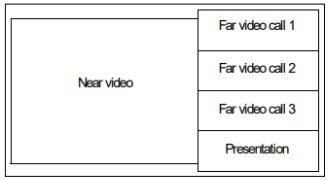
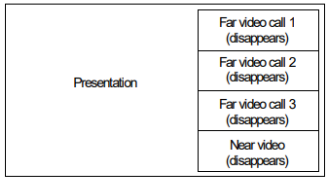
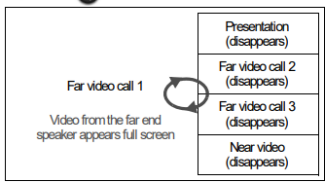
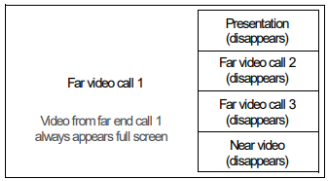


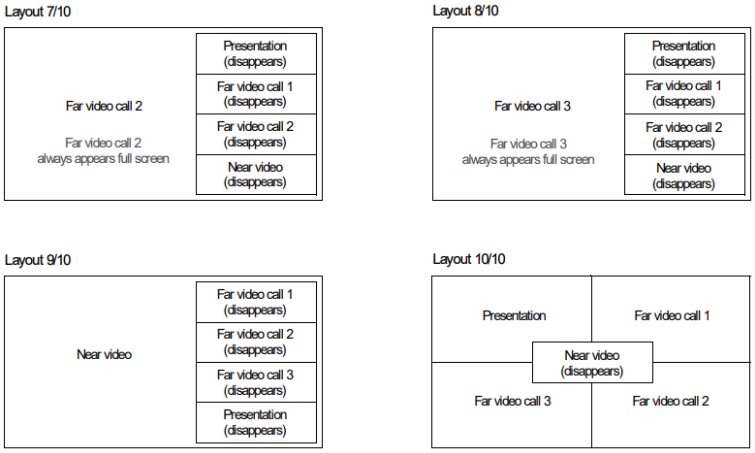
Layout 3/3



Asserted Claim of the '708 Patent	Exemplary Citations
	Id. at [Page 11 of 99] Two-way Call with Presentation Layout 1/7 Presentation Far video Near video Layout 2/7 Far video Presentation Near video Layout 3/7 Near video Far video Presentation Layout 4/7 Presentation Far video (disappears) Near video (disappears) Layout 5/7 Far video Presentation (disappears) Near video (disappears) Layout 6/7 Near video Far video (disappears) Presentation (disappears) *Id.* at [Page 12 of 99]

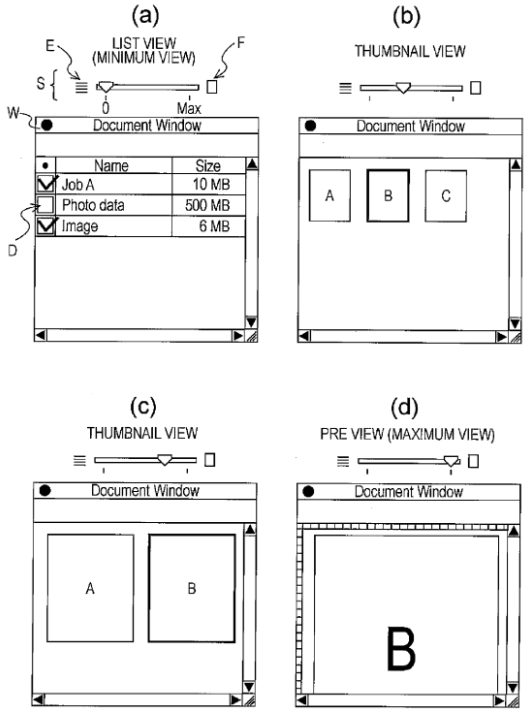
Asserted Claim of the '708 Patent	Exemplary Citations
	Three-way Call Layout 1/7  Layout 2/7  Layout 3/7  Layout 4/7  Layout 5/7  Layout 6/7  *Id.* at [Page 13 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations
	Four-way Call with Presentation Layout 1/10  Layout 2/10  Layout 3/10  Layout 4/10  Layout 5/10  Layout 6/10  *Id.* at [Page 16 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations
	
[Claim 14] The method according to claim 10, further comprising: displaying the object on the display, which is of a video conference terminal.	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations

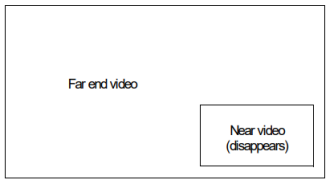
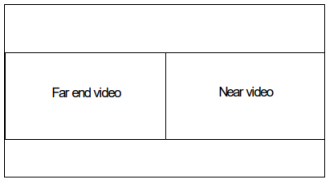
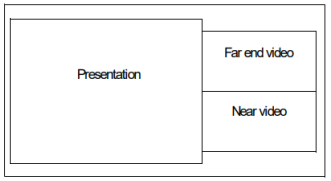
FIG. 3



Id. at Fig. 3

"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043].

To the extent that Cisco contends that Nakagawa does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including LifeSize:

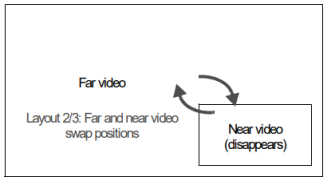
Asserted Claim of the '708 Patent	Exemplary Citations
	Text from LifeSize "Managing Video Layouts To change the screen layout of near and far end video images, press  at any time during a call. The number of the selected screen layout (x) and the total number of available screen layouts (y) appear in the center of the screen above the status bar as x/y. The total number of available screen layouts depends on the number of connected callers, whether a single display or a dual display is used, and whether a presentation is being viewed." *Id.* at [Page 10 of 99] Screen layouts appear as one of the following types:  A far end participant or your site (the near end) appears as the largest video image. The example illustrates a two-way call on a single display. The far end is the largest video image.  All video images from all participants are the same size.  A presentation appears as the largest video image when a presentation is in progress. "Multiway Call Layouts LifeSize video conferencing systems that support multiway video calls can show video from a maximum of four callers: three far end participants and the near end participant. If LifeSize Bridge is hosting the call, video from additional callers may appear."

Asserted Claim of the '708 Patent	Exemplary Citations

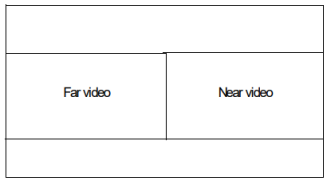
Single Display Screen Layouts

Two-way Call

Layouts 1/3 and 2/3



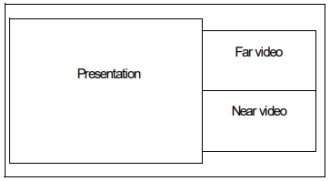
Layout 3/3



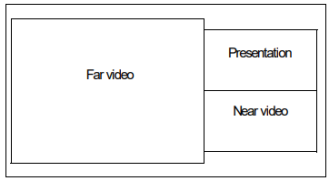
Id. at [Page 11 of 99]

Two-way Call with Presentation

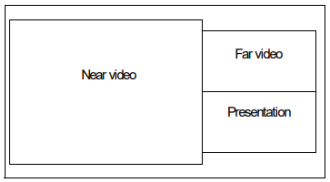
Layout 1/7



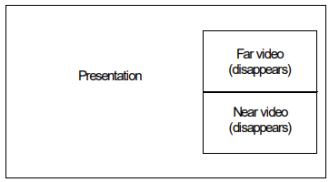
Layout 2/7



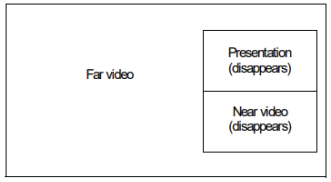
Layout 3/7



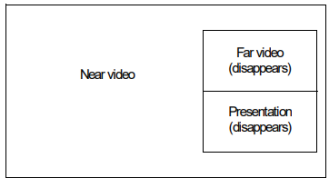
Layout 4/7



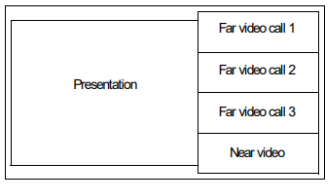
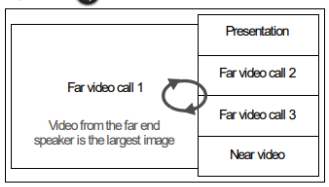
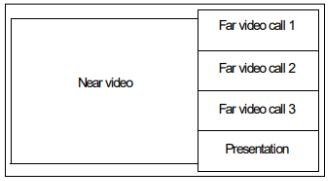
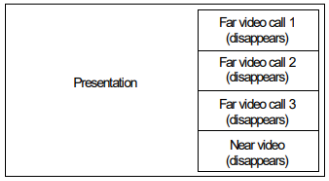
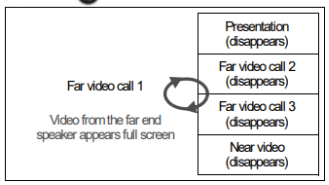
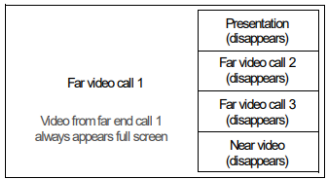
Layout 5/7

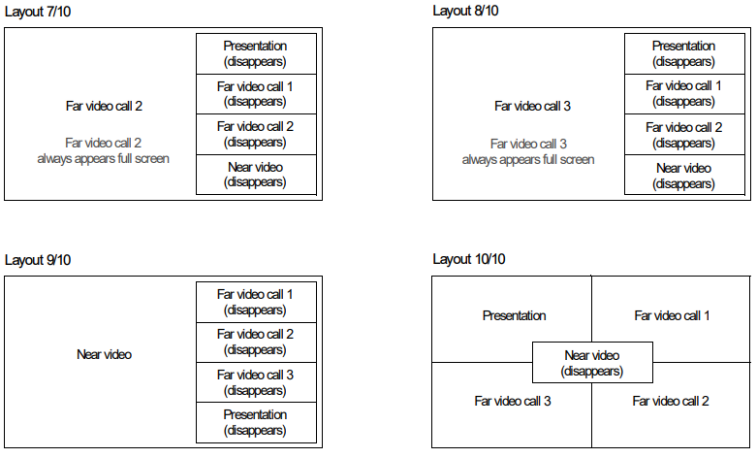


Layout 6/7



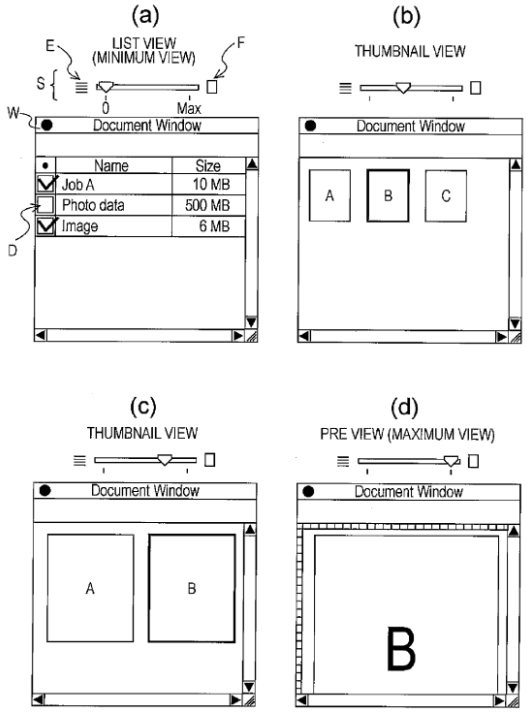
Asserted Claim of the '708 Patent	Exemplary Citations
	Id. at [Page 12 of 99] Three-way Call Layout 1/7 Far video call 1 Far video call 2 Near video Layout 2/7 Far video call 1 Far video call 2 Video from the far end speaker is the largest image Near video Layout 3/7 Near video Far video call 1 Far video call 2 Layout 4/7 Far video call 1 Far video call 2 (disappears) Video from the far end speaker appears full screen Near video (disappears) Layout 5/7 Far video call 1 Far video call 2 (disappears) Far video call 1 always appears full screen Near video (disappears) Layout 6/7 Far video call 2 Far video call 1 (disappears) Far video call 2 always appears full screen Near video (disappears) *Id.* at [Page 13 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations
	Four-way Call with Presentation Layout 1/10  Layout 2/10  Layout 3/10  Layout 4/10  Layout 5/10  Layout 6/10  *Id.* at [Page 16 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations
	
[Claim 15] The method according to claim 13, further comprising: updating one of the composite video signal and the replica in real time as the object is moved by the user.	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations

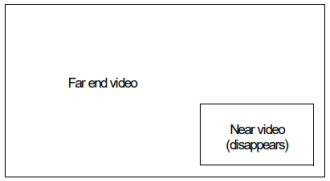
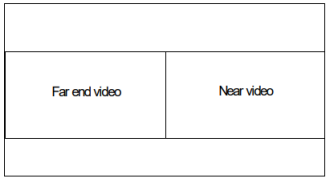
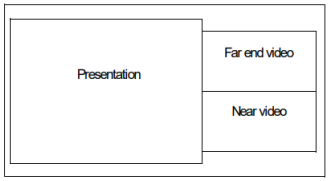
FIG. 3



Id. at Fig. 3

"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

To the extent that Cisco contends that Nakagawa does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including LifeSize:

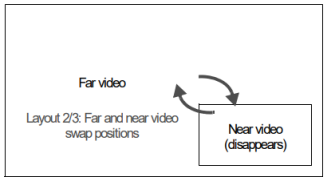
Asserted Claim of the '708 Patent	Exemplary Citations
	Text from LifeSize "Managing Video Layouts To change the screen layout of near and far end video images, press  at any time during a call. The number of the selected screen layout (x) and the total number of available screen layouts (y) appear in the center of the screen above the status bar as x/y. The total number of available screen layouts depends on the number of connected callers, whether a single display or a dual display is used, and whether a presentation is being viewed." *Id.* at [Page 10 of 99] Screen layouts appear as one of the following types:  A far end participant or your site (the near end) appears as the largest video image. The example illustrates a two-way call on a single display. The far end is the largest video image.  All video images from all participants are the same size.  A presentation appears as the largest video image when a presentation is in progress. "Multiway Call Layouts LifeSize video conferencing systems that support multiway video calls can show video from a maximum of four callers: three far end participants and the near end participant. If LifeSize Bridge is hosting the call, video from additional callers may appear."

Asserted Claim of the '708 Patent	Exemplary Citations

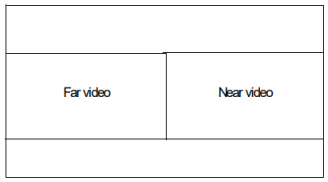
Single Display Screen Layouts

Two-way Call

Layouts 1/3 and 2/3



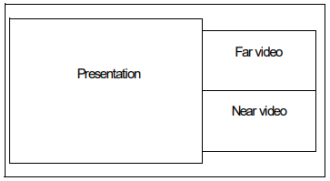
Layout 3/3



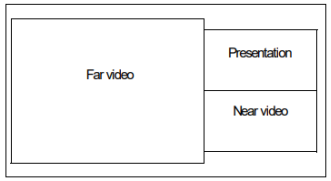
Id. at [Page 11 of 99]

Two-way Call with Presentation

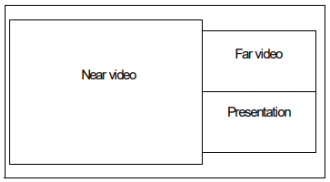
Layout 1/7



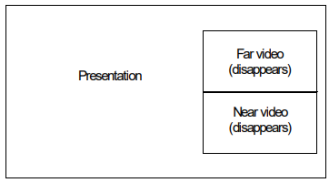
Layout 2/7



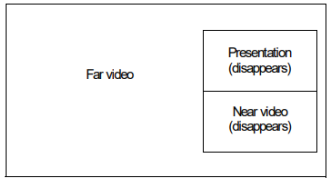
Layout 3/7



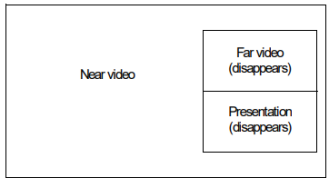
Layout 4/7

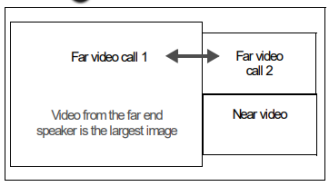
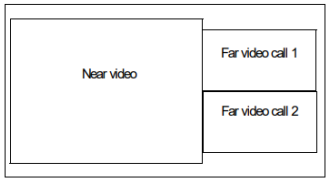
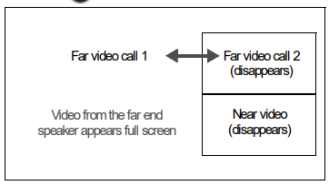
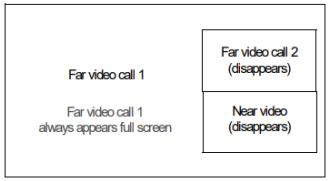
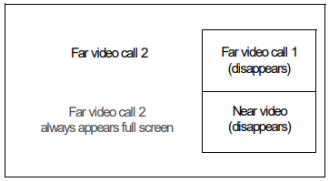


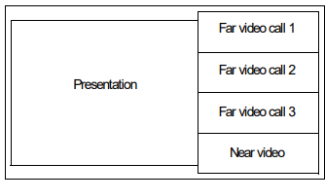
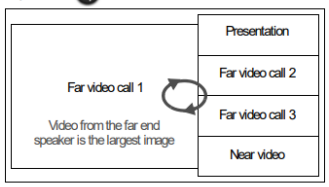
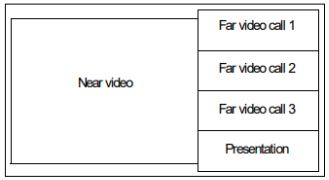
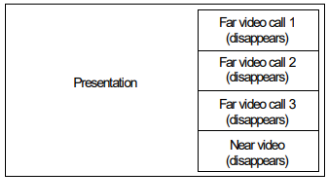
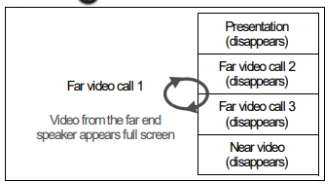
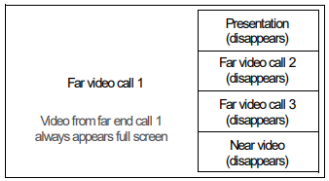
Layout 5/7

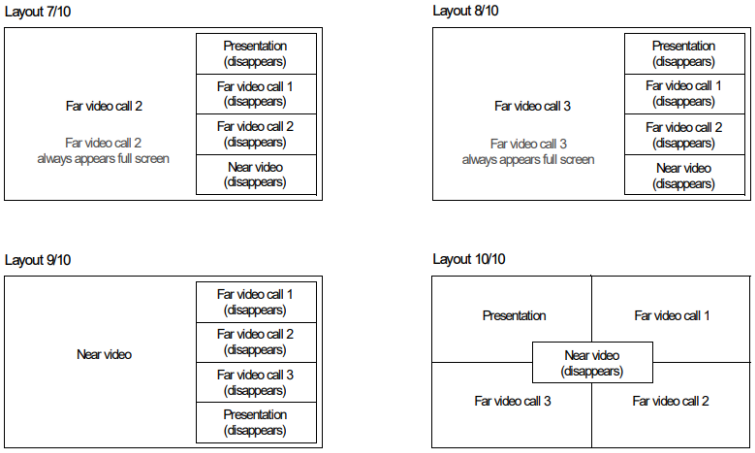


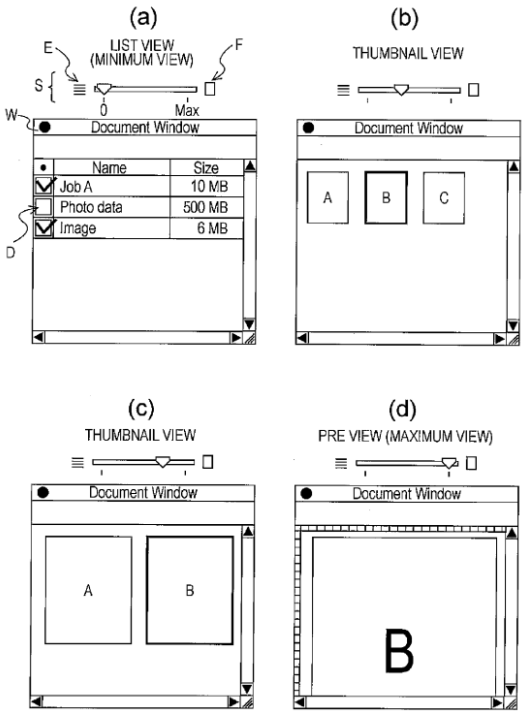
Layout 6/7



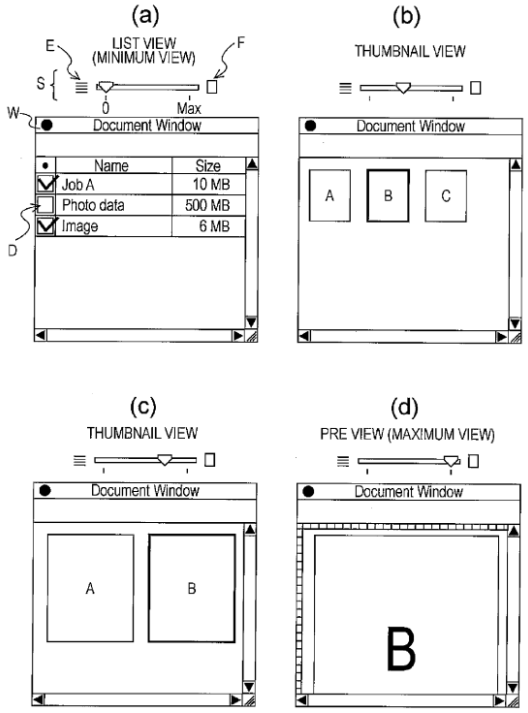
Asserted Claim of the '708 Patent	Exemplary Citations
	Id. at [Page 12 of 99] Three-way Call Layout 1/7  Layout 2/7  Layout 3/7  Layout 4/7  Layout 5/7  Layout 6/7  *Id.* at [Page 13 of 99]

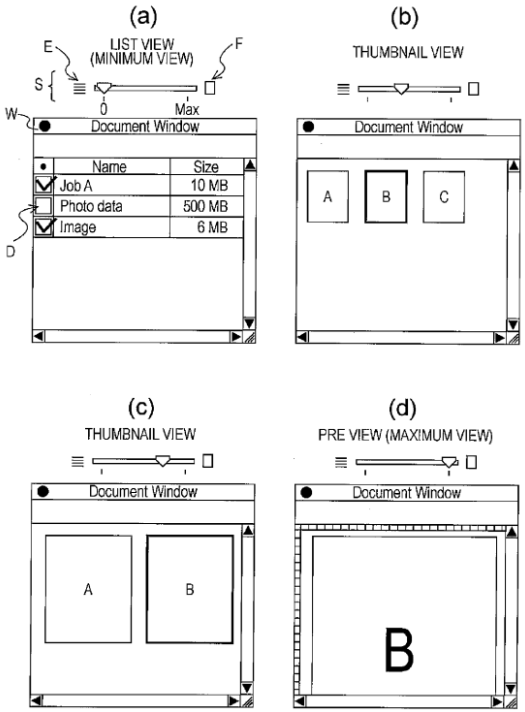
Asserted Claim of the '708 Patent	Exemplary Citations
	Four-way Call with Presentation Layout 1/10  Layout 2/10  Layout 3/10  Layout 4/10  Layout 5/10  Layout 6/10  *Id.* at [Page 16 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations
	
[Claim 16(a)] A non-transitory computer-readable storage medium including computer executable instructions, wherein the instructions, when executed by a computer, cause the computer to perform a method, the method comprising:	It would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including LifeSize: *Text from LifeSize* **LifeSize Video Center** — Allows video streaming, recording, and publishing when integrated with your LifeSize video system. Viewers access these videos and live streams from the LifeSize Video Center server through a browser-based interface on their computers. Read more at Creating a Recording. **LifeSize Desktop** — Standalone client that provides two-way video calling to other LifeSize systems and other standards-based video devices. LifeSize Desktop allows mobile workers to stay connected. *Id.* at [Page 02 of 99]
[Claim 16(b)] providing, on a display, an object configured to be	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate:

Asserted Claim of the '708 Patent	Exemplary Citations
moved by a user along an axis;	*Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3

Asserted Claim of the '708 Patent	Exemplary Citations
	"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043].
[Claim 16(c)] associating a plurality of predefined layouts with respective intervals along the axis;	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

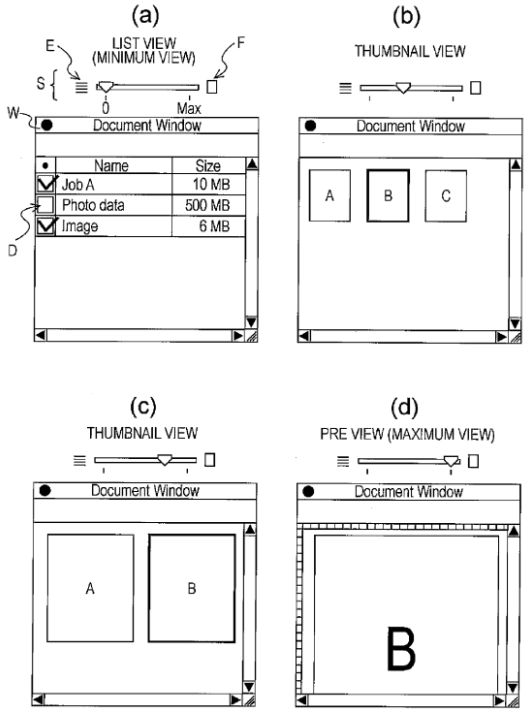
Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 16(d)] detecting a user action on the object indicating a position on the axis;	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)*

Asserted Claim of the '708 Patent	Exemplary Citations
	"Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3

Asserted Claim of the '708 Patent	Exemplary Citations
	"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 16(e)] selecting a layout, of the plurality of predefined layouts, associated with an interval among the intervals within which the position on the axis is lying; and	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 3



Id. at Fig. 3

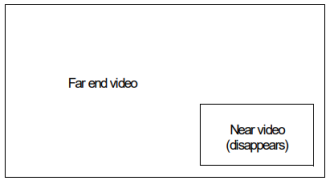
"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two

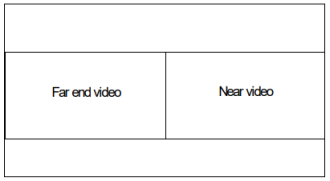
Asserted Claim of the '708 Patent	Exemplary Citations
	print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052] To the extent that Cisco contends that Nakagawa does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including LifeSize: "Managing Video Layouts To change the screen layout of near and far end video images, press  at any time during a call. The number of the selected screen layout (x) and the total number of available screen layouts (y) appear in the center of the screen above the status bar as x/y. The total number of available screen layouts depends on the number of connected callers, whether a single display or a dual display is used, and whether a presentation is being viewed." *Id.* at [Page 10 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations

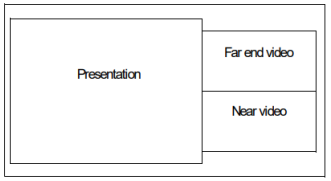
Screen layouts appear as one of the following types:



A far end participant or your site (the near end) appears as the largest video image. The example illustrates a two-way call on a single display. The far end is the largest video image.



All video images from all participants are the same size.



A presentation appears as the largest video image when a presentation is in progress.

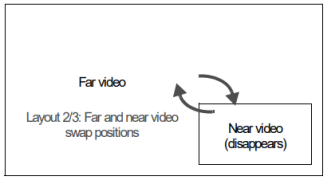
"Multiway Call Layouts

LifeSize video conferencing systems that support multiway video calls can show video from a maximum of four callers: three far end participants and the near end participant. If LifeSize Bridge is hosting the call, video from additional callers may appear."

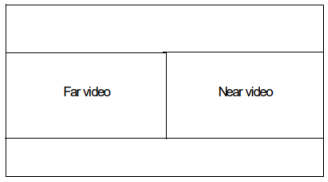
Single Display Screen Layouts

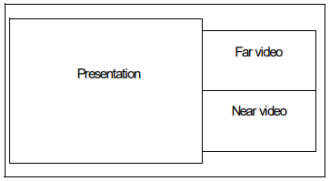
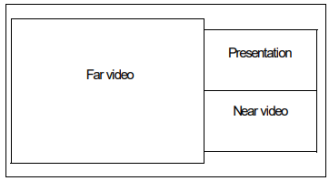
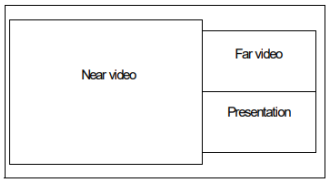
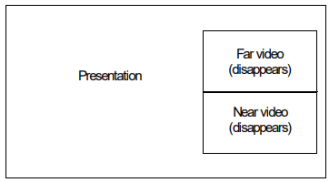
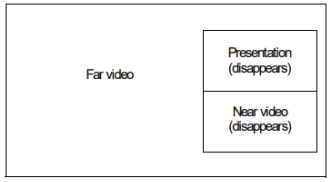
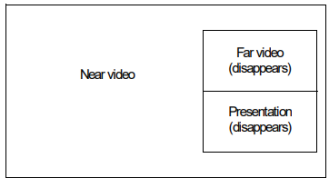
Two-way Call

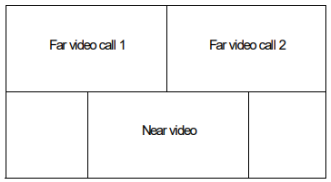
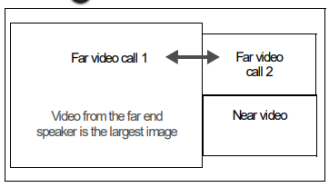
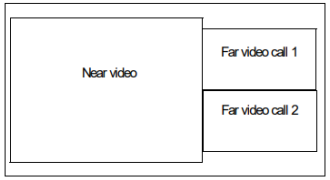
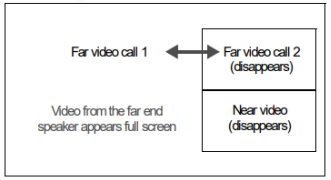
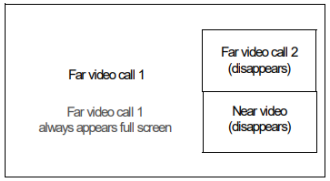
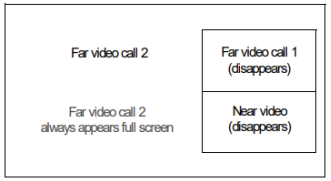
Layouts 1/3 and 2/3

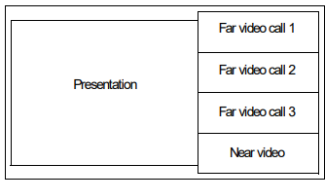
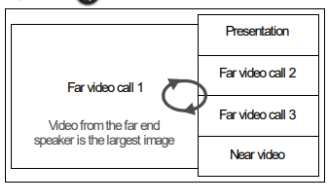
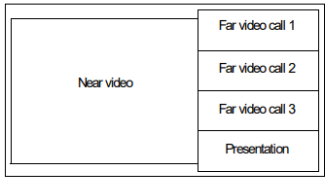
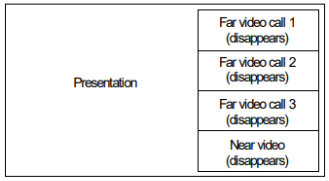
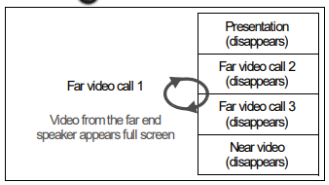
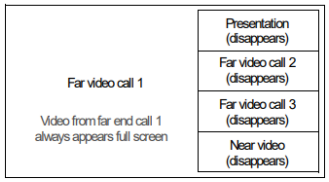


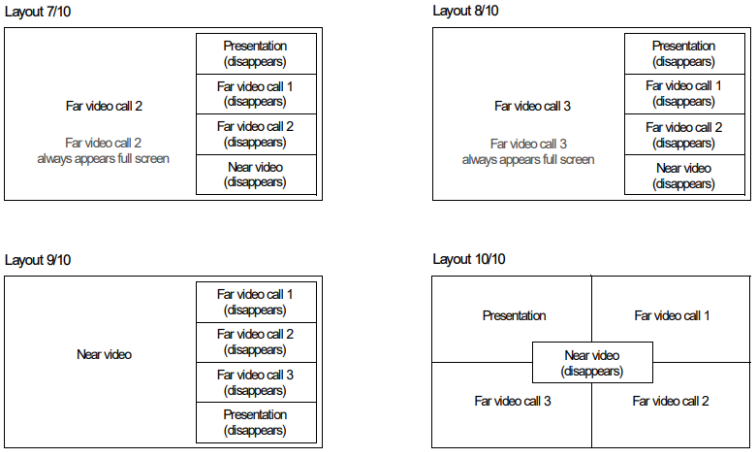
Layout 3/3



Asserted Claim of the '708 Patent	Exemplary Citations
	Id. at [Page 11 of 99] Two-way Call with Presentation Layout 1/7  Layout 2/7  Layout 3/7  Layout 4/7  Layout 5/7  Layout 6/7  *Id.* at [Page 12 of 99]

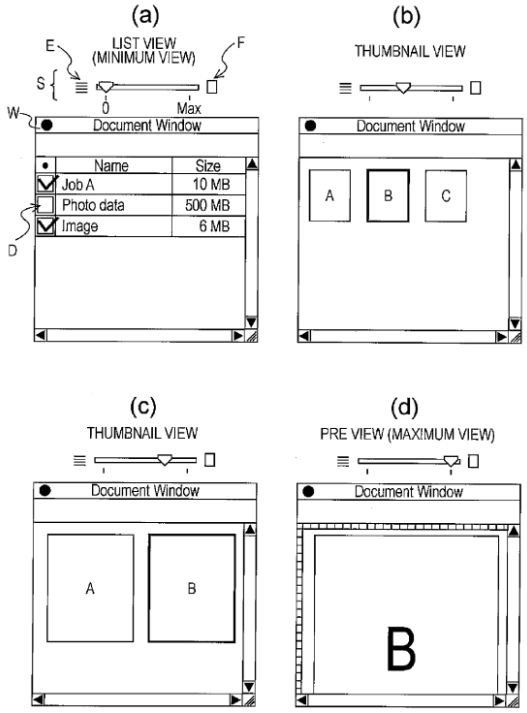
Asserted Claim of the '708 Patent	Exemplary Citations
	Three-way Call Layout 1/7  Layout 2/7  Layout 3/7  Layout 4/7  Layout 5/7  Layout 6/7  *Id.* at [Page 13 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations
	Four-way Call with Presentation Layout 1/10  Layout 2/10  Layout 3/10  Layout 4/10  Layout 5/10  Layout 6/10  *Id.* at [Page 16 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations
	
[Claim 16(f)] composing, in response to the detecting of the user action, a composite video signal using the layout, of the plurality of predefined layouts, associated with the interval among the intervals within which the position on the axis is lying.	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 3



Id. at Fig. 3

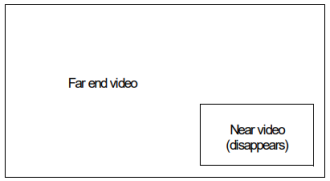
"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two

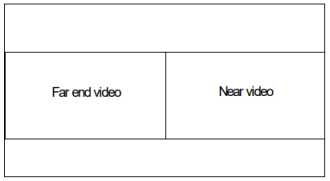
Asserted Claim of the '708 Patent	Exemplary Citations
	print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]. To the extent that Cisco contends that Nakagawa does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including LifeSize: *Text from LifeSize* "Managing Video Layouts To change the screen layout of near and far end video images, press  at any time during a call. The number of the selected screen layout (x) and the total number of available screen layouts (y) appear in the center of the screen above the status bar as x/y. The total number of available screen layouts depends on the number of connected callers, whether a single display or a dual display is used, and whether a presentation is being viewed." *Id.* at [Page 10 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations

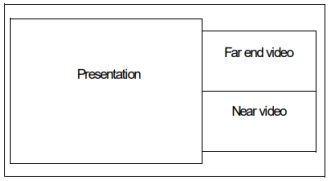
Screen layouts appear as one of the following types:



A far end participant or your site (the near end) appears as the largest video image. The example illustrates a two-way call on a single display. The far end is the largest video image.



All video images from all participants are the same size.



A presentation appears as the largest video image when a presentation is in progress.

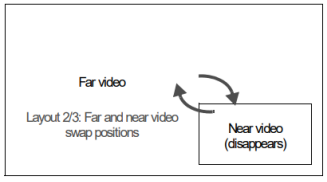
"Multiway Call Layouts

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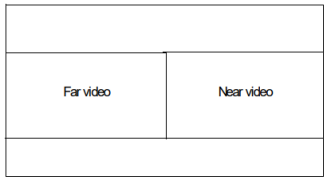
Single Display Screen Layouts

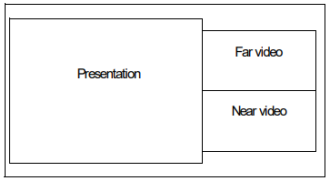
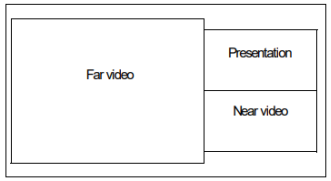
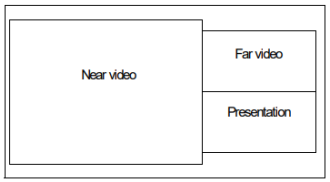
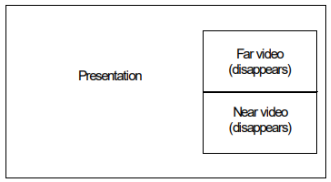
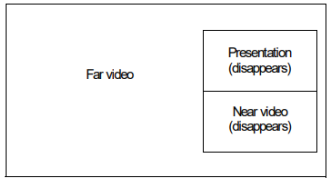
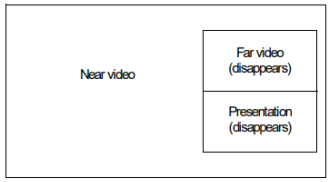
Two-way Call

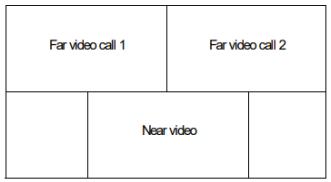
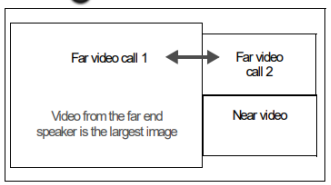
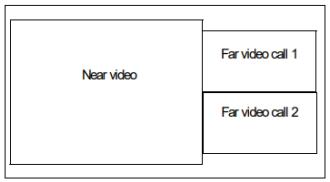
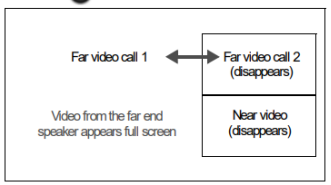
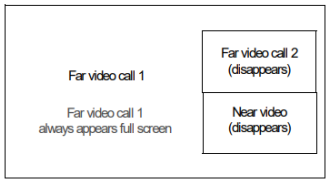
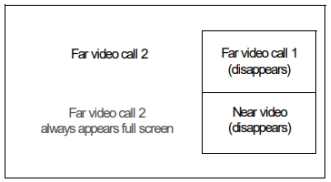
Layouts 1/3 and 2/3

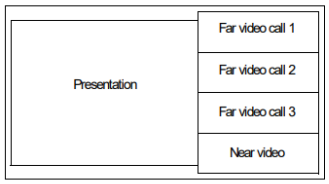
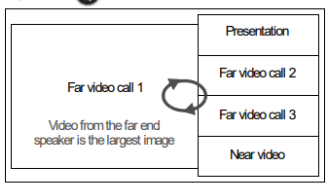
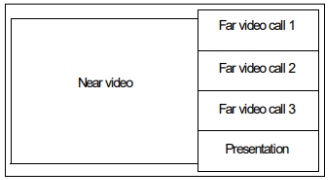
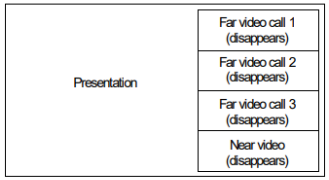
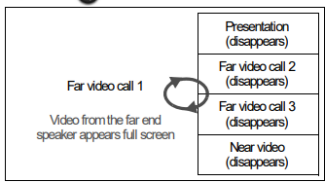
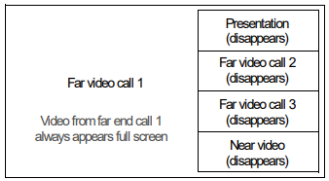


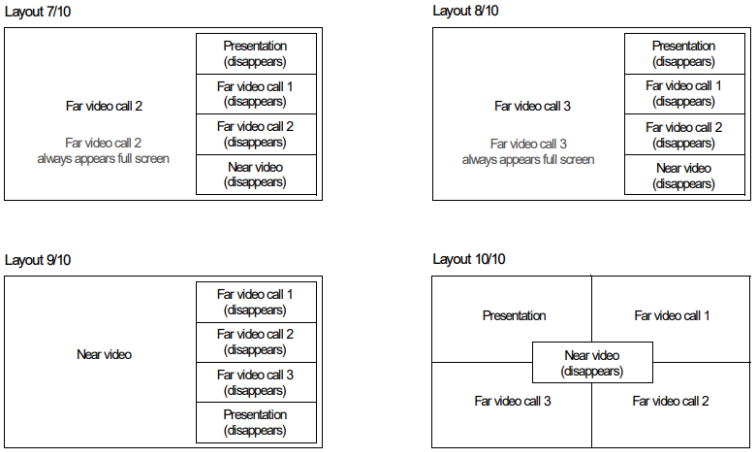
Layout 3/3

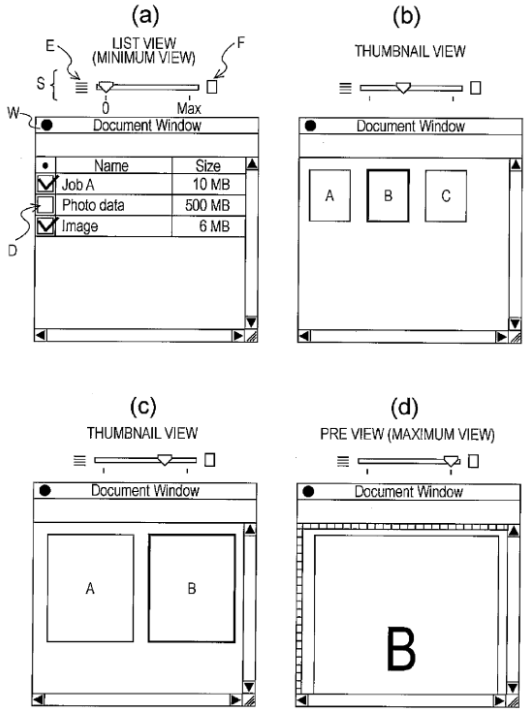


Asserted Claim of the '708 Patent	Exemplary Citations
	Id. at [Page 11 of 99] Two-way Call with Presentation Layout 1/7  Layout 2/7  Layout 3/7  Layout 4/7  Layout 5/7  Layout 6/7  *Id.* at [Page 12 of 99]

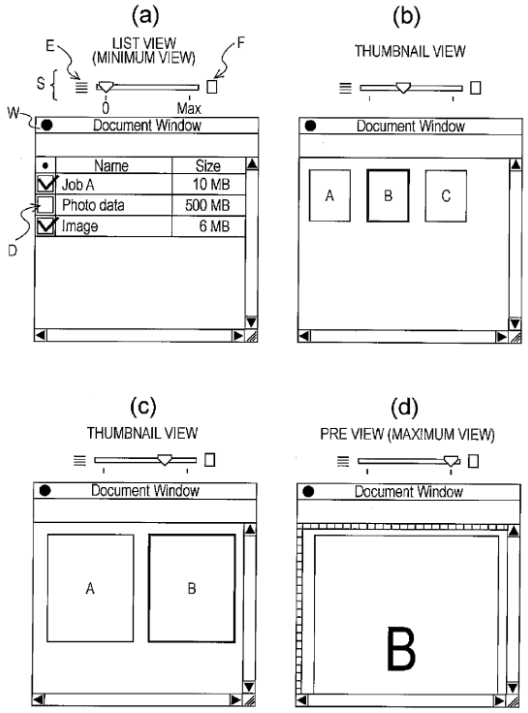
Asserted Claim of the '708 Patent	Exemplary Citations
	Three-way Call Layout 1/7  Layout 2/7  Layout 3/7  Layout 4/7  Layout 5/7  Layout 6/7  *Id.* at [Page 13 of 99]

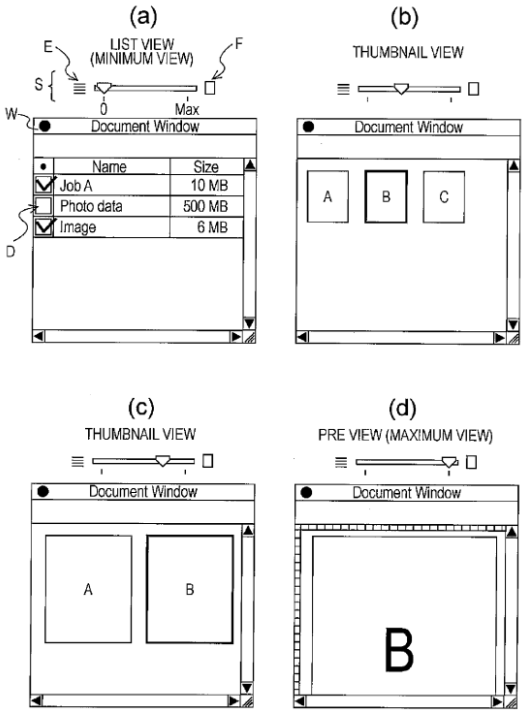
Asserted Claim of the '708 Patent	Exemplary Citations
	Four-way Call with Presentation Layout 1/10  Layout 2/10  Layout 3/10  Layout 4/10  Layout 5/10  Layout 6/10  *Id.* at [Page 16 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations
	
[Claim 17(a)] An apparatus comprising: a processing unit configured to provide, on a display, an object configured to be moved by a user along an axis,	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

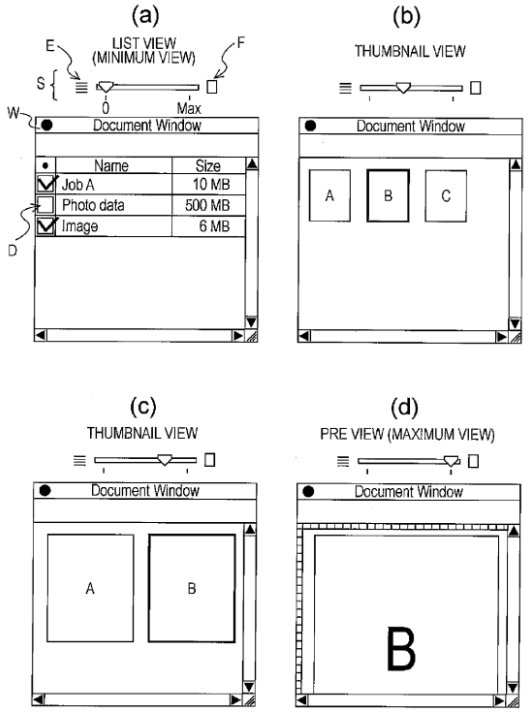
Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 17(b)] associate a plurality of predefined layouts with	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)*

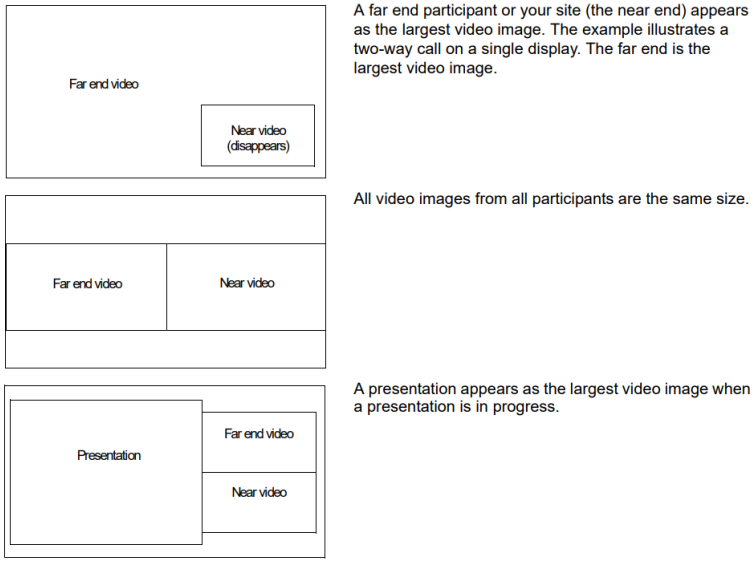
Asserted Claim of the '708 Patent	Exemplary Citations
respective intervals along the axis, and	"According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 17(c)] detect a user action on the object indicating a position on the axis; and	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)*

Asserted Claim of the '708 Patent	Exemplary Citations
	"Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3

Asserted Claim of the '708 Patent	Exemplary Citations
	"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 17(d)] a video composing unit configured to compose, in response to the user action being detected by the processing unit, a composite video signal using a layout, of the plurality of predefined layouts, associated with an interval among the intervals within which the position is lying, wherein the processing unit is further configured to	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]. To the extent that Cisco contends that Nakagawa does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including LifeSize:

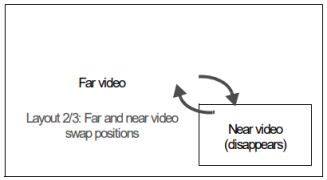
Asserted Claim of the '708 Patent	Exemplary Citations
	Text from LifeSize "Managing Video Layouts To change the screen layout of near and far end video images, press  at any time during a call. The number of the selected screen layout (x) and the total number of available screen layouts (y) appear in the center of the screen above the status bar as x/y. The total number of available screen layouts depends on the number of connected callers, whether a single display or a dual display is used, and whether a presentation is being viewed." *Id.* at [Page 10 of 99] Screen layouts appear as one of the following types:  "Multiway Call Layouts LifeSize video conferencing systems that support multiway video calls can show video from a maximum of four callers: three far end participants and the near end participant. If LifeSize Bridge is hosting the call, video from additional callers may appear."

Asserted Claim of the '708 Patent	Exemplary Citations

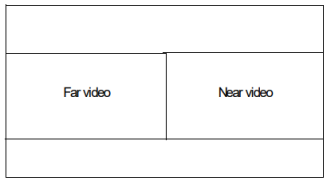
Single Display Screen Layouts

Two-way Call

Layouts 1/3 and 2/3



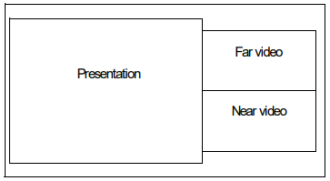
Layout 3/3



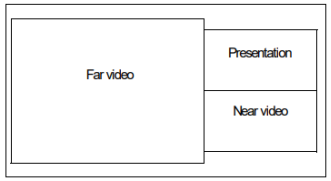
Id. at [Page 11 of 99]

Two-way Call with Presentation

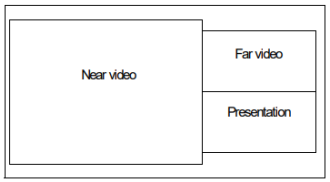
Layout 1/7



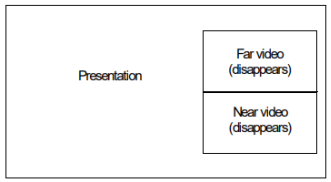
Layout 2/7



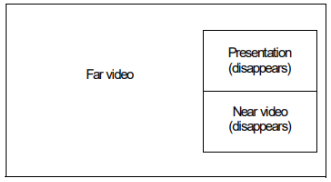
Layout 3/7



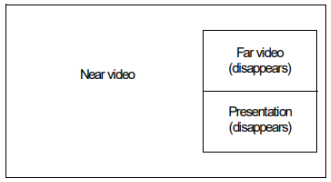
Layout 4/7

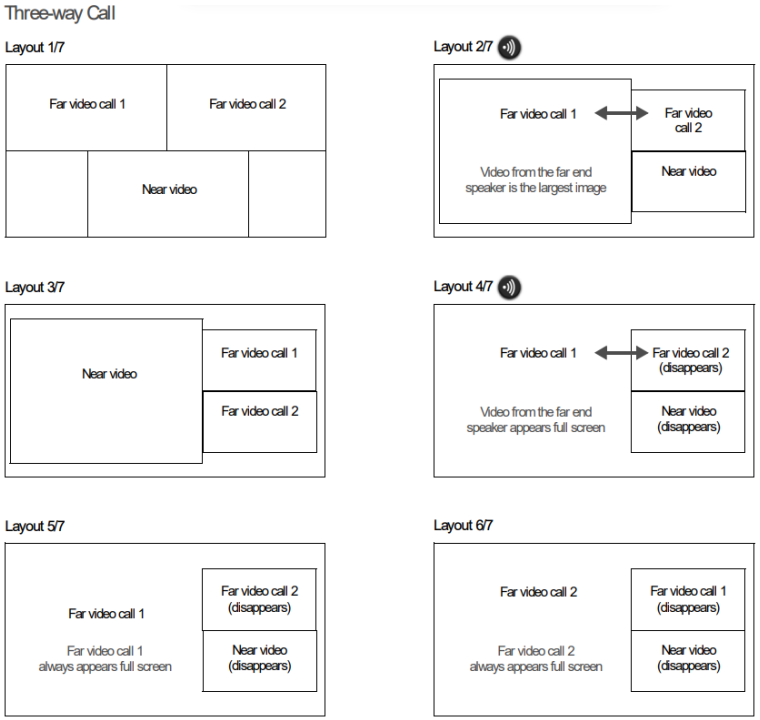


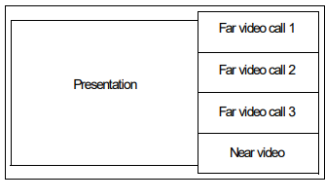
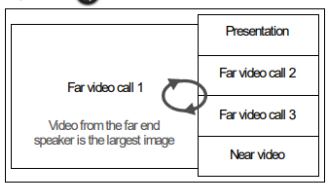
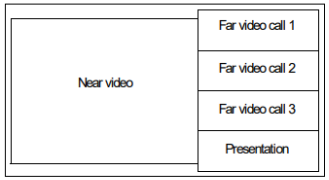
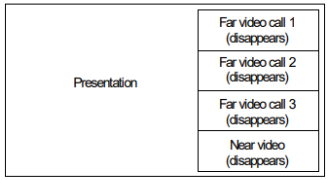
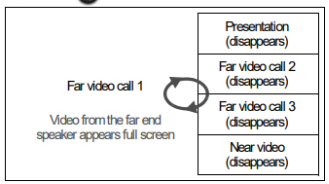
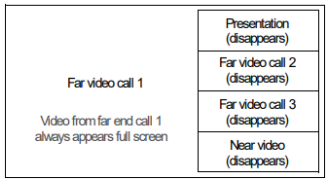
Layout 5/7

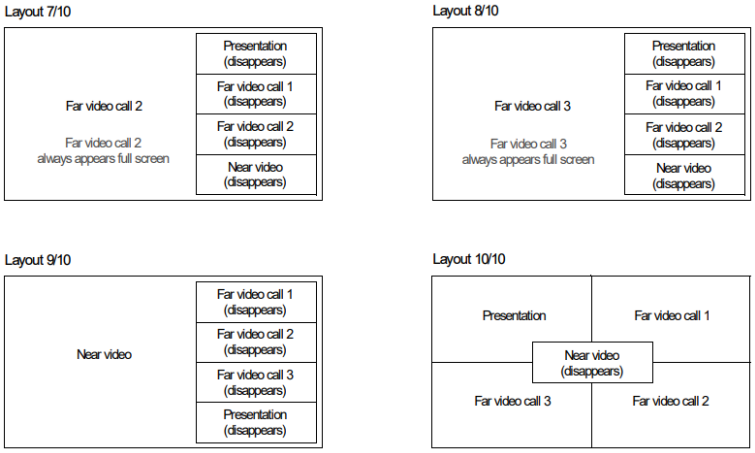


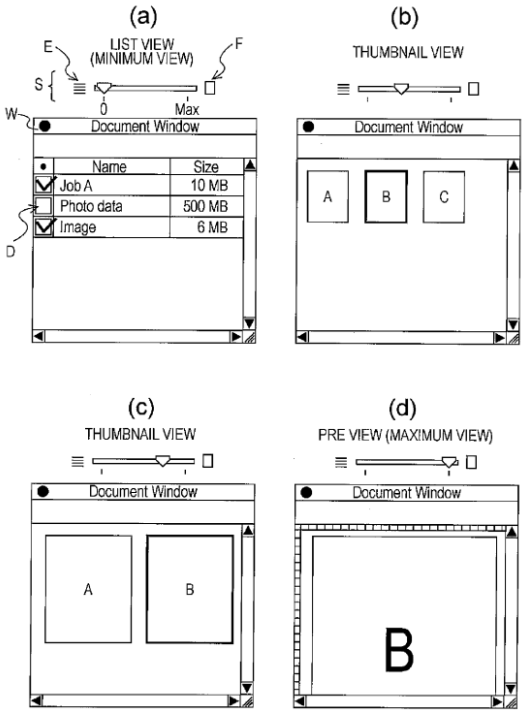
Layout 6/7



Asserted Claim of the '708 Patent	Exemplary Citations
	Id. at [Page 12 of 99]  *Id.* at [Page 13 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations
	Four-way Call with Presentation Layout 1/10  Layout 2/10  Layout 3/10  Layout 4/10  Layout 5/10  Layout 6/10  *Id.* at [Page 16 of 99]

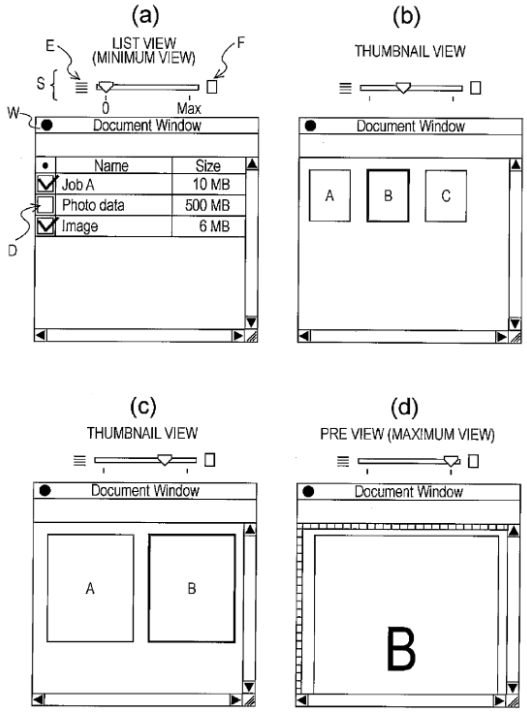
Asserted Claim of the '708 Patent	Exemplary Citations
	 "Multiway Call Layout of Video Images LifeSize Room 220 supports multiway video calls that can show video from a maximum of four callers: three far end participants and the near end participant. Set the layout for multiway calls in Administrator Preferences : Appearance : Layout. If Multiway Call Layout is set to the default of All Callers, video from up to four participants appears: the last three far end speakers and the near end participant. The video image from an additional far end participant who joins the call appears in the display only when that participant becomes the current speaker and replaces the video image of the earliest far end speaker. LifeSize Room 220 as MCU: With Multiway Call Layout set to Last Speaker, the system transmits video only from the current speaker to all participants in the conference and transmits the video from the last speaker to the participant who is currently speaking. You must enable this feature before placing or receiving the first call in the conference." *Id.* at [Page 43 of 99]
[Claim 17(e)] identify an interval among the intervals within which the position is lying,	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)*

Asserted Claim of the '708 Patent	Exemplary Citations
	"Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3

Asserted Claim of the '708 Patent	Exemplary Citations
	"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043] For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]
[Claim 17(f)] select the layout associated with the interval, and	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 3



Id. at Fig. 3

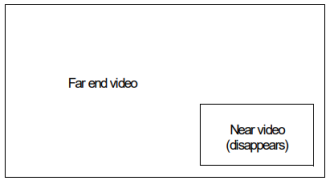
"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two

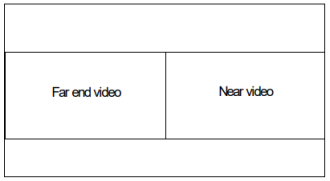
Asserted Claim of the '708 Patent	Exemplary Citations
	print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]
[Claim 17(g)] provide the selected layout to the video composing unit.	It would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including LifeSize: *Text from LifeSize* "Managing Video Layouts To change the screen layout of near and far end video images, press  at any time during a call. The number of the selected screen layout (x) and the total number of available screen layouts (y) appear in the center of the screen above the status bar as x/y. The total number of available screen layouts depends on the number of connected callers, whether a single display or a dual display is used, and whether a presentation is being viewed." *Id.* at [Page 10 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations

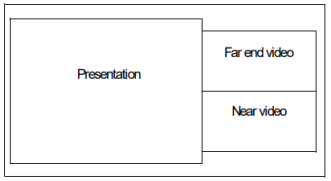
Screen layouts appear as one of the following types:



A far end participant or your site (the near end) appears as the largest video image. The example illustrates a two-way call on a single display. The far end is the largest video image.



All video images from all participants are the same size.



A presentation appears as the largest video image when a presentation is in progress.

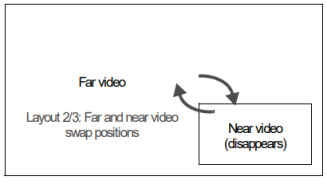
"Multiway Call Layouts

LifeSize video conferencing systems that support multiway video calls can show video from a maximum of four callers: three far end participants and the near end participant. If LifeSize Bridge is hosting the call, video from additional callers may appear."

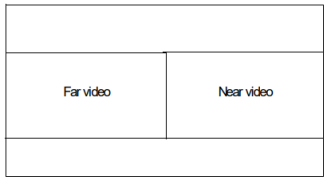
Single Display Screen Layouts

Two-way Call

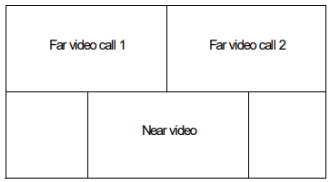
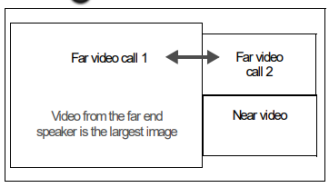
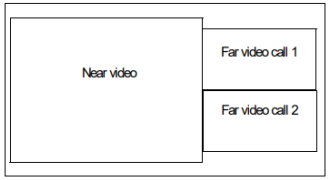
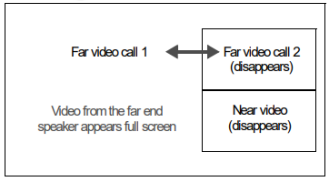
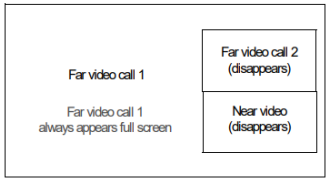
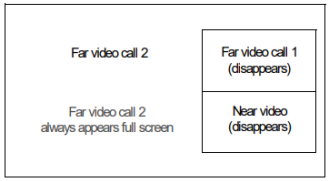
Layouts 1/3 and 2/3

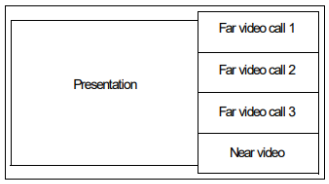
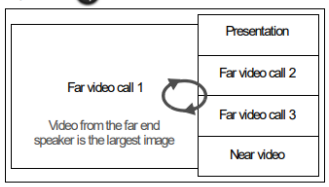
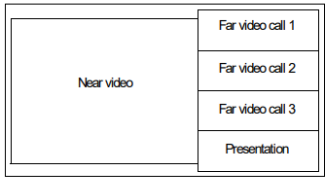
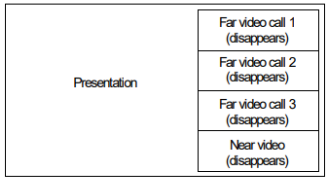
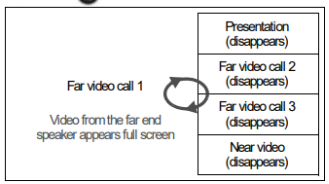
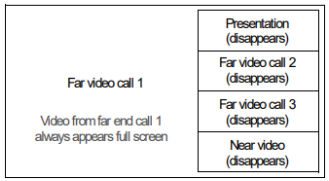


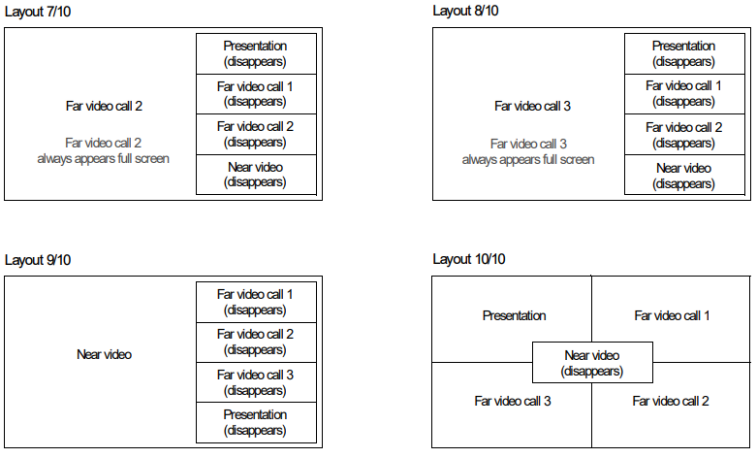
Layout 3/3

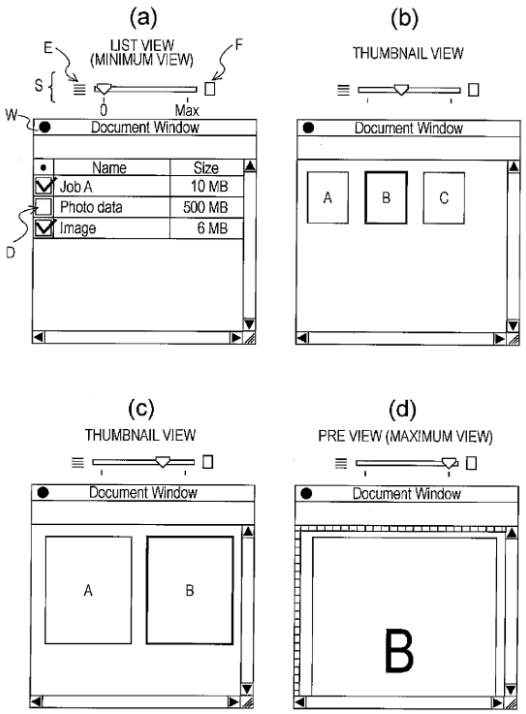


Asserted Claim of the '708 Patent	Exemplary Citations
	Id. at [Page 11 of 99] Two-way Call with Presentation Layout 1/7 Presentation Far video Near video Layout 2/7 Far video Presentation Near video Layout 3/7 Near video Far video Presentation Layout 4/7 Presentation Far video (disappears) Near video (disappears) Layout 5/7 Far video Presentation (disappears) Near video (disappears) Layout 6/7 Near video Far video (disappears) Presentation (disappears) *Id.* at [Page 12 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations
	Three-way Call Layout 1/7  Layout 2/7  Layout 3/7  Layout 4/7  Layout 5/7  Layout 6/7  *Id.* at [Page 13 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations
	Four-way Call with Presentation Layout 1/10  Layout 2/10  Layout 3/10  Layout 4/10  Layout 5/10  Layout 6/10  *Id.* at [Page 16 of 99]

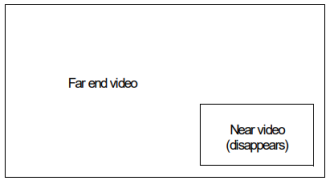
Asserted Claim of the '708 Patent	Exemplary Citations
	 "Multiway Call Layout of Video Images LifeSize Room 220 supports multiway video calls that can show video from a maximum of four callers: three far end participants and the near end participant. Set the layout for multiway calls in Administrator Preferences : Appearance : Layout. If Multiway Call Layout is set to the default of All Callers, video from up to four participants appears: the last three far end speakers and the near end participant. The video image from an additional far end participant who joins the call appears in the display only when that participant becomes the current speaker and replaces the video image of the earliest far end speaker. LifeSize Room 220 as MCU: With Multiway Call Layout set to Last Speaker, the system transmits video only from the current speaker to all participants in the conference and transmits the video from the last speaker to the participant who is currently speaking. You must enable this feature before placing or receiving the first call in the conference." *Id.* at [Page 43 of 99]
[Claim 18] The apparatus according to claim 17, wherein	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate:

Asserted Claim of the '708 Patent	Exemplary Citations
the composite video signal includes a spatial mix of one of more video conference streams, the layout defines one or more frames for containing the video conference streams, and the processing unit is further configured to provide, for at least one of the intervals, a relationship between positions within the at least one of the intervals and a size and position of one or more frames of a respective layout associated with the interval, and calculate, in response to the user action being detected, a layout wherein the size and position of each frame of the layout is based on the relationship and the position.	*Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3

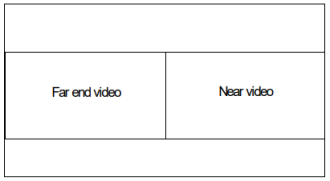
Asserted Claim of the '708 Patent	Exemplary Citations
	"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043] To the extent that Cisco contends that Nakagawa does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including LifeSize: *Text from LifeSize* "Managing Video Layouts To change the screen layout of near and far end video images, press  at any time during a call. The number of the selected screen layout (x) and the total number of available screen layouts (y) appear in the center of the screen above the status bar as x/y. The total number of available screen layouts depends on the number of connected callers, whether a single display or a dual display is used, and whether a presentation is being viewed." *Id.* at [Page 10 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations

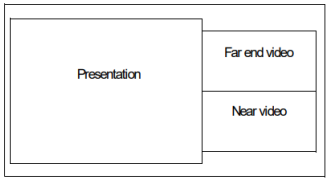
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All video images from all participants are the same size.



A presentation appears as the largest video image when a presentation is in progress.

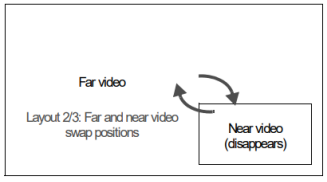
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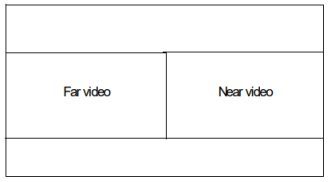
Single Display Screen Layouts

Two-way Call

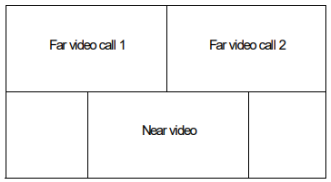
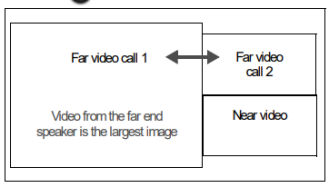
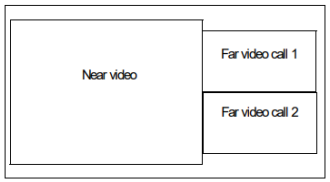
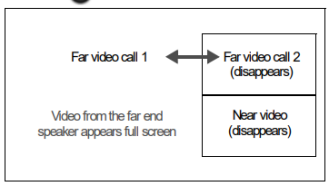
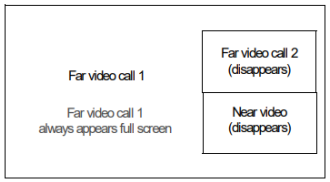
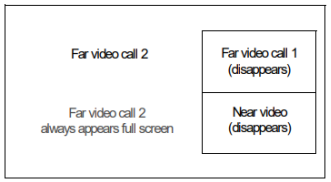
Layouts 1/3 and 2/3

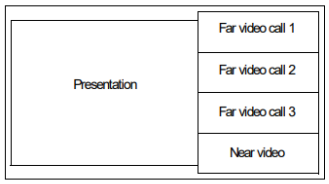
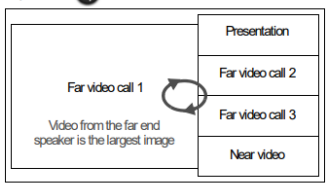
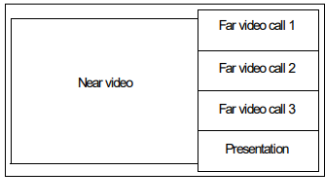
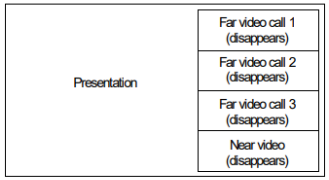
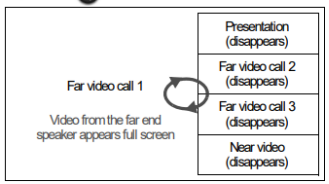
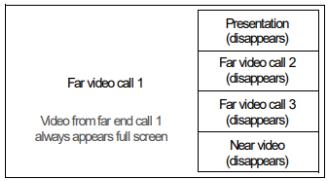


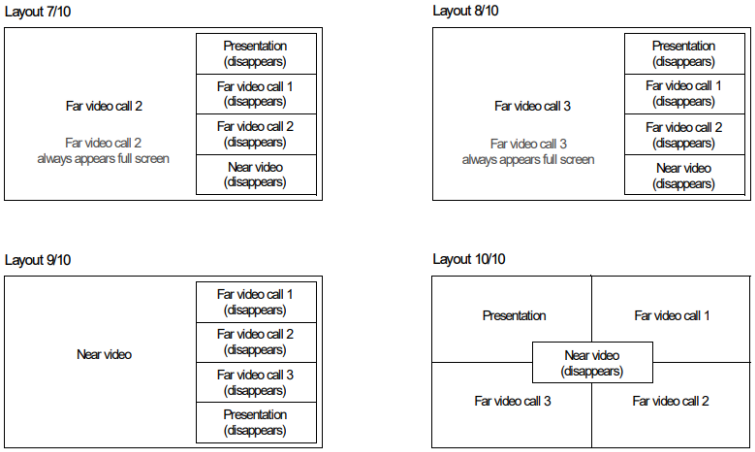
Layout 3/3



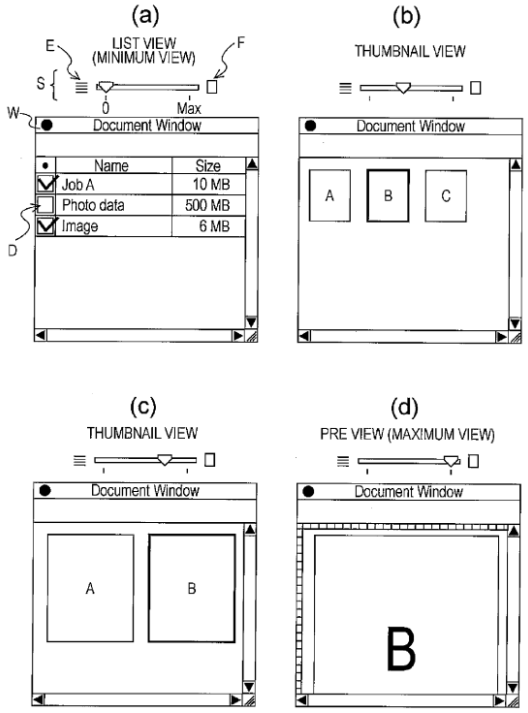
Asserted Claim of the '708 Patent	Exemplary Citations
	Id. at [Page 11 of 99] Two-way Call with Presentation Layout 1/7 Presentation Far video Near video Layout 2/7 Far video Presentation Near video Layout 3/7 Near video Far video Presentation Layout 4/7 Presentation Far video (disappears) Near video (disappears) Layout 5/7 Far video Presentation (disappears) Near video (disappears) Layout 6/7 Near video Far video (disappears) Presentation (disappears) *Id.* at [Page 12 of 99]

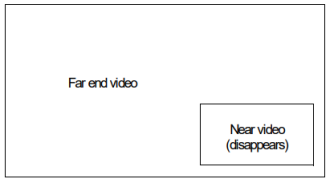
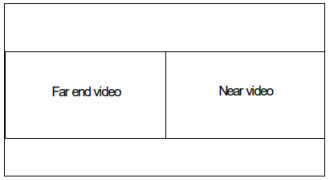
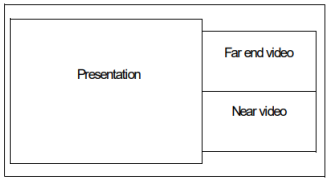
Asserted Claim of the '708 Patent	Exemplary Citations
	Three-way Call Layout 1/7  Layout 2/7  Layout 3/7  Layout 4/7  Layout 5/7  Layout 6/7  *Id.* at [Page 13 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations
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Asserted Claim of the '708 Patent	Exemplary Citations
	 "Multiway Call Layout of Video Images LifeSize Room 220 supports multiway video calls that can show video from a maximum of four callers: three far end participants and the near end participant. Set the layout for multiway calls in Administrator Preferences : Appearance : Layout. If Multiway Call Layout is set to the default of All Callers, video from up to four participants appears: the last three far end speakers and the near end participant. The video image from an additional far end participant who joins the call appears in the display only when that participant becomes the current speaker and replaces the video image of the earliest far end speaker. LifeSize Room 220 as MCU: With Multiway Call Layout set to Last Speaker, the system transmits video only from the current speaker to all participants in the conference and transmits the video from the last speaker to the participant who is currently speaking. You must enable this feature before placing or receiving the first call in the conference." *Id.* at [Page 43 of 99]
[Claim 19] The apparatus according to claim 17, wherein the processing unit is further configured to	Nakagawa, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate:

Asserted Claim of the '708 Patent	Exemplary Citations
associate M numbers of variations of one of the plurality of predefined layouts with M number of sub-intervals within one or more of the intervals, identify, in response to the user action being detected, a sub-interval among the sub-intervals within which the position is lying, and select a layout, of the plurality of predefined layouts, associated with the sub-interval; and the video composing unit is configured to compose the composite video signal using the selected layout.	*Text from US20080235612A1 (Nakagawa)* "According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]. To the extent that Cisco contends that Nakagawa does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Nakagawa with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including LifeSize:

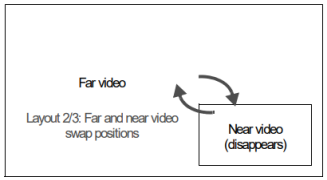
Asserted Claim of the '708 Patent	Exemplary Citations
	Text from LifeSize "Managing Video Layouts To change the screen layout of near and far end video images, press  at any time during a call. The number of the selected screen layout (x) and the total number of available screen layouts (y) appear in the center of the screen above the status bar as x/y. The total number of available screen layouts depends on the number of connected callers, whether a single display or a dual display is used, and whether a presentation is being viewed." *Id.* at [Page 10 of 99] Screen layouts appear as one of the following types:  A far end participant or your site (the near end) appears as the largest video image. The example illustrates a two-way call on a single display. The far end is the largest video image.  All video images from all participants are the same size.  A presentation appears as the largest video image when a presentation is in progress. "Multiway Call Layouts LifeSize video conferencing systems that support multiway video calls can show video from a maximum of four callers: three far end participants and the near end participant. If LifeSize Bridge is hosting the call, video from additional callers may appear."

Asserted Claim of the '708 Patent	Exemplary Citations

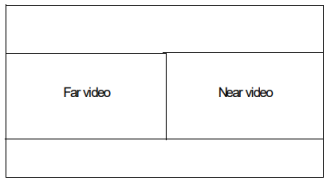
Single Display Screen Layouts

Two-way Call

Layouts 1/3 and 2/3



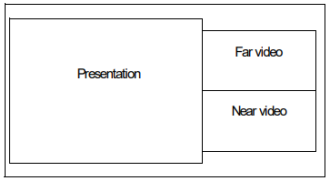
Layout 3/3



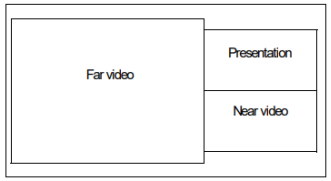
Id. at [Page 11 of 99]

Two-way Call with Presentation

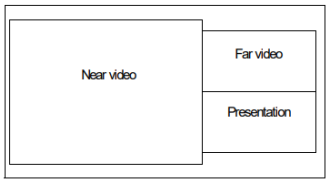
Layout 1/7



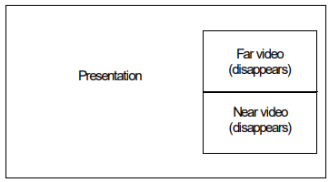
Layout 2/7



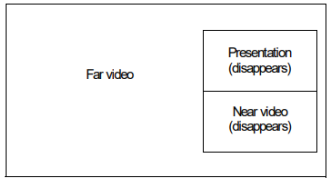
Layout 3/7



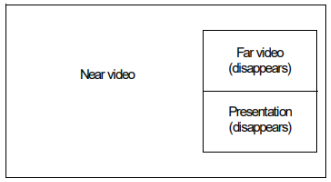
Layout 4/7



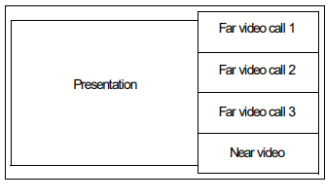
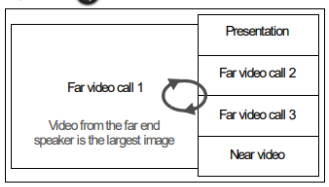
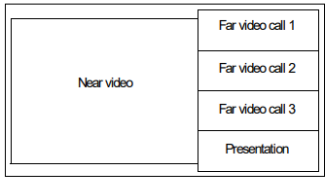
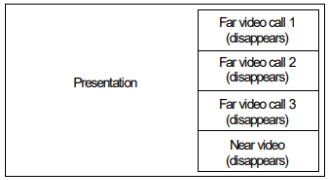
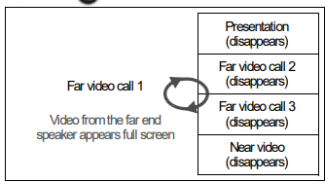
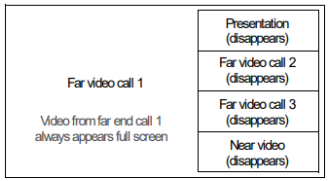
Layout 5/7



Layout 6/7



Asserted Claim of the '708 Patent	Exemplary Citations
	Id. at [Page 12 of 99] Three-way Call Layout 1/7 Far video call 1 Far video call 2 Near video Layout 2/7 Far video call 1 Far video call 2 Video from the far end speaker is the largest image Near video Layout 3/7 Near video Far video call 1 Far video call 2 Layout 4/7 Far video call 1 Far video call 2 (disappears) Video from the far end speaker appears full screen Near video (disappears) Layout 5/7 Far video call 1 Far video call 2 (disappears) Far video call 1 always appears full screen Near video (disappears) Layout 6/7 Far video call 2 Far video call 1 (disappears) Far video call 2 always appears full screen Near video (disappears) *Id.* at [Page 13 of 99]

Asserted Claim of the '708 Patent	Exemplary Citations
	Four-way Call with Presentation Layout 1/10  Layout 2/10  Layout 3/10  Layout 4/10  Layout 5/10  Layout 6/10  *Id.* at [Page 16 of 99]

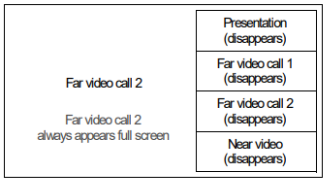
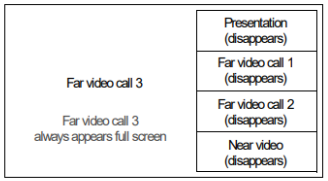
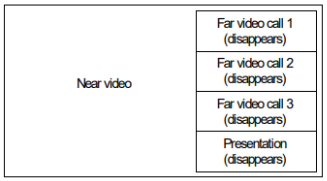
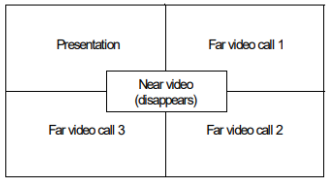
Asserted Claim of the '708 Patent	Exemplary Citations
	Layout 7/10  Layout 8/10  Layout 9/10  Layout 10/10 

Exhibit B-4: Invalidity of U.S. Patent No. 8,941,708 in view of U.S. Patent Pub. No. 2010/0302130 A1 ("Kikuchi") in view of U.S. Patent Pub. No. 2008/0235612 A1 ("Nakagawa")[1]

This chart is subject to all reservations, objections, and disclaimers in Defendant's Invalidity Contentions and any amendment, supplement, or modification thereof, which are incorporated herein by reference in their entirety.

Kikuchi was originally filed May 28, 2010 and published as a publication on December 02, 2010, and thus is available as prior art to U.S. Patent No. 8,941,708 (the "708 Patent") under at least 35 U.S.C. § 103.

Nakagawa was originally filed March 18, 2008 and published as a publication on September 25, 2008, and thus is available as prior art to the '708 Patent under at least 35 U.S.C. § 103.

Kikuchi is evidence of prior invention in the United States under 35 U.S.C. § 103. The conception of Kikuchi occurred at least as early as May 28, 2010. Nakagawa is evidence of prior invention in the United States under 35 U.S.C. § 103. The conception of Nakagawa occurred at least as early as March 18, 2008. Based on information currently available, the persons or entities involved in the conception and diligent reduction to practice of the ideas in Kikuchi and Nakagawa include at least the named inventors and the assignee. Discovery is ongoing and Defendant will update this chart pursuant to Federal Rule of Civil Procedure 26(e), the Local Rules, and the Orders of record in this matter subject to further investigation and discovery regarding the reference, the Court's construction of the claims at issue, and discovery generally, including third-party discovery.

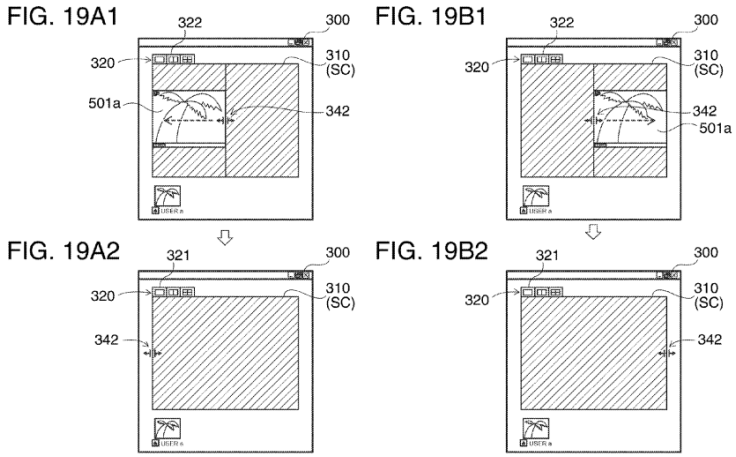
[1] Discovery in this case is ongoing and accordingly, this initial invalidity chart is not final. IPM has conducted its invalidity analysis herein based at least in part and in some instances entirely upon Cisco's apparent application of the claims of the '708 Patent. By charting the prior art against the claims and limitations herein, IPM is neither admitting nor agreeing to Cisco's application of the claims at issue in this case, and these charts should not be interpreted as an admission or concession by IPM that any particular construction or application of any claim limitation by Cisco is correct or proper. Additionally, these charts provide representative examples of portions of the charted references that disclose the indicated limitations under Cisco's application of the claims; additional portions of these references other than the representative examples provided herein may also disclose the indicated limitation(s) and IPM contends that the asserted claims are invalid in light of the charted reference(s) as a whole in its or their entirety. Where a particular figure is cited, the citation should be understood to encompass the caption and description of the figure as well as any text relating to or describing the figure. Conversely, where particular text referring to a figure is cited, the citation should be understood to include the figure as well.

Kikuchi renders obvious the asserted claims of the '708 Patent, either alone or in combination with other prior art (including Nakagawa) and/or in combination with (1) the general knowledge of one of ordinary skill in the art; (2) the teachings of any of the prior art references set forth in IPM's other invalidity claim charts with respect to the limitation-at-issue; and/or (3) the teachings of any of the prior art references set forth in the cover pleading of IPM's invalidity contentions with respect to the key concepts applicable for the limitation-at-issue.

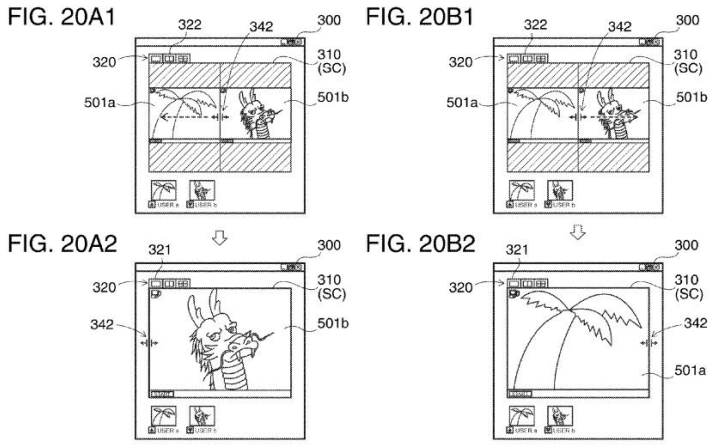
To the extent that the following invalidity contentions reflect constructions of claim limitations consistent with or suggested by Cisco's Infringement Contentions, no inference is intended, nor should any be drawn that IPM agrees with Cisco's apparent claim constructions or infringement contentions. IPM offers such invalidity contentions solely in the alternative to any position it may ultimately take as to any claim construction issues. IPM denies that the accused products infringe the asserted claim and expressly reserves the right to contest Cisco's apparent claim constructions and infringement contentions.

Asserted Claim of the '708 Patent	Exemplary Citations
[Claim 1(a)] A method comprising: providing, on a display, an object configured to be moved by a user along an axis extending across video for a plurality of video conference streams;	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)* "In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002] "Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003] "As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342 is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS. 18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124] "FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC

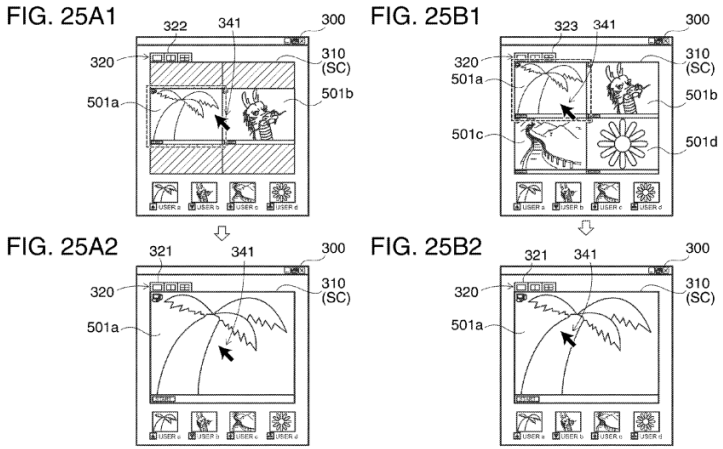
Asserted Claim of the '708 Patent	Exemplary Citations
	becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127]



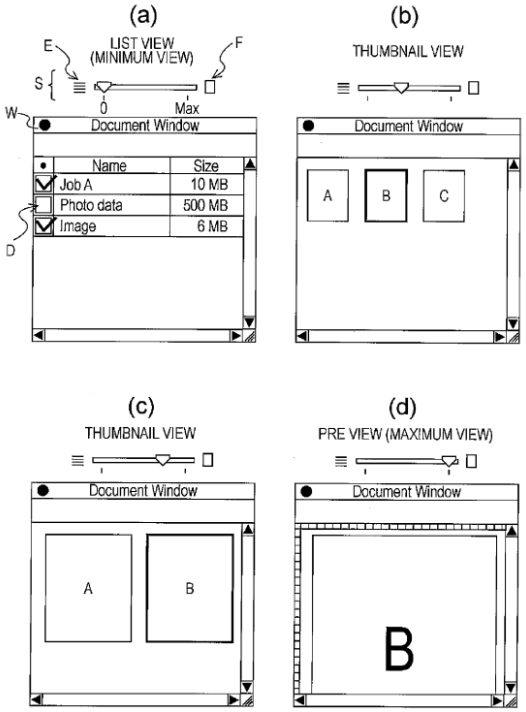
Id. at Fig. 19



Id. at Fig. 20

Asserted Claim of the '708 Patent	Exemplary Citations
	"… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward, the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]  *Id.* at Fig. 25 "Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…" To the extent that Cisco contends that Kikuchi does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa:

Asserted Claim of the '708 Patent	Exemplary Citations
	Text from US20080235612A1 (Nakagawa) "According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 1(b)] associating a plurality of predefined layouts for plurality of video conference streams with	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)* "In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality

Asserted Claim of the '708 Patent	Exemplary Citations
respective intervals along the axis;	of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002] "Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003] "As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342 is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS. 18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124] "FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 19A1

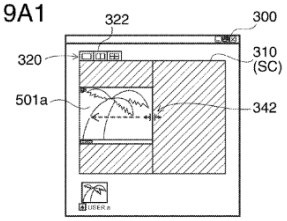


FIG. 19B1

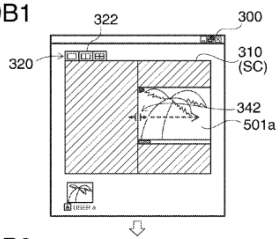


FIG. 19A2

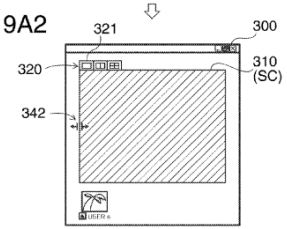
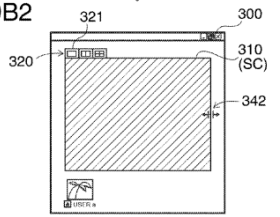


FIG. 19B2



Id. at Fig. 19

FIG. 20A1

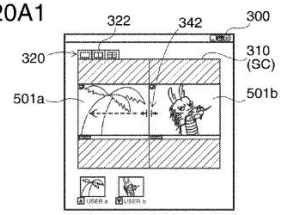


FIG. 20B1

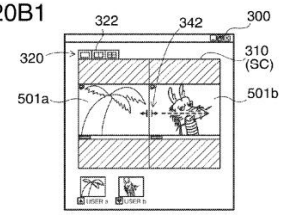


FIG. 20A2

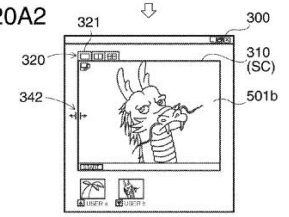
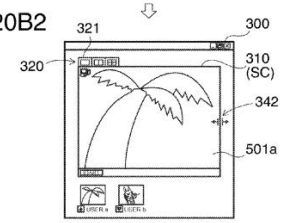
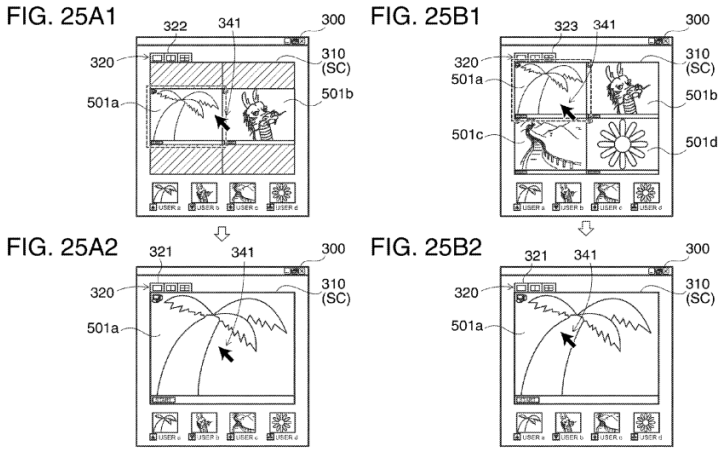


FIG. 20B2

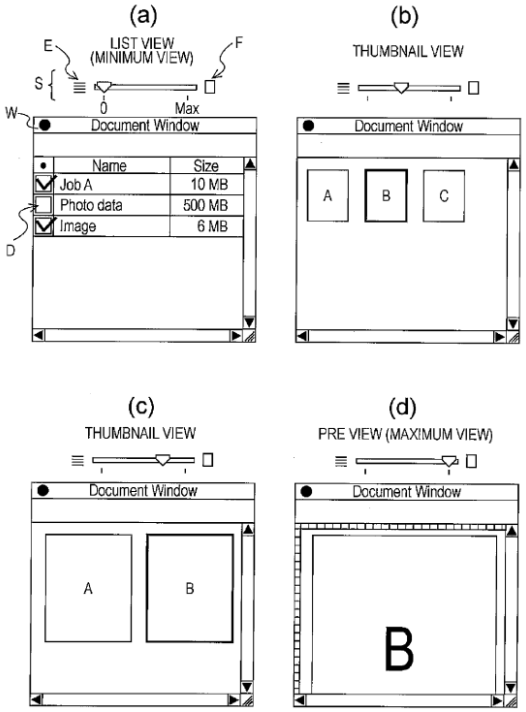


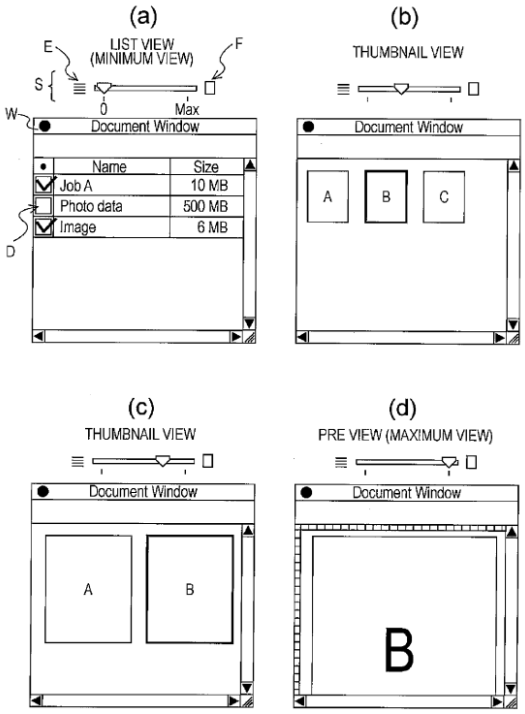
Id. at Fig. 20

"… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward,

Asserted Claim of the '708 Patent	Exemplary Citations
	the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]  *Id.* at Fig. 25 "Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…" To the extent that Cisco contends that Kikuchi does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)* "According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes

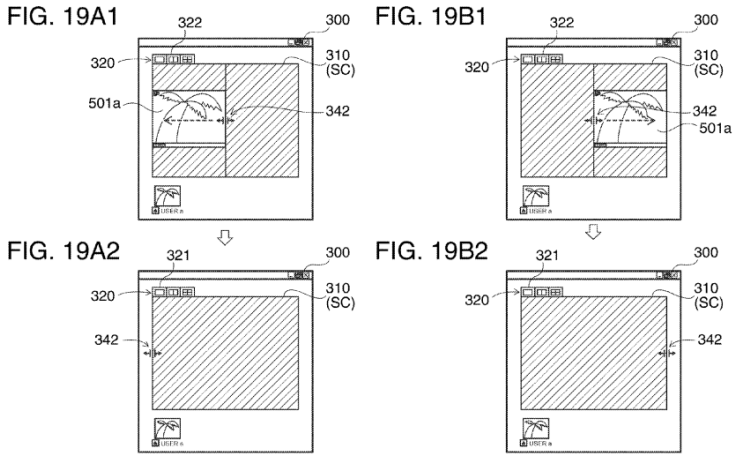
Asserted Claim of the '708 Patent	Exemplary Citations
	displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 1(c)] detecting a user action on the object indicating a position on the axis; and	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa:

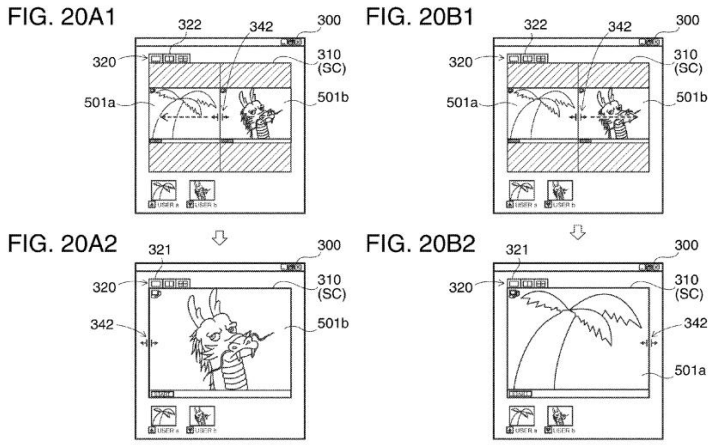
Asserted Claim of the '708 Patent	Exemplary Citations
	Text from US20080235612A1 (Nakagawa) "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3

Asserted Claim of the '708 Patent	Exemplary Citations
	"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 1(d)] composing, in response to the detecting of the user action, a composite video signal using a layout, of the plurality of predefined layouts, associated with an interval among the intervals within which the position is lying.	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)* "In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002] "Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003] "As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342 is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS. 18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124] "FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC

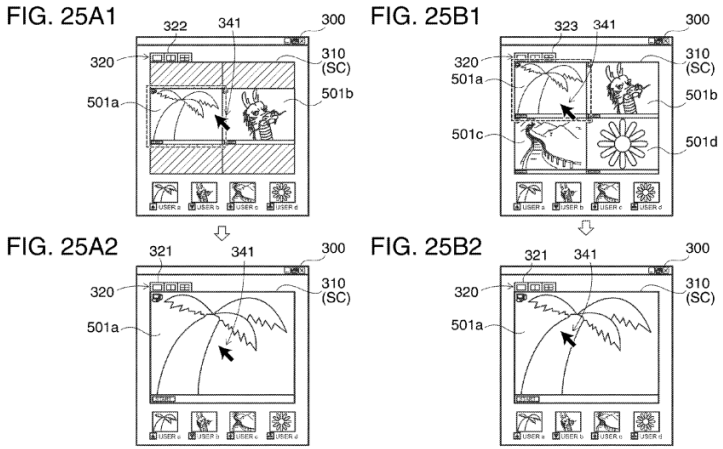
Asserted Claim of the '708 Patent	Exemplary Citations
	becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127]



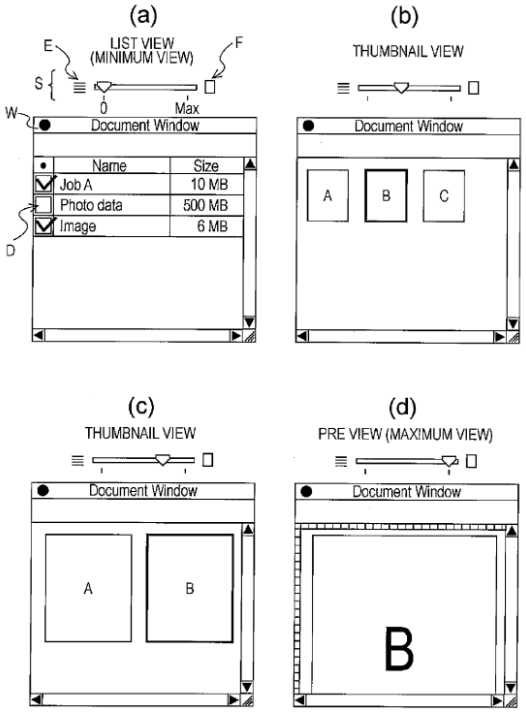
Id. at Fig. 19



Id. at Fig. 20

Asserted Claim of the '708 Patent	Exemplary Citations
	"… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward, the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]  *Id.* at Fig. 25 "Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…" To the extent that Cisco contends that Kikuchi does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa:

Asserted Claim of the '708 Patent	Exemplary Citations
	Text from US20080235612A1 (Nakagawa) "According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 2] The method according to claim 1, wherein the composite video signal includes a spatial mix of the plurality of	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)* "In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality

Asserted Claim of the '708 Patent	Exemplary Citations
video conference streams, and the layout defines one or more frames for containing the plurality of video conference streams, the method further comprising: providing, for at least one of the intervals, a relationship between positions within the at least one of the intervals and a size and position of one or more frames of a respective layout associated with the interval, and calculating, in response to the detecting of the user action, a layout wherein the size and position of each frame of the layout is based on the relationship and the position.	of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002] "Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003] "As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342 is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS. 18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124] "FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 19A1

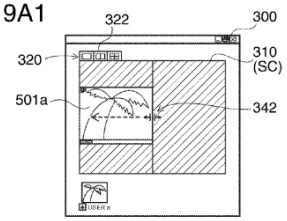


FIG. 19B1

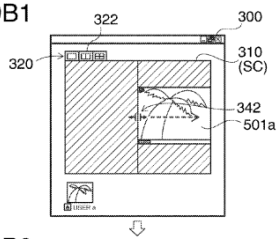


FIG. 19A2

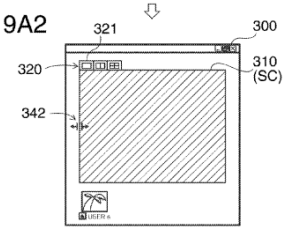
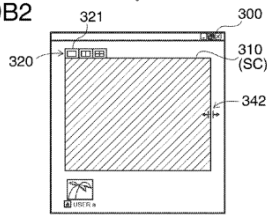


FIG. 19B2



Id. at Fig. 19

FIG. 20A1

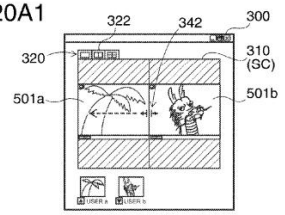


FIG. 20B1

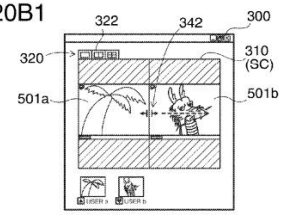


FIG. 20A2

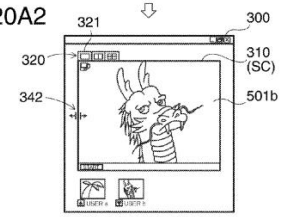
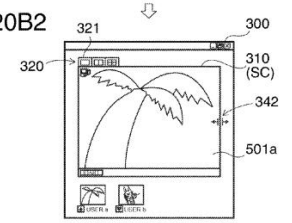
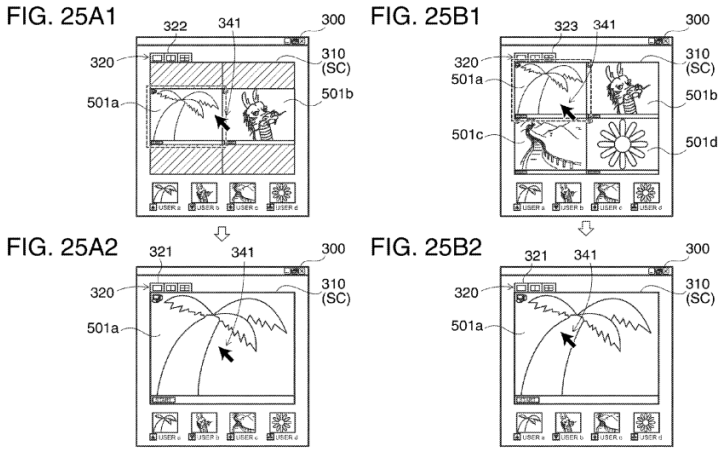


FIG. 20B2

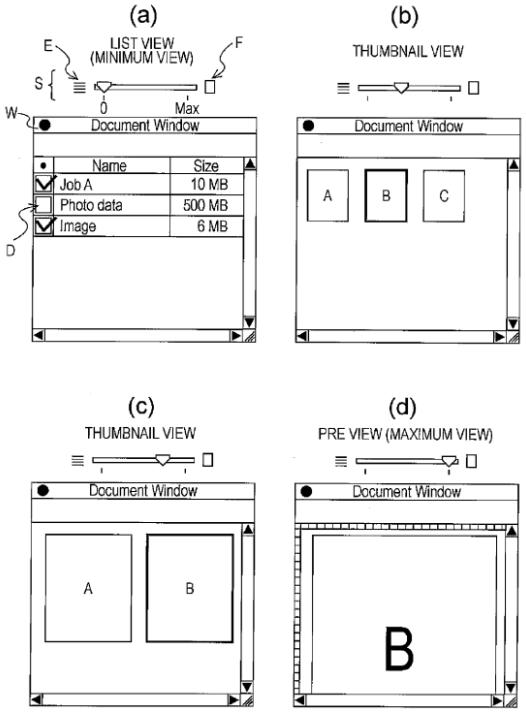


Id. at Fig. 20

"… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward,

Asserted Claim of the '708 Patent	Exemplary Citations
	the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]  *Id.* at Fig. 25 "Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…" To the extent that Cisco contends that Kikuchi does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)* "According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state

Asserted Claim of the '708 Patent	Exemplary Citations
	of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 3] The method according to claim 1, further comprising: associating M numbers of variations of one of the	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)* "In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality

Asserted Claim of the '708 Patent	Exemplary Citations
plurality of predefined layouts with M number of sub-intervals within one or more of the intervals; identifying, in response to the detecting of the user action, a sub-interval among the sub-intervals within which the position is lying; selecting a layout, of the plurality of predefined layouts, associated with the sub-interval; and composing the composite video signal using the selected layout.	of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002] "Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003] "As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342 is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS. 18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124] "FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 19A1

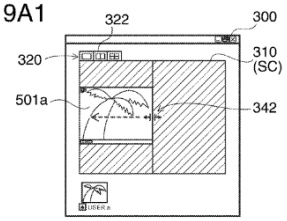


FIG. 19B1

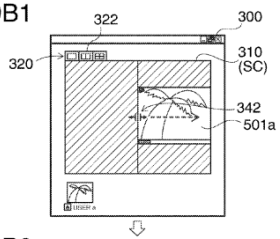


FIG. 19A2

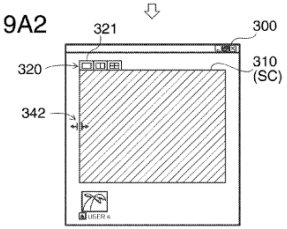
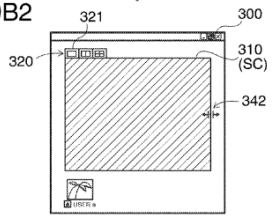


FIG. 19B2



Id. at Fig. 19

FIG. 20A1

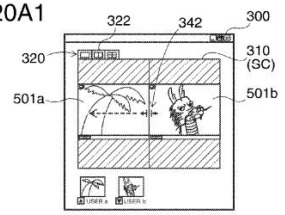


FIG. 20B1

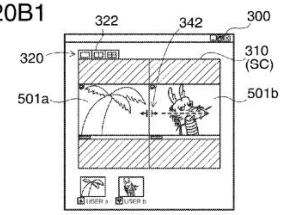


FIG. 20A2

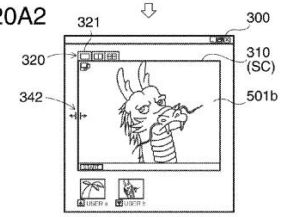
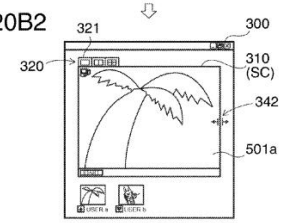
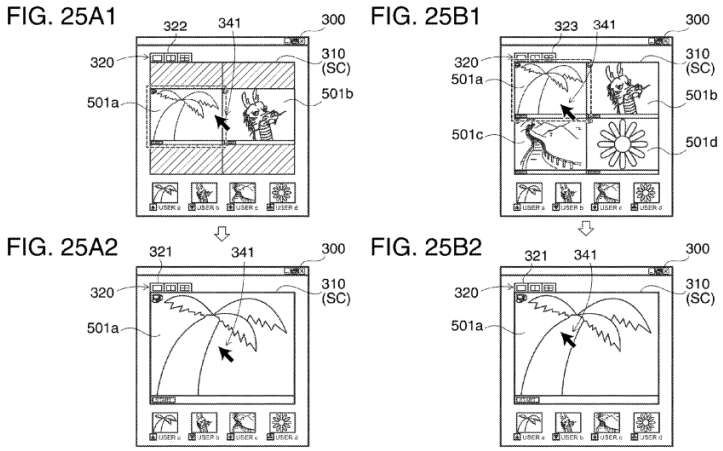


FIG. 20B2

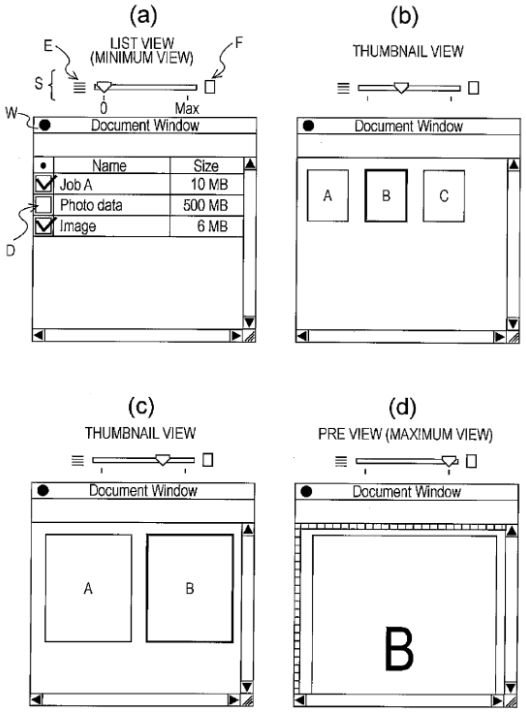


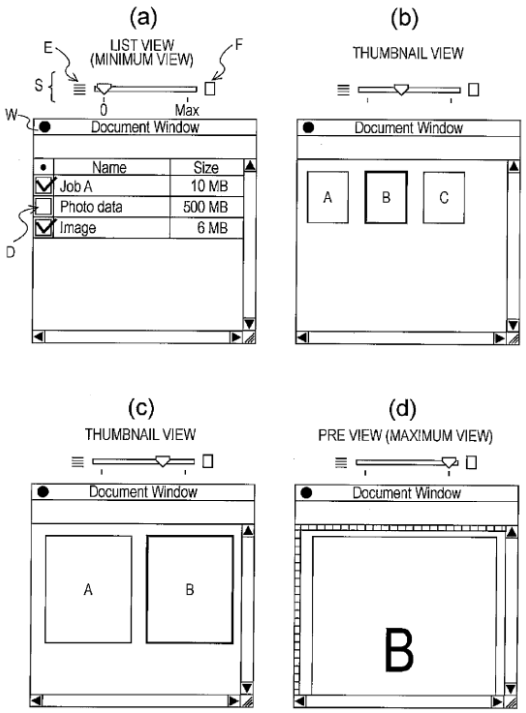
Id. at Fig. 20

"… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward,

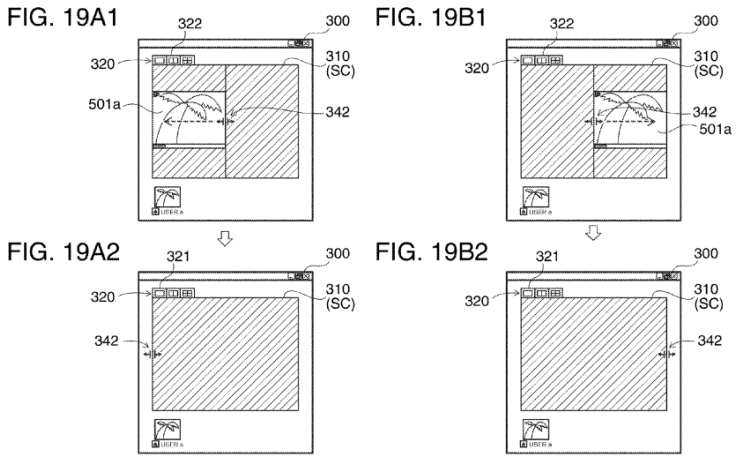
Asserted Claim of the '708 Patent	Exemplary Citations
	the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]  *Id.* at Fig. 25 "Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…" To the extent that Cisco contends that Kikuchi does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)* "According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device

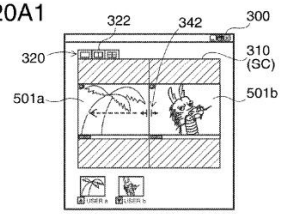
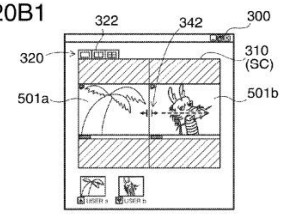
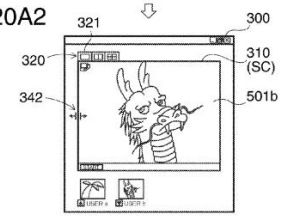
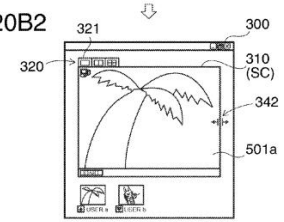
Asserted Claim of the '708 Patent	Exemplary Citations
	is performed by the control device. The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

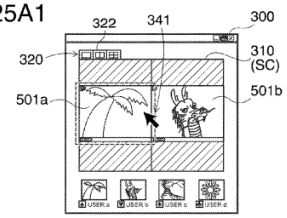
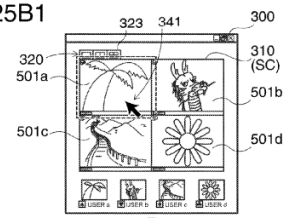
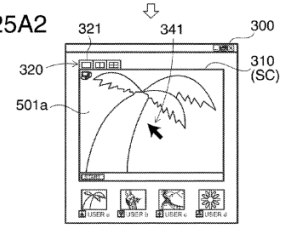
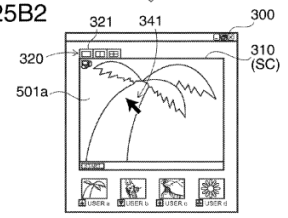
Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 4] The method of claim 1, further comprising: identifying the interval among the intervals	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)*

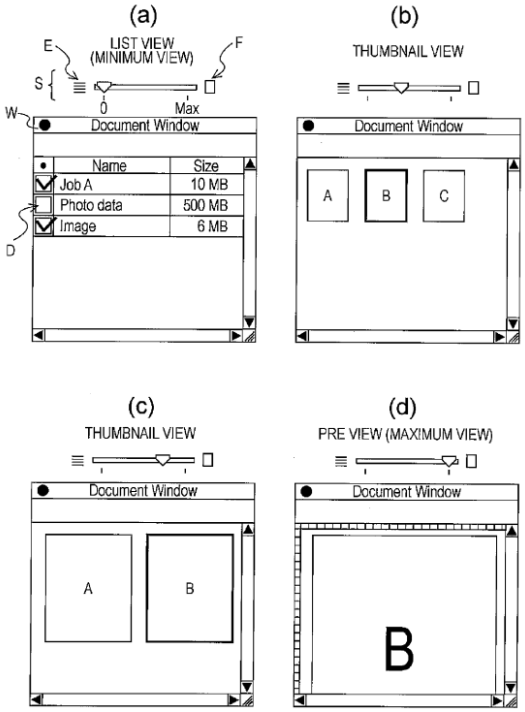
Asserted Claim of the '708 Patent	Exemplary Citations
within which the position is lying.	"Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

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	For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]
[Claim 5] The method of claim 1, further comprising: wherein the composite video signal includes a spatial mix of one or more video conference streams, and the layout defines one or more frames for containing the video conference streams.	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)* "In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002] "Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003] "As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342 is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS.

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	18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124] "FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127]  *Id.* at Fig. 19

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	FIG. 20A1  FIG. 20B1  FIG. 20A2  FIG. 20B2  *Id.* at Fig. 20 "… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward, the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]

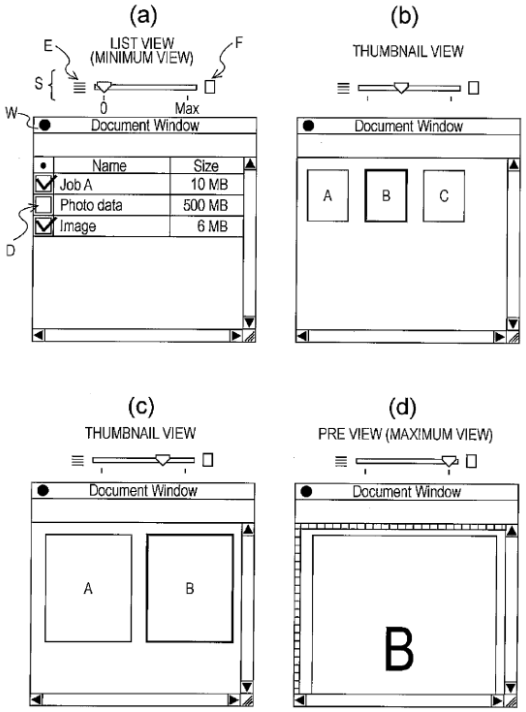
Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 25A1  FIG. 25B1  FIG. 25A2  FIG. 25B2  *Id.* at Fig. 25 "Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…"
[Claim 6] The method of claim 5, further comprising: providing, for at least one of the intervals, a relationship between positions within the at least one of the intervals and the size and position of one or more frames of a respective layout	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

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associated with the interval.	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043] For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are

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	examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]
[Claim 7] The method of claim 6, further comprising: calculating a layout wherein the size and position of each frame of the layout is based on the relationship and the position.	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 3



Id. at Fig. 3

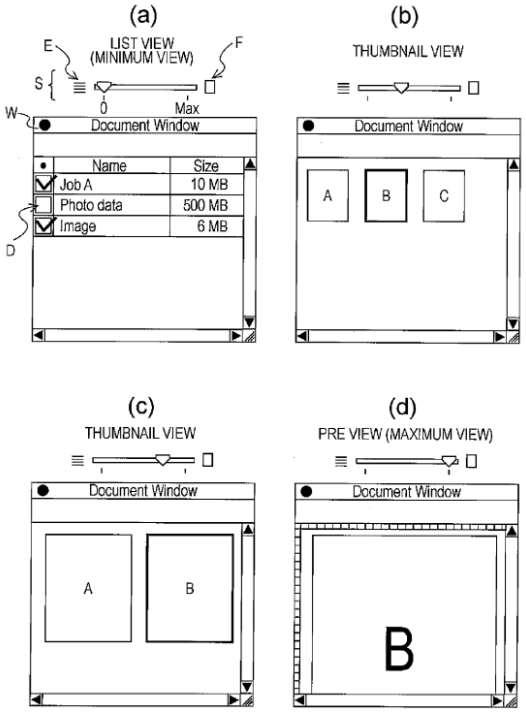
"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are

Asserted Claim of the '708 Patent	Exemplary Citations
	examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]
[Claim 8] The method of claim 1, further comprising: providing, for at least one of the intervals, a relationship between positions within the at least one of the intervals and the size and position of one or more frames of a respective layout associated with the interval.	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

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FIG. 3



Id. at Fig. 3

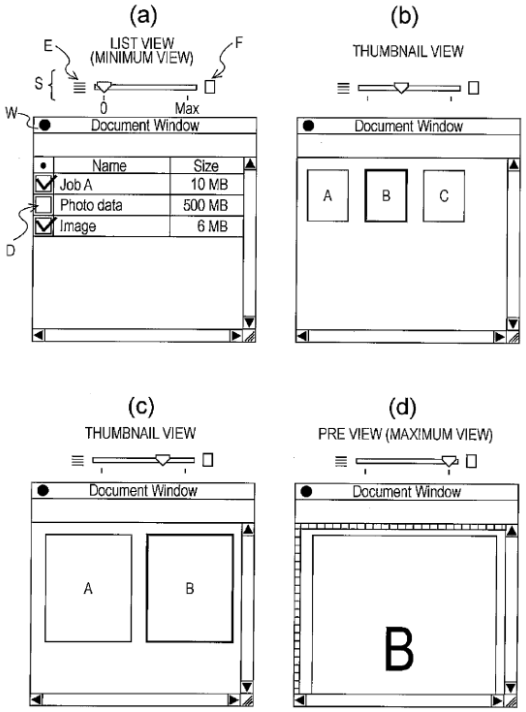
"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are

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	examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]
[Claim 9] The method of claim 1, further comprising: calculating, in response to the detecting of the user action, a layout wherein a size and position of each frame of the layout is based on the relationship and the position.	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

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FIG. 3

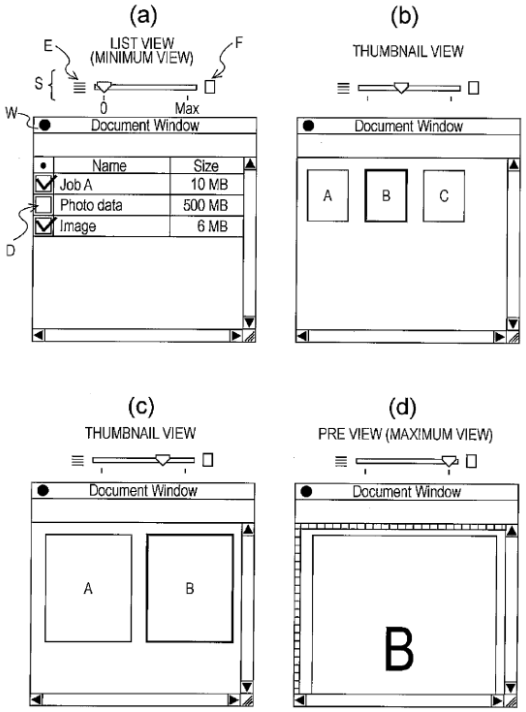


Id. at Fig. 3

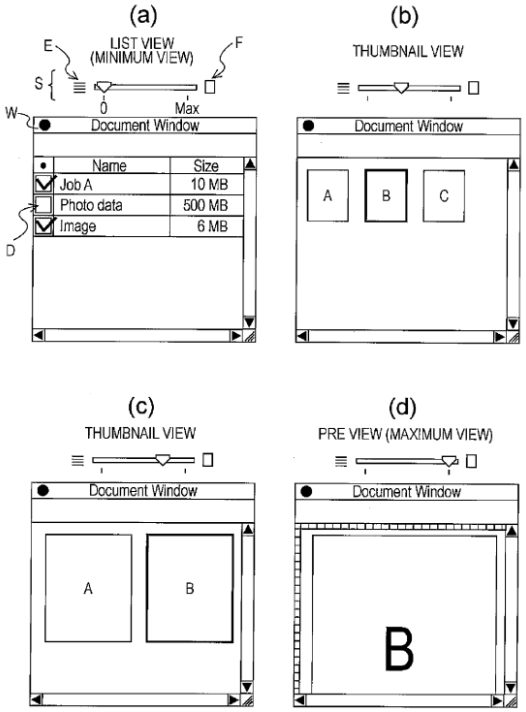
"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

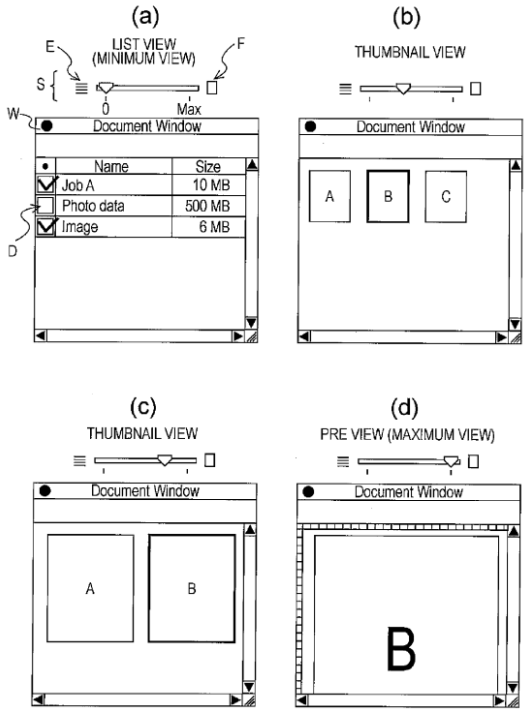
For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are

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	examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]
[Claim 10(a)] A method comprising: providing, on a display, an object configured to be moved by a user along an axis;	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

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	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 10(b)] associating a plurality of predefined layouts with respective intervals along the axis;	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)*

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	"According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

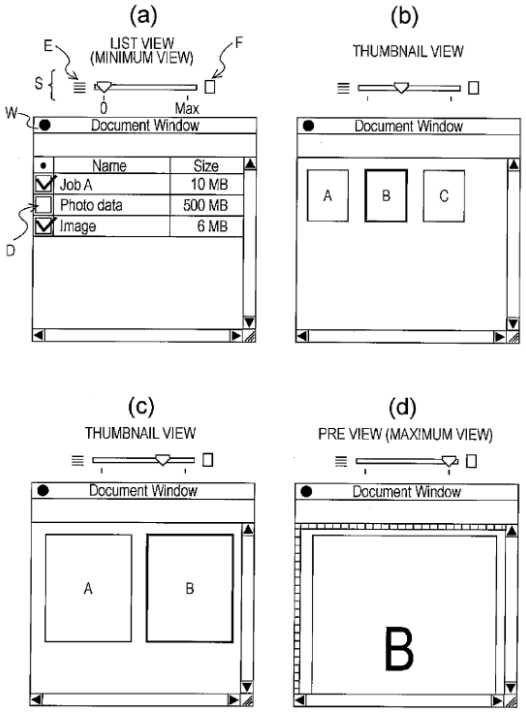
Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 10(c)] detecting a user action on the object indicating a position on the axis;	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)*

Asserted Claim of the '708 Patent	Exemplary Citations
	"Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

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[Claim 10(d)] identifying an interval among the intervals within which the position is lying;	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 3

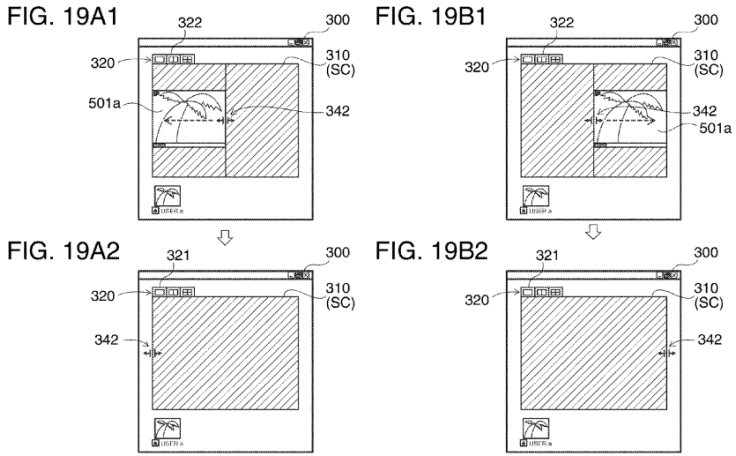
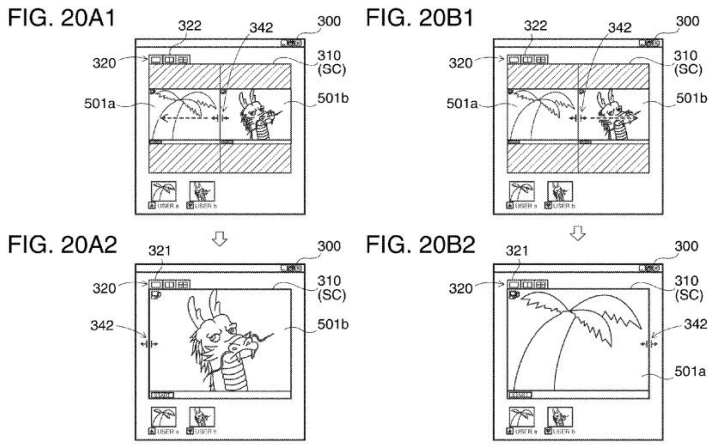


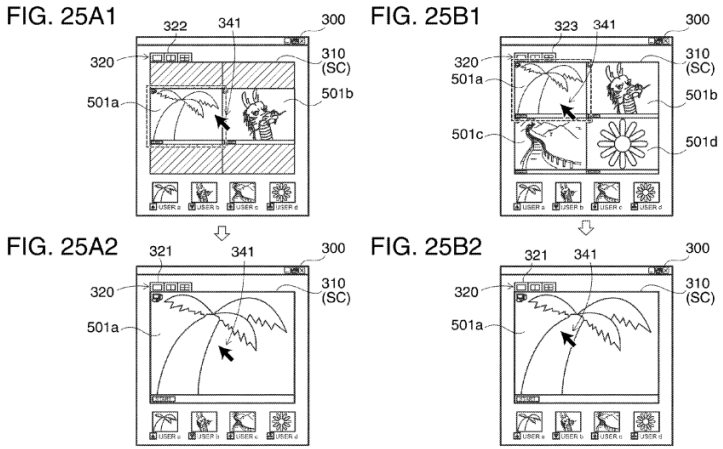
Id. at Fig. 3

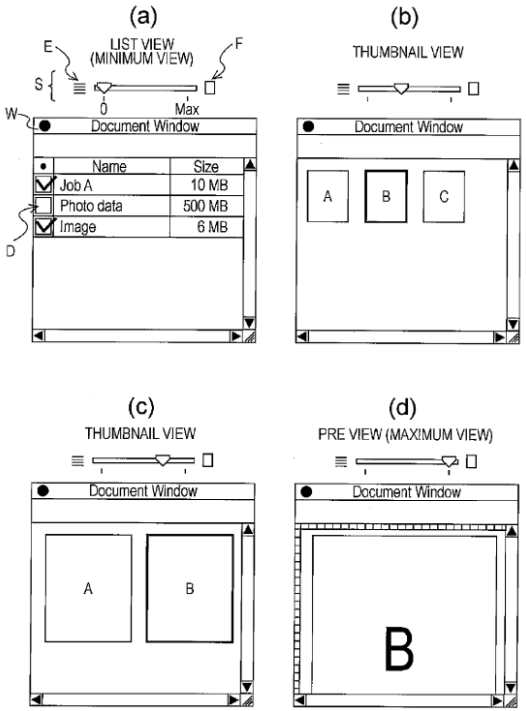
"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are

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	examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]
[Claim 10(e)] selecting the layout associated with the interval; and composing, in response to the detecting of the user action, a composite video signal using the layout, of the plurality of predefined layouts, associated with the interval among the intervals within which the position is lying.	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)* "In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002] "Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003] "As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342 is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS. 18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124] "FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the

Asserted Claim of the '708 Patent	Exemplary Citations
	supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127]  *Id.* at Fig. 19  *Id.* at Fig. 20

Asserted Claim of the '708 Patent	Exemplary Citations
	"… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward, the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]  *Id.* at Fig. 25 "Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…" To the extent that Cisco contends that Kikuchi does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)*

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	"Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

Asserted Claim of the '708 Patent	Exemplary Citations
	"For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing." *Id.* at [Para 0052]
[Claim 11] The method according to claim 10, further comprising: providing the selected layout to a video composing unit, which composes the composite image and which is configured to receive a plurality of video conference streams and output a composite video signal comprising one or more of the received video conference streams based on a layout.	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)* "The EEPROM **220** stores a control program P**20** for controlling the image display device **200**. The control program P**20** has an image obtaining module M**21**, a display layout control module M**22**, a display image generation module M**23**, a display image output module M**24**, an update information generation module M**25**, and a communication control module M**26**." *Id*. at [Para 0070]. "The image obtaining module M**21** obtains the supply image data supplied from each of the image supply devices **100** *a* through **100** *d*. The display layout control module M**22** changes the settings of the display layout of the supply images on the projection screen SC along the instruction of the user transmitted from each of the image supply devices **100** *a* through **100** *d*. The display image generation module M**23** generates image data (display image data) for projection obtained by arranging the supply image supplied from the respective image supply devices **100** *a* through **100** *d* along the settings of the display layout by the display layout control module M**22**. The display image output module M**24** generates the drawing data based on the display image data, and then stores it in the VRAM **240.** The update

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	information generation module M**25** generates the update information for updating the display content of the operation window in each of the image supply devices **100** *a* through **100** *d*." Id. at [Para 0071]. "In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002] "Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003] "As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342 is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS. 18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124] "FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127]

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FIG. 19A1

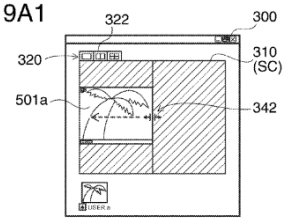


FIG. 19B1

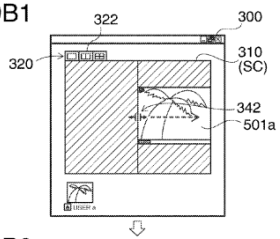


FIG. 19A2

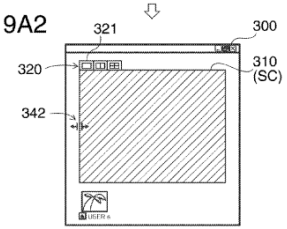
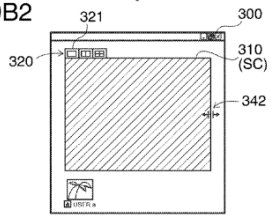


FIG. 19B2



Id. at Fig. 19

FIG. 20A1

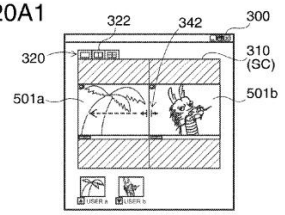


FIG. 20B1

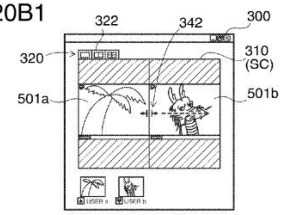


FIG. 20A2

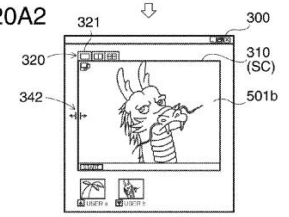
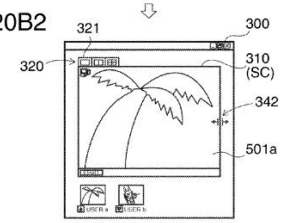
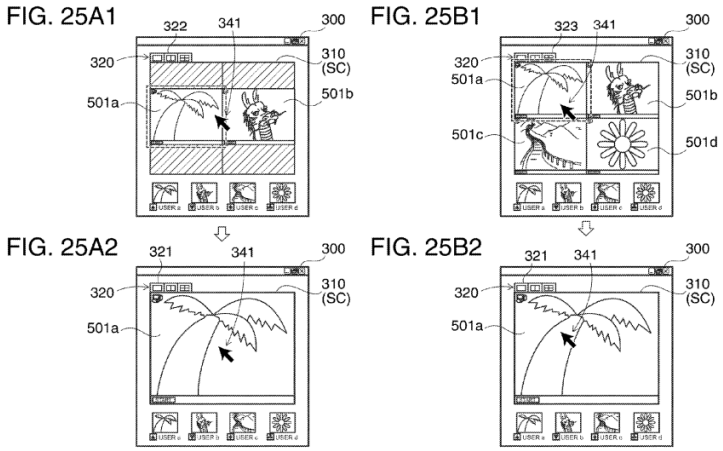


FIG. 20B2



Id. at Fig. 20

"… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward,

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	the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]  *Id.* at Fig. 25 "Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…"
[Claim 12] The method according to claim 10, further comprising: displaying the composite video signal on the display, the display being of a video conference terminal.	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)* "In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002]

Asserted Claim of the '708 Patent	Exemplary Citations
	"Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003] "As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342 is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS. 18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124] "FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127]

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FIG. 19A1

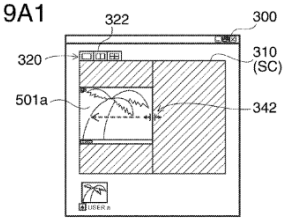


FIG. 19B1

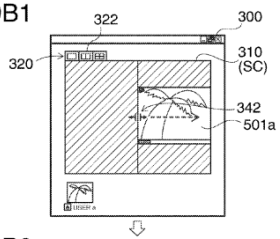


FIG. 19A2

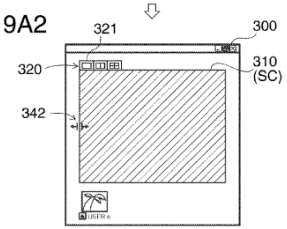
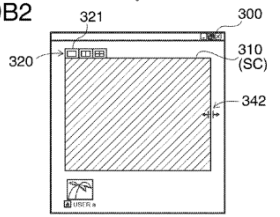


FIG. 19B2



Id. at Fig. 19

FIG. 20A1

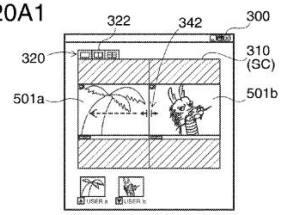


FIG. 20B1

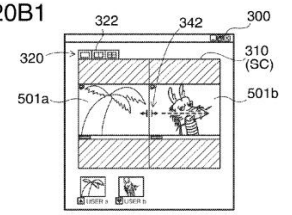


FIG. 20A2

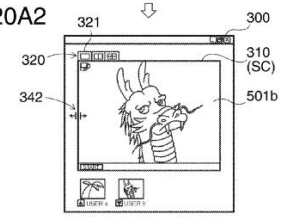
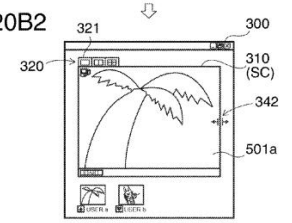
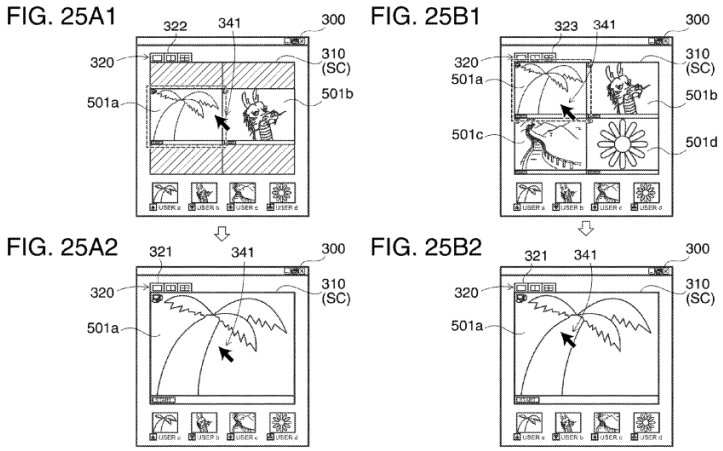


FIG. 20B2



Id. at Fig. 20

"… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward,

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	the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]  *Id.* at Fig. 25 "Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…"
[Claim 13] The method according to claim 12, further comprising: displaying the object on a display of a control device, which is connected to the video conference terminal,	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)* "In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002]

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together with a replica of the composite video signal currently displayed on the display of the video conference terminal.	"Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003] "As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342 is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS. 18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124] "FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 19A1

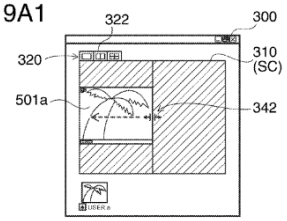


FIG. 19B1

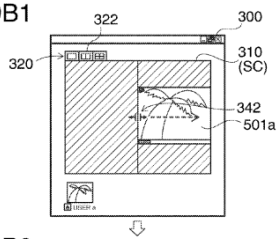


FIG. 19A2

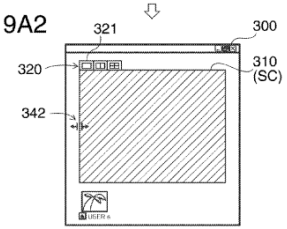
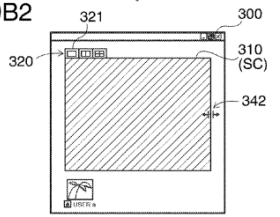


FIG. 19B2



Id. at Fig. 19

FIG. 20A1

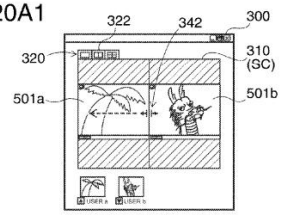


FIG. 20B1

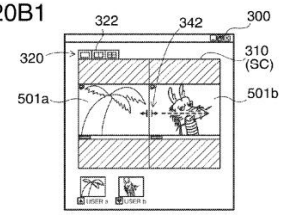


FIG. 20A2

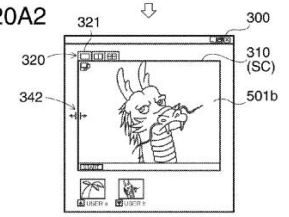
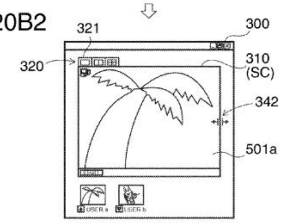
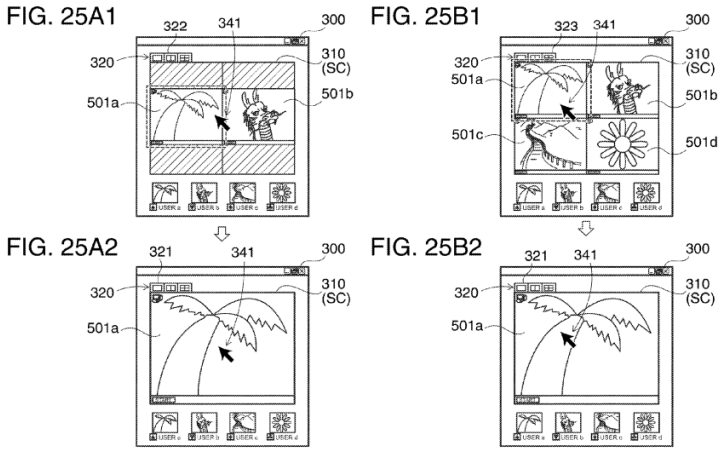


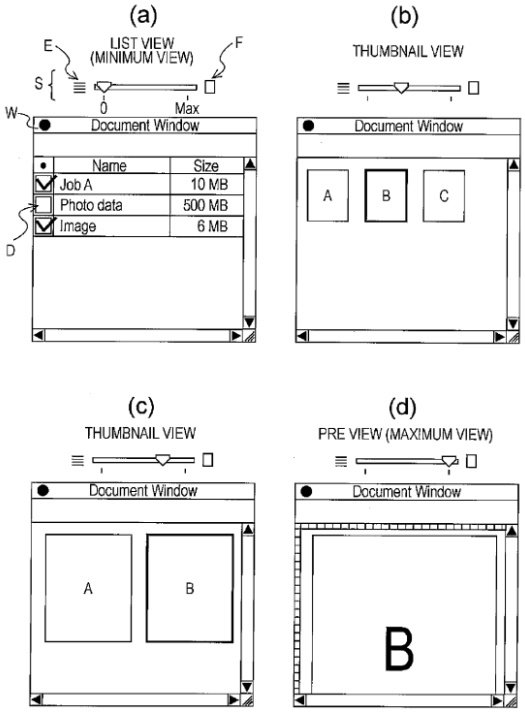
FIG. 20B2



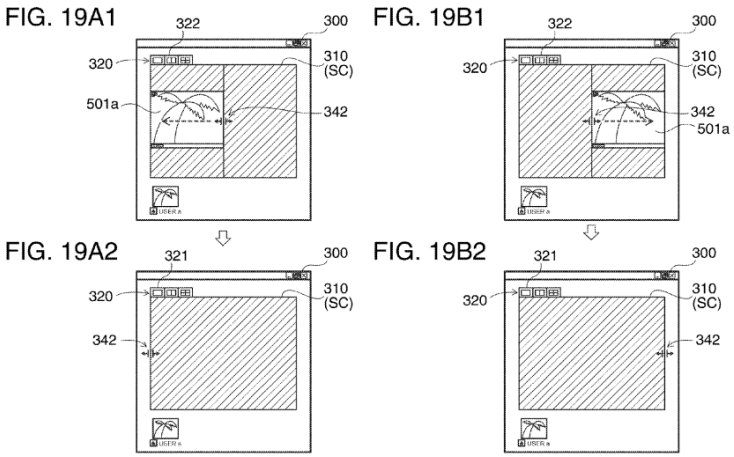
Id. at Fig. 20

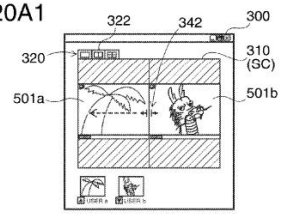
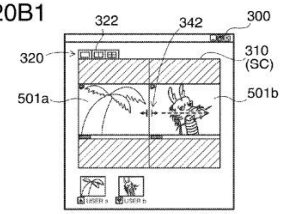
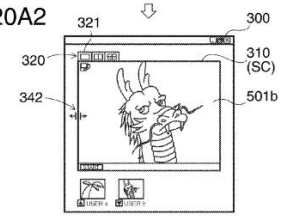
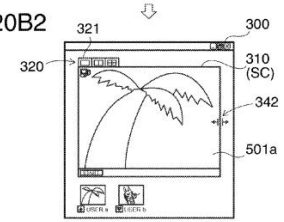
"… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward,

Asserted Claim of the '708 Patent	Exemplary Citations
	the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]  *Id.* at Fig. 25 "Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…" To the extent that Cisco contends that Kikuchi does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial

Asserted Claim of the '708 Patent	Exemplary Citations
	view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043] For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c)

Asserted Claim of the '708 Patent	Exemplary Citations
	is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]
[Claim 14] The method according to claim 10, further comprising: displaying the object on the display, which is of a video conference terminal.	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)* "In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002] "Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003] "As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342 is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS. 18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124]

Asserted Claim of the '708 Patent	Exemplary Citations
	"FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127]  *Id.* at Fig. 19

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 20A1  FIG. 20B1  FIG. 20A2  FIG. 20B2  *Id.* at Fig. 20 "… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward, the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 25A1

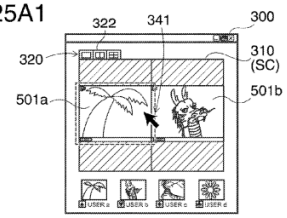


FIG. 25B1

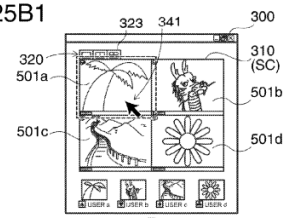


FIG. 25A2

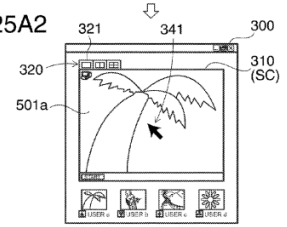
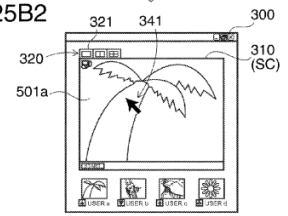


FIG. 25B2



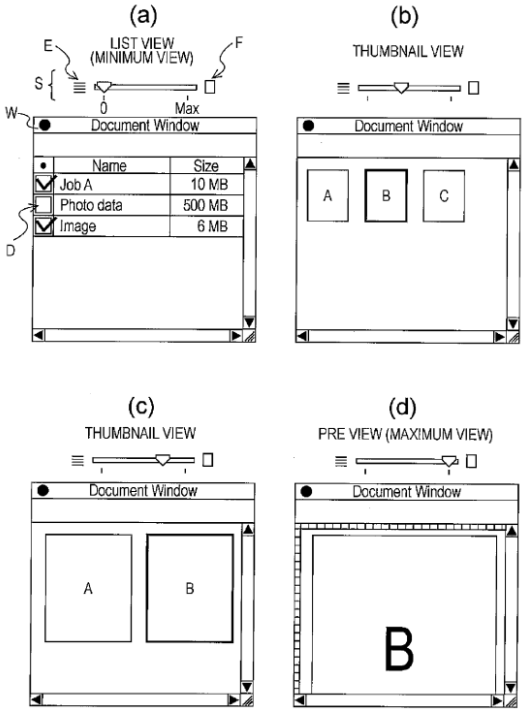
Id. at Fig. 25

"Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…"

To the extent that Cisco contends that Kikuchi does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa:

Text from US20080235612A1 (Nakagawa)

"Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 15] The method according to claim 13, further comprising: updating one of the composite video signal	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)*

Asserted Claim of the '708 Patent	Exemplary Citations
and the replica in real time as the object is moved by the user.	"In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002] "Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003] "As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342 is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS. 18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124] "FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 19A1

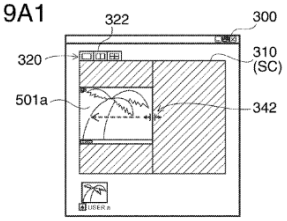


FIG. 19B1

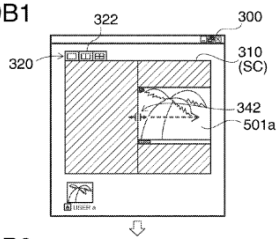


FIG. 19A2

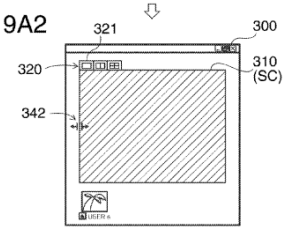
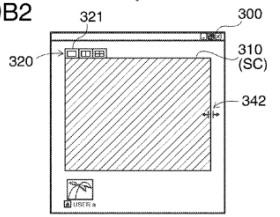


FIG. 19B2



Id. at Fig. 19

FIG. 20A1

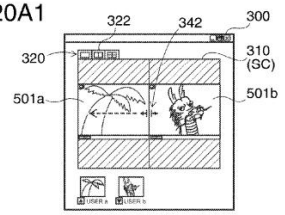


FIG. 20B1

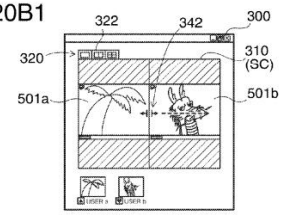


FIG. 20A2

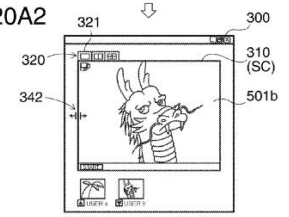
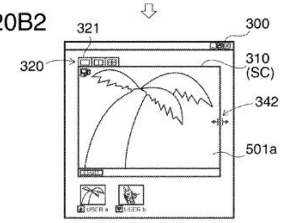


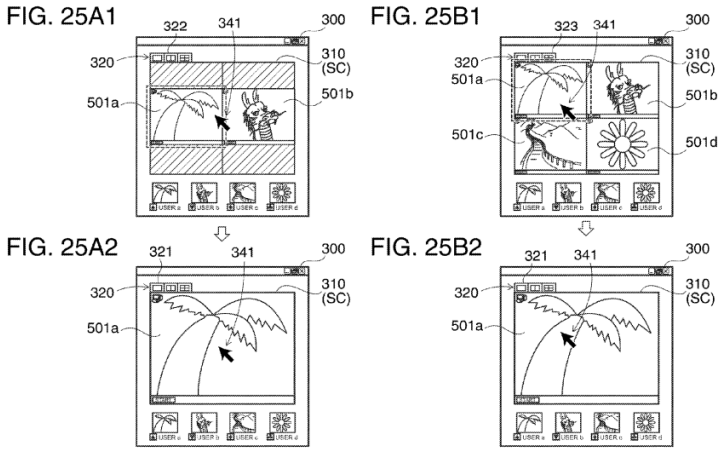
FIG. 20B2



Id. at Fig. 20

"… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward,

Asserted Claim of the '708 Patent	Exemplary Citations
	the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]



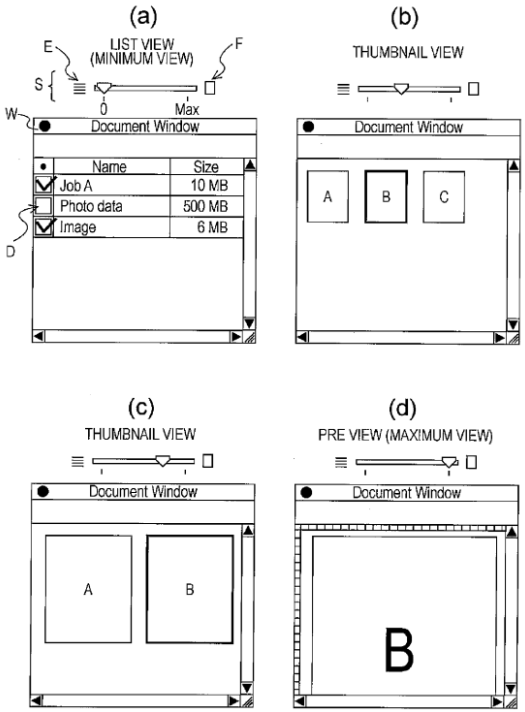
Id. at Fig. 25

"Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…"

To the extent that Cisco contends that Kikuchi does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa:

Text from US20080235612A1 (Nakagawa)

"Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the

Asserted Claim of the '708 Patent	Exemplary Citations
	slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 16(a)]	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate:

Asserted Claim of the '708 Patent	Exemplary Citations
A non-transitory computer-readable storage medium including computer executable instructions, wherein the instructions, when executed by a computer, cause the computer to perform a method, the method comprising:	*Text from US20100302130A1 (Kikuchi)* "FIG. 3 is a block diagram showing an internal configuration of the image display device **200**. The image display device **200** is a projector and is provided with a CPU **210**, an EEPROM **220** as a nonvolatile memory, a RAM **230**, a VRAM **240**, an operation section **250**, an image display section **260**, an optical system **270**, and a wireless LAN/IF **280**. These constituents **210** through **280** are connected to each other via a bus **290**." *Id*. at [Para 0067].

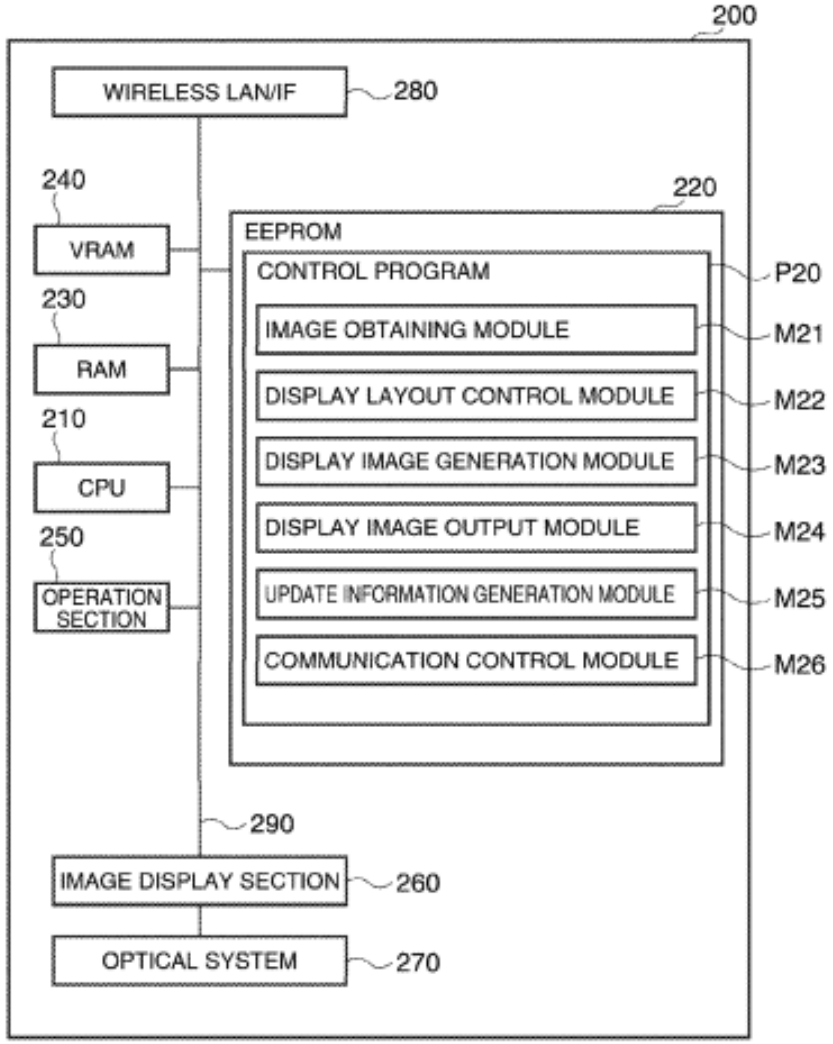
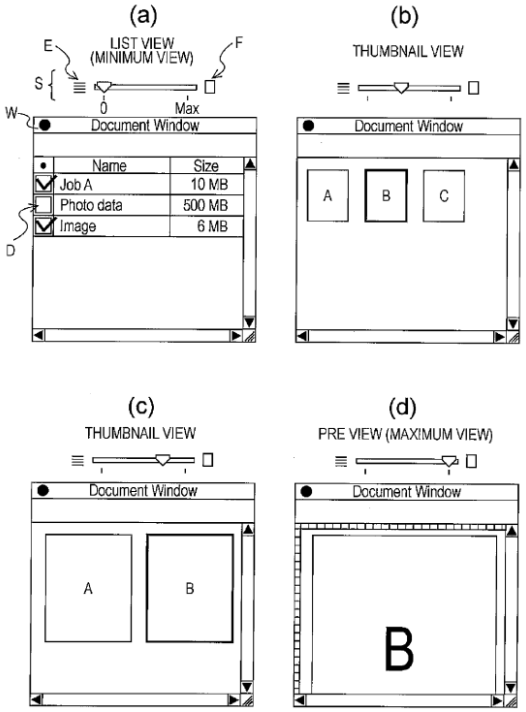
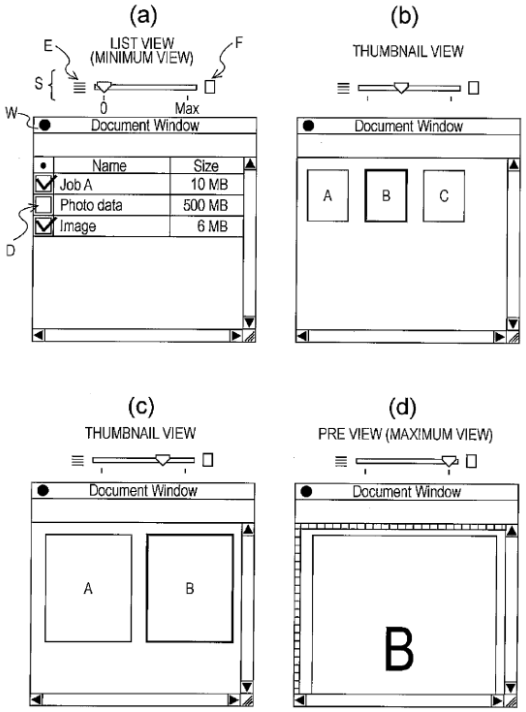

200
WIRELESS LAN/IF
280
240
VRAM
230
RAM
210
CPU
250
OPERATION SECTION
220
EEPROM
CONTROL PROGRAM
P20
IMAGE OBTAINING MODULE
M21
DISPLAY LAYOUT CONTROL MODULE
M22
DISPLAY IMAGE GENERATION MODULE
M23
DISPLAY IMAGE OUTPUT MODULE
M24
UPDATE INFORMATION GENERATION MODULE
M25
COMMUNICATION CONTROL MODULE
M26
290
IMAGE DISPLAY SECTION
260
OPTICAL SYSTEM
270

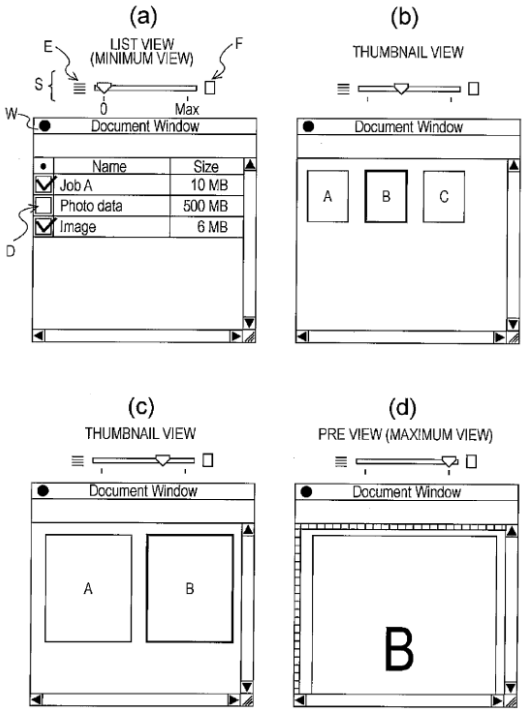
FIG. 3

Asserted Claim of the '708 Patent	Exemplary Citations
[Claim 16(b)] providing, on a display, an object configured to be moved by a user along an axis;	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 16(c)] associating a plurality of predefined layouts with respective intervals along the axis;	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)*

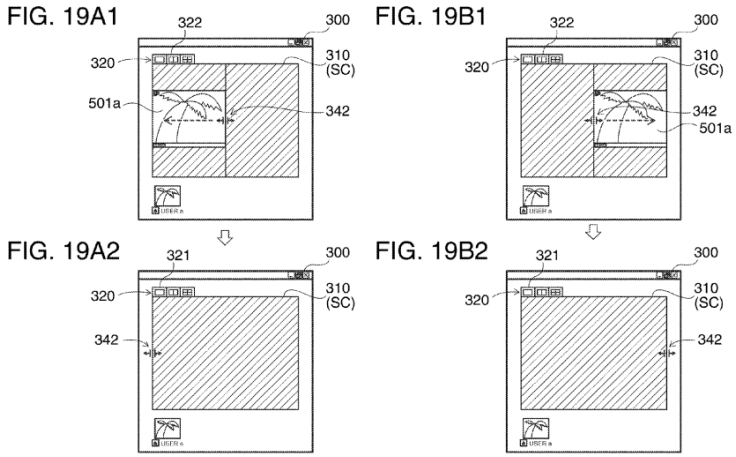
Asserted Claim of the '708 Patent	Exemplary Citations
	"According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 16(d)] detecting a user action on the object indicating a position on the axis;	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)*

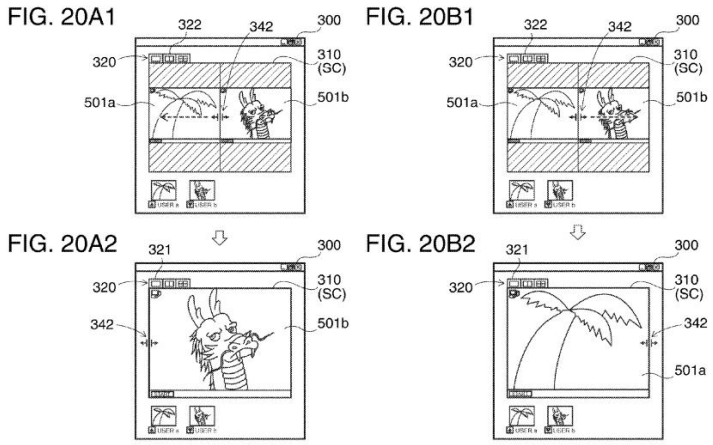
Asserted Claim of the '708 Patent	Exemplary Citations
	"Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3

Asserted Claim of the '708 Patent	Exemplary Citations
	"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 16(e)] selecting a layout, of the plurality of predefined layouts, associated with an interval among the intervals within which the position on the axis is lying; and	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)* "In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002] "Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003] "As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342 is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS. 18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124] "FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC

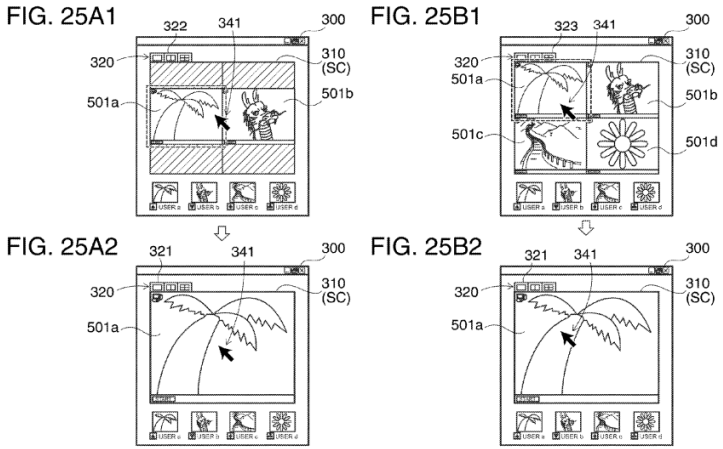
Asserted Claim of the '708 Patent	Exemplary Citations
	becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127]

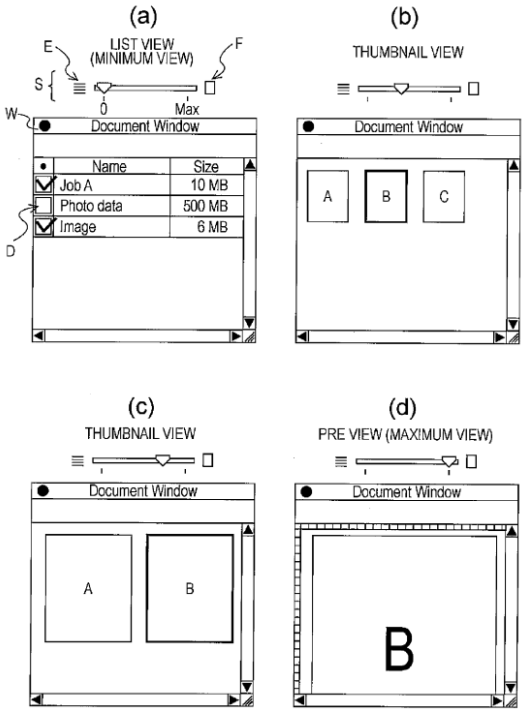


Id. at Fig. 19



Id. at Fig. 20

Asserted Claim of the '708 Patent	Exemplary Citations
	"… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward, the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]  *Id.* at Fig. 25 "Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…" To the extent that Cisco contends that Kikuchi does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)*

Asserted Claim of the '708 Patent	Exemplary Citations
	"Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

Asserted Claim of the '708 Patent	Exemplary Citations
	For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]
[Claim 16(f)] composing, in response to the detecting of the user action, a composite video signal using the layout, of the plurality of predefined layouts, associated with the interval among the intervals within which the position on the axis is lying.	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)* "In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002] "Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003]. The image obtaining module M**21** obtains the supply image data supplied from each of the image supply devices **100** *a* through **100** *d*. The display layout control module M**22** changes the settings of the display layout of the supply images on the projection screen SC along the instruction of the user transmitted from

Asserted Claim of the '708 Patent	Exemplary Citations
	each of the image supply devices **100** *a* through **100** *d*. The display image generation module M**23** generates image data (display image data) for projection obtained by arranging the supply image supplied from the respective image supply devices **100** *a* through **100** *d* along the settings of the display layout by the display layout control module M**22**. The display image output module M**24** generates the drawing data based on the display image data, and then stores it in the VRAM **240.** The update information generation module M**25** generates the update information for updating the display content of the operation window in each of the image supply devices **100** *a* through **100** *d*. Id. at [Para 0071]. "As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342 is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS. 18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124] "FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 19A1

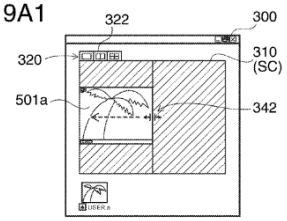


FIG. 19B1

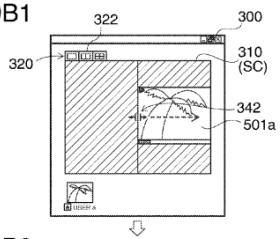


FIG. 19A2

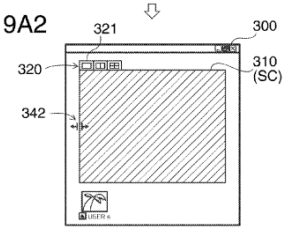
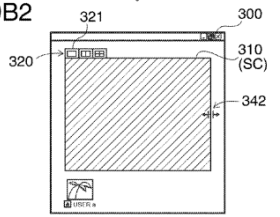


FIG. 19B2



Id. at Fig. 19

FIG. 20A1

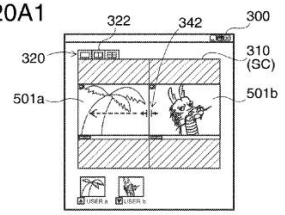


FIG. 20B1

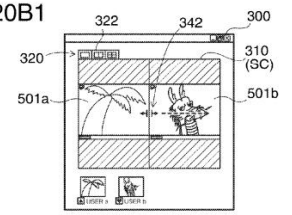


FIG. 20A2

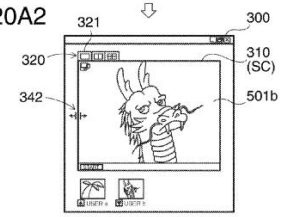
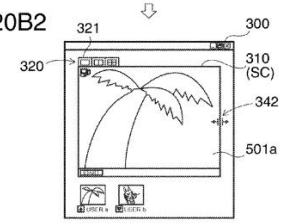
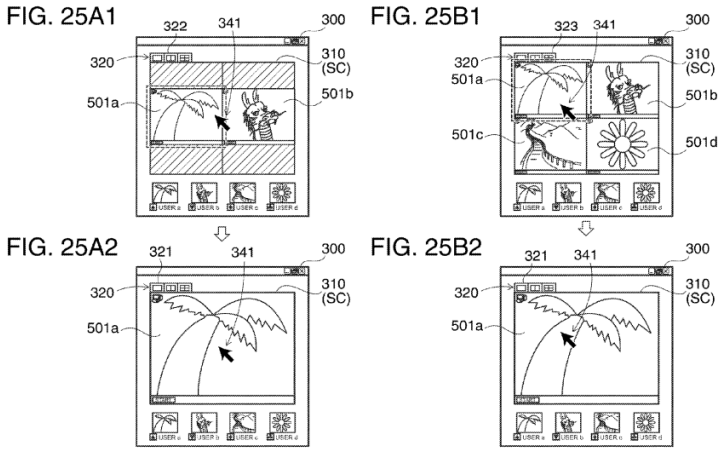


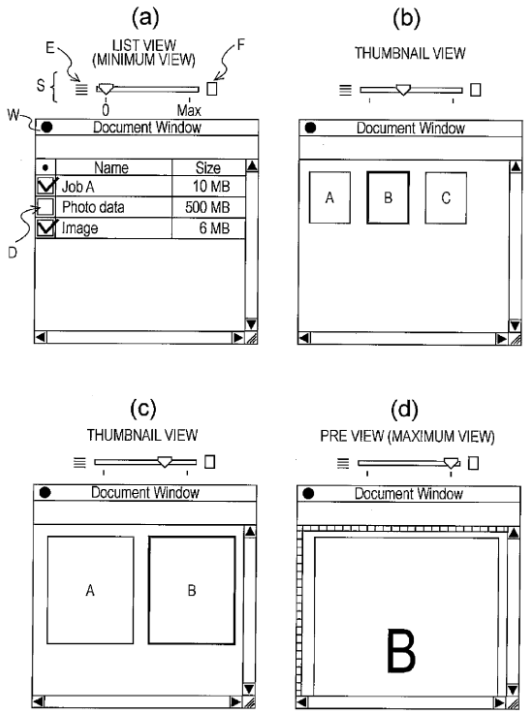
FIG. 20B2



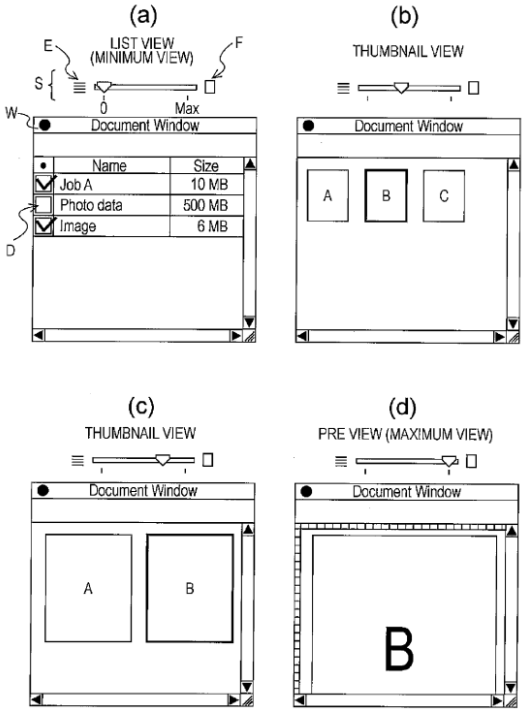
Id. at Fig. 20

"… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward,

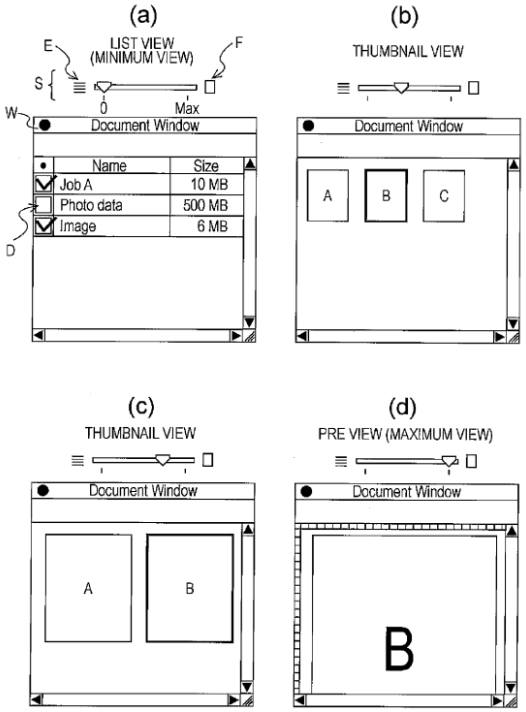
Asserted Claim of the '708 Patent	Exemplary Citations
	the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]  *Id.* at Fig. 25 "Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…" To the extent that Cisco contends that Kikuchi does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window

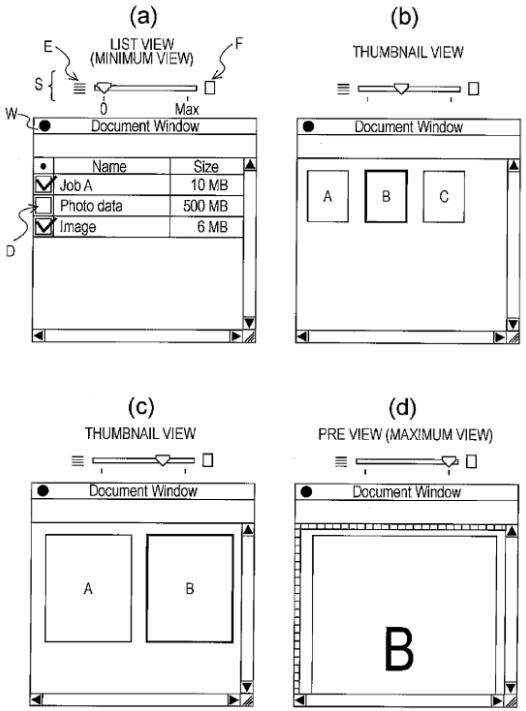
Asserted Claim of the '708 Patent	Exemplary Citations
	(step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043] For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the

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	example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]
[Claim 17(a)] An apparatus comprising: a processing unit configured to provide, on a display, an object configured to be moved by a user along an axis,	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

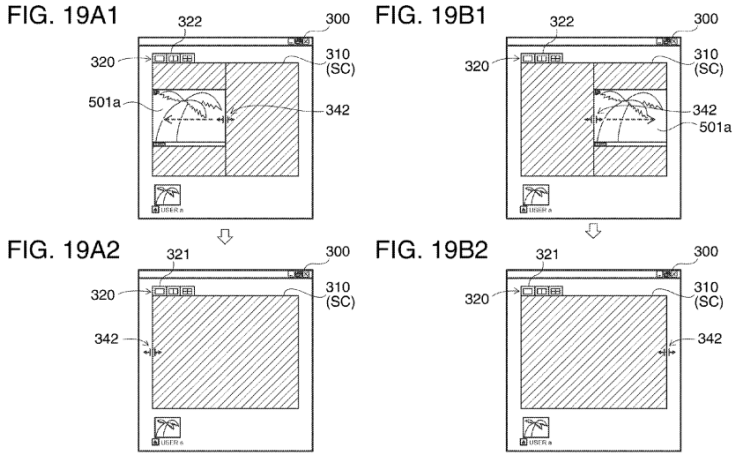
Asserted Claim of the '708 Patent	Exemplary Citations
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[Claim 17(b)] associate a plurality of predefined layouts with respective intervals along the axis, and	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)*

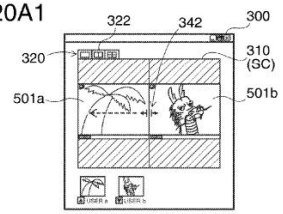
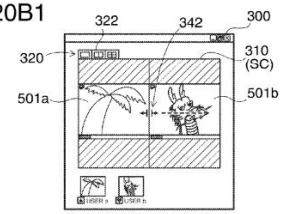
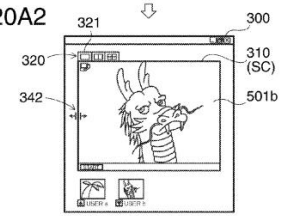
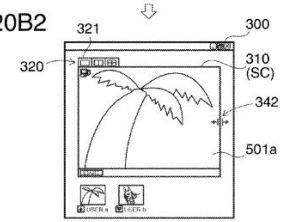
Asserted Claim of the '708 Patent	Exemplary Citations
	"According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 17(c)] detect a user action on the object indicating a position on the axis; and	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)*

Asserted Claim of the '708 Patent	Exemplary Citations
	"Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3

Asserted Claim of the '708 Patent	Exemplary Citations
	"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 17(d)] a video composing unit configured to compose, in response to the user action being detected by the processing unit, a composite video signal using a layout, of the plurality of predefined layouts, associated with an interval among the intervals within which the position is lying, wherein the processing unit is further configured to	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)* "In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002]. "Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003]. "The EEPROM **220** stores a control program P**20** for controlling the image display device **200**. The control program P**20** has an image obtaining module M**21**, a display layout control module M**22**, a display image generation module M**23**, a display image output module M**24**, an update information generation module M**25**, and a communication control module M**26**." *Id.* at [Para 0070]. "As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342 is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS.

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	18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124] "FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127].  *Id.* at Fig. 19

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 20A1  FIG. 20B1  FIG. 20A2  FIG. 20B2  *Id.* at Fig. 20 "… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward, the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]

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FIG. 25A1

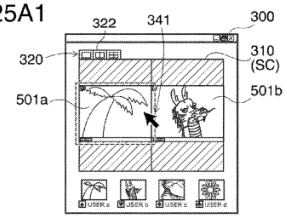


FIG. 25B1

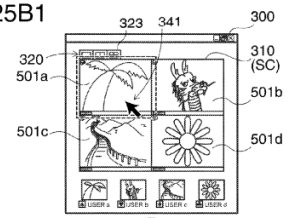


FIG. 25A2

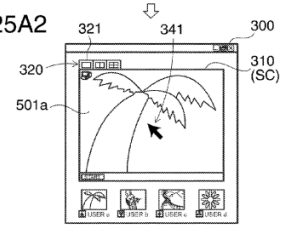
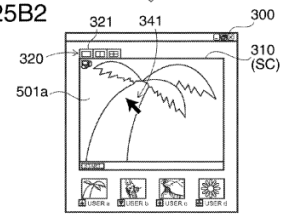


FIG. 25B2



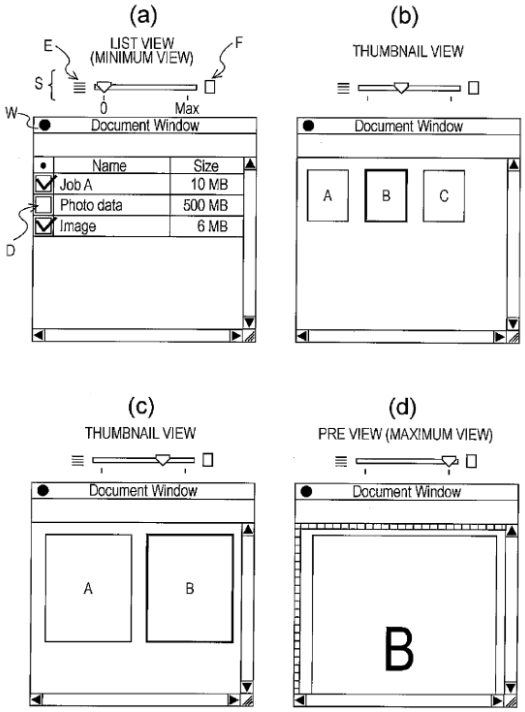
Id. at Fig. 25

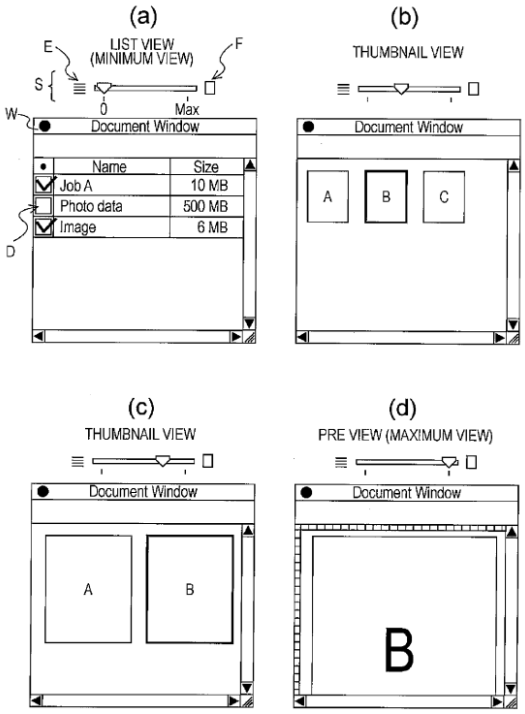
"Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…"

To the extent that Cisco contends that Kikuchi does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa:

Text from US20080235612A1 (Nakagawa)

"Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial

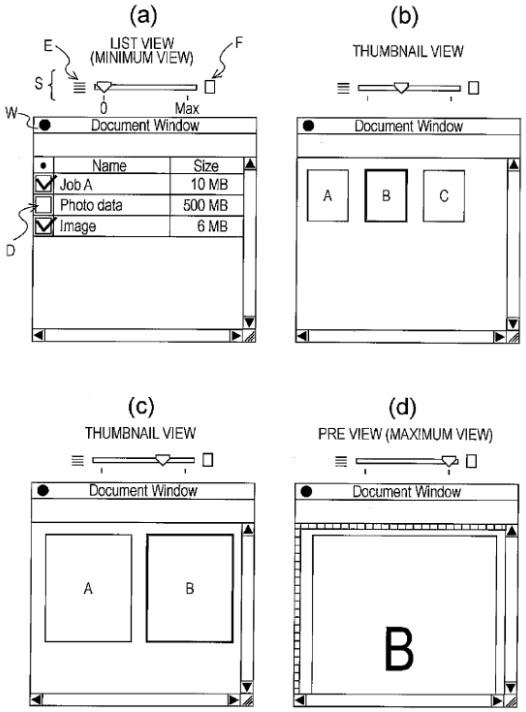
Asserted Claim of the '708 Patent	Exemplary Citations
	view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 17(e)] identify an interval among the intervals	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa:

Asserted Claim of the '708 Patent	Exemplary Citations
within which the position is lying,	*Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3

Asserted Claim of the '708 Patent	Exemplary Citations
	"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043] For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]
[Claim 17(f)] select the layout associated with the interval, and	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 3



Id. at Fig. 3

"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are

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	examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]
[Claim 17(g)] provide the selected layout to the video composing unit.	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)* "In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002]. "Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003]. "The EEPROM **220** stores a control program P**20** for controlling the image display device **200**. The control program P**20** has an image obtaining module M**21**, a display layout control module M**22**, a display image generation module M**23**, a display image output module M**24**, an update information generation module M**25**, and a communication control module M**26**." *Id.* at [Para 0070]. "The image obtaining module M**21** obtains the supply image data supplied from each of the image supply devices **100** *a* through **100** *d*. The display layout control module M**22** changes the settings of the display layout of the supply images on the projection screen SC along the instruction of the user transmitted from

Asserted Claim of the '708 Patent	Exemplary Citations
	each of the image supply devices **100** *a* through **100** *d*. The display image generation module M**23** generates image data (display image data) for projection obtained by arranging the supply image supplied from the respective image supply devices **100** *a* through **100** *d* along the settings of the display layout by the display layout control module M**22**. The display image output module M**24** generates the drawing data based on the display image data, and then stores it in the VRAM **240.** The update information generation module M**25** generates the update information for updating the display content of the operation window in each of the image supply devices **100** *a* through **100** *d*." Id. at [Para 0071]. "As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342 is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS. 18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124] "FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127]

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FIG. 19A1

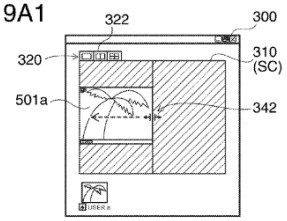


FIG. 19B1

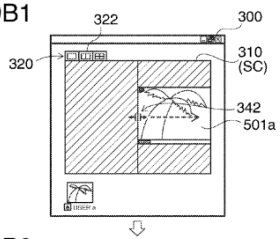


FIG. 19A2

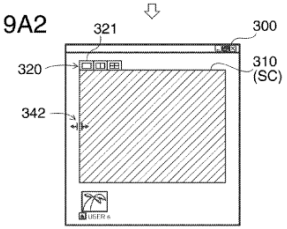
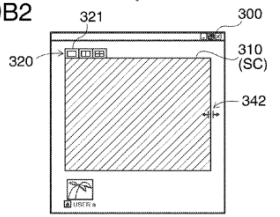


FIG. 19B2



Id. at Fig. 19

FIG. 20A1

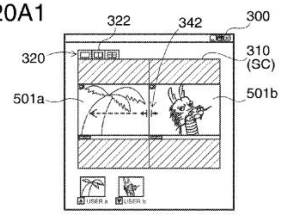


FIG. 20B1

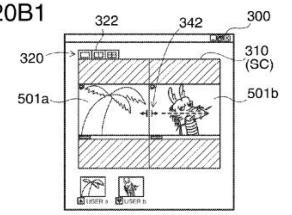


FIG. 20A2

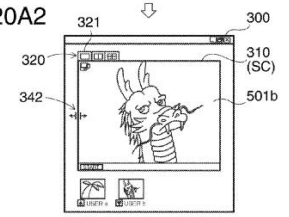
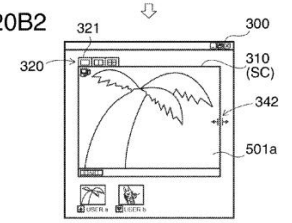
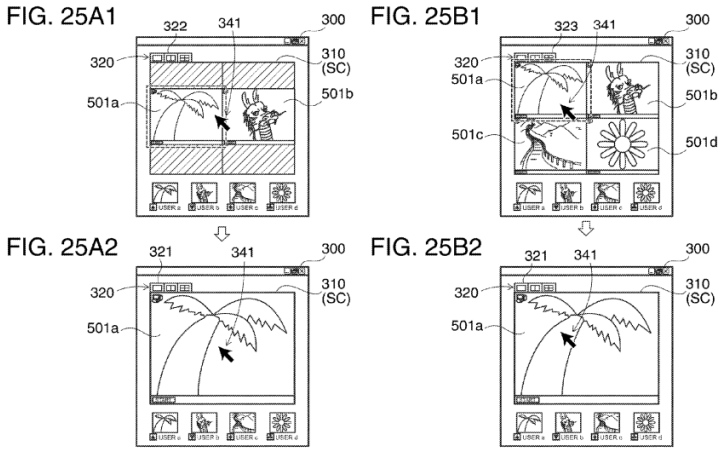


FIG. 20B2



Id. at Fig. 20

"… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward,

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	the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]  *Id.* at Fig. 25 "Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…"
[Claim 18] The apparatus according to claim 17, wherein the composite video signal includes a spatial mix of one of more video conference streams, the layout defines one or more frames for	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)* "In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002]

Asserted Claim of the '708 Patent	Exemplary Citations
containing the video conference streams, and the processing unit is further configured to provide, for at least one of the intervals, a relationship between positions within the at least one of the intervals and a size and position of one or more frames of a respective layout associated with the interval, and calculate, in response to the user action being detected, a layout wherein the size and position of each frame of the layout is based on the relationship and the position.	"Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003] "As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342 is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS. 18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124] "FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 19A1

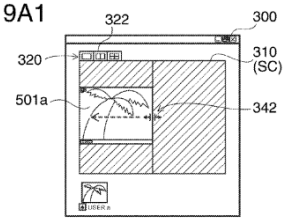


FIG. 19B1

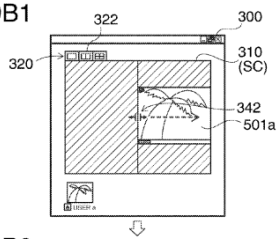


FIG. 19A2

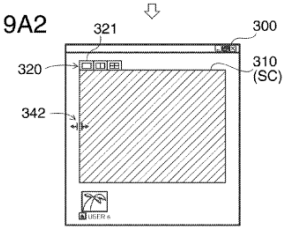
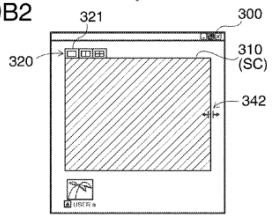


FIG. 19B2



Id. at Fig. 19

FIG. 20A1

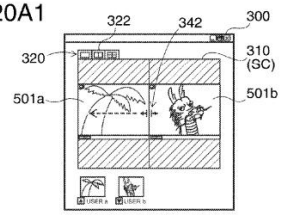


FIG. 20B1

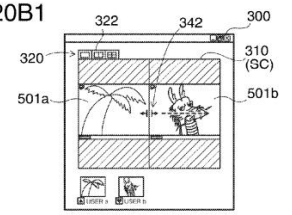


FIG. 20A2

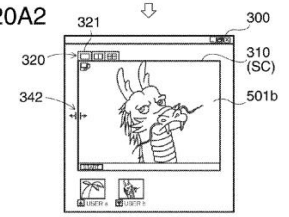
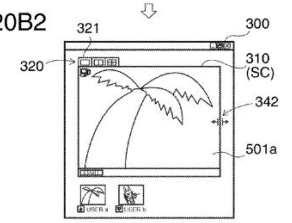
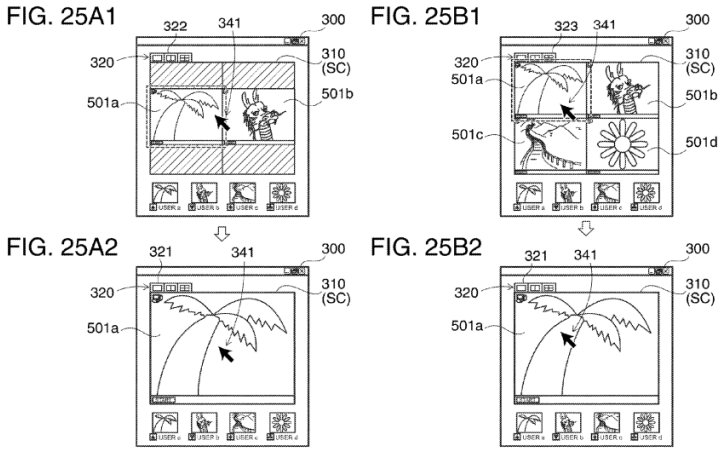


FIG. 20B2

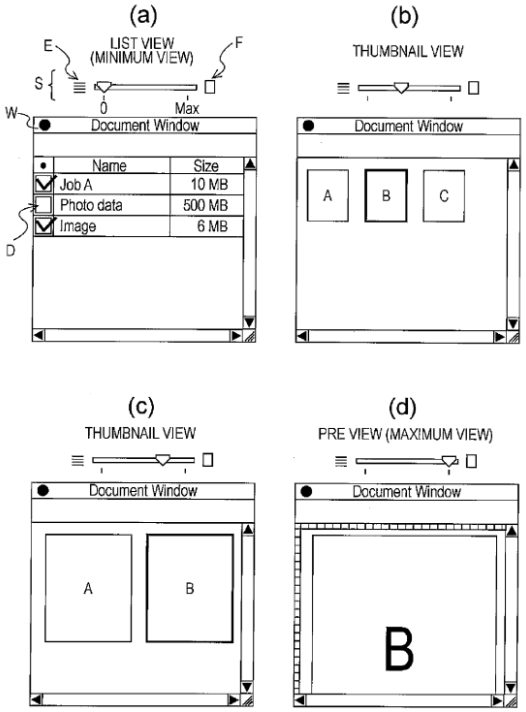


Id. at Fig. 20

"… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward,

Asserted Claim of the '708 Patent	Exemplary Citations
	the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]  *Id.* at Fig. 25 "Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…" To the extent that Cisco contends that Kikuchi does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)* "According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device

Asserted Claim of the '708 Patent	Exemplary Citations
	is performed by the control device. The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 19] The apparatus according to claim 17, wherein the processing unit is further configured to	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)*

Asserted Claim of the '708 Patent	Exemplary Citations
associate M numbers of variations of one of the plurality of predefined layouts with M number of sub-intervals within one or more of the intervals, identify, in response to the user action being detected, a sub-interval among the sub-intervals within which the position is lying, and select a layout, of the plurality of predefined layouts, associated with the sub-interval; and the video composing unit is configured to compose the composite video signal using the selected layout.	"In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002] "Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003] "As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342 is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS. 18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124] "FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 19A1

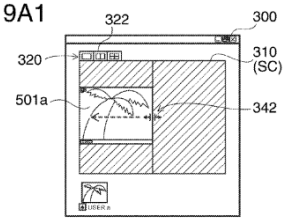


FIG. 19B1

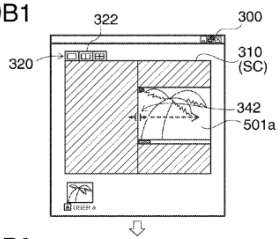


FIG. 19A2

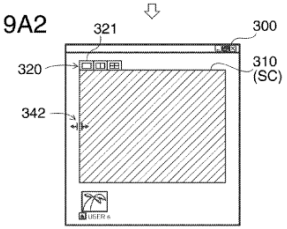
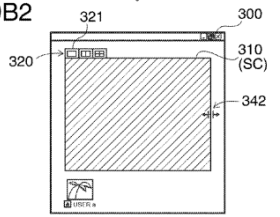


FIG. 19B2



Id. at Fig. 19

FIG. 20A1

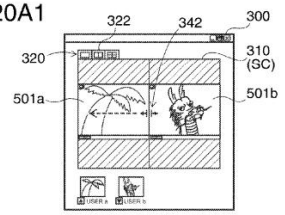


FIG. 20B1

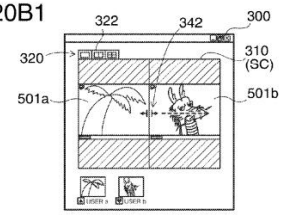


FIG. 20A2

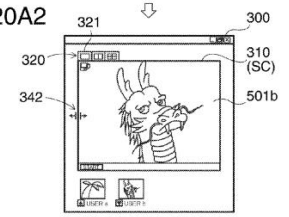
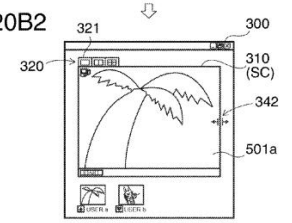
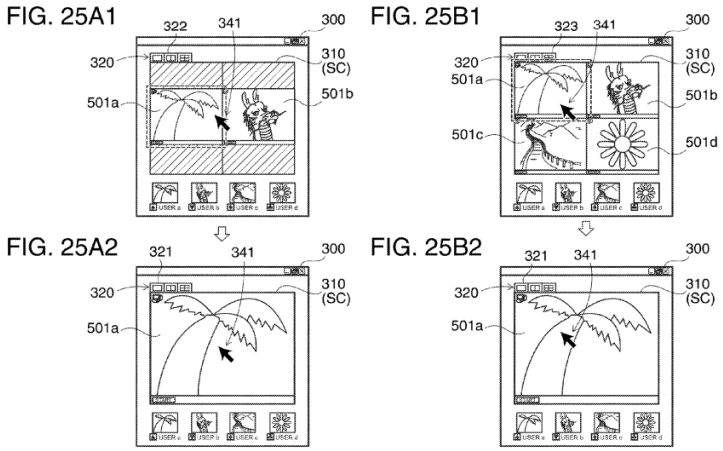


FIG. 20B2



Id. at Fig. 20

"… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward,

Asserted Claim of the '708 Patent	Exemplary Citations
	the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]  *Id.* at Fig. 25 "Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…" To the extent that Cisco contends that Kikuchi does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)* "According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device

Asserted Claim of the '708 Patent	Exemplary Citations
	is performed by the control device. The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

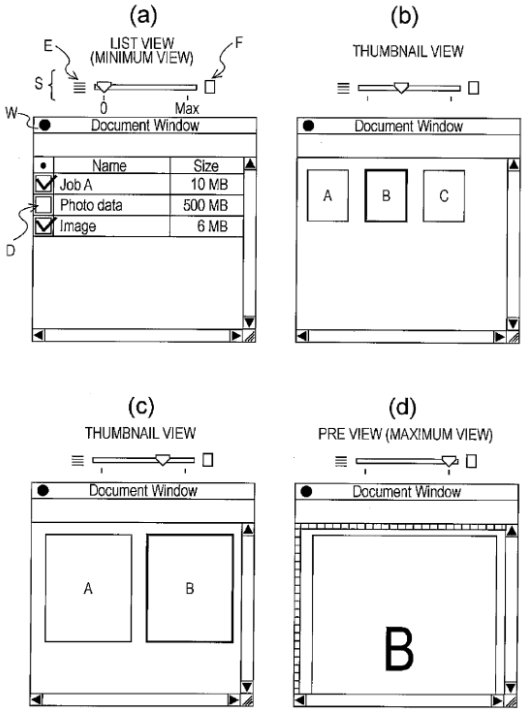
Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043].

Exhibit B-5: Invalidity of U.S. Patent No. 8,941,708 in view of U.S. Patent Pub. No. 2010/0138767 A1 ("Wang") in view of U.S. Patent Pub. No. 5896128 A ("Boyer") in view of U.S. Patent Pub. No. 6950097 B1 ("Hojabri") [1]

This chart is subject to all reservations, objections, and disclaimers in Defendant's Invalidity Contentions and any amendment, supplement, or modification thereof, which are incorporated herein by reference in their entirety.

Wang was originally filed November 28, 2008 and published as a publication on June 03, 2010, and thus is available as prior art to U.S. Patent No. 8,941,708 (the "708 Patent") under at least 35 U.S.C. § 103.

Boyer was originally filed May 03, 1995 and published as a publication on April 20, 1999, and thus is available as prior art to the '708 Patent under at least 35 U.S.C. § 103.

Hojabri was originally filed December 02, 2002 and published as a publication on September 27, 2005, and thus is available as prior art to the '708 Patent under at least 35 U.S.C. § 103.

Wang, Boyer, and Hojabri is also evidence of prior invention in the United States under 35 U.S.C. § 103. The conception of Wang occurred at least as early as November 28, 2008. The conception of Boyer occurred at least as early as May 03, 1995. The conception of Hojabri occurred at least as early as December 02, 2002 respectively. Based on information currently available, the persons or entities involved in the conception and diligent reduction to practice of the ideas in Wang, Boyer and Hojabri include at least the named inventors

[1] Discovery in this case is ongoing and accordingly, this initial invalidity chart is not final. IPM has conducted its invalidity analysis herein based at least in part and in some instances entirely upon Cisco's apparent application of the claims of the '708 Patent. By charting the prior art against the claims and limitations herein, IPM is neither admitting nor agreeing to Cisco's application of the claims at issue in this case, and these charts should not be interpreted as an admission or concession by IPM that any particular construction or application of any claim limitation by Cisco is correct or proper. Additionally, these charts provide representative examples of portions of the charted references that disclose the indicated limitations under Cisco's application of the claims; additional portions of these references other than the representative examples provided herein may also disclose the indicated limitation(s) and IPM contends that the asserted claims are invalid in light of the charted reference(s) as a whole in its or their entirety. Where a particular figure is cited, the citation should be understood to encompass the caption and description of the figure as well as any text relating to or describing the figure. Conversely, where particular text referring to a figure is cited, the citation should be understood to include the figure as well.

and the assignee. Discovery is ongoing and Defendant will update this chart pursuant to Federal Rule of Civil Procedure 26(e), the Local Rules, and the Orders of record in this matter subject to further investigation and discovery regarding the reference, the Court's construction of the claims at issue, and discovery generally, including third-party discovery.

Wang renders obvious the asserted claims of the '708 Patent, either alone or in combination with other prior art (including Boyer and Hojabri) and/or in combination with (1) the general knowledge of one of ordinary skill in the art; (2) the teachings of any of the prior art references set forth in IPM's other invalidity claim charts with respect to the limitation-at-issue; and/or (3) the teachings of any of the prior art references set forth in the cover pleading of IPM's invalidity contentions with respect to the key concepts applicable for the limitation-at-issue.

To the extent that the following invalidity contentions reflect constructions of claim limitations consistent with or suggested by Cisco's Infringement Contentions, no inference is intended, nor should any be drawn that IPM agrees with Cisco's apparent claim constructions or infringement contentions. IPM offers such invalidity contentions solely in the alternative to any position it may ultimately take as to any claim construction issues. IPM denies that the accused products infringe the asserted claim and expressly reserves the right to contest Cisco's apparent claim constructions and infringement contentions.

Asserted Claim of the '708 Patent	Exemplary Citations
[Claim 1(a)] A method comprising: providing, on a display, an object configured to be moved by a user along an axis extending across video for a plurality of video conference streams;	Wang either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100138767A1 (Wang)* "While this windowing user interface environment is effective and commonly understood, there may be situations where a user wishes to arrange content in a different manner on a screen." *Id.* at [Para 0002] "This disclosure describes a user interface and techniques for presenting subject matter on a screen. Generally, the user interface allows different subject matter (e.g., data, content, programs, browsers, etc.) to be displayed concurrently on a screen in predefined and resizable areas, or panels. A user can navigate around the panels and intuitively resize them via a single actuation event, such as a single mouse click or a touch screen tap from a stylus or finger. The panels are separated by one or more demarcation bars. For instance, a single bar may be used to separate two panels, two bars may define four panels, three bars may define six panels, and so on. The bars are movable in response to a single actuation event (although, if desired, the UI may be configured to execute on multiple sequential actuation events). In one implementation, a bar navigation element is overlaid on the user interface to provide a visual cue that aids the user when repositioning the bars. In response to a single actuation of the bar navigation element, the bars are moved to new positions, thereby resizing the panels. After resizing, the panels remain in their original orientation and relative positioning. Additionally, all of the panels remain visible so that the user can easily track their location. The multi-panel user interface fosters an intuitive and viewer friendly environment for concurrent viewing of multiple programs and other items." *Id.* at [Para 0015]

Asserted Claim of the '708 Patent	Exemplary Citations

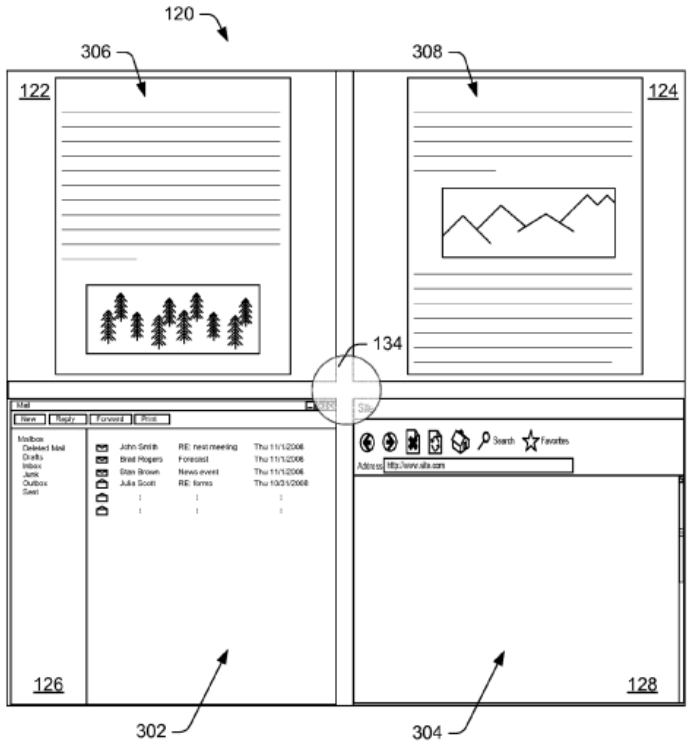


Fig. 3

Id. at Figure 03

"FIG. 3 shows an example where different subject matter is placed in the four panels of the UI 120. Here, an email program 302 is placed in the lower left panel 126. A browser 304 is put in the lower right panel 128. Two documents 306 and 308 are placed in the upper left panel 122 and upper right panel 124, respectively. The various forms of subject matter are presented in a viewer friendly layout, with non-overlapping panels that allow the user to see all the subject matter concurrently or focus on particular

Asserted Claim of the '708 Patent	Exemplary Citations
	panels more specifically. The user can drag-n-drop subject matter to and from the panel. In this way, the user can easily move subject matter around without having to open and track numerous independent pane interfaces. It is noted that while two programs and two documents are shown in this example, any number of combinations of any type of subject matter may be used." *Id.* at [Para 0027] "The UI 120 further includes a bar navigation element 134 that facilitates or initiates movement of the bars. The bar navigation element 134 provides visual cues to aid the user in navigating the bars among various preset positions. In the illustrated arrangement, the bar navigation element 134 is independent of the demarcation bars 130 and 132, but overlaid at the intersection of the two demarcation bars 130 and 132. Further, the bar navigation element 134 may be slightly transparent to expose the intersection of the two bars." *Id.* at [Para 0029] When a pointer 212 is moved atop different zones of the bar navigation element 134, a corresponding visual cue appears to inform the user of a corresponding navigation operation. If the user actuates the element 134 (e.g., single mouse click, stylus or finger tap, etc.), the bars are concurrently moved to one of the preset positions that corresponds to the visual cue. In this manner, the user can move the bars among the preset positions in response to a single actuation of the bar navigation element 134. Accordingly, the multi-panel UI 120 provides an intuitive navigation control that is easy to use with minimal control tasks. *Id.* at [Para 0030]

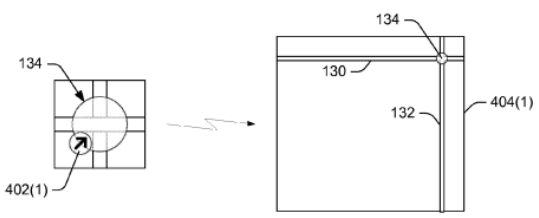


Fig. 4(a)

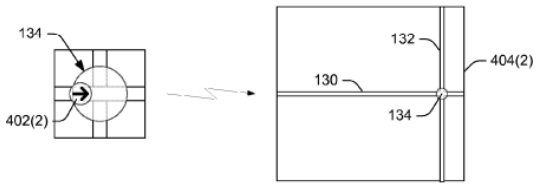


Fig. 4(b)

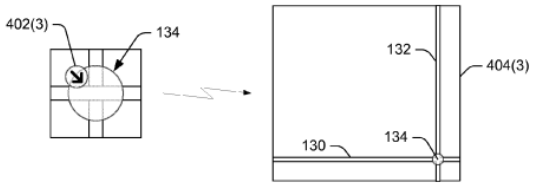


Fig. 4(c)

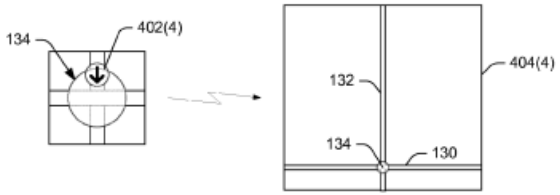


Fig. 4(d)

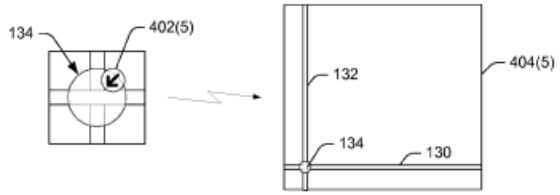


Fig. 4(e)

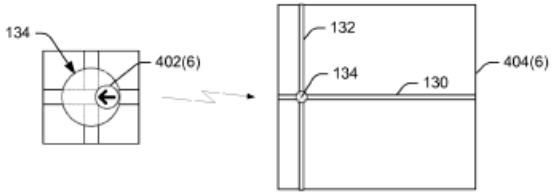
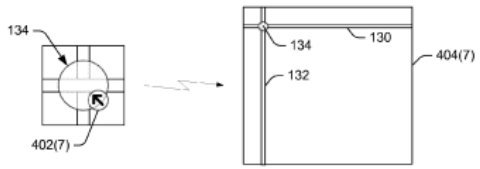
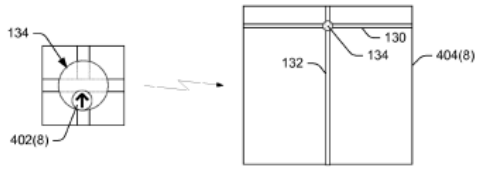
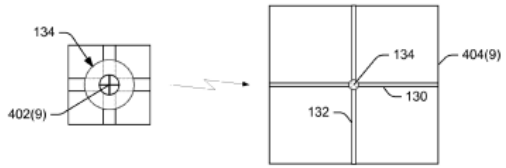
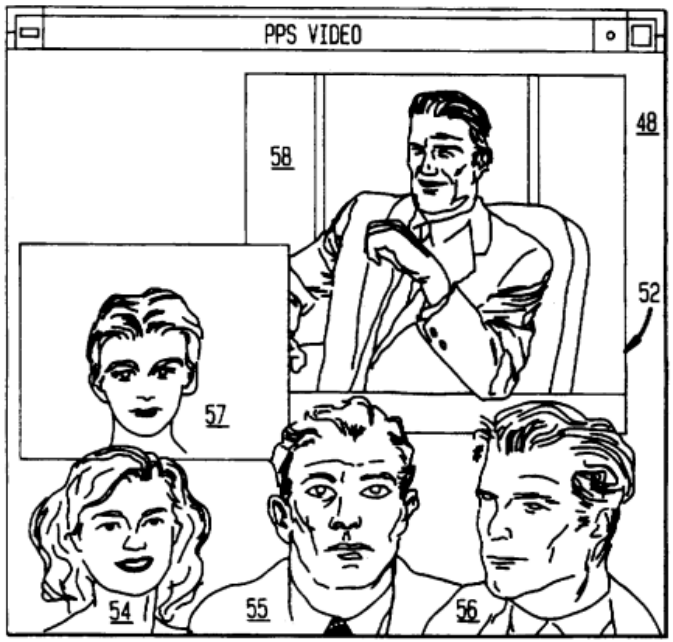
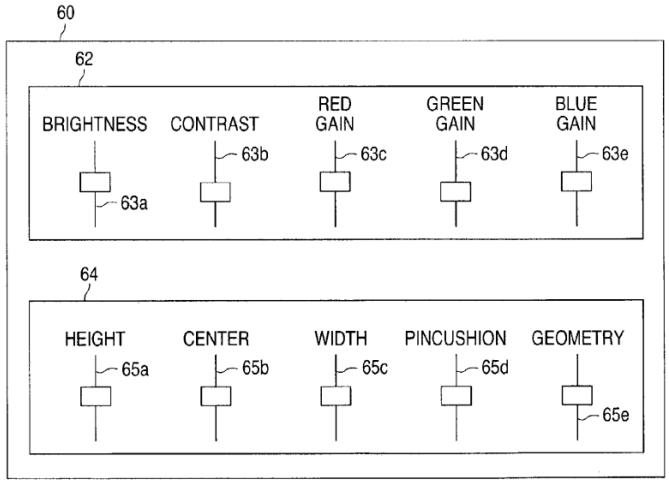


Fig. 4(f)

Asserted Claim of the '708 Patent	Exemplary Citations
	 Fig. 4(g)  Fig. 4(h)  Fig. 4(i) "FIGS. 4(a)-4(i) show an example set of navigation commands for navigating the two demarcation bars 130 and 132 to nine preset positions corresponding to nine visual cues provided by the bar navigation element 134. In the FIGS. 4(a)-4(i), a visual cue 402 is shown in different zones of the bar navigation element 134. The visual cue 402 appears, for example, when the user moves a pointer over a particular zone of the element 134. As shown, the visual cue 402 is a graphic with an arrow or pointer within a circle or bubble shaped element, although other representations may be used. The position of the visual cue 402 and direction of its interior arrow are intended to convey how the demarcation bars will be moved upon actuation of the navigation element 134. Moreover, single actuation of the element 134 when the visual cue 402 is visible causes the bars to reposition to a preset position indicated by the visual cue." *Id.* at [Para 0031]

Asserted Claim of the '708 Patent	Exemplary Citations
	"In FIG. 4(a), a first position of the visual cue, referenced as 402(1), is shown in a lower left portion (or southwest zone) of the bar navigation element 134. Upon single actuation of the element 134 when this visual cue is visible, the horizontal demarcation bar 130 is moved to an upper position and the vertical demarcation bar 132 is moved to a rightmost position, as shown in a representation 404(1) of the multi-panel UI. Movement of the bars may take place instantaneously, or via a slower animated sliding, depending upon implementation decisions. By moving the bars together, all four panels are simultaneously resized. The lower left panel is enlarged while the remaining three panels are reduced in size. Notice, however, that all four panels retain their original orientation and relative positioning. Further, all four panels remain visible so that the user can easily track their location. The bar navigation element 134 is also moved to overlay the intersection of the two bars 130 and 132 in the upper right hand corner of the UI." *Id.* at [Para 0032] To the extent that Cisco contends that Wang does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Boyer: *Text from US5896128A (Boyer)* "Each participant in a multimedia conference using the present invention may arrange the various video images into a display in a way that is pleasing to them, and rearrange them at any time during the session." *Id.* at [Column 02, Line 50] "To arrange their display, the conference participants can move and scale the video images and overlap them in a prioritized manner similar to a windowed workstation display. A user can select any of the images that appear on their video display for an operation on that image. The user's pointing device (e.g., mouse) can be used to move or resize an image, in an analogous way to the "click and drag" operations supported by PC Window environments. The present invention brings this unprecedented capability to the video work space. Additionally, various elements of each image, such as a person or a chart, can be "keyed" in or out of the image so that the elements desired can be assembled in a more natural manner, unrestricted by rectangular boundaries." *Id.* at [Column 02, Line 54]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 4  *Id.* at [Figure 04] *Text from US6950097B1 (Hojabri)* "Referring to FIG. 5, one example of an advantage provided by the present invention is the ability to control various characteristics of the video signal and image display remotely from the computer 102 (FIG. 4) as opposed to locally via some form of control panel or switches on the housing of the display unit itself (not shown). Within the main video image window 60, video control windows 62, 64 can be introduced in which various "slider" controls 63, 65 are displayed for controlling the various video signal or image display characteristics as discussed above (e.g., by pointing and clicking with a computer

Asserted Claim of the '708 Patent	Exemplary Citations
	pointing device, or "mouse"). For example, in the first window 62, controls 63 a, 63 b can be exercised for controlling the brightness and contrast of the image, while in a second window 64, controls 65 a, 65 c can be exercised to control the height and width of the displayed image." *Id.* at [Column 05, Line 19]  **FIG. 5** *Id.* at Figure 05
[Claim 1(b)] associating a plurality of predefined layouts for plurality of video conference streams with respective intervals along the axis;	Wang either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100138767A1 (Wang)* "While this windowing user interface environment is effective and commonly understood, there may be situations where a user wishes to arrange content in a different manner on a screen." *Id.* at [Para 0002] "This disclosure describes a user interface and techniques for presenting subject matter on a screen. Generally, the user interface allows different subject matter (e.g., data, content, programs, browsers, etc.) to be displayed concurrently on a screen in predefined and resizable areas, or panels. A user can navigate around the panels and intuitively resize them via a single actuation event, such as a single mouse click or a touch screen tap from a stylus or finger. The panels are separated by one or more demarcation bars. For

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	instance, a single bar may be used to separate two panels, two bars may define four panels, three bars may define six panels, and so on. The bars are movable in response to a single actuation event (although, if desired, the UI may be configured to execute on multiple sequential actuation events). In one implementation, a bar navigation element is overlaid on the user interface to provide a visual cue that aids the user when repositioning the bars. In response to a single actuation of the bar navigation element, the bars are moved to new positions, thereby resizing the panels. After resizing, the panels remain in their original orientation and relative positioning. Additionally, all of the panels remain visible so that the user can easily track their location. The multi-panel user interface fosters an intuitive and viewer friendly environment for concurrent viewing of multiple programs and other items." *Id.* at [Para 0015]

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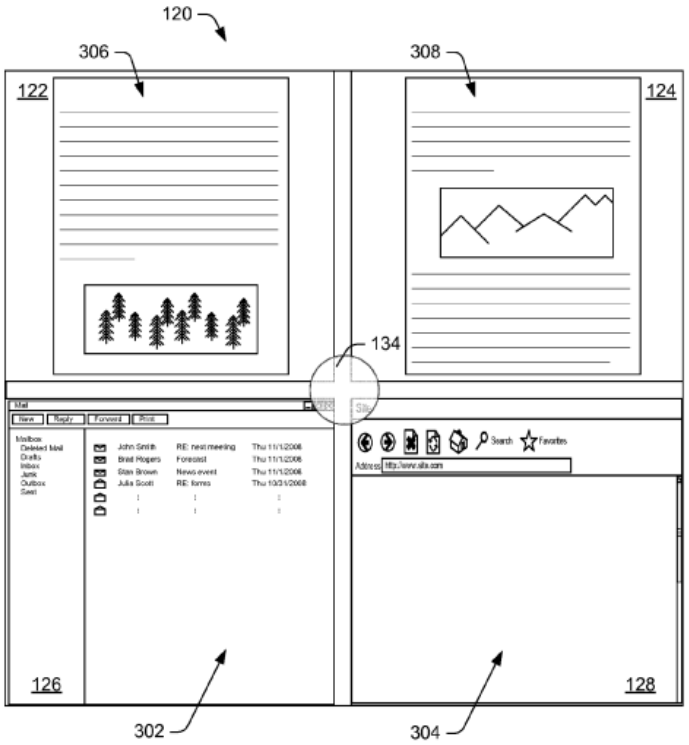


Fig. 3

Id. at Figure 03

"FIG. 3 shows an example where different subject matter is placed in the four panels of the UI 120. Here, an email program 302 is placed in the lower left panel 126. A browser 304 is put in the lower right panel 128. Two documents 306 and 308 are placed in the upper left panel 122 and upper right panel 124, respectively. The various forms of subject matter are presented in a viewer friendly layout, with non-overlapping panels that allow the user to see all the subject matter concurrently or focus on particular

Asserted Claim of the '708 Patent	Exemplary Citations
	panels more specifically. The user can drag-n-drop subject matter to and from the panel. In this way, the user can easily move subject matter around without having to open and track numerous independent pane interfaces. It is noted that while two programs and two documents are shown in this example, any number of combinations of any type of subject matter may be used." *Id.* at [Para 0027] "The UI 120 further includes a bar navigation element 134 that facilitates or initiates movement of the bars. The bar navigation element 134 provides visual cues to aid the user in navigating the bars among various preset positions. In the illustrated arrangement, the bar navigation element 134 is independent of the demarcation bars 130 and 132, but overlaid at the intersection of the two demarcation bars 130 and 132. Further, the bar navigation element 134 may be slightly transparent to expose the intersection of the two bars." *Id.* at [Para 0029] When a pointer 212 is moved atop different zones of the bar navigation element 134, a corresponding visual cue appears to inform the user of a corresponding navigation operation. If the user actuates the element 134 (e.g., single mouse click, stylus or finger tap, etc.), the bars are concurrently moved to one of the preset positions that corresponds to the visual cue. In this manner, the user can move the bars among the preset positions in response to a single actuation of the bar navigation element 134. Accordingly, the multi-panel UI 120 provides an intuitive navigation control that is easy to use with minimal control tasks. *Id.* at [Para 0030]

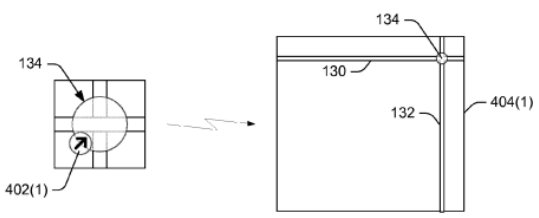


Fig. 4(a)

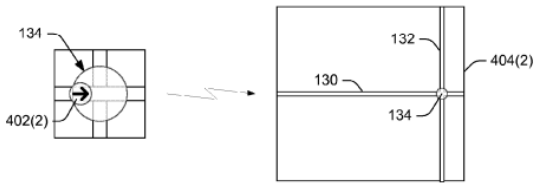


Fig. 4(b)

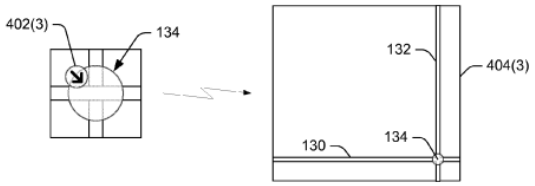


Fig. 4(c)

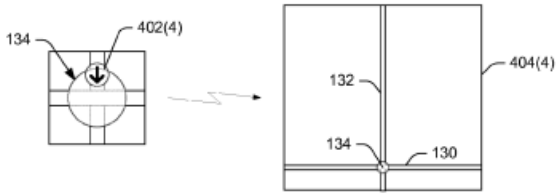


Fig. 4(d)

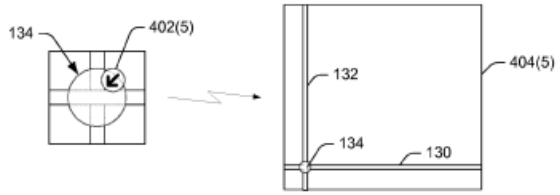


Fig. 4(e)

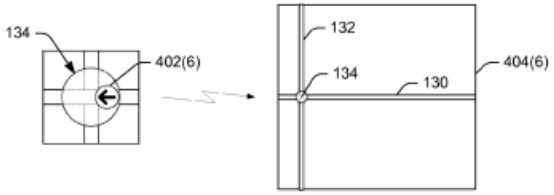
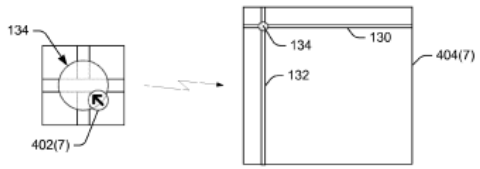
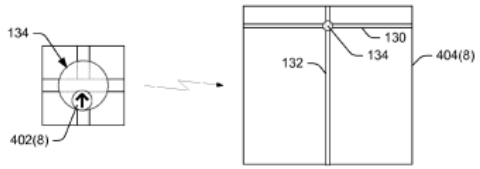
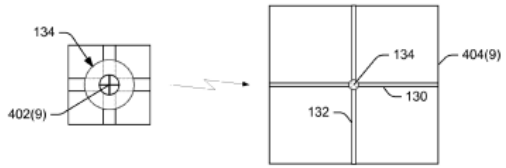
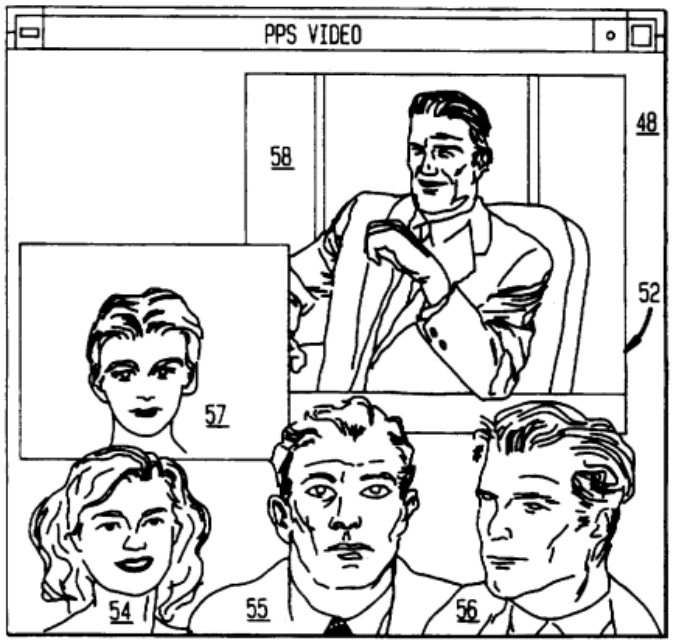
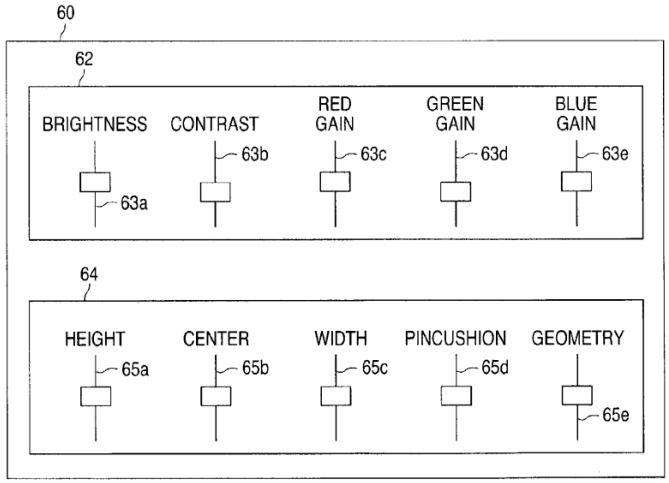


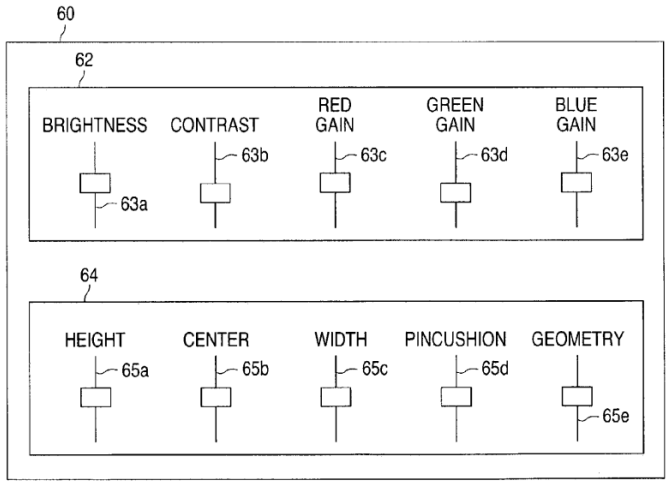
Fig. 4(f)

Asserted Claim of the '708 Patent	Exemplary Citations
	 Fig. 4(g)  Fig. 4(h)  Fig. 4(i) "FIGS. 4(a)-4(i) show an example set of navigation commands for navigating the two demarcation bars 130 and 132 to nine preset positions corresponding to nine visual cues provided by the bar navigation element 134. In the FIGS. 4(a)-4(i), a visual cue 402 is shown in different zones of the bar navigation element 134. The visual cue 402 appears, for example, when the user moves a pointer over a particular zone of the element 134. As shown, the visual cue 402 is a graphic with an arrow or pointer within a circle or bubble shaped element, although other representations may be used. The position of the visual cue 402 and direction of its interior arrow are intended to convey how the demarcation bars will be moved upon actuation of the navigation element 134. Moreover, single actuation of the element 134 when the visual cue 402 is visible causes the bars to reposition to a preset position indicated by the visual cue." *Id.* at [Para 0031]

Asserted Claim of the '708 Patent	Exemplary Citations
	"In FIG. 4(a), a first position of the visual cue, referenced as 402(1), is shown in a lower left portion (or southwest zone) of the bar navigation element 134. Upon single actuation of the element 134 when this visual cue is visible, the horizontal demarcation bar 130 is moved to an upper position and the vertical demarcation bar 132 is moved to a rightmost position, as shown in a representation 404(1) of the multi-panel UI. Movement of the bars may take place instantaneously, or via a slower animated sliding, depending upon implementation decisions. By moving the bars together, all four panels are simultaneously resized. The lower left panel is enlarged while the remaining three panels are reduced in size. Notice, however, that all four panels retain their original orientation and relative positioning. Further, all four panels remain visible so that the user can easily track their location. The bar navigation element 134 is also moved to overlay the intersection of the two bars 130 and 132 in the upper right hand corner of the UI." *Id.* at [Para 0032] To the extent that Cisco contends that Wang does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Boyer and Hojabri: *Text from US5896128A (Boyer)* "Each participant in a multimedia conference using the present invention may arrange the various video images into a display in a way that is pleasing to them, and rearrange them at any time during the session." *Id.* at [Column 02, Line 50] "To arrange their display, the conference participants can move and scale the video images and overlap them in a prioritized manner similar to a windowed workstation display. A user can select any of the images that appear on their video display for an operation on that image. The user's pointing device (e.g., mouse) can be used to move or resize an image, in an analogous way to the "click and drag" operations supported by PC Window environments. The present invention brings this unprecedented capability to the video work space. Additionally, various elements of each image, such as a person or a chart, can be "keyed" in or out of the image so that the elements desired can be assembled in a more natural manner, unrestricted by rectangular boundaries." *Id.* at [Column 02, Line 54]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 4  *Id.* at [Figure 04] *Text from US6950097B1 (Hojabri)* "Referring to FIG. 5, one example of an advantage provided by the present invention is the ability to control various characteristics of the video signal and image display remotely from the computer 102 (FIG. 4) as opposed to locally via some form of control panel or switches on the housing of the display unit itself (not shown). Within the main video image window 60, video control windows 62, 64 can be introduced in which various "slider" controls 63, 65 are displayed for controlling the various video signal or image display characteristics as discussed above (e.g., by pointing and clicking with a computer

Asserted Claim of the '708 Patent	Exemplary Citations
	pointing device, or "mouse"). For example, in the first window 62, controls 63 a, 63 b can be exercised for controlling the brightness and contrast of the image, while in a second window 64, controls 65 a, 65 c can be exercised to control the height and width of the displayed image." *Id.* at [Column 05, Line 19]  **FIG. 5** *Id.* at Figure 05
[Claim 1(c)] detecting a user action on the object indicating a position on the axis; and	It would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Hojabri: *Text from US6950097B1 (Hojabri)* "Referring to FIG. 5, one example of an advantage provided by the present invention is the ability to control various characteristics of the video signal and image display remotely from the computer 102 (FIG. 4) as opposed to locally via some form of control panel or switches on the housing of the display unit itself (not shown). Within the main video image window 60, video control windows 62, 64 can be introduced in which various "slider" controls 63, 65 are displayed for controlling the various video signal

Asserted Claim of the '708 Patent	Exemplary Citations
	or image display characteristics as discussed above (e.g., by pointing and clicking with a computer pointing device, or "mouse"). For example, in the first window 62, controls 63 a, 63 b can be exercised for controlling the brightness and contrast of the image, while in a second window 64, controls 65 a, 65 c can be exercised to control the height and width of the displayed image." *Id.* at [Column 05, Line 19]  **FIG. 5** *Id.* at Figure 05
[Claim 1(d)] composing, in response to the detecting of the user action, a composite video signal using a layout, of the plurality of predefined layouts, associated with an interval among the intervals within which the position is lying.	Wang either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100138767A1 (Wang)* "While this windowing user interface environment is effective and commonly understood, there may be situations where a user wishes to arrange content in a different manner on a screen." *Id.* at [Para 0002] "This disclosure describes a user interface and techniques for presenting subject matter on a screen. Generally, the user interface allows different subject matter (e.g., data, content, programs, browsers, etc.) to be displayed concurrently on a screen in predefined and resizable areas, or panels. A user can navigate

Asserted Claim of the '708 Patent	Exemplary Citations
	around the panels and intuitively resize them via a single actuation event, such as a single mouse click or a touch screen tap from a stylus or finger. The panels are separated by one or more demarcation bars. For instance, a single bar may be used to separate two panels, two bars may define four panels, three bars may define six panels, and so on. The bars are movable in response to a single actuation event (although, if desired, the UI may be configured to execute on multiple sequential actuation events). In one implementation, a bar navigation element is overlaid on the user interface to provide a visual cue that aids the user when repositioning the bars. In response to a single actuation of the bar navigation element, the bars are moved to new positions, thereby resizing the panels. After resizing, the panels remain in their original orientation and relative positioning. Additionally, all of the panels remain visible so that the user can easily track their location. The multi-panel user interface fosters an intuitive and viewer friendly environment for concurrent viewing of multiple programs and other items." *Id.* at [Para 0015]

Asserted Claim of the '708 Patent	Exemplary Citations

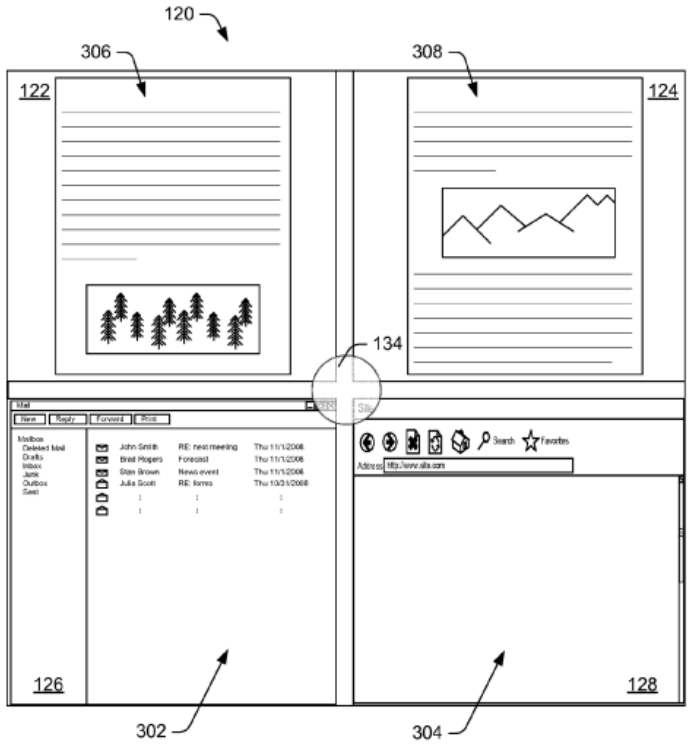


Fig. 3

Id. at Figure 03

"FIG. 3 shows an example where different subject matter is placed in the four panels of the UI 120. Here, an email program 302 is placed in the lower left panel 126. A browser 304 is put in the lower right panel 128. Two documents 306 and 308 are placed in the upper left panel 122 and upper right panel 124, respectively. The various forms of subject matter are presented in a viewer friendly layout, with non-overlapping panels that allow the user to see all the subject matter concurrently or focus on particular

Asserted Claim of the '708 Patent	Exemplary Citations
	panels more specifically. The user can drag-n-drop subject matter to and from the panel. In this way, the user can easily move subject matter around without having to open and track numerous independent pane interfaces. It is noted that while two programs and two documents are shown in this example, any number of combinations of any type of subject matter may be used." *Id.* at [Para 0027] "The UI 120 further includes a bar navigation element 134 that facilitates or initiates movement of the bars. The bar navigation element 134 provides visual cues to aid the user in navigating the bars among various preset positions. In the illustrated arrangement, the bar navigation element 134 is independent of the demarcation bars 130 and 132, but overlaid at the intersection of the two demarcation bars 130 and 132. Further, the bar navigation element 134 may be slightly transparent to expose the intersection of the two bars." *Id.* at [Para 0029] When a pointer 212 is moved atop different zones of the bar navigation element 134, a corresponding visual cue appears to inform the user of a corresponding navigation operation. If the user actuates the element 134 (e.g., single mouse click, stylus or finger tap, etc.), the bars are concurrently moved to one of the preset positions that corresponds to the visual cue. In this manner, the user can move the bars among the preset positions in response to a single actuation of the bar navigation element 134. Accordingly, the multi-panel UI 120 provides an intuitive navigation control that is easy to use with minimal control tasks. *Id.* at [Para 0030]

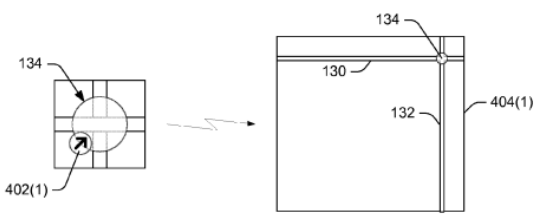


Fig. 4(a)

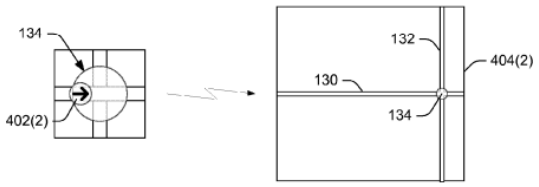


Fig. 4(b)

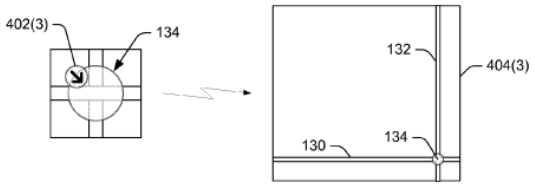


Fig. 4(c)

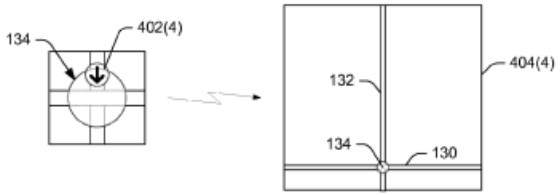


Fig. 4(d)

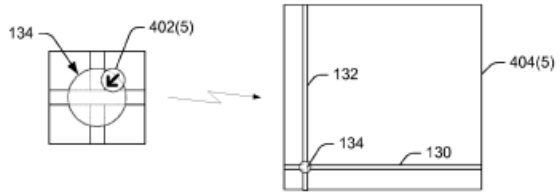


Fig. 4(e)

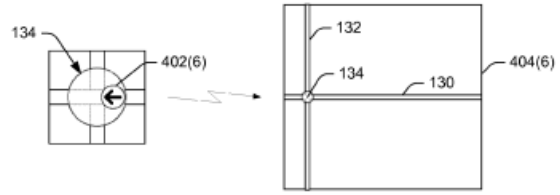
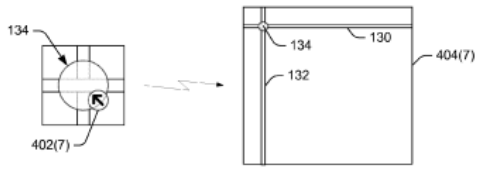
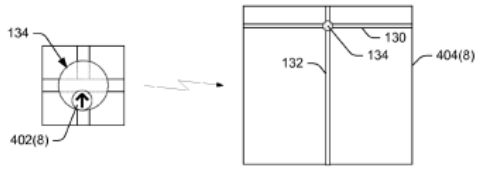
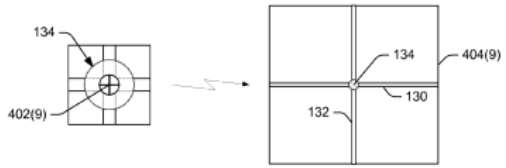
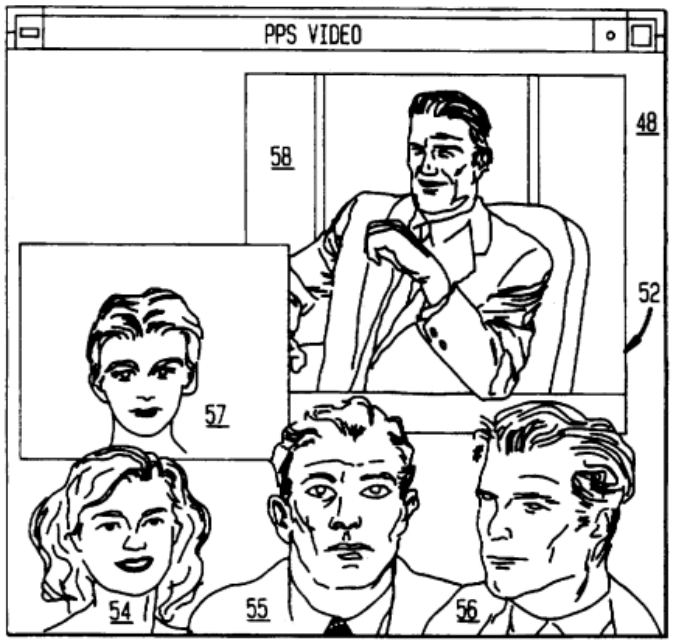
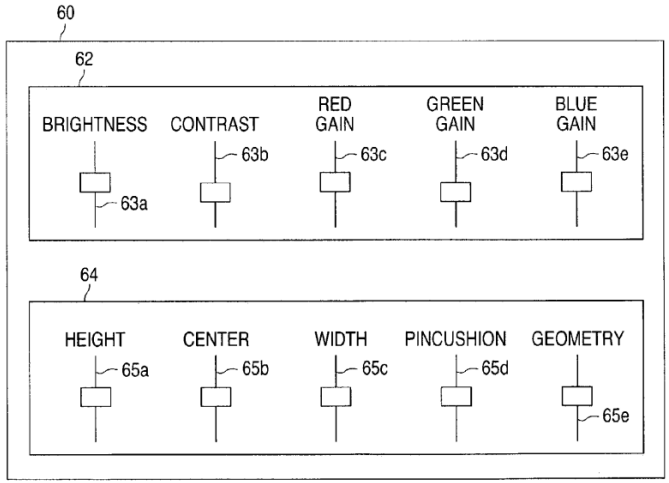


Fig. 4(f)

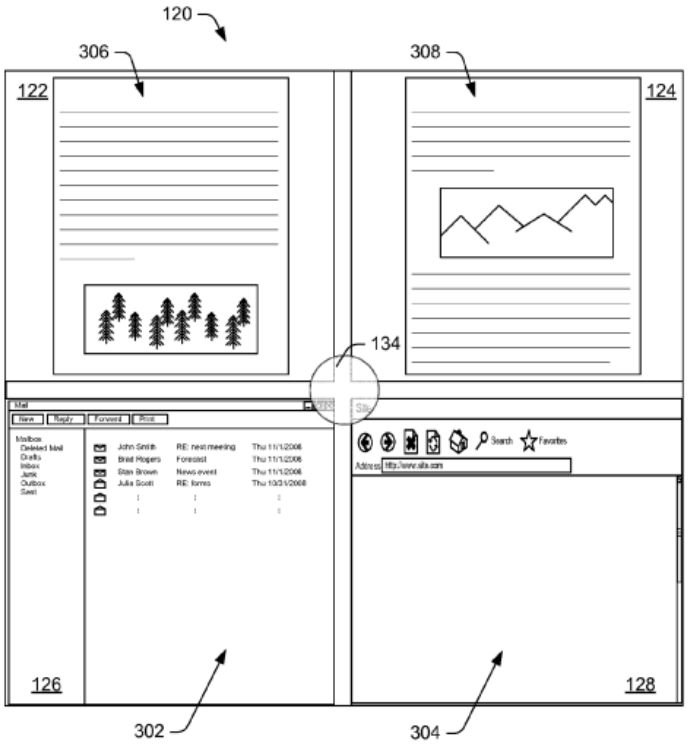
Asserted Claim of the '708 Patent	Exemplary Citations
	 Fig. 4(g)  Fig. 4(h)  Fig. 4(i) "FIGS. 4(a)-4(i) show an example set of navigation commands for navigating the two demarcation bars 130 and 132 to nine preset positions corresponding to nine visual cues provided by the bar navigation element 134. In the FIGS. 4(a)-4(i), a visual cue 402 is shown in different zones of the bar navigation element 134. The visual cue 402 appears, for example, when the user moves a pointer over a particular zone of the element 134. As shown, the visual cue 402 is a graphic with an arrow or pointer within a circle or bubble shaped element, although other representations may be used. The position of the visual cue 402 and direction of its interior arrow are intended to convey how the demarcation bars will be moved upon actuation of the navigation element 134. Moreover, single actuation of the element 134 when the visual cue 402 is visible causes the bars to reposition to a preset position indicated by the visual cue." *Id.* at [Para 0031]

Asserted Claim of the '708 Patent	Exemplary Citations
	"In FIG. 4(a), a first position of the visual cue, referenced as 402(1), is shown in a lower left portion (or southwest zone) of the bar navigation element 134. Upon single actuation of the element 134 when this visual cue is visible, the horizontal demarcation bar 130 is moved to an upper position and the vertical demarcation bar 132 is moved to a rightmost position, as shown in a representation 404(1) of the multi-panel UI. Movement of the bars may take place instantaneously, or via a slower animated sliding, depending upon implementation decisions. By moving the bars together, all four panels are simultaneously resized. The lower left panel is enlarged while the remaining three panels are reduced in size. Notice, however, that all four panels retain their original orientation and relative positioning. Further, all four panels remain visible so that the user can easily track their location. The bar navigation element 134 is also moved to overlay the intersection of the two bars 130 and 132 in the upper right hand corner of the UI." *Id.* at [Para 0032] To the extent that Cisco contends that Wang does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Boyer and Hojabri: *Text from US5896128A (Boyer)* "Each participant in a multimedia conference using the present invention may arrange the various video images into a display in a way that is pleasing to them, and rearrange them at any time during the session." *Id.* at [Column 02, Line 50] "To arrange their display, the conference participants can move and scale the video images and overlap them in a prioritized manner similar to a windowed workstation display. A user can select any of the images that appear on their video display for an operation on that image. The user's pointing device (e.g., mouse) can be used to move or resize an image, in an analogous way to the "click and drag" operations supported by PC Window environments. The present invention brings this unprecedented capability to the video work space. Additionally, various elements of each image, such as a person or a chart, can be "keyed" in or out of the image so that the elements desired can be assembled in a more natural manner, unrestricted by rectangular boundaries." *Id.* at [Column 02, Line 54]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 4  *Id.* at [Figure 04] "A video composing unit (VCU) 74 receives the normalized input video signals from the cameras and combines the signals. Also input to the VCU 74 are control signals provided by a control unit 76 which processes the user control signals C1, C2 . . . CN, to control the contents and presentation of the output of the VCU 74. Operation of the VCU 74 and the control unit 76 is described in more detail hereinafter. The output of the VCU 74 is a plurality of normalized video signals, each of which contains a video image similar to the one shown in the pop-up window 52 of FIG. 4." *Id.* at [Column 05, Line 62]

Asserted Claim of the '708 Patent	Exemplary Citations
	Text from US6950097B1 (Hojabri) "Referring to FIG. 5, one example of an advantage provided by the present invention is the ability to control various characteristics of the video signal and image display remotely from the computer 102 (FIG. 4) as opposed to locally via some form of control panel or switches on the housing of the display unit itself (not shown). Within the main video image window 60, video control windows 62, 64 can be introduced in which various "slider" controls 63, 65 are displayed for controlling the various video signal or image display characteristics as discussed above (e.g., by pointing and clicking with a computer pointing device, or "mouse"). For example, in the first window 62, controls 63 a, 63 b can be exercised for controlling the brightness and contrast of the image, while in a second window 64, controls 65 a, 65 c can be exercised to control the height and width of the displayed image." *Id.* at [Column 05, Line 19]  **FIG. 5** *Id.* at Figure 05
[Claim 2] The method according to claim 1, wherein	Wang either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate:

Asserted Claim of the '708 Patent	Exemplary Citations
the composite video signal includes a spatial mix of the plurality of video conference streams, and the layout defines one or more frames for containing the plurality of video conference streams, the method further comprising: providing, for at least one of the intervals, a relationship between positions within the at least one of the intervals and a size and position of one or more frames of a respective layout associated with the interval, and calculating, in response to the detecting of the user action, a layout wherein the size and position of each frame of the layout is based on the relationship and the position.	*Text from US20100138767A1 (Wang)* "While this windowing user interface environment is effective and commonly understood, there may be situations where a user wishes to arrange content in a different manner on a screen." *Id.* at [Para 0002] "This disclosure describes a user interface and techniques for presenting subject matter on a screen. Generally, the user interface allows different subject matter (e.g., data, content, programs, browsers, etc.) to be displayed concurrently on a screen in predefined and resizable areas, or panels. A user can navigate around the panels and intuitively resize them via a single actuation event, such as a single mouse click or a touch screen tap from a stylus or finger. The panels are separated by one or more demarcation bars. For instance, a single bar may be used to separate two panels, two bars may define four panels, three bars may define six panels, and so on. The bars are movable in response to a single actuation event (although, if desired, the UI may be configured to execute on multiple sequential actuation events). In one implementation, a bar navigation element is overlaid on the user interface to provide a visual cue that aids the user when repositioning the bars. In response to a single actuation of the bar navigation element, the bars are moved to new positions, thereby resizing the panels. After resizing, the panels remain in their original orientation and relative positioning. Additionally, all of the panels remain visible so that the user can easily track their location. The multi-panel user interface fosters an intuitive and viewer friendly environment for concurrent viewing of multiple programs and other items." *Id.* at [Para 0015]

Asserted Claim of the '708 Patent	Exemplary Citations
	 Fig. 3 *Id.* at Figure 03 "FIG. 3 shows an example where different subject matter is placed in the four panels of the UI 120. Here, an email program 302 is placed in the lower left panel 126. A browser 304 is put in the lower right panel 128. Two documents 306 and 308 are placed in the upper left panel 122 and upper right panel 124, respectively. The various forms of subject matter are presented in a viewer friendly layout, with non-overlapping panels that allow the user to see all the subject matter concurrently or focus on particular

Asserted Claim of the '708 Patent	Exemplary Citations
	panels more specifically. The user can drag-n-drop subject matter to and from the panel. In this way, the user can easily move subject matter around without having to open and track numerous independent pane interfaces. It is noted that while two programs and two documents are shown in this example, any number of combinations of any type of subject matter may be used." *Id.* at [Para 0027] "The UI 120 further includes a bar navigation element 134 that facilitates or initiates movement of the bars. The bar navigation element 134 provides visual cues to aid the user in navigating the bars among various preset positions. In the illustrated arrangement, the bar navigation element 134 is independent of the demarcation bars 130 and 132, but overlaid at the intersection of the two demarcation bars 130 and 132. Further, the bar navigation element 134 may be slightly transparent to expose the intersection of the two bars." *Id.* at [Para 0029] When a pointer 212 is moved atop different zones of the bar navigation element 134, a corresponding visual cue appears to inform the user of a corresponding navigation operation. If the user actuates the element 134 (e.g., single mouse click, stylus or finger tap, etc.), the bars are concurrently moved to one of the preset positions that corresponds to the visual cue. In this manner, the user can move the bars among the preset positions in response to a single actuation of the bar navigation element 134. Accordingly, the multi-panel UI 120 provides an intuitive navigation control that is easy to use with minimal control tasks. *Id.* at [Para 0030]

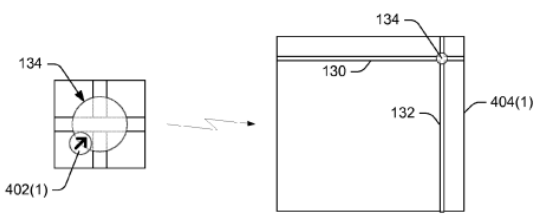


Fig. 4(a)

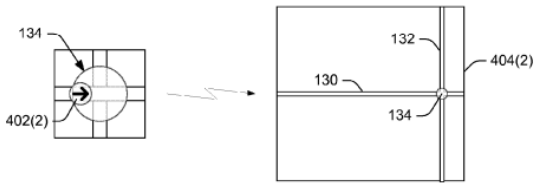


Fig. 4(b)

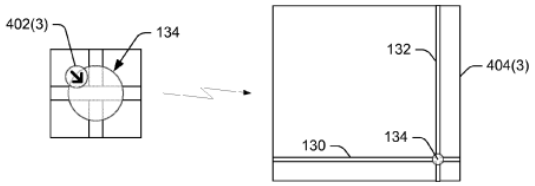


Fig. 4(c)

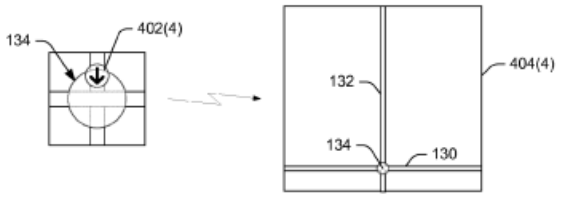


Fig. 4(d)

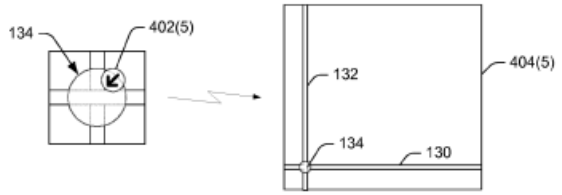


Fig. 4(e)

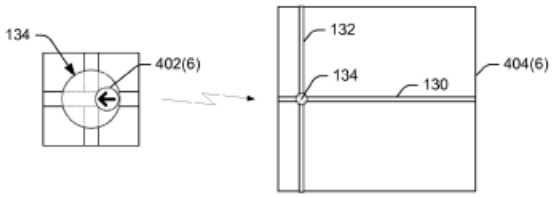
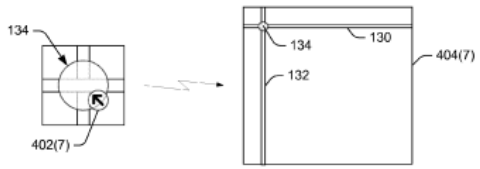
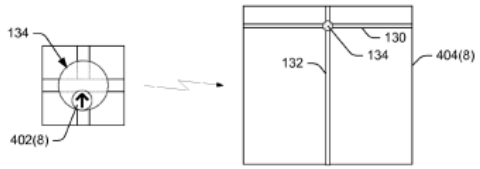
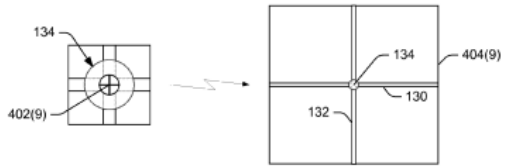
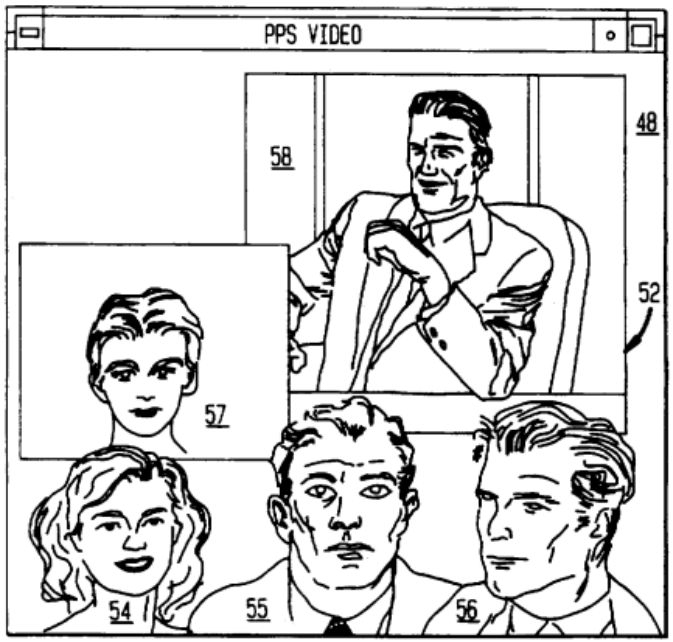
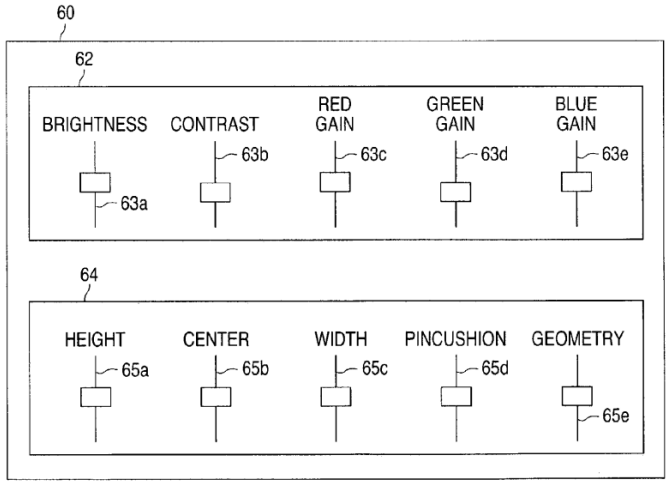


Fig. 4(f)

Asserted Claim of the '708 Patent	Exemplary Citations
	 Fig. 4(g)  Fig. 4(h)  Fig. 4(i) "FIGS. 4(a)-4(i) show an example set of navigation commands for navigating the two demarcation bars 130 and 132 to nine preset positions corresponding to nine visual cues provided by the bar navigation element 134. In the FIGS. 4(a)-4(i), a visual cue 402 is shown in different zones of the bar navigation element 134. The visual cue 402 appears, for example, when the user moves a pointer over a particular zone of the element 134. As shown, the visual cue 402 is a graphic with an arrow or pointer within a circle or bubble shaped element, although other representations may be used. The position of the visual cue 402 and direction of its interior arrow are intended to convey how the demarcation bars will be moved upon actuation of the navigation element 134. Moreover, single actuation of the element 134 when the visual cue 402 is visible causes the bars to reposition to a preset position indicated by the visual cue." *Id.* at [Para 0031]

Asserted Claim of the '708 Patent	Exemplary Citations
	"In FIG. 4(a), a first position of the visual cue, referenced as 402(1), is shown in a lower left portion (or southwest zone) of the bar navigation element 134. Upon single actuation of the element 134 when this visual cue is visible, the horizontal demarcation bar 130 is moved to an upper position and the vertical demarcation bar 132 is moved to a rightmost position, as shown in a representation 404(1) of the multi-panel UI. Movement of the bars may take place instantaneously, or via a slower animated sliding, depending upon implementation decisions. By moving the bars together, all four panels are simultaneously resized. The lower left panel is enlarged while the remaining three panels are reduced in size. Notice, however, that all four panels retain their original orientation and relative positioning. Further, all four panels remain visible so that the user can easily track their location. The bar navigation element 134 is also moved to overlay the intersection of the two bars 130 and 132 in the upper right hand corner of the UI." *Id.* at [Para 0032] To the extent that Cisco contends that Wang does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Boyer and Hojabri: *Text from US5896128A (Boyer)* "Each participant in a multimedia conference using the present invention may arrange the various video images into a display in a way that is pleasing to them, and rearrange them at any time during the session." *Id.* at [Column 02, Line 50] "To arrange their display, the conference participants can move and scale the video images and overlap them in a prioritized manner similar to a windowed workstation display. A user can select any of the images that appear on their video display for an operation on that image. The user's pointing device (e.g., mouse) can be used to move or resize an image, in an analogous way to the "click and drag" operations supported by PC Window environments. The present invention brings this unprecedented capability to the video work space. Additionally, various elements of each image, such as a person or a chart, can be "keyed" in or out of the image so that the elements desired can be assembled in a more natural manner, unrestricted by rectangular boundaries." *Id.* at [Column 02, Line 54]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 4  *Id.* at [Figure 04] "A video composing unit (VCU) 74 receives the normalized input video signals from the cameras and combines the signals. Also input to the VCU 74 are control signals provided by a control unit 76 which processes the user control signals C1, C2 . . . CN, to control the contents and presentation of the output of the VCU 74. Operation of the VCU 74 and the control unit 76 is described in more detail hereinafter. The output of the VCU 74 is a plurality of normalized video signals, each of which contains a video image similar to the one shown in the pop-up window 52 of FIG. 4." *Id.* at [Column 05, Line 62]

Asserted Claim of the '708 Patent	Exemplary Citations
	Text from US6950097B1 (Hojabri) "Referring to FIG. 5, one example of an advantage provided by the present invention is the ability to control various characteristics of the video signal and image display remotely from the computer 102 (FIG. 4) as opposed to locally via some form of control panel or switches on the housing of the display unit itself (not shown). Within the main video image window 60, video control windows 62, 64 can be introduced in which various "slider" controls 63, 65 are displayed for controlling the various video signal or image display characteristics as discussed above (e.g., by pointing and clicking with a computer pointing device, or "mouse"). For example, in the first window 62, controls 63 a, 63 b can be exercised for controlling the brightness and contrast of the image, while in a second window 64, controls 65 a, 65 c can be exercised to control the height and width of the displayed image." *Id.* at [Column 05, Line 19]  **FIG. 5** *Id.* at Figure 05
[Claim 3] The method according to claim 1, further comprising:	Wang either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate:

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associating M numbers of variations of one of the plurality of predefined layouts with M number of sub-intervals within one or more of the intervals; identifying, in response to the detecting of the user action, a sub-interval among the sub-intervals within which the position is lying; selecting a layout, of the plurality of predefined layouts, associated with the sub-interval; and composing the composite video signal using the selected layout.	*Text from US20100138767A1 (Wang)* "While this windowing user interface environment is effective and commonly understood, there may be situations where a user wishes to arrange content in a different manner on a screen." *Id.* at [Para 0002] "This disclosure describes a user interface and techniques for presenting subject matter on a screen. Generally, the user interface allows different subject matter (e.g., data, content, programs, browsers, etc.) to be displayed concurrently on a screen in predefined and resizable areas, or panels. A user can navigate around the panels and intuitively resize them via a single actuation event, such as a single mouse click or a touch screen tap from a stylus or finger. The panels are separated by one or more demarcation bars. For instance, a single bar may be used to separate two panels, two bars may define four panels, three bars may define six panels, and so on. The bars are movable in response to a single actuation event (although, if desired, the UI may be configured to execute on multiple sequential actuation events). In one implementation, a bar navigation element is overlaid on the user interface to provide a visual cue that aids the user when repositioning the bars. In response to a single actuation of the bar navigation element, the bars are moved to new positions, thereby resizing the panels. After resizing, the panels remain in their original orientation and relative positioning. Additionally, all of the panels remain visible so that the user can easily track their location. The multi-panel user interface fosters an intuitive and viewer friendly environment for concurrent viewing of multiple programs and other items." *Id.* at [Para 0015]

Asserted Claim of the '708 Patent	Exemplary Citations

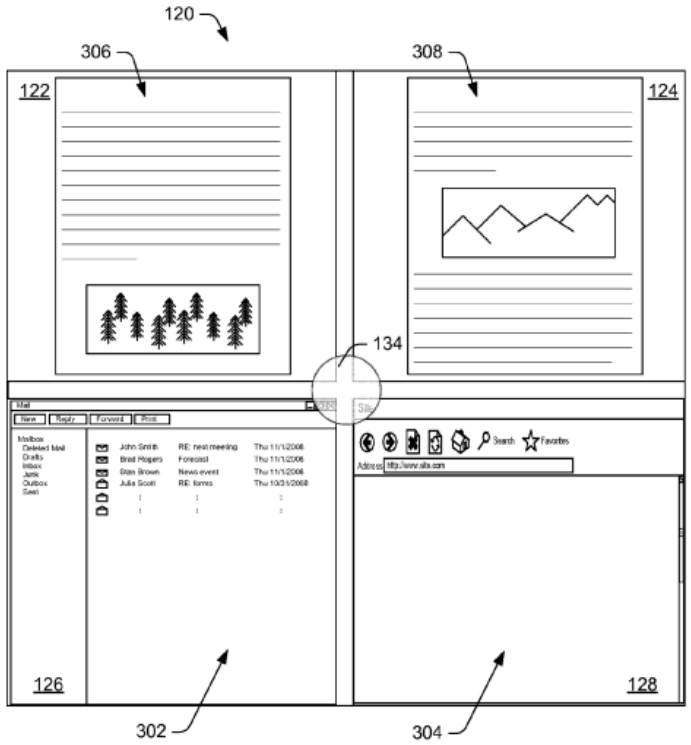


Fig. 3

Id. at Figure 03

"FIG. 3 shows an example where different subject matter is placed in the four panels of the UI 120. Here, an email program 302 is placed in the lower left panel 126. A browser 304 is put in the lower right panel 128. Two documents 306 and 308 are placed in the upper left panel 122 and upper right panel 124, respectively. The various forms of subject matter are presented in a viewer friendly layout, with non-overlapping panels that allow the user to see all the subject matter concurrently or focus on particular

Asserted Claim of the '708 Patent	Exemplary Citations
	panels more specifically. The user can drag-n-drop subject matter to and from the panel. In this way, the user can easily move subject matter around without having to open and track numerous independent pane interfaces. It is noted that while two programs and two documents are shown in this example, any number of combinations of any type of subject matter may be used." *Id.* at [Para 0027] "The UI 120 further includes a bar navigation element 134 that facilitates or initiates movement of the bars. The bar navigation element 134 provides visual cues to aid the user in navigating the bars among various preset positions. In the illustrated arrangement, the bar navigation element 134 is independent of the demarcation bars 130 and 132, but overlaid at the intersection of the two demarcation bars 130 and 132. Further, the bar navigation element 134 may be slightly transparent to expose the intersection of the two bars." *Id.* at [Para 0029] When a pointer 212 is moved atop different zones of the bar navigation element 134, a corresponding visual cue appears to inform the user of a corresponding navigation operation. If the user actuates the element 134 (e.g., single mouse click, stylus or finger tap, etc.), the bars are concurrently moved to one of the preset positions that corresponds to the visual cue. In this manner, the user can move the bars among the preset positions in response to a single actuation of the bar navigation element 134. Accordingly, the multi-panel UI 120 provides an intuitive navigation control that is easy to use with minimal control tasks. *Id.* at [Para 0030]

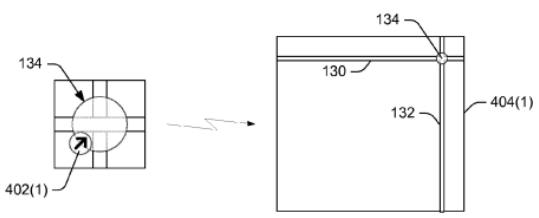


Fig. 4(a)

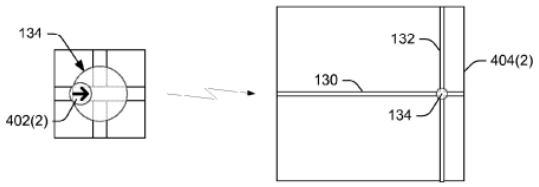


Fig. 4(b)

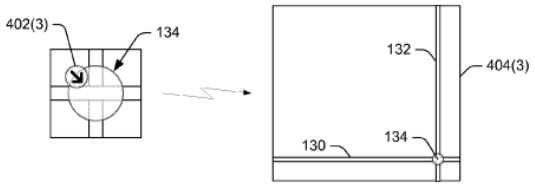


Fig. 4(c)

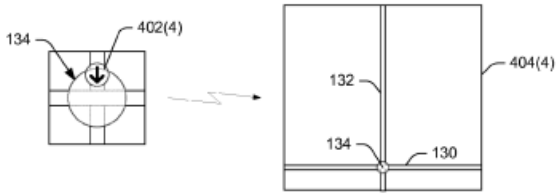


Fig. 4(d)

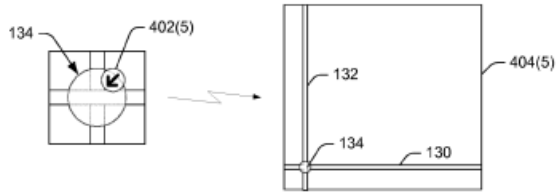


Fig. 4(e)

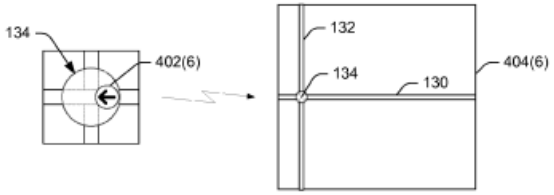
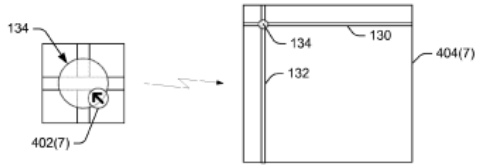
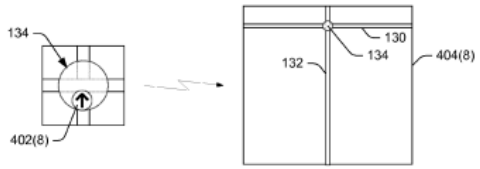
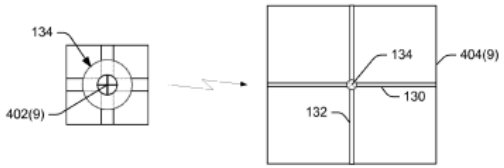
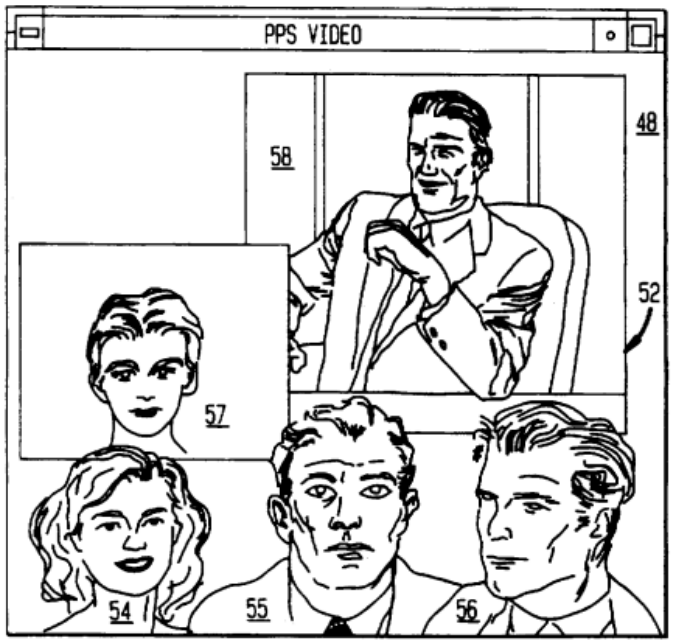
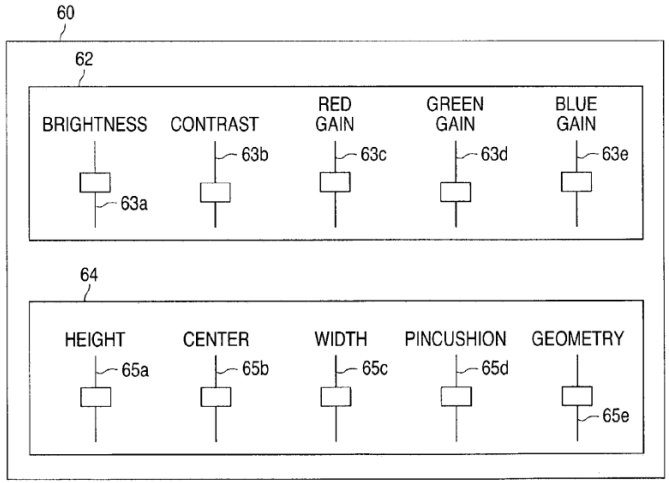


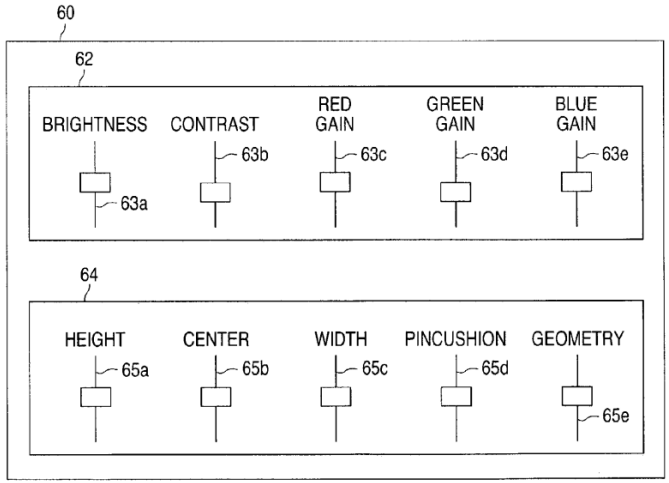
Fig. 4(f)

Asserted Claim of the '708 Patent	Exemplary Citations
	 Fig. 4(g)  Fig. 4(h)  Fig. 4(i) "FIGS. 4(a)-4(i) show an example set of navigation commands for navigating the two demarcation bars 130 and 132 to nine preset positions corresponding to nine visual cues provided by the bar navigation element 134. In the FIGS. 4(a)-4(i), a visual cue 402 is shown in different zones of the bar navigation element 134. The visual cue 402 appears, for example, when the user moves a pointer over a particular zone of the element 134. As shown, the visual cue 402 is a graphic with an arrow or pointer within a circle or bubble shaped element, although other representations may be used. The position of the visual cue 402 and direction of its interior arrow are intended to convey how the demarcation bars will be moved upon actuation of the navigation element 134. Moreover, single actuation of the element 134 when the visual cue 402 is visible causes the bars to reposition to a preset position indicated by the visual cue." *Id.* at [Para 0031]

Asserted Claim of the '708 Patent	Exemplary Citations
	"In FIG. 4(a), a first position of the visual cue, referenced as 402(1), is shown in a lower left portion (or southwest zone) of the bar navigation element 134. Upon single actuation of the element 134 when this visual cue is visible, the horizontal demarcation bar 130 is moved to an upper position and the vertical demarcation bar 132 is moved to a rightmost position, as shown in a representation 404(1) of the multi-panel UI. Movement of the bars may take place instantaneously, or via a slower animated sliding, depending upon implementation decisions. By moving the bars together, all four panels are simultaneously resized. The lower left panel is enlarged while the remaining three panels are reduced in size. Notice, however, that all four panels retain their original orientation and relative positioning. Further, all four panels remain visible so that the user can easily track their location. The bar navigation element 134 is also moved to overlay the intersection of the two bars 130 and 132 in the upper right hand corner of the UI." *Id.* at [Para 0032] To the extent that Cisco contends that Wang does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Boyer and Hojabri: *Text from US5896128A (Boyer)* "Each participant in a multimedia conference using the present invention may arrange the various video images into a display in a way that is pleasing to them, and rearrange them at any time during the session." *Id.* at [Column 02, Line 50] "To arrange their display, the conference participants can move and scale the video images and overlap them in a prioritized manner similar to a windowed workstation display. A user can select any of the images that appear on their video display for an operation on that image. The user's pointing device (e.g., mouse) can be used to move or resize an image, in an analogous way to the "click and drag" operations supported by PC Window environments. The present invention brings this unprecedented capability to the video work space. Additionally, various elements of each image, such as a person or a chart, can be "keyed" in or out of the image so that the elements desired can be assembled in a more natural manner, unrestricted by rectangular boundaries." *Id.* at [Column 02, Line 54]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 4  *Id.* at [Figure 04] "A video composing unit (VCU) 74 receives the normalized input video signals from the cameras and combines the signals. Also input to the VCU 74 are control signals provided by a control unit 76 which processes the user control signals C1, C2 . . . CN, to control the contents and presentation of the output of the VCU 74. Operation of the VCU 74 and the control unit 76 is described in more detail hereinafter. The output of the VCU 74 is a plurality of normalized video signals, each of which contains a video image similar to the one shown in the pop-up window 52 of FIG. 4." *Id.* at [Column 05, Line 62]

Asserted Claim of the '708 Patent	Exemplary Citations
	Text from US6950097B1 (Hojabri) "Referring to FIG. 5, one example of an advantage provided by the present invention is the ability to control various characteristics of the video signal and image display remotely from the computer 102 (FIG. 4) as opposed to locally via some form of control panel or switches on the housing of the display unit itself (not shown). Within the main video image window 60, video control windows 62, 64 can be introduced in which various "slider" controls 63, 65 are displayed for controlling the various video signal or image display characteristics as discussed above (e.g., by pointing and clicking with a computer pointing device, or "mouse"). For example, in the first window 62, controls 63 a, 63 b can be exercised for controlling the brightness and contrast of the image, while in a second window 64, controls 65 a, 65 c can be exercised to control the height and width of the displayed image." *Id.* at [Column 05, Line 19]  **FIG. 5** *Id.* at Figure 05
[Claim 4] The method of claim 1, further comprising:	It would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Hojabri:

Asserted Claim of the '708 Patent	Exemplary Citations
identifying the interval among the intervals within which the position is lying.	*Text from US6950097B1 (Hojabri)* "Referring to FIG. 5, one example of an advantage provided by the present invention is the ability to control various characteristics of the video signal and image display remotely from the computer 102 (FIG. 4) as opposed to locally via some form of control panel or switches on the housing of the display unit itself (not shown). Within the main video image window 60, video control windows 62, 64 can be introduced in which various "slider" controls 63, 65 are displayed for controlling the various video signal or image display characteristics as discussed above (e.g., by pointing and clicking with a computer pointing device, or "mouse"). For example, in the first window 62, controls 63 a, 63 b can be exercised for controlling the brightness and contrast of the image, while in a second window 64, controls 65 a, 65 c can be exercised to control the height and width of the displayed image." *Id.* at [Column 05, Line 19]  **FIG. 5** *Id.* at Figure 05
[Claim 5] The method of claim 1, further comprising: wherein	Wang either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate:

Asserted Claim of the '708 Patent	Exemplary Citations
the composite video signal includes a spatial mix of one or more video conference streams, and the layout defines one or more frames for containing the video conference streams.	*Text from US20100138767A1 (Wang)* "While this windowing user interface environment is effective and commonly understood, there may be situations where a user wishes to arrange content in a different manner on a screen." *Id.* at [Para 0002] "This disclosure describes a user interface and techniques for presenting subject matter on a screen. Generally, the user interface allows different subject matter (e.g., data, content, programs, browsers, etc.) to be displayed concurrently on a screen in predefined and resizable areas, or panels. A user can navigate around the panels and intuitively resize them via a single actuation event, such as a single mouse click or a touch screen tap from a stylus or finger. The panels are separated by one or more demarcation bars. For instance, a single bar may be used to separate two panels, two bars may define four panels, three bars may define six panels, and so on. The bars are movable in response to a single actuation event (although, if desired, the UI may be configured to execute on multiple sequential actuation events). In one implementation, a bar navigation element is overlaid on the user interface to provide a visual cue that aids the user when repositioning the bars. In response to a single actuation of the bar navigation element, the bars are moved to new positions, thereby resizing the panels. After resizing, the panels remain in their original orientation and relative positioning. Additionally, all of the panels remain visible so that the user can easily track their location. The multi-panel user interface fosters an intuitive and viewer friendly environment for concurrent viewing of multiple programs and other items." *Id.* at [Para 0015]

Asserted Claim of the '708 Patent	Exemplary Citations

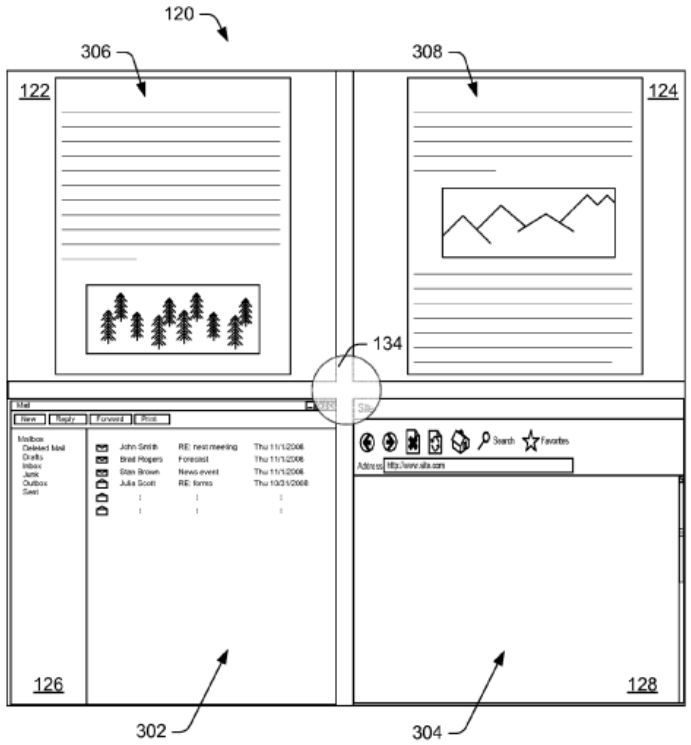


Fig. 3

Id. at Figure 03

"FIG. 3 shows an example where different subject matter is placed in the four panels of the UI 120. Here, an email program 302 is placed in the lower left panel 126. A browser 304 is put in the lower right panel 128. Two documents 306 and 308 are placed in the upper left panel 122 and upper right panel 124, respectively. The various forms of subject matter are presented in a viewer friendly layout, with non-overlapping panels that allow the user to see all the subject matter concurrently or focus on particular

Asserted Claim of the '708 Patent	Exemplary Citations
	panels more specifically. The user can drag-n-drop subject matter to and from the panel. In this way, the user can easily move subject matter around without having to open and track numerous independent pane interfaces. It is noted that while two programs and two documents are shown in this example, any number of combinations of any type of subject matter may be used." *Id.* at [Para 0027] "The UI 120 further includes a bar navigation element 134 that facilitates or initiates movement of the bars. The bar navigation element 134 provides visual cues to aid the user in navigating the bars among various preset positions. In the illustrated arrangement, the bar navigation element 134 is independent of the demarcation bars 130 and 132, but overlaid at the intersection of the two demarcation bars 130 and 132. Further, the bar navigation element 134 may be slightly transparent to expose the intersection of the two bars." *Id.* at [Para 0029] When a pointer 212 is moved atop different zones of the bar navigation element 134, a corresponding visual cue appears to inform the user of a corresponding navigation operation. If the user actuates the element 134 (e.g., single mouse click, stylus or finger tap, etc.), the bars are concurrently moved to one of the preset positions that corresponds to the visual cue. In this manner, the user can move the bars among the preset positions in response to a single actuation of the bar navigation element 134. Accordingly, the multi-panel UI 120 provides an intuitive navigation control that is easy to use with minimal control tasks. *Id.* at [Para 0030]

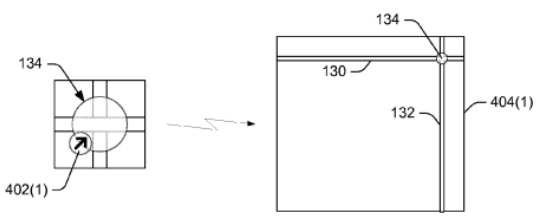


Fig. 4(a)

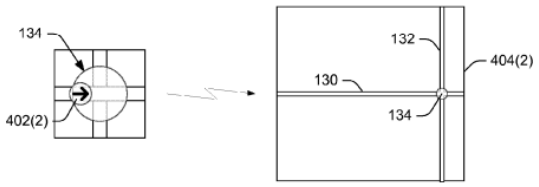


Fig. 4(b)

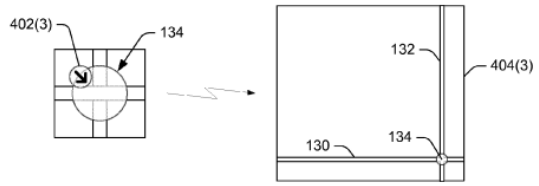


Fig. 4(c)

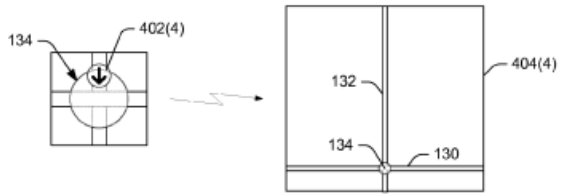


Fig. 4(d)

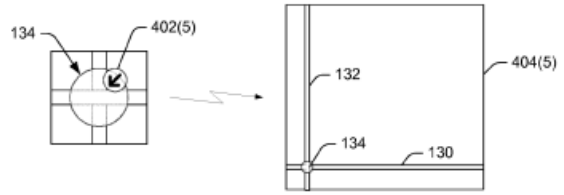


Fig. 4(e)

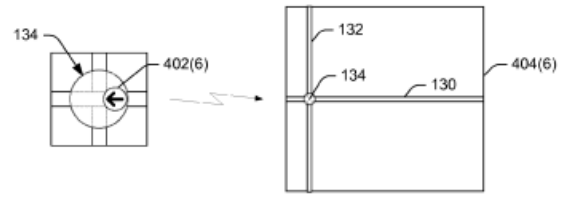
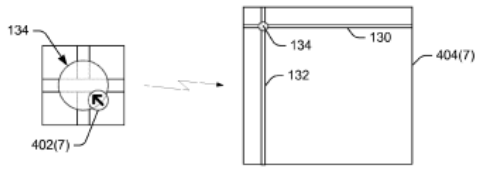
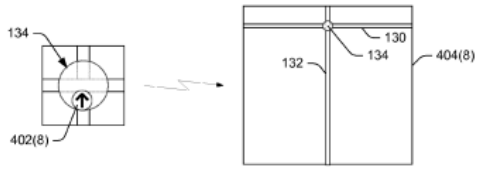
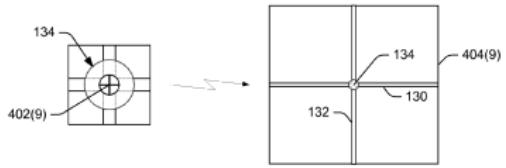
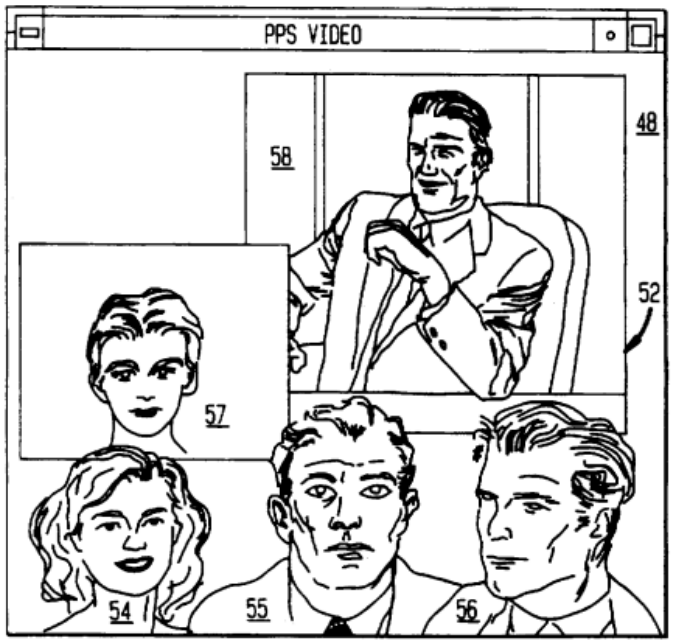


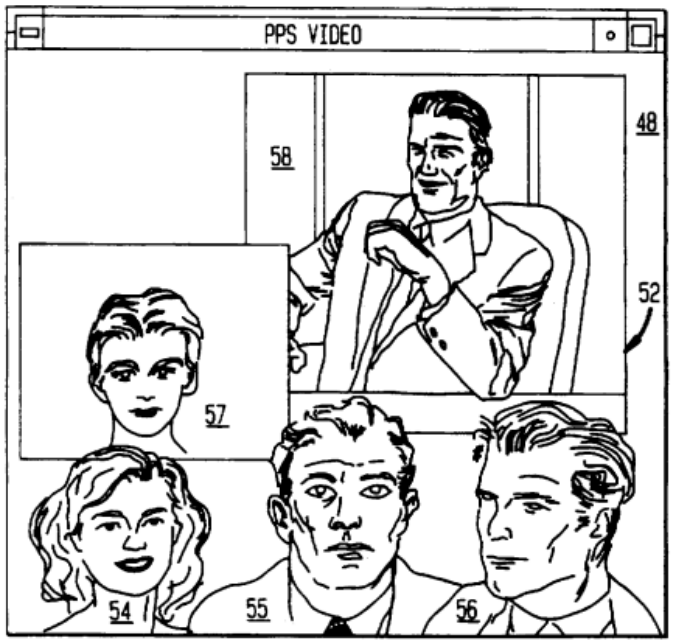
Fig. 4(f)

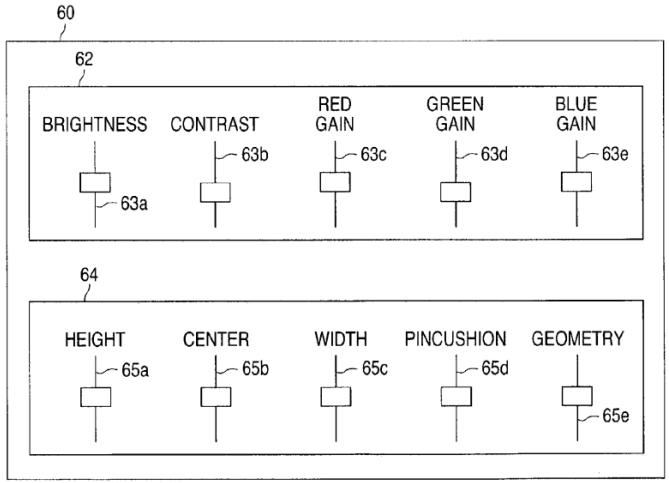
Asserted Claim of the '708 Patent	Exemplary Citations
	 Fig. 4(g)  Fig. 4(h)  Fig. 4(i) "FIGS. 4(a)-4(i) show an example set of navigation commands for navigating the two demarcation bars 130 and 132 to nine preset positions corresponding to nine visual cues provided by the bar navigation element 134. In the FIGS. 4(a)-4(i), a visual cue 402 is shown in different zones of the bar navigation element 134. The visual cue 402 appears, for example, when the user moves a pointer over a particular zone of the element 134. As shown, the visual cue 402 is a graphic with an arrow or pointer within a circle or bubble shaped element, although other representations may be used. The position of the visual cue 402 and direction of its interior arrow are intended to convey how the demarcation bars will be moved upon actuation of the navigation element 134. Moreover, single actuation of the element 134 when the visual cue 402 is visible causes the bars to reposition to a preset position indicated by the visual cue." *Id.* at [Para 0031]

Asserted Claim of the '708 Patent	Exemplary Citations
	"In FIG. 4(a), a first position of the visual cue, referenced as 402(1), is shown in a lower left portion (or southwest zone) of the bar navigation element 134. Upon single actuation of the element 134 when this visual cue is visible, the horizontal demarcation bar 130 is moved to an upper position and the vertical demarcation bar 132 is moved to a rightmost position, as shown in a representation 404(1) of the multi-panel UI. Movement of the bars may take place instantaneously, or via a slower animated sliding, depending upon implementation decisions. By moving the bars together, all four panels are simultaneously resized. The lower left panel is enlarged while the remaining three panels are reduced in size. Notice, however, that all four panels retain their original orientation and relative positioning. Further, all four panels remain visible so that the user can easily track their location. The bar navigation element 134 is also moved to overlay the intersection of the two bars 130 and 132 in the upper right hand corner of the UI." *Id.* at [Para 0032] To the extent that Cisco contends that Wang does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Boyer: *Text from US5896128A (Boyer)* "Each participant in a multimedia conference using the present invention may arrange the various video images into a display in a way that is pleasing to them, and rearrange them at any time during the session." *Id.* at [Column 02, Line 50] "To arrange their display, the conference participants can move and scale the video images and overlap them in a prioritized manner similar to a windowed workstation display. A user can select any of the images that appear on their video display for an operation on that image. The user's pointing device (e.g., mouse) can be used to move or resize an image, in an analogous way to the "click and drag" operations supported by PC Window environments. The present invention brings this unprecedented capability to the video work space. Additionally, various elements of each image, such as a person or a chart, can be "keyed" in or out of the image so that the elements desired can be assembled in a more natural manner, unrestricted by rectangular boundaries." *Id.* at [Column 02, Line 54]

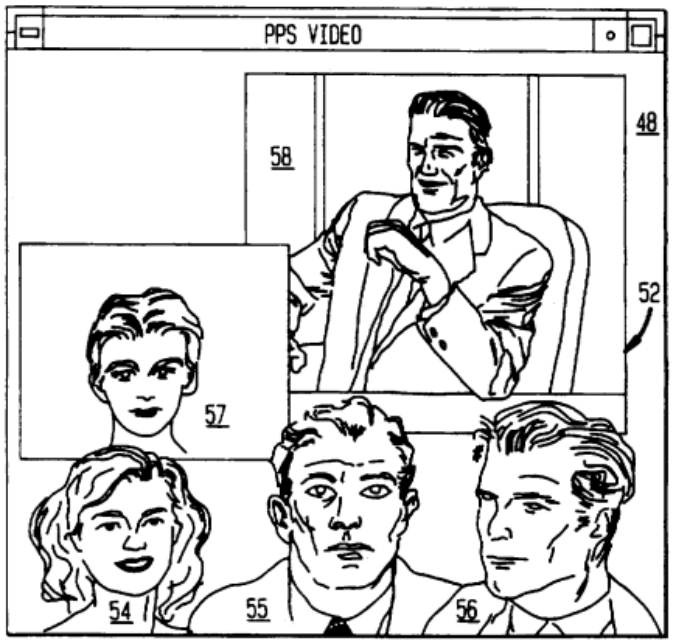
Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 4  *Id.* at [Figure 04] "A video composing unit (VCU) 74 receives the normalized input video signals from the cameras and combines the signals. Also input to the VCU 74 are control signals provided by a control unit 76 which processes the user control signals C1, C2 . . . CN, to control the contents and presentation of the output of the VCU 74. Operation of the VCU 74 and the control unit 76 is described in more detail hereinafter. The output of the VCU 74 is a plurality of normalized video signals, each of which contains a video image similar to the one shown in the pop-up window 52 of FIG. 4." *Id.* at [Column 05, Line 62]
[Claim 6]	

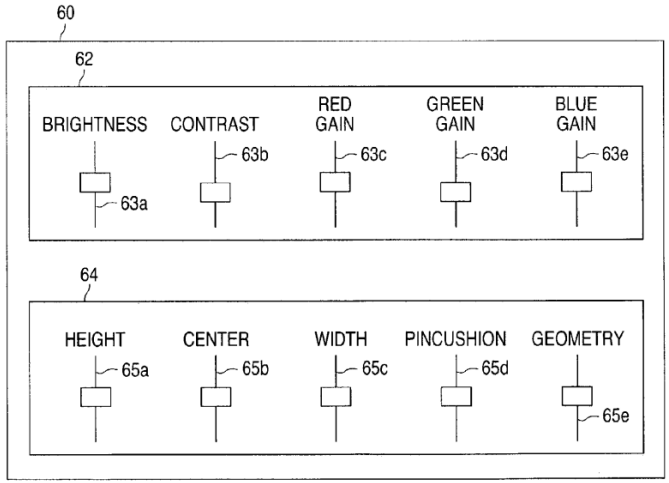
Asserted Claim of the '708 Patent	Exemplary Citations
The method of claim 5, further comprising: providing, for at least one of the intervals, a relationship between positions within the at least one of the intervals and the size and position of one or more frames of a respective layout associated with the interval.	It would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Boyer and Hojabri: *Text from US5896128A (Boyer)* "Each participant in a multimedia conference using the present invention may arrange the various video images into a display in a way that is pleasing to them, and rearrange them at any time during the session." *Id.* at [Column 02, Line 50] "To arrange their display, the conference participants can move and scale the video images and overlap them in a prioritized manner similar to a windowed workstation display. A user can select any of the images that appear on their video display for an operation on that image. The user's pointing device (e.g., mouse) can be used to move or resize an image, in an analogous way to the "click and drag" operations supported by PC Window environments. The present invention brings this unprecedented capability to the video work space. Additionally, various elements of each image, such as a person or a chart, can be "keyed" in or out of the image so that the elements desired can be assembled in a more natural manner, unrestricted by rectangular boundaries." *Id.* at [Column 02, Line 54]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 4  *Id.* at [Figure 04] "A video composing unit (VCU) 74 receives the normalized input video signals from the cameras and combines the signals. Also input to the VCU 74 are control signals provided by a control unit 76 which processes the user control signals C1, C2 . . . CN, to control the contents and presentation of the output of the VCU 74. Operation of the VCU 74 and the control unit 76 is described in more detail hereinafter. The output of the VCU 74 is a plurality of normalized video signals, each of which contains a video image similar to the one shown in the pop-up window 52 of FIG. 4." *Id.* at [Column 05, Line 62]

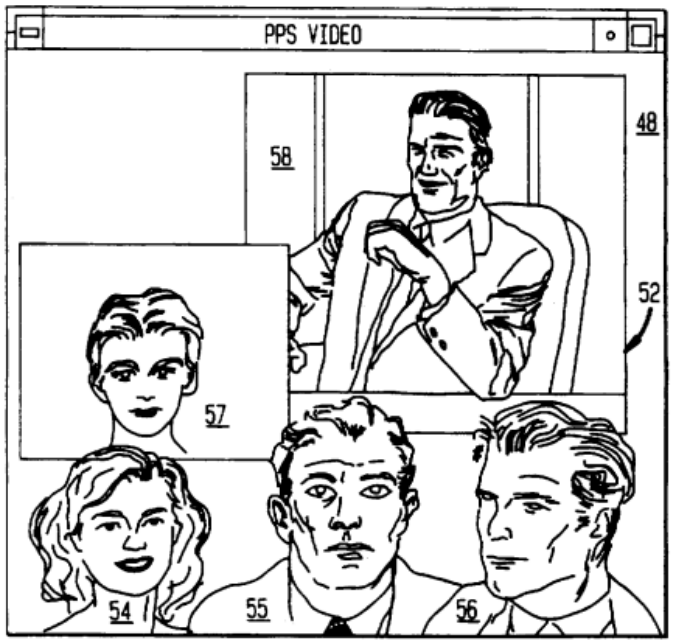
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[Claim 7] The method of claim 6, further comprising:	It would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Boyer and Hojabri:

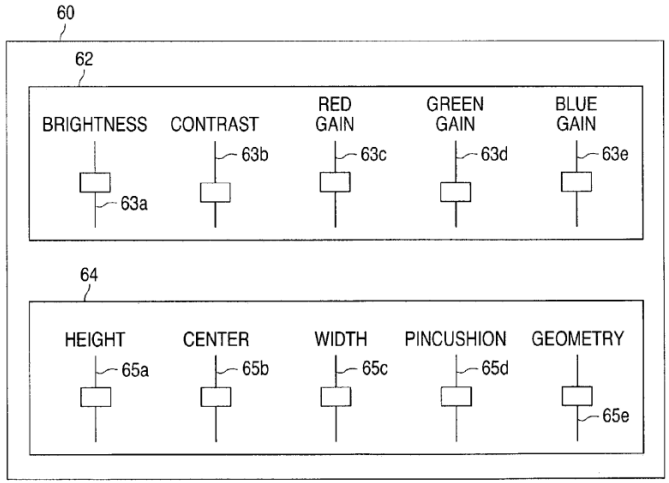
Asserted Claim of the '708 Patent	Exemplary Citations
calculating a layout wherein the size and position of each frame of the layout is based on the relationship and the position.	*Text from US5896128A (Boyer)* "Each participant in a multimedia conference using the present invention may arrange the various video images into a display in a way that is pleasing to them, and rearrange them at any time during the session." *Id.* at [Column 02, Line 50] "To arrange their display, the conference participants can move and scale the video images and overlap them in a prioritized manner similar to a windowed workstation display. A user can select any of the images that appear on their video display for an operation on that image. The user's pointing device (e.g., mouse) can be used to move or resize an image, in an analogous way to the "click and drag" operations supported by PC Window environments. The present invention brings this unprecedented capability to the video work space. Additionally, various elements of each image, such as a person or a chart, can be "keyed" in or out of the image so that the elements desired can be assembled in a more natural manner, unrestricted by rectangular boundaries." *Id.* at [Column 02, Line 54]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 4  *Id.* at [Figure 04] "A video composing unit (VCU) 74 receives the normalized input video signals from the cameras and combines the signals. Also input to the VCU 74 are control signals provided by a control unit 76 which processes the user control signals C1, C2 . . . CN, to control the contents and presentation of the output of the VCU 74. Operation of the VCU 74 and the control unit 76 is described in more detail hereinafter. The output of the VCU 74 is a plurality of normalized video signals, each of which contains a video image similar to the one shown in the pop-up window 52 of FIG. 4." *Id.* at [Column 05, Line 62]

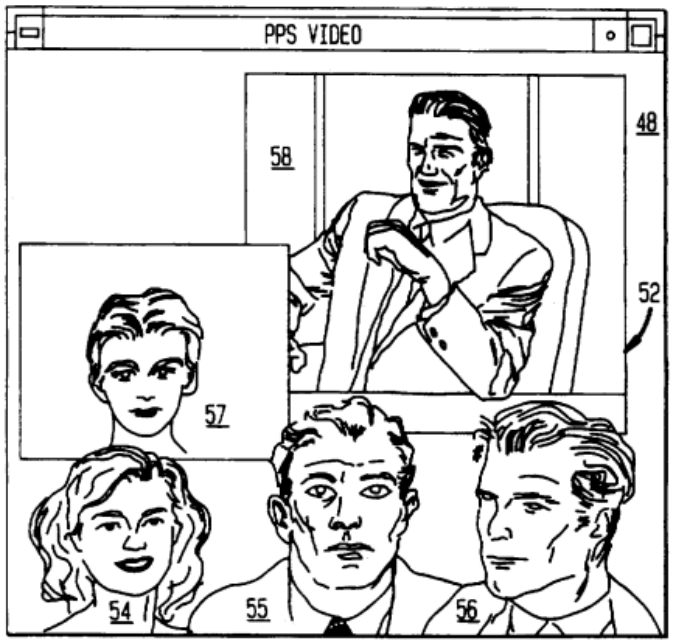
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[Claim 8] The method of claim 1, further comprising:	It would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Boyer and Hojabri:

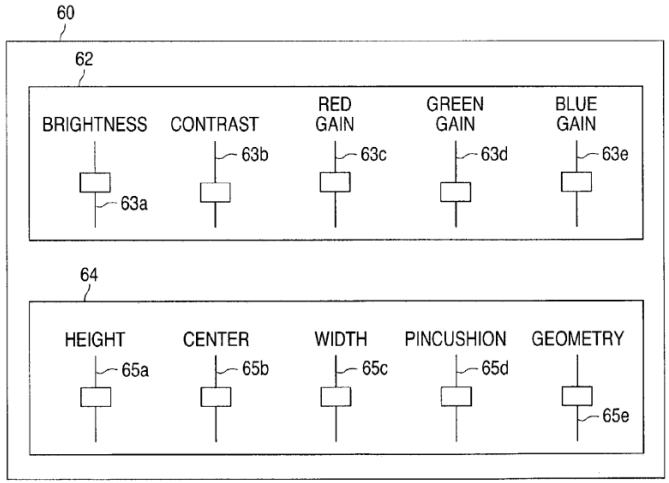
Asserted Claim of the '708 Patent	Exemplary Citations
providing, for at least one of the intervals, a relationship between positions within the at least one of the intervals and the size and position of one or more frames of a respective layout associated with the interval.	*Text from US5896128A (Boyer)* "Each participant in a multimedia conference using the present invention may arrange the various video images into a display in a way that is pleasing to them, and rearrange them at any time during the session." *Id.* at [Column 02, Line 50] "To arrange their display, the conference participants can move and scale the video images and overlap them in a prioritized manner similar to a windowed workstation display. A user can select any of the images that appear on their video display for an operation on that image. The user's pointing device (e.g., mouse) can be used to move or resize an image, in an analogous way to the "click and drag" operations supported by PC Window environments. The present invention brings this unprecedented capability to the video work space. Additionally, various elements of each image, such as a person or a chart, can be "keyed" in or out of the image so that the elements desired can be assembled in a more natural manner, unrestricted by rectangular boundaries." *Id.* at [Column 02, Line 54]

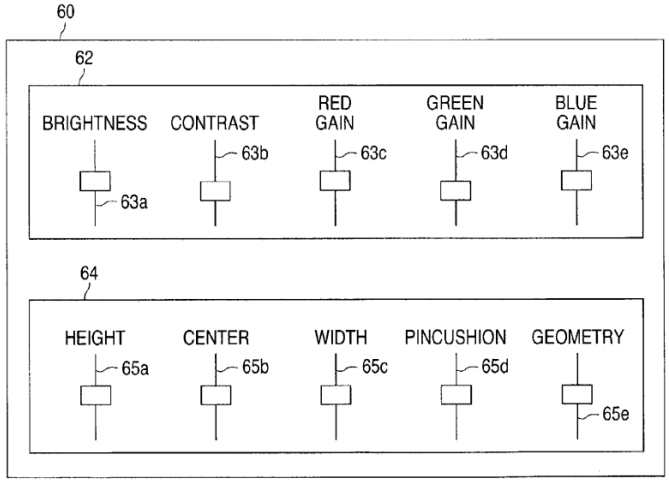
Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 4  *Id.* at [Figure 04] "A video composing unit (VCU) 74 receives the normalized input video signals from the cameras and combines the signals. Also input to the VCU 74 are control signals provided by a control unit 76 which processes the user control signals C1, C2 . . . CN, to control the contents and presentation of the output of the VCU 74. Operation of the VCU 74 and the control unit 76 is described in more detail hereinafter. The output of the VCU 74 is a plurality of normalized video signals, each of which contains a video image similar to the one shown in the pop-up window 52 of FIG. 4." *Id.* at [Column 05, Line 62]

Asserted Claim of the '708 Patent	Exemplary Citations
	Text from US6950097B1 (Hojabri) "Referring to FIG. 5, one example of an advantage provided by the present invention is the ability to control various characteristics of the video signal and image display remotely from the computer 102 (FIG. 4) as opposed to locally via some form of control panel or switches on the housing of the display unit itself (not shown). Within the main video image window 60, video control windows 62, 64 can be introduced in which various "slider" controls 63, 65 are displayed for controlling the various video signal or image display characteristics as discussed above (e.g., by pointing and clicking with a computer pointing device, or "mouse"). For example, in the first window 62, controls 63 a, 63 b can be exercised for controlling the brightness and contrast of the image, while in a second window 64, controls 65 a, 65 c can be exercised to control the height and width of the displayed image." *Id.* at [Column 05, Line 19]  **FIG. 5** *Id.* at Figure 05
[Claim 9] The method of claim 1, further comprising:	It would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Boyer and Hojabri:

Asserted Claim of the '708 Patent	Exemplary Citations
calculating, in response to the detecting of the user action, a layout wherein a size and position of each frame of the layout is based on the relationship and the position.	*Text from US5896128A (Boyer)* "Each participant in a multimedia conference using the present invention may arrange the various video images into a display in a way that is pleasing to them, and rearrange them at any time during the session." *Id.* at [Column 02, Line 50] "To arrange their display, the conference participants can move and scale the video images and overlap them in a prioritized manner similar to a windowed workstation display. A user can select any of the images that appear on their video display for an operation on that image. The user's pointing device (e.g., mouse) can be used to move or resize an image, in an analogous way to the "click and drag" operations supported by PC Window environments. The present invention brings this unprecedented capability to the video work space. Additionally, various elements of each image, such as a person or a chart, can be "keyed" in or out of the image so that the elements desired can be assembled in a more natural manner, unrestricted by rectangular boundaries." *Id.* at [Column 02, Line 54]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 4  *Id.* at [Figure 04] "A video composing unit (VCU) 74 receives the normalized input video signals from the cameras and combines the signals. Also input to the VCU 74 are control signals provided by a control unit 76 which processes the user control signals C1, C2 . . . CN, to control the contents and presentation of the output of the VCU 74. Operation of the VCU 74 and the control unit 76 is described in more detail hereinafter. The output of the VCU 74 is a plurality of normalized video signals, each of which contains a video image similar to the one shown in the pop-up window 52 of FIG. 4." *Id.* at [Column 05, Line 62]

Asserted Claim of the '708 Patent	Exemplary Citations
	Text from US6950097B1 (Hojabri) "Referring to FIG. 5, one example of an advantage provided by the present invention is the ability to control various characteristics of the video signal and image display remotely from the computer 102 (FIG. 4) as opposed to locally via some form of control panel or switches on the housing of the display unit itself (not shown). Within the main video image window 60, video control windows 62, 64 can be introduced in which various "slider" controls 63, 65 are displayed for controlling the various video signal or image display characteristics as discussed above (e.g., by pointing and clicking with a computer pointing device, or "mouse"). For example, in the first window 62, controls 63 a, 63 b can be exercised for controlling the brightness and contrast of the image, while in a second window 64, controls 65 a, 65 c can be exercised to control the height and width of the displayed image." *Id.* at [Column 05, Line 19]  **FIG. 5** *Id.* at Figure 05
[Claim 10(a)] A method comprising: providing, on a display, an object configured to be	It would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Hojabri:

Asserted Claim of the '708 Patent	Exemplary Citations
moved by a user along an axis;	*Text from US6950097B1 (Hojabri)* "Referring to FIG. 5, one example of an advantage provided by the present invention is the ability to control various characteristics of the video signal and image display remotely from the computer 102 (FIG. 4) as opposed to locally via some form of control panel or switches on the housing of the display unit itself (not shown). Within the main video image window 60, video control windows 62, 64 can be introduced in which various "slider" controls 63, 65 are displayed for controlling the various video signal or image display characteristics as discussed above (e.g., by pointing and clicking with a computer pointing device, or "mouse"). For example, in the first window 62, controls 63 a, 63 b can be exercised for controlling the brightness and contrast of the image, while in a second window 64, controls 65 a, 65 c can be exercised to control the height and width of the displayed image." *Id.* at [Column 05, Line 19]  **FIG. 5** *Id.* at Figure 05
[Claim 10(b)] associating a plurality of predefined layouts with	Wang either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate:

Asserted Claim of the '708 Patent	Exemplary Citations
respective intervals along the axis;	*Text from US20100138767A1 (Wang)* "While this windowing user interface environment is effective and commonly understood, there may be situations where a user wishes to arrange content in a different manner on a screen." *Id.* at [Para 0002] "This disclosure describes a user interface and techniques for presenting subject matter on a screen. Generally, the user interface allows different subject matter (e.g., data, content, programs, browsers, etc.) to be displayed concurrently on a screen in predefined and resizable areas, or panels. A user can navigate around the panels and intuitively resize them via a single actuation event, such as a single mouse click or a touch screen tap from a stylus or finger. The panels are separated by one or more demarcation bars. For instance, a single bar may be used to separate two panels, two bars may define four panels, three bars may define six panels, and so on. The bars are movable in response to a single actuation event (although, if desired, the UI may be configured to execute on multiple sequential actuation events). In one implementation, a bar navigation element is overlaid on the user interface to provide a visual cue that aids the user when repositioning the bars. In response to a single actuation of the bar navigation element, the bars are moved to new positions, thereby resizing the panels. After resizing, the panels remain in their original orientation and relative positioning. Additionally, all of the panels remain visible so that the user can easily track their location. The multi-panel user interface fosters an intuitive and viewer friendly environment for concurrent viewing of multiple programs and other items." *Id.* at [Para 0015]

Asserted Claim of the '708 Patent	Exemplary Citations

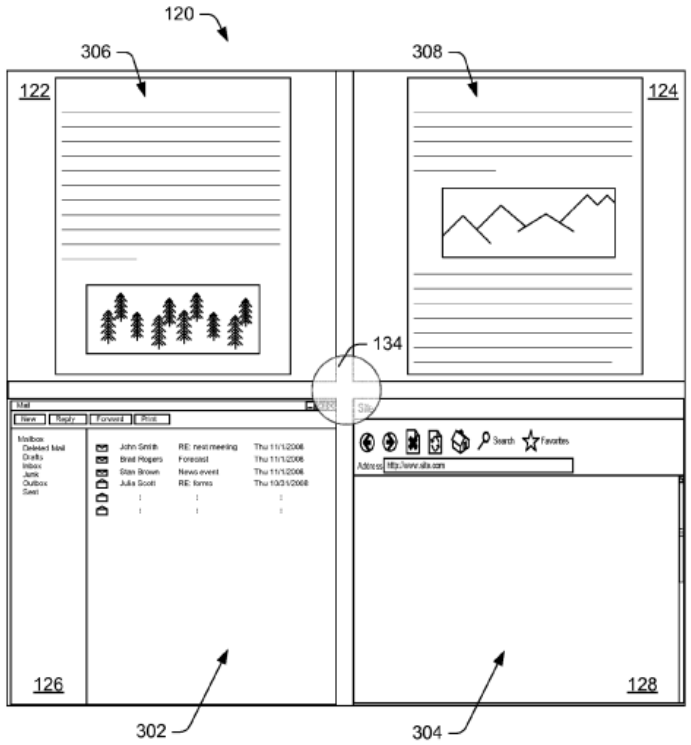


Fig. 3

Id. at Figure 03

"FIG. 3 shows an example where different subject matter is placed in the four panels of the UI 120. Here, an email program 302 is placed in the lower left panel 126. A browser 304 is put in the lower right panel 128. Two documents 306 and 308 are placed in the upper left panel 122 and upper right panel 124, respectively. The various forms of subject matter are presented in a viewer friendly layout, with non-overlapping panels that allow the user to see all the subject matter concurrently or focus on particular

Asserted Claim of the '708 Patent	Exemplary Citations
	panels more specifically. The user can drag-n-drop subject matter to and from the panel. In this way, the user can easily move subject matter around without having to open and track numerous independent pane interfaces. It is noted that while two programs and two documents are shown in this example, any number of combinations of any type of subject matter may be used." *Id.* at [Para 0027] "The UI 120 further includes a bar navigation element 134 that facilitates or initiates movement of the bars. The bar navigation element 134 provides visual cues to aid the user in navigating the bars among various preset positions. In the illustrated arrangement, the bar navigation element 134 is independent of the demarcation bars 130 and 132, but overlaid at the intersection of the two demarcation bars 130 and 132. Further, the bar navigation element 134 may be slightly transparent to expose the intersection of the two bars." *Id.* at [Para 0029] When a pointer 212 is moved atop different zones of the bar navigation element 134, a corresponding visual cue appears to inform the user of a corresponding navigation operation. If the user actuates the element 134 (e.g., single mouse click, stylus or finger tap, etc.), the bars are concurrently moved to one of the preset positions that corresponds to the visual cue. In this manner, the user can move the bars among the preset positions in response to a single actuation of the bar navigation element 134. Accordingly, the multi-panel UI 120 provides an intuitive navigation control that is easy to use with minimal control tasks. *Id.* at [Para 0030]

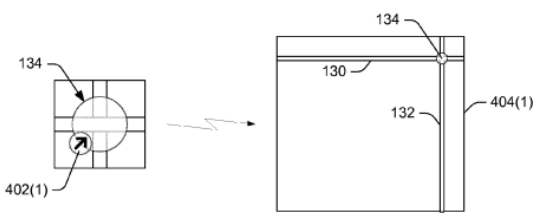


Fig. 4(a)

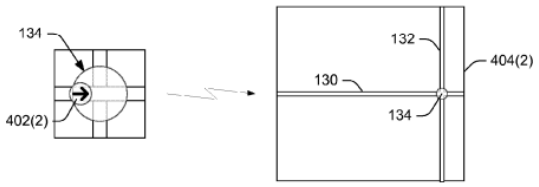


Fig. 4(b)

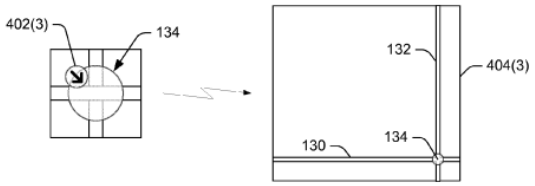


Fig. 4(c)

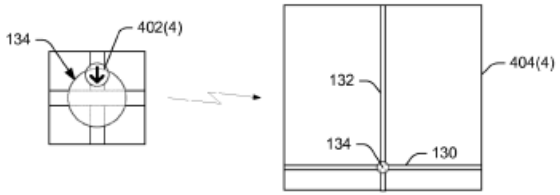


Fig. 4(d)

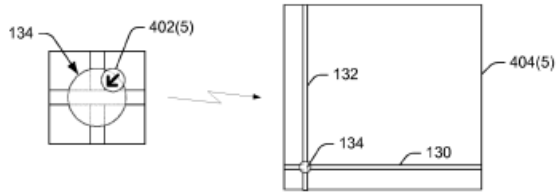


Fig. 4(e)

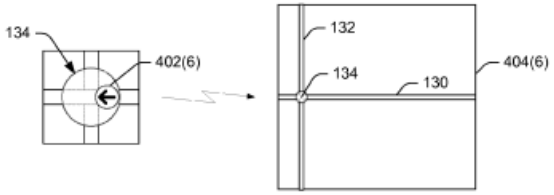
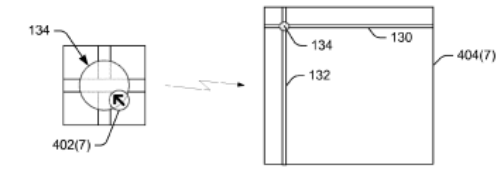
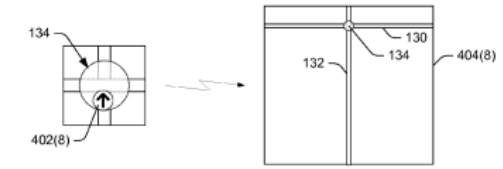
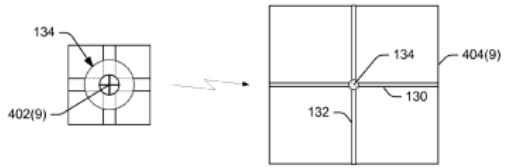
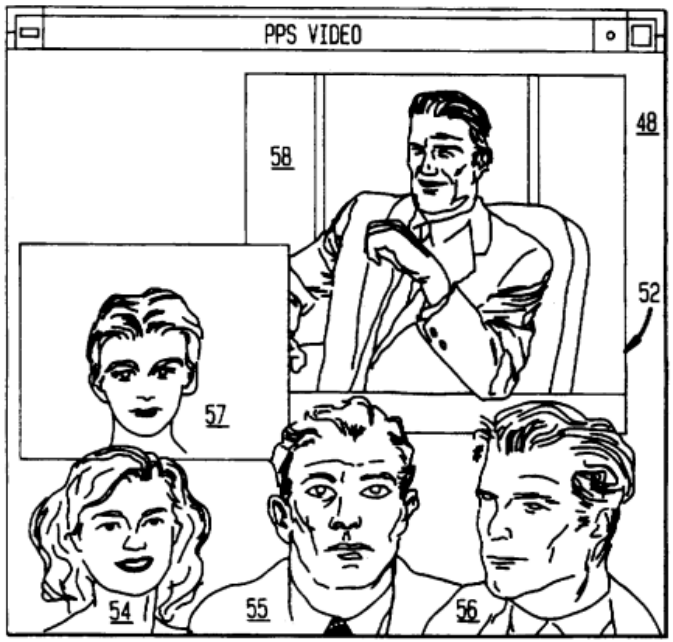
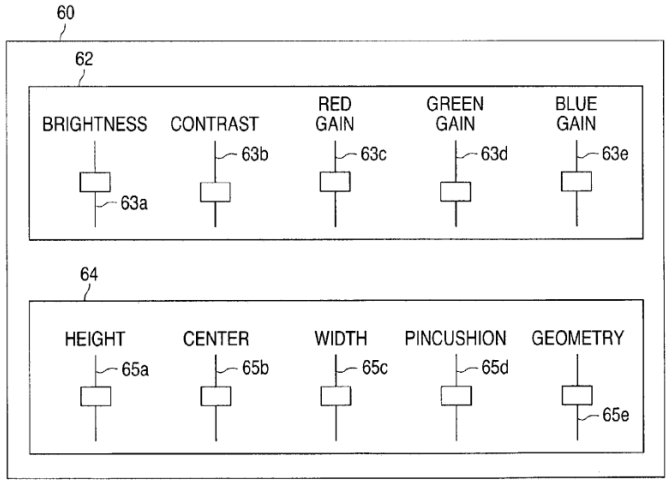


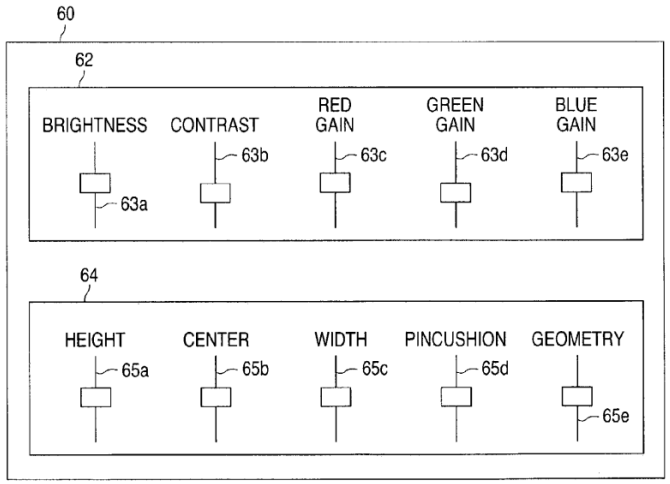
Fig. 4(f)

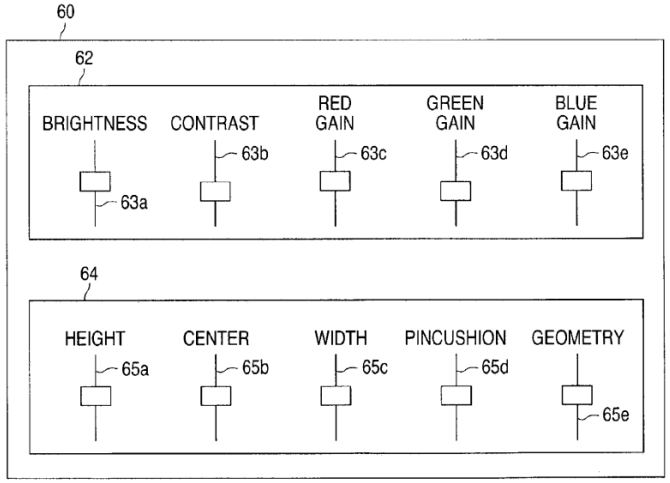
Asserted Claim of the '708 Patent	Exemplary Citations
	 Fig. 4(g)  Fig. 4(h)  Fig. 4(i) "FIGS. 4(a)-4(i) show an example set of navigation commands for navigating the two demarcation bars 130 and 132 to nine preset positions corresponding to nine visual cues provided by the bar navigation element 134. In the FIGS. 4(a)-4(i), a visual cue 402 is shown in different zones of the bar navigation element 134. The visual cue 402 appears, for example, when the user moves a pointer over a particular zone of the element 134. As shown, the visual cue 402 is a graphic with an arrow or pointer within a circle or bubble shaped element, although other representations may be used. The position of the visual cue 402 and direction of its interior arrow are intended to convey how the demarcation bars will be moved upon actuation of the navigation element 134. Moreover, single actuation of the element 134 when the visual cue 402 is visible causes the bars to reposition to a preset position indicated by the visual cue." *Id.* at [Para 0031]

Asserted Claim of the '708 Patent	Exemplary Citations
	"In FIG. 4(a), a first position of the visual cue, referenced as 402(1), is shown in a lower left portion (or southwest zone) of the bar navigation element 134. Upon single actuation of the element 134 when this visual cue is visible, the horizontal demarcation bar 130 is moved to an upper position and the vertical demarcation bar 132 is moved to a rightmost position, as shown in a representation 404(1) of the multi-panel UI. Movement of the bars may take place instantaneously, or via a slower animated sliding, depending upon implementation decisions. By moving the bars together, all four panels are simultaneously resized. The lower left panel is enlarged while the remaining three panels are reduced in size. Notice, however, that all four panels retain their original orientation and relative positioning. Further, all four panels remain visible so that the user can easily track their location. The bar navigation element 134 is also moved to overlay the intersection of the two bars 130 and 132 in the upper right hand corner of the UI." *Id.* at [Para 0032] To the extent that Cisco contends that Wang does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Boyer and Hojabri: *Text from US5896128A (Boyer)* "Each participant in a multimedia conference using the present invention may arrange the various video images into a display in a way that is pleasing to them, and rearrange them at any time during the session." *Id.* at [Column 02, Line 50] "To arrange their display, the conference participants can move and scale the video images and overlap them in a prioritized manner similar to a windowed workstation display. A user can select any of the images that appear on their video display for an operation on that image. The user's pointing device (e.g., mouse) can be used to move or resize an image, in an analogous way to the "click and drag" operations supported by PC Window environments. The present invention brings this unprecedented capability to the video work space. Additionally, various elements of each image, such as a person or a chart, can be "keyed" in or out of the image so that the elements desired can be assembled in a more natural manner, unrestricted by rectangular boundaries." *Id.* at [Column 02, Line 54]

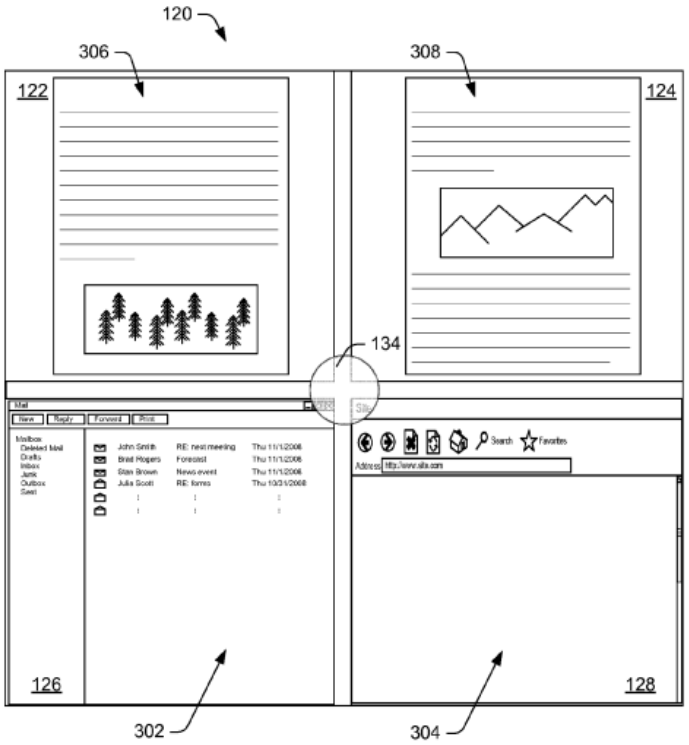
Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 4  *Id.* at [Figure 04] *Text from US6950097B1 (Hojabri)* "Referring to FIG. 5, one example of an advantage provided by the present invention is the ability to control various characteristics of the video signal and image display remotely from the computer 102 (FIG. 4) as opposed to locally via some form of control panel or switches on the housing of the display unit itself (not shown). Within the main video image window 60, video control windows 62, 64 can be introduced in which various "slider" controls 63, 65 are displayed for controlling the various video signal or image display characteristics as discussed above (e.g., by pointing and clicking with a computer

Asserted Claim of the '708 Patent	Exemplary Citations
	pointing device, or "mouse"). For example, in the first window 62, controls 63 a, 63 b can be exercised for controlling the brightness and contrast of the image, while in a second window 64, controls 65 a, 65 c can be exercised to control the height and width of the displayed image." *Id.* at [Column 05, Line 19]  **FIG. 5** *Id.* at Figure 05
[Claim 10(c)] detecting a user action on the object indicating a position on the axis;	It would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Hojabri: *Text from US6950097B1 (Hojabri)* "Referring to FIG. 5, one example of an advantage provided by the present invention is the ability to control various characteristics of the video signal and image display remotely from the computer 102 (FIG. 4) as opposed to locally via some form of control panel or switches on the housing of the display unit itself (not shown). Within the main video image window 60, video control windows 62, 64 can be introduced in which various "slider" controls 63, 65 are displayed for controlling the various video signal

Asserted Claim of the '708 Patent	Exemplary Citations
	or image display characteristics as discussed above (e.g., by pointing and clicking with a computer pointing device, or "mouse"). For example, in the first window 62, controls 63 a, 63 b can be exercised for controlling the brightness and contrast of the image, while in a second window 64, controls 65 a, 65 c can be exercised to control the height and width of the displayed image." *Id.* at [Column 05, Line 19]  **FIG. 5** *Id.* at Figure 05
[Claim 10(d)] identifying an interval among the intervals within which the position is lying;	It would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Hojabri: *Text from US6950097B1 (Hojabri)* "Referring to FIG. 5, one example of an advantage provided by the present invention is the ability to control various characteristics of the video signal and image display remotely from the computer 102 (FIG. 4) as opposed to locally via some form of control panel or switches on the housing of the display unit itself (not shown). Within the main video image window 60, video control windows 62, 64 can be

Asserted Claim of the '708 Patent	Exemplary Citations
	introduced in which various "slider" controls 63, 65 are displayed for controlling the various video signal or image display characteristics as discussed above (e.g., by pointing and clicking with a computer pointing device, or "mouse"). For example, in the first window 62, controls 63 a, 63 b can be exercised for controlling the brightness and contrast of the image, while in a second window 64, controls 65 a, 65 c can be exercised to control the height and width of the displayed image." *Id.* at [Column 05, Line 19]  **FIG. 5** *Id.* at Figure 05
[Claim 10(e)] selecting the layout associated with the interval; and composing, in response to the detecting of the user action, a composite video signal using the layout, of	Wang either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100138767A1 (Wang)* "While this windowing user interface environment is effective and commonly understood, there may be situations where a user wishes to arrange content in a different manner on a screen." *Id.* at [Para 0002] "This disclosure describes a user interface and techniques for presenting subject matter on a screen. Generally, the user interface allows different subject matter (e.g., data, content, programs, browsers, etc.)

Asserted Claim of the '708 Patent	Exemplary Citations
the plurality of predefined layouts, associated with the interval among the intervals within which the position is lying.	to be displayed concurrently on a screen in predefined and resizable areas, or panels. A user can navigate around the panels and intuitively resize them via a single actuation event, such as a single mouse click or a touch screen tap from a stylus or finger. The panels are separated by one or more demarcation bars. For instance, a single bar may be used to separate two panels, two bars may define four panels, three bars may define six panels, and so on. The bars are movable in response to a single actuation event (although, if desired, the UI may be configured to execute on multiple sequential actuation events). In one implementation, a bar navigation element is overlaid on the user interface to provide a visual cue that aids the user when repositioning the bars. In response to a single actuation of the bar navigation element, the bars are moved to new positions, thereby resizing the panels. After resizing, the panels remain in their original orientation and relative positioning. Additionally, all of the panels remain visible so that the user can easily track their location. The multi-panel user interface fosters an intuitive and viewer friendly environment for concurrent viewing of multiple programs and other items." *Id.* at [Para 0015]

Asserted Claim of the '708 Patent	Exemplary Citations
	 Fig. 3 *Id.* at Figure 03 "FIG. 3 shows an example where different subject matter is placed in the four panels of the UI 120. Here, an email program 302 is placed in the lower left panel 126. A browser 304 is put in the lower right panel 128. Two documents 306 and 308 are placed in the upper left panel 122 and upper right panel 124, respectively. The various forms of subject matter are presented in a viewer friendly layout, with non-overlapping panels that allow the user to see all the subject matter concurrently or focus on particular

Asserted Claim of the '708 Patent	Exemplary Citations
	panels more specifically. The user can drag-n-drop subject matter to and from the panel. In this way, the user can easily move subject matter around without having to open and track numerous independent pane interfaces. It is noted that while two programs and two documents are shown in this example, any number of combinations of any type of subject matter may be used." *Id.* at [Para 0027] "The UI 120 further includes a bar navigation element 134 that facilitates or initiates movement of the bars. The bar navigation element 134 provides visual cues to aid the user in navigating the bars among various preset positions. In the illustrated arrangement, the bar navigation element 134 is independent of the demarcation bars 130 and 132, but overlaid at the intersection of the two demarcation bars 130 and 132. Further, the bar navigation element 134 may be slightly transparent to expose the intersection of the two bars." *Id.* at [Para 0029] When a pointer 212 is moved atop different zones of the bar navigation element 134, a corresponding visual cue appears to inform the user of a corresponding navigation operation. If the user actuates the element 134 (e.g., single mouse click, stylus or finger tap, etc.), the bars are concurrently moved to one of the preset positions that corresponds to the visual cue. In this manner, the user can move the bars among the preset positions in response to a single actuation of the bar navigation element 134. Accordingly, the multi-panel UI 120 provides an intuitive navigation control that is easy to use with minimal control tasks. *Id.* at [Para 0030]

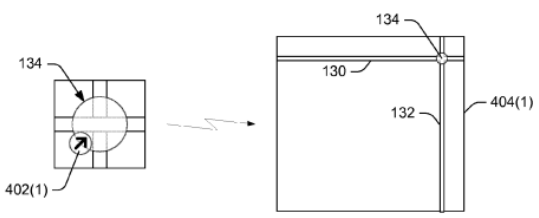


Fig. 4(a)

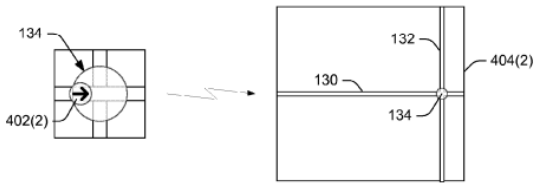


Fig. 4(b)

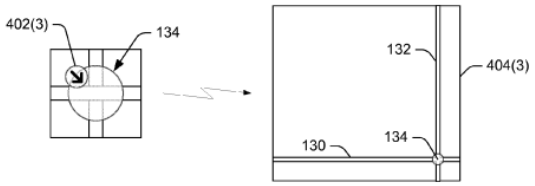


Fig. 4(c)

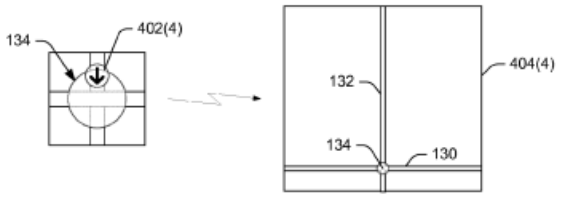


Fig. 4(d)

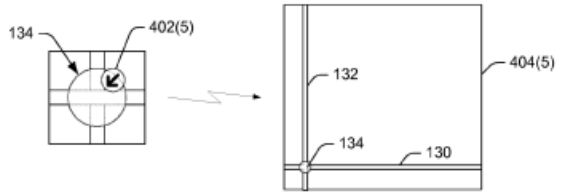


Fig. 4(e)

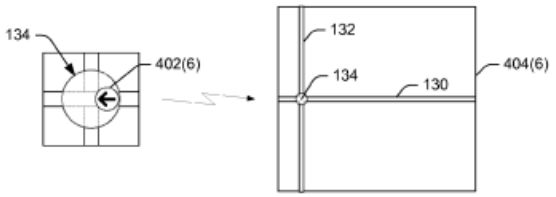
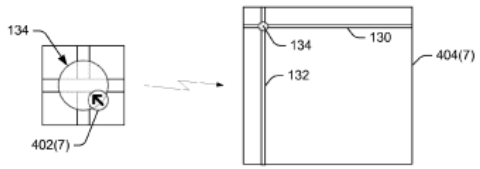
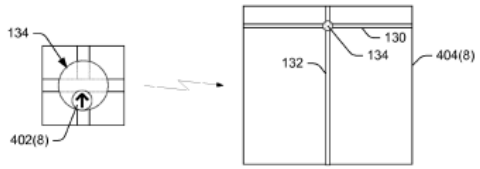
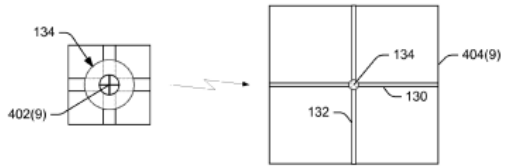
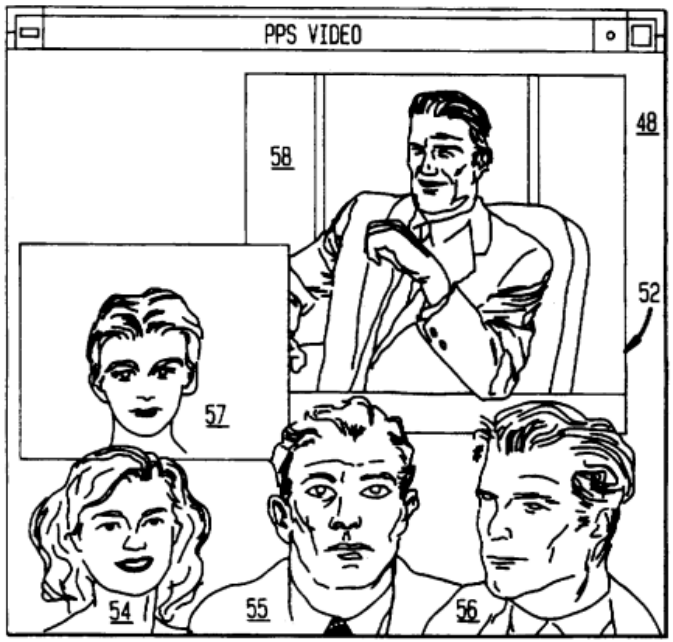
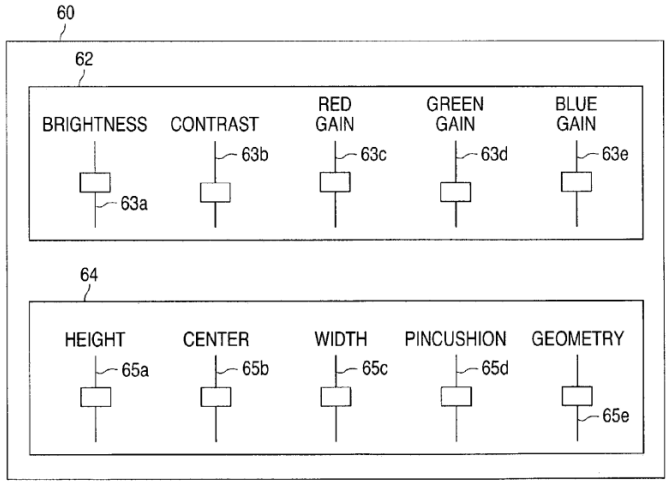


Fig. 4(f)

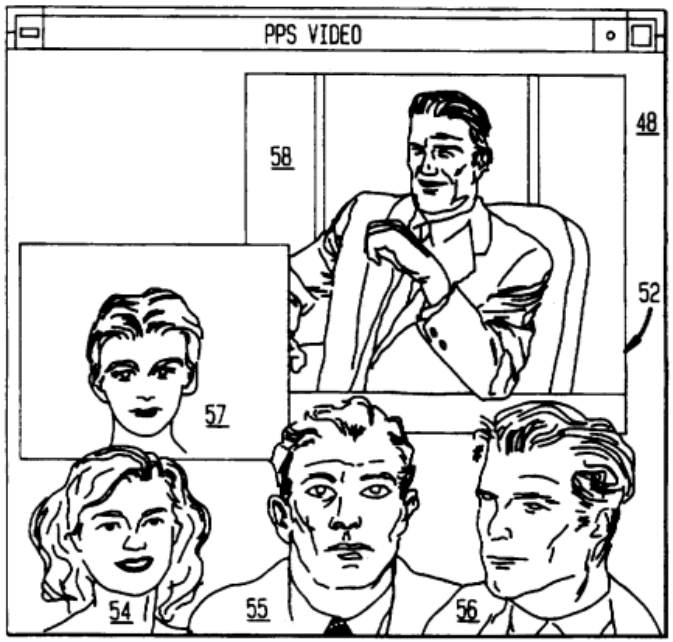
Asserted Claim of the '708 Patent	Exemplary Citations
	 Fig. 4(g)  Fig. 4(h)  Fig. 4(i) "FIGS. 4(a)-4(i) show an example set of navigation commands for navigating the two demarcation bars 130 and 132 to nine preset positions corresponding to nine visual cues provided by the bar navigation element 134. In the FIGS. 4(a)-4(i), a visual cue 402 is shown in different zones of the bar navigation element 134. The visual cue 402 appears, for example, when the user moves a pointer over a particular zone of the element 134. As shown, the visual cue 402 is a graphic with an arrow or pointer within a circle or bubble shaped element, although other representations may be used. The position of the visual cue 402 and direction of its interior arrow are intended to convey how the demarcation bars will be moved upon actuation of the navigation element 134. Moreover, single actuation of the element 134 when the visual cue 402 is visible causes the bars to reposition to a preset position indicated by the visual cue." *Id.* at [Para 0031]

Asserted Claim of the '708 Patent	Exemplary Citations
	"In FIG. 4(a), a first position of the visual cue, referenced as 402(1), is shown in a lower left portion (or southwest zone) of the bar navigation element 134. Upon single actuation of the element 134 when this visual cue is visible, the horizontal demarcation bar 130 is moved to an upper position and the vertical demarcation bar 132 is moved to a rightmost position, as shown in a representation 404(1) of the multi-panel UI. Movement of the bars may take place instantaneously, or via a slower animated sliding, depending upon implementation decisions. By moving the bars together, all four panels are simultaneously resized. The lower left panel is enlarged while the remaining three panels are reduced in size. Notice, however, that all four panels retain their original orientation and relative positioning. Further, all four panels remain visible so that the user can easily track their location. The bar navigation element 134 is also moved to overlay the intersection of the two bars 130 and 132 in the upper right hand corner of the UI." *Id.* at [Para 0032] To the extent that Cisco contends that Wang does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Boyer and Hojabri: *Text from US5896128A (Boyer)* "Each participant in a multimedia conference using the present invention may arrange the various video images into a display in a way that is pleasing to them, and rearrange them at any time during the session." *Id.* at [Column 02, Line 50] "To arrange their display, the conference participants can move and scale the video images and overlap them in a prioritized manner similar to a windowed workstation display. A user can select any of the images that appear on their video display for an operation on that image. The user's pointing device (e.g., mouse) can be used to move or resize an image, in an analogous way to the "click and drag" operations supported by PC Window environments. The present invention brings this unprecedented capability to the video work space. Additionally, various elements of each image, such as a person or a chart, can be "keyed" in or out of the image so that the elements desired can be assembled in a more natural manner, unrestricted by rectangular boundaries." *Id.* at [Column 02, Line 54]

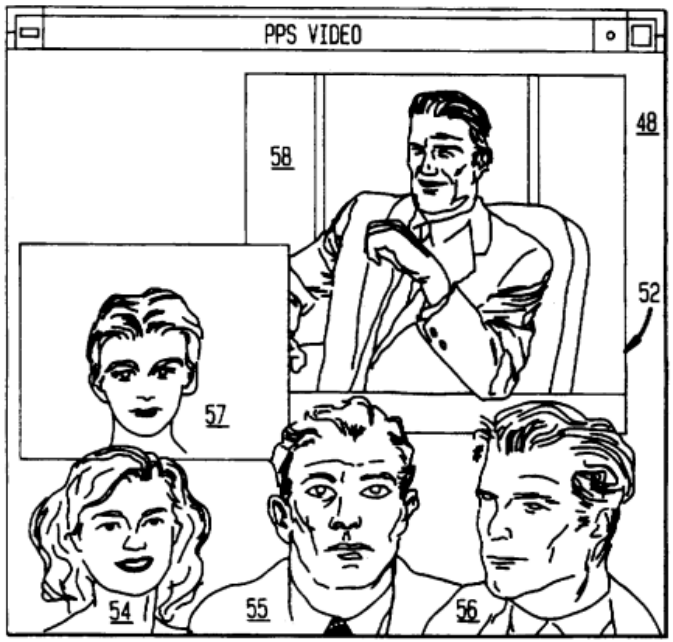
Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 4  *Id.* at [Figure 04] "A video composing unit (VCU) 74 receives the normalized input video signals from the cameras and combines the signals. Also input to the VCU 74 are control signals provided by a control unit 76 which processes the user control signals C1, C2 . . . CN, to control the contents and presentation of the output of the VCU 74. Operation of the VCU 74 and the control unit 76 is described in more detail hereinafter. The output of the VCU 74 is a plurality of normalized video signals, each of which contains a video image similar to the one shown in the pop-up window 52 of FIG. 4." *Id.* at [Column 05, Line 62]

Asserted Claim of the '708 Patent	Exemplary Citations
	Text from US6950097B1 (Hojabri) "Referring to FIG. 5, one example of an advantage provided by the present invention is the ability to control various characteristics of the video signal and image display remotely from the computer 102 (FIG. 4) as opposed to locally via some form of control panel or switches on the housing of the display unit itself (not shown). Within the main video image window 60, video control windows 62, 64 can be introduced in which various "slider" controls 63, 65 are displayed for controlling the various video signal or image display characteristics as discussed above (e.g., by pointing and clicking with a computer pointing device, or "mouse"). For example, in the first window 62, controls 63 a, 63 b can be exercised for controlling the brightness and contrast of the image, while in a second window 64, controls 65 a, 65 c can be exercised to control the height and width of the displayed image." *Id.* at [Column 05, Line 19]  **FIG. 5** *Id.* at Figure 05
[Claim 11]	It would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Boyer:

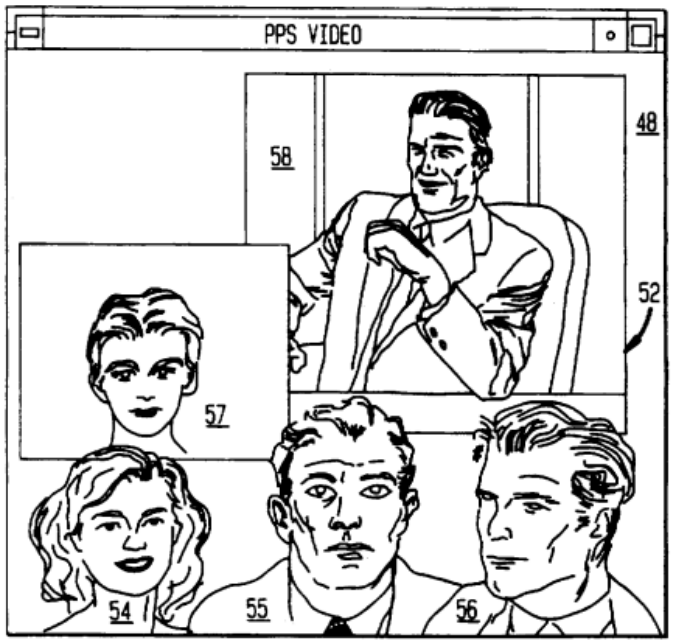
Asserted Claim of the '708 Patent	Exemplary Citations
The method according to claim 10, further comprising: providing the selected layout to a video composing unit, which composes the composite image and which is configured to receive a plurality of video conference streams and output a composite video signal comprising one or more of the received video conference streams based on a layout.	*Text from US5896128A (Boyer)* "Each participant in a multimedia conference using the present invention may arrange the various video images into a display in a way that is pleasing to them, and rearrange them at any time during the session." *Id.* at [Column 02, Line 50] "To arrange their display, the conference participants can move and scale the video images and overlap them in a prioritized manner similar to a windowed workstation display. A user can select any of the images that appear on their video display for an operation on that image. The user's pointing device (e.g., mouse) can be used to move or resize an image, in an analogous way to the "click and drag" operations supported by PC Window environments. The present invention brings this unprecedented capability to the video work space. Additionally, various elements of each image, such as a person or a chart, can be "keyed" in or out of the image so that the elements desired can be assembled in a more natural manner, unrestricted by rectangular boundaries." *Id.* at [Column 02, Line 54]

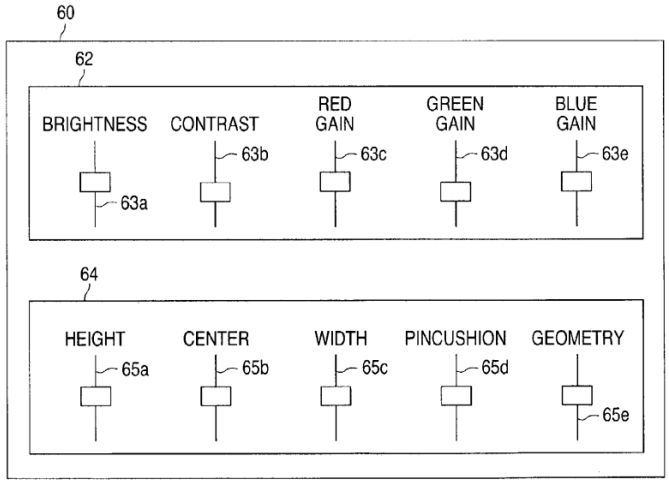
Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 4  *Id.* at [Figure 04] "A video composing unit (VCU) 74 receives the normalized input video signals from the cameras and combines the signals. Also input to the VCU 74 are control signals provided by a control unit 76 which processes the user control signals C1, C2 . . . CN, to control the contents and presentation of the output of the VCU 74. Operation of the VCU 74 and the control unit 76 is described in more detail hereinafter. The output of the VCU 74 is a plurality of normalized video signals, each of which contains a video image similar to the one shown in the pop-up window 52 of FIG. 4." *Id.* at [Column 05, Line 62]
[Claim 12]	It would have been obvious to a person of ordinary skill in the art to combine Wang with the common

Asserted Claim of the '708 Patent	Exemplary Citations
The method according to claim 10, further comprising: displaying the composite video signal on the display, the display being of a video conference terminal.	general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Boyer: *Text from US5896128A (Boyer)* "It is a further object of the present invention to provide a video conferencing service that gives each participant the ability to compose video images of other participants into a fully customized display." *Id.* at [Column 01, Line 64]. "Each participant in a multimedia conference using the present invention may arrange the various video images into a display in a way that is pleasing to them, and rearrange them at any time during the session." *Id.* at [Column 02, Line 50] "To arrange their display, the conference participants can move and scale the video images and overlap them in a prioritized manner similar to a windowed workstation display. A user can select any of the images that appear on their video display for an operation on that image. The user's pointing device (e.g., mouse) can be used to move or resize an image, in an analogous way to the "click and drag" operations supported by PC Window environments. The present invention brings this unprecedented capability to the video work space. Additionally, various elements of each image, such as a person or a chart, can be "keyed" in or out of the image so that the elements desired can be assembled in a more natural manner, unrestricted by rectangular boundaries." *Id.* at [Column 02, Line 54]

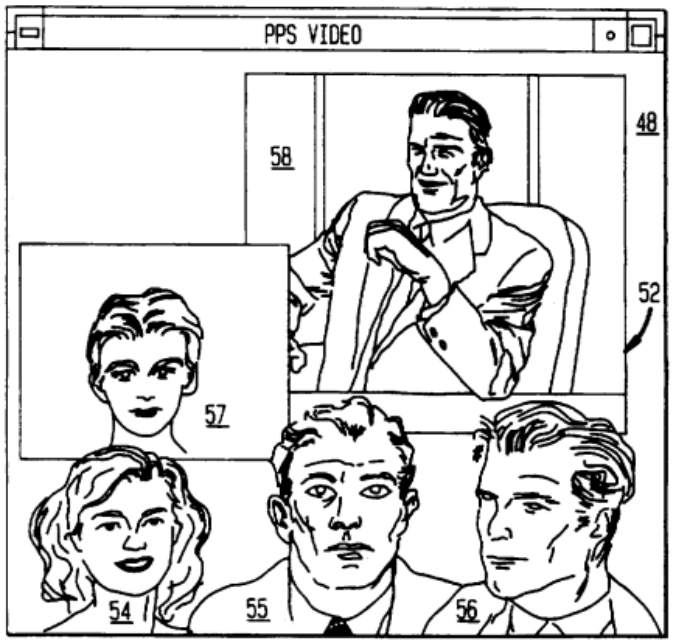
Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 4  *Id.* at [Figure 04] "A video composing unit (VCU) 74 receives the normalized input video signals from the cameras and combines the signals. Also input to the VCU 74 are control signals provided by a control unit 76 which processes the user control signals C1, C2 . . . CN, to control the contents and presentation of the output of the VCU 74. Operation of the VCU 74 and the control unit 76 is described in more detail hereinafter. The output of the VCU 74 is a plurality of normalized video signals, each of which contains a video image similar to the one shown in the pop-up window 52 of FIG. 4." *Id.* at [Column 05, Line 62]

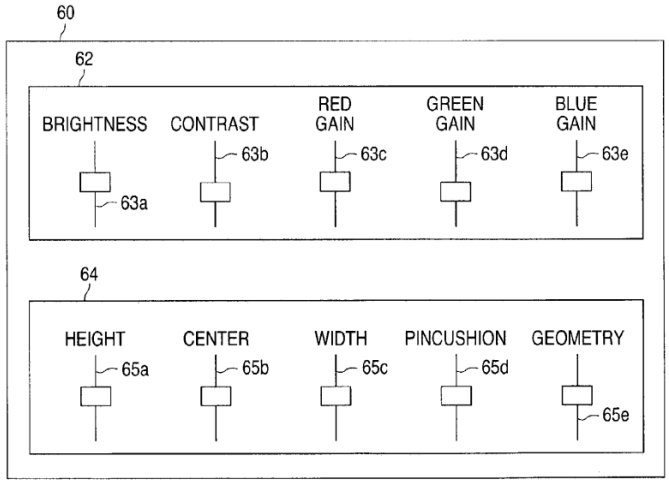
Asserted Claim of the '708 Patent	Exemplary Citations
[Claim 13] The method according to claim 12, further comprising: displaying the object on a display of a control device, which is connected to the video conference terminal, together with a replica of the composite video signal currently displayed on the display of the video conference terminal.	It would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Boyer and Hojabri: *Text from US5896128A (Boyer)* "Each participant in a multimedia conference using the present invention may arrange the various video images into a display in a way that is pleasing to them, and rearrange them at any time during the session." *Id.* at [Column 02, Line 50] "To arrange their display, the conference participants can move and scale the video images and overlap them in a prioritized manner similar to a windowed workstation display. A user can select any of the images that appear on their video display for an operation on that image. The user's pointing device (e.g., mouse) can be used to move or resize an image, in an analogous way to the "click and drag" operations supported by PC Window environments. The present invention brings this unprecedented capability to the video work space. Additionally, various elements of each image, such as a person or a chart, can be "keyed" in or out of the image so that the elements desired can be assembled in a more natural manner, unrestricted by rectangular boundaries." *Id.* at [Column 02, Line 54]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 4  *Id.* at [Figure 04] "A video composing unit (VCU) 74 receives the normalized input video signals from the cameras and combines the signals. Also input to the VCU 74 are control signals provided by a control unit 76 which processes the user control signals C1, C2 . . . CN, to control the contents and presentation of the output of the VCU 74. Operation of the VCU 74 and the control unit 76 is described in more detail hereinafter. The output of the VCU 74 is a plurality of normalized video signals, each of which contains a video image similar to the one shown in the pop-up window 52 of FIG. 4." *Id.* at [Column 05, Line 62] *Text from US6950097B1 (Hojabri)*

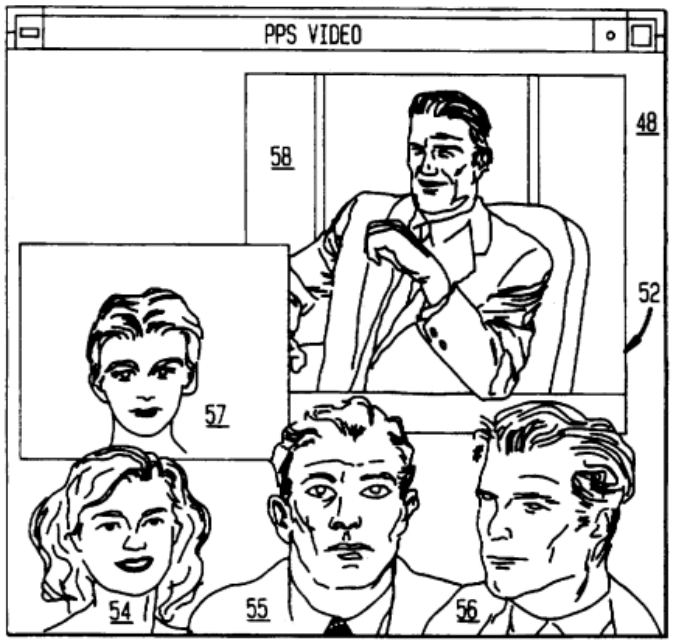
Asserted Claim of the '708 Patent	Exemplary Citations
	"Referring to FIG. 5, one example of an advantage provided by the present invention is the ability to control various characteristics of the video signal and image display remotely from the computer 102 (FIG. 4) as opposed to locally via some form of control panel or switches on the housing of the display unit itself (not shown). Within the main video image window 60, video control windows 62, 64 can be introduced in which various "slider" controls 63, 65 are displayed for controlling the various video signal or image display characteristics as discussed above (e.g., by pointing and clicking with a computer pointing device, or "mouse"). For example, in the first window 62, controls 63 a, 63 b can be exercised for controlling the brightness and contrast of the image, while in a second window 64, controls 65 a, 65 c can be exercised to control the height and width of the displayed image." *Id.* at [Column 05, Line 19]  **FIG. 5** *Id.* at Figure 05
[Claim 14] The method according to claim 10, further comprising:	It would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Boyer and Hojabri:

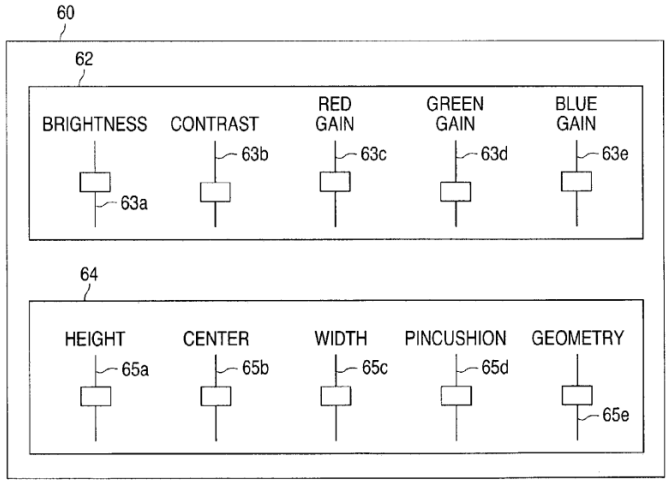
Asserted Claim of the '708 Patent	Exemplary Citations
displaying the object on the display, which is of a video conference terminal.	*Text from US5896128A (Boyer)* "Each participant in a multimedia conference using the present invention may arrange the various video images into a display in a way that is pleasing to them, and rearrange them at any time during the session." *Id.* at [Column 02, Line 50] "To arrange their display, the conference participants can move and scale the video images and overlap them in a prioritized manner similar to a windowed workstation display. A user can select any of the images that appear on their video display for an operation on that image. The user's pointing device (e.g., mouse) can be used to move or resize an image, in an analogous way to the "click and drag" operations supported by PC Window environments. The present invention brings this unprecedented capability to the video work space. Additionally, various elements of each image, such as a person or a chart, can be "keyed" in or out of the image so that the elements desired can be assembled in a more natural manner, unrestricted by rectangular boundaries." *Id.* at [Column 02, Line 54]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 4  *Id.* at [Figure 04] "A video composing unit (VCU) 74 receives the normalized input video signals from the cameras and combines the signals. Also input to the VCU 74 are control signals provided by a control unit 76 which processes the user control signals C1, C2 . . . CN, to control the contents and presentation of the output of the VCU 74. Operation of the VCU 74 and the control unit 76 is described in more detail hereinafter. The output of the VCU 74 is a plurality of normalized video signals, each of which contains a video image similar to the one shown in the pop-up window 52 of FIG. 4." *Id.* at [Column 05, Line 62] *Text from US6950097B1 (Hojabri)*

Asserted Claim of the '708 Patent	Exemplary Citations
	"Referring to FIG. 5, one example of an advantage provided by the present invention is the ability to control various characteristics of the video signal and image display remotely from the computer 102 (FIG. 4) as opposed to locally via some form of control panel or switches on the housing of the display unit itself (not shown). Within the main video image window 60, video control windows 62, 64 can be introduced in which various "slider" controls 63, 65 are displayed for controlling the various video signal or image display characteristics as discussed above (e.g., by pointing and clicking with a computer pointing device, or "mouse"). For example, in the first window 62, controls 63 a, 63 b can be exercised for controlling the brightness and contrast of the image, while in a second window 64, controls 65 a, 65 c can be exercised to control the height and width of the displayed image." *Id.* at [Column 05, Line 19]  **FIG. 5** *Id.* at Figure 05
[Claim 15] The method according to claim 13, further comprising:	It would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Boyer and Hojabri:

Asserted Claim of the '708 Patent	Exemplary Citations
updating one of the composite video signal and the replica in real time as the object is moved by the user.	*Text from US5896128A (Boyer)* "Each participant in a multimedia conference using the present invention may arrange the various video images into a display in a way that is pleasing to them, and rearrange them at any time during the session." *Id.* at [Column 02, Line 50] "To arrange their display, the conference participants can move and scale the video images and overlap them in a prioritized manner similar to a windowed workstation display. A user can select any of the images that appear on their video display for an operation on that image. The user's pointing device (e.g., mouse) can be used to move or resize an image, in an analogous way to the "click and drag" operations supported by PC Window environments. The present invention brings this unprecedented capability to the video work space. Additionally, various elements of each image, such as a person or a chart, can be "keyed" in or out of the image so that the elements desired can be assembled in a more natural manner, unrestricted by rectangular boundaries." *Id.* at [Column 02, Line 54]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 4  *Id.* at [Figure 04] "A video composing unit (VCU) 74 receives the normalized input video signals from the cameras and combines the signals. Also input to the VCU 74 are control signals provided by a control unit 76 which processes the user control signals C1, C2 . . . CN, to control the contents and presentation of the output of the VCU 74. Operation of the VCU 74 and the control unit 76 is described in more detail hereinafter. The output of the VCU 74 is a plurality of normalized video signals, each of which contains a video image similar to the one shown in the pop-up window 52 of FIG. 4." *Id.* at [Column 05, Line 62] *Text from US6950097B1 (Hojabri)*

Asserted Claim of the '708 Patent	Exemplary Citations
	"Referring to FIG. 5, one example of an advantage provided by the present invention is the ability to control various characteristics of the video signal and image display remotely from the computer 102 (FIG. 4) as opposed to locally via some form of control panel or switches on the housing of the display unit itself (not shown). Within the main video image window 60, video control windows 62, 64 can be introduced in which various "slider" controls 63, 65 are displayed for controlling the various video signal or image display characteristics as discussed above (e.g., by pointing and clicking with a computer pointing device, or "mouse"). For example, in the first window 62, controls 63 a, 63 b can be exercised for controlling the brightness and contrast of the image, while in a second window 64, controls 65 a, 65 c can be exercised to control the height and width of the displayed image." *Id.* at [Column 05, Line 19]  **FIG. 5** *Id.* at Figure 05
[Claim 16(a)] A non-transitory computer-readable storage medium including computer executable	Wang either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100138767A1 (Wang)*

Asserted Claim of the '708 Patent	Exemplary Citations
instructions, wherein the instructions, when executed by a computer, cause the computer to perform a method, the method comprising:	"FIG. 2 shows a more detailed system 200 in which the multi-panel UI is implemented. The system 200 is embodied as a computing device 202 that presents the multi-panel UI 120 on a display 204. The computing device 202 may be representative of any number of devices, including, for example, a personal computer, portable computer, communication device, entertainment device, and so forth. The computing device 202 has a processor 206 and a memory 208. The memory 208 includes computer-readable media in the form of volatile memory, such as Random Access Memory (RAM) and/or non-volatile memory, such as Read Only Memory (ROM) or flash RAM. In FIG. 2, the memory 208 stores an operating system 138 and one or more application programs 210 that are accessible by and executable on the processor 202. The memory 208 may further store various forms of content." *Id.* at [Para 0025] "One or more computer readable media storing computer-executable instructions that, when executed, perform acts comprising:…" *Id.* at [Claim 17]
[Claim 16(b)] providing, on a display, an object configured to be moved by a user along an axis;	Wang either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100138767A1 (Wang)* "While this windowing user interface environment is effective and commonly understood, there may be situations where a user wishes to arrange content in a different manner on a screen." *Id.* at [Para 0002] "This disclosure describes a user interface and techniques for presenting subject matter on a screen. Generally, the user interface allows different subject matter (e.g., data, content, programs, browsers, etc.) to be displayed concurrently on a screen in predefined and resizable areas, or panels. A user can navigate around the panels and intuitively resize them via a single actuation event, such as a single mouse click or a touch screen tap from a stylus or finger. The panels are separated by one or more demarcation bars. For instance, a single bar may be used to separate two panels, two bars may define four panels, three bars may define six panels, and so on. The bars are movable in response to a single actuation event (although, if desired, the UI may be configured to execute on multiple sequential actuation events). In one implementation, a bar navigation element is overlaid on the user interface to provide a visual cue that aids the user when repositioning the bars. In response to a single actuation of the bar navigation element, the bars are moved to new positions, thereby resizing the panels. After resizing, the panels remain in their original orientation and relative positioning. Additionally, all of the panels remain visible so that the user

Asserted Claim of the '708 Patent	Exemplary Citations
	can easily track their location. The multi-panel user interface fosters an intuitive and viewer friendly environment for concurrent viewing of multiple programs and other items." *Id.* at [Para 0015]

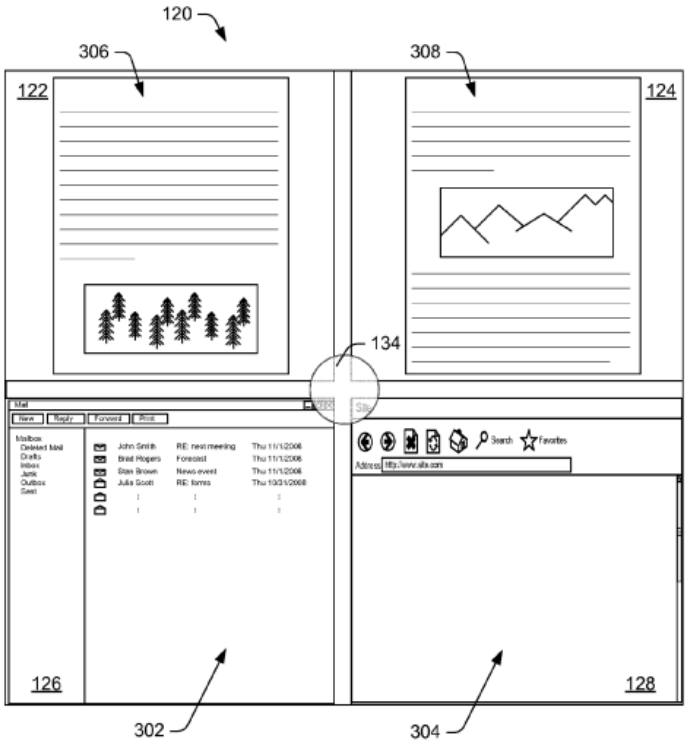


Fig. 3

Id. at Figure 03

"FIG. 3 shows an example where different subject matter is placed in the four panels of the UI 120. Here, an email program 302 is placed in the lower left panel 126. A browser 304 is put in the lower right panel

Asserted Claim of the '708 Patent	Exemplary Citations
	128. Two documents 306 and 308 are placed in the upper left panel 122 and upper right panel 124, respectively. The various forms of subject matter are presented in a viewer friendly layout, with non-overlapping panels that allow the user to see all the subject matter concurrently or focus on particular panels more specifically. The user can drag-n-drop subject matter to and from the panel. In this way, the user can easily move subject matter around without having to open and track numerous independent pane interfaces. It is noted that while two programs and two documents are shown in this example, any number of combinations of any type of subject matter may be used." *Id.* at [Para 0027] "The UI 120 further includes a bar navigation element 134 that facilitates or initiates movement of the bars. The bar navigation element 134 provides visual cues to aid the user in navigating the bars among various preset positions. In the illustrated arrangement, the bar navigation element 134 is independent of the demarcation bars 130 and 132, but overlaid at the intersection of the two demarcation bars 130 and 132. Further, the bar navigation element 134 may be slightly transparent to expose the intersection of the two bars." *Id.* at [Para 0029] When a pointer 212 is moved atop different zones of the bar navigation element 134, a corresponding visual cue appears to inform the user of a corresponding navigation operation. If the user actuates the element 134 (e.g., single mouse click, stylus or finger tap, etc.), the bars are concurrently moved to one of the preset positions that corresponds to the visual cue. In this manner, the user can move the bars among the preset positions in response to a single actuation of the bar navigation element 134. Accordingly, the multi-panel UI 120 provides an intuitive navigation control that is easy to use with minimal control tasks. *Id.* at [Para 0030]

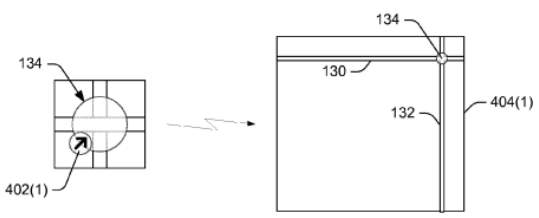


Fig. 4(a)

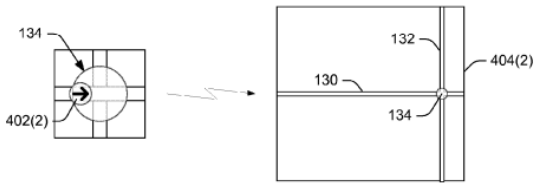


Fig. 4(b)

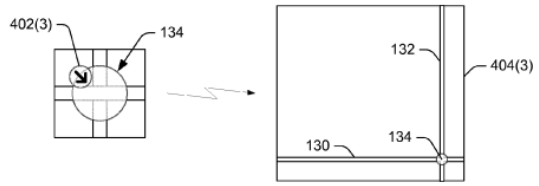


Fig. 4(c)

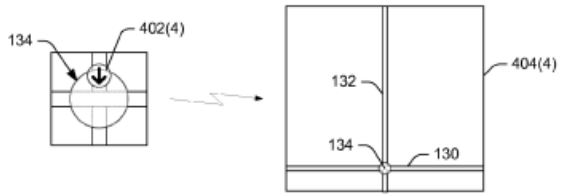


Fig. 4(d)

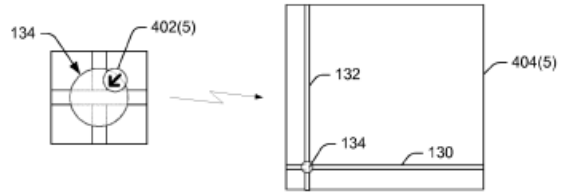


Fig. 4(e)

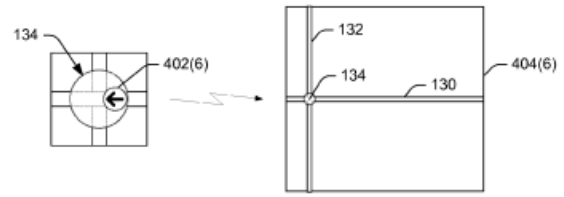
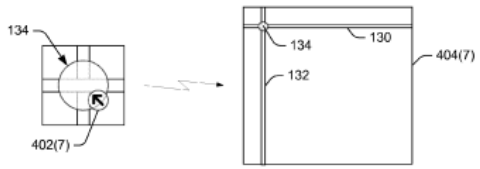
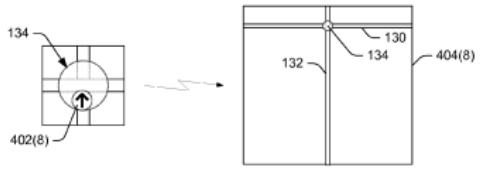
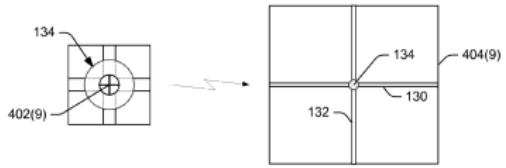
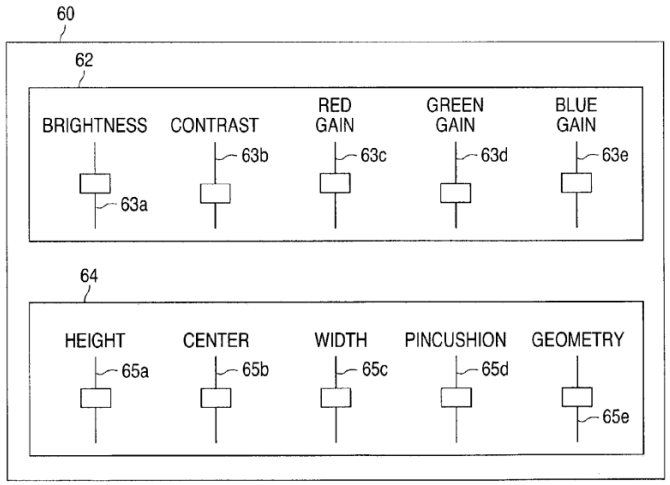


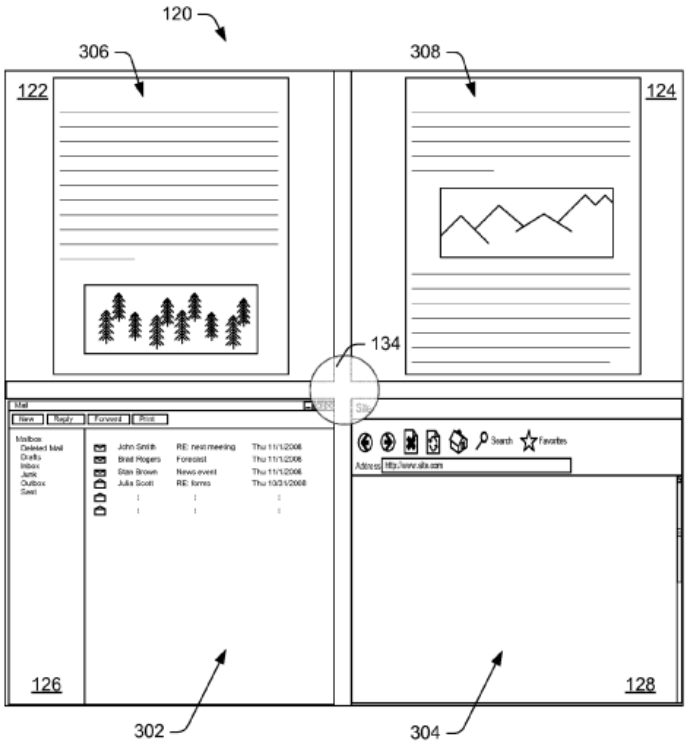
Fig. 4(f)

Asserted Claim of the '708 Patent	Exemplary Citations
	 Fig. 4(g)  Fig. 4(h)  Fig. 4(i) "FIGS. 4(a)-4(i) show an example set of navigation commands for navigating the two demarcation bars 130 and 132 to nine preset positions corresponding to nine visual cues provided by the bar navigation element 134. In the FIGS. 4(a)-4(i), a visual cue 402 is shown in different zones of the bar navigation element 134. The visual cue 402 appears, for example, when the user moves a pointer over a particular zone of the element 134. As shown, the visual cue 402 is a graphic with an arrow or pointer within a circle or bubble shaped element, although other representations may be used. The position of the visual cue 402 and direction of its interior arrow are intended to convey how the demarcation bars will be moved upon actuation of the navigation element 134. Moreover, single actuation of the element 134 when the visual cue 402 is visible causes the bars to reposition to a preset position indicated by the visual cue." *Id.* at [Para 0031]

Asserted Claim of the '708 Patent	Exemplary Citations
	"In FIG. 4(a), a first position of the visual cue, referenced as 402(1), is shown in a lower left portion (or southwest zone) of the bar navigation element 134. Upon single actuation of the element 134 when this visual cue is visible, the horizontal demarcation bar 130 is moved to an upper position and the vertical demarcation bar 132 is moved to a rightmost position, as shown in a representation 404(1) of the multi-panel UI. Movement of the bars may take place instantaneously, or via a slower animated sliding, depending upon implementation decisions. By moving the bars together, all four panels are simultaneously resized. The lower left panel is enlarged while the remaining three panels are reduced in size. Notice, however, that all four panels retain their original orientation and relative positioning. Further, all four panels remain visible so that the user can easily track their location. The bar navigation element 134 is also moved to overlay the intersection of the two bars 130 and 132 in the upper right hand corner of the UI." *Id.* at [Para 0032] To the extent that Cisco contends that Wang does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Hojabri: *Text from US6950097B1 (Hojabri)* "Referring to FIG. 5, one example of an advantage provided by the present invention is the ability to control various characteristics of the video signal and image display remotely from the computer 102 (FIG. 4) as opposed to locally via some form of control panel or switches on the housing of the display unit itself (not shown). Within the main video image window 60, video control windows 62, 64 can be introduced in which various "slider" controls 63, 65 are displayed for controlling the various video signal or image display characteristics as discussed above (e.g., by pointing and clicking with a computer pointing device, or "mouse"). For example, in the first window 62, controls 63 a, 63 b can be exercised for controlling the brightness and contrast of the image, while in a second window 64, controls 65 a, 65 c can be exercised to control the height and width of the displayed image." *Id.* at [Column 05, Line 19]

Asserted Claim of the '708 Patent	Exemplary Citations
	 **FIG. 5** *Id.* at Figure 05
[Claim 16(c)] associating a plurality of predefined layouts with respective intervals along the axis;	Wang either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100138767A1 (Wang)* "While this windowing user interface environment is effective and commonly understood, there may be situations where a user wishes to arrange content in a different manner on a screen." *Id.* at [Para 0002] "This disclosure describes a user interface and techniques for presenting subject matter on a screen. Generally, the user interface allows different subject matter (e.g., data, content, programs, browsers, etc.) to be displayed concurrently on a screen in predefined and resizable areas, or panels. A user can navigate around the panels and intuitively resize them via a single actuation event, such as a single mouse click or a touch screen tap from a stylus or finger. The panels are separated by one or more demarcation bars. For instance, a single bar may be used to separate two panels, two bars may define four panels, three bars may define six panels, and so on. The bars are movable in response to a single actuation event (although, if

Asserted Claim of the '708 Patent	Exemplary Citations
	desired, the UI may be configured to execute on multiple sequential actuation events). In one implementation, a bar navigation element is overlaid on the user interface to provide a visual cue that aids the user when repositioning the bars. In response to a single actuation of the bar navigation element, the bars are moved to new positions, thereby resizing the panels. After resizing, the panels remain in their original orientation and relative positioning. Additionally, all of the panels remain visible so that the user can easily track their location. The multi-panel user interface fosters an intuitive and viewer friendly environment for concurrent viewing of multiple programs and other items." *Id.* at [Para 0015]

Asserted Claim of the '708 Patent	Exemplary Citations
	 Fig. 3 *Id.* at Figure 03 "FIG. 3 shows an example where different subject matter is placed in the four panels of the UI 120. Here, an email program 302 is placed in the lower left panel 126. A browser 304 is put in the lower right panel 128. Two documents 306 and 308 are placed in the upper left panel 122 and upper right panel 124, respectively. The various forms of subject matter are presented in a viewer friendly layout, with non-overlapping panels that allow the user to see all the subject matter concurrently or focus on particular

Asserted Claim of the '708 Patent	Exemplary Citations
	panels more specifically. The user can drag-n-drop subject matter to and from the panel. In this way, the user can easily move subject matter around without having to open and track numerous independent pane interfaces. It is noted that while two programs and two documents are shown in this example, any number of combinations of any type of subject matter may be used." *Id.* at [Para 0027] "The UI 120 further includes a bar navigation element 134 that facilitates or initiates movement of the bars. The bar navigation element 134 provides visual cues to aid the user in navigating the bars among various preset positions. In the illustrated arrangement, the bar navigation element 134 is independent of the demarcation bars 130 and 132, but overlaid at the intersection of the two demarcation bars 130 and 132. Further, the bar navigation element 134 may be slightly transparent to expose the intersection of the two bars." *Id.* at [Para 0029] When a pointer 212 is moved atop different zones of the bar navigation element 134, a corresponding visual cue appears to inform the user of a corresponding navigation operation. If the user actuates the element 134 (e.g., single mouse click, stylus or finger tap, etc.), the bars are concurrently moved to one of the preset positions that corresponds to the visual cue. In this manner, the user can move the bars among the preset positions in response to a single actuation of the bar navigation element 134. Accordingly, the multi-panel UI 120 provides an intuitive navigation control that is easy to use with minimal control tasks. *Id.* at [Para 0030]

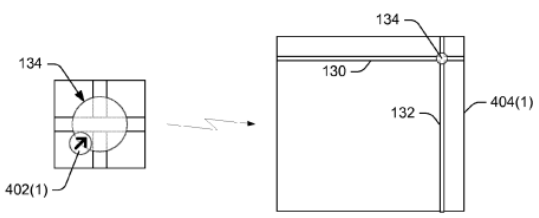


Fig. 4(a)

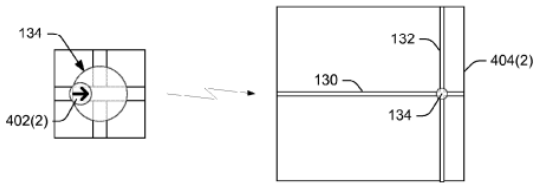


Fig. 4(b)

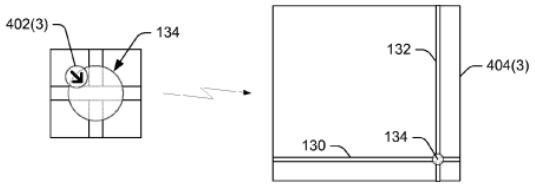


Fig. 4(c)

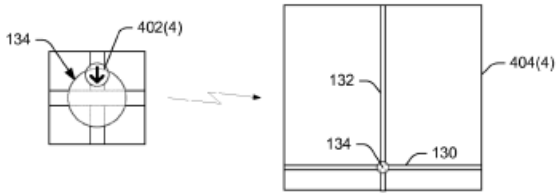


Fig. 4(d)

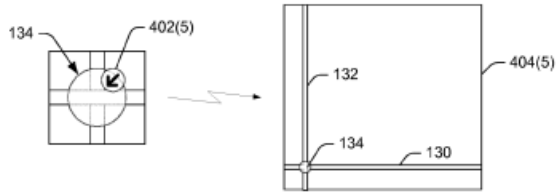


Fig. 4(e)

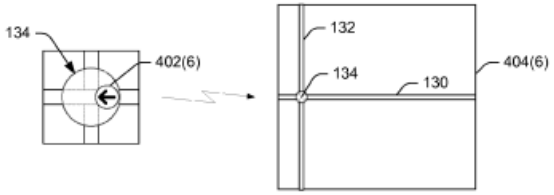
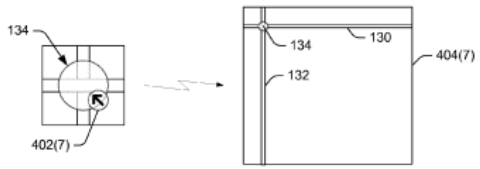
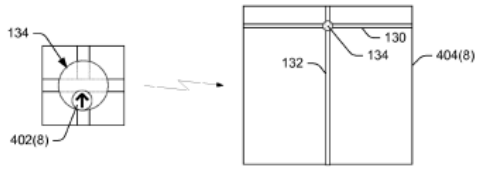
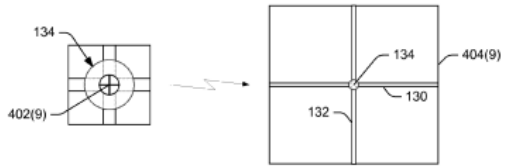
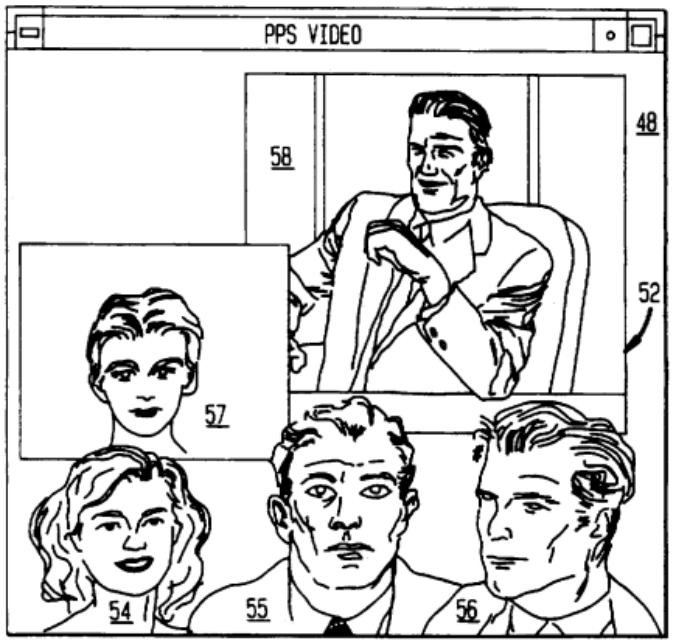
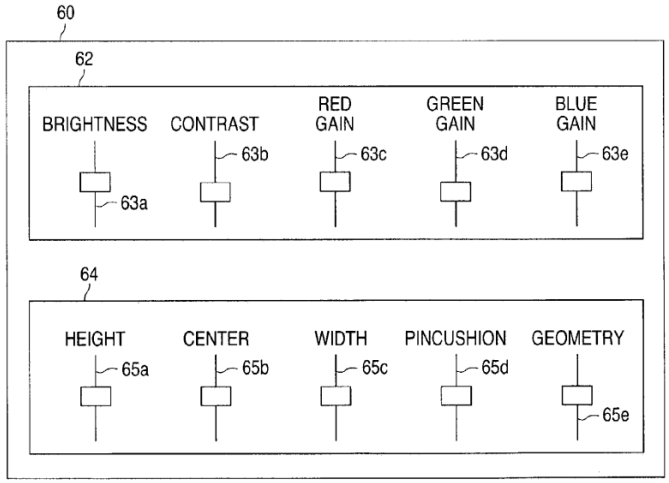


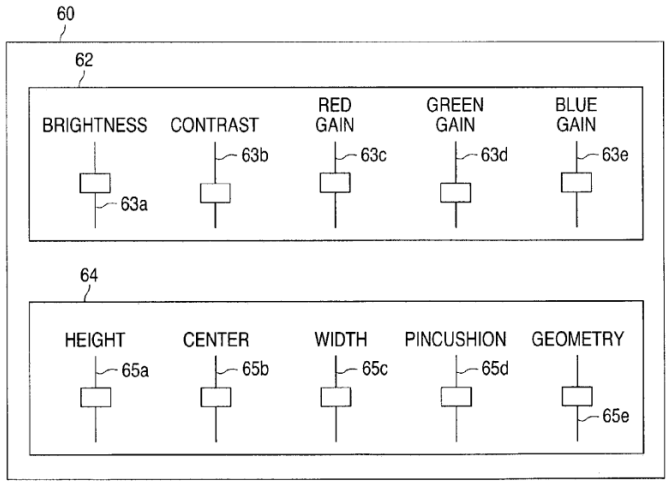
Fig. 4(f)

Asserted Claim of the '708 Patent	Exemplary Citations
	 Fig. 4(g)  Fig. 4(h)  Fig. 4(i) "FIGS. 4(a)-4(i) show an example set of navigation commands for navigating the two demarcation bars 130 and 132 to nine preset positions corresponding to nine visual cues provided by the bar navigation element 134. In the FIGS. 4(a)-4(i), a visual cue 402 is shown in different zones of the bar navigation element 134. The visual cue 402 appears, for example, when the user moves a pointer over a particular zone of the element 134. As shown, the visual cue 402 is a graphic with an arrow or pointer within a circle or bubble shaped element, although other representations may be used. The position of the visual cue 402 and direction of its interior arrow are intended to convey how the demarcation bars will be moved upon actuation of the navigation element 134. Moreover, single actuation of the element 134 when the visual cue 402 is visible causes the bars to reposition to a preset position indicated by the visual cue." *Id.* at [Para 0031]

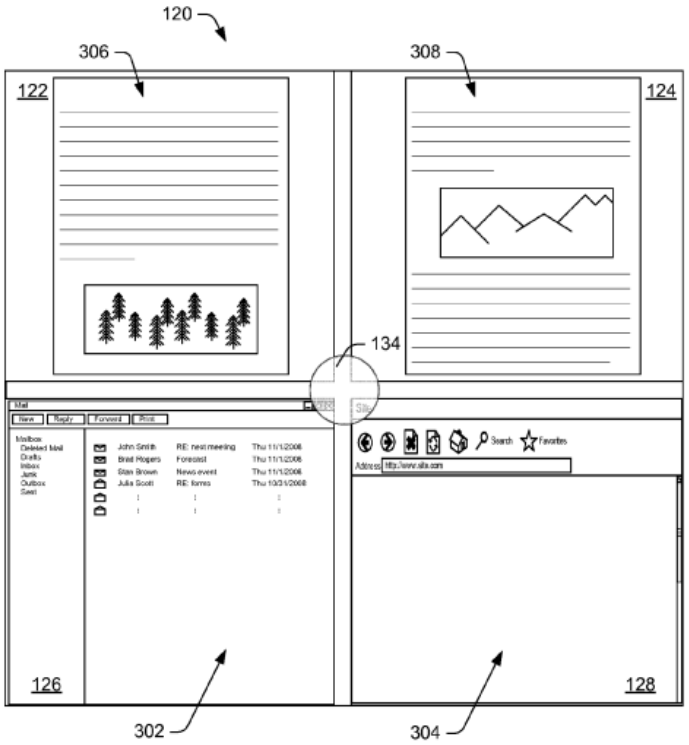
Asserted Claim of the '708 Patent	Exemplary Citations
	"In FIG. 4(a), a first position of the visual cue, referenced as 402(1), is shown in a lower left portion (or southwest zone) of the bar navigation element 134. Upon single actuation of the element 134 when this visual cue is visible, the horizontal demarcation bar 130 is moved to an upper position and the vertical demarcation bar 132 is moved to a rightmost position, as shown in a representation 404(1) of the multi-panel UI. Movement of the bars may take place instantaneously, or via a slower animated sliding, depending upon implementation decisions. By moving the bars together, all four panels are simultaneously resized. The lower left panel is enlarged while the remaining three panels are reduced in size. Notice, however, that all four panels retain their original orientation and relative positioning. Further, all four panels remain visible so that the user can easily track their location. The bar navigation element 134 is also moved to overlay the intersection of the two bars 130 and 132 in the upper right hand corner of the UI." *Id.* at [Para 0032] To the extent that Cisco contends that Wang does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Boyer and Hojabri: *Text from US5896128A (Boyer)* "Each participant in a multimedia conference using the present invention may arrange the various video images into a display in a way that is pleasing to them, and rearrange them at any time during the session." *Id.* at [Column 02, Line 50] "To arrange their display, the conference participants can move and scale the video images and overlap them in a prioritized manner similar to a windowed workstation display. A user can select any of the images that appear on their video display for an operation on that image. The user's pointing device (e.g., mouse) can be used to move or resize an image, in an analogous way to the "click and drag" operations supported by PC Window environments. The present invention brings this unprecedented capability to the video work space. Additionally, various elements of each image, such as a person or a chart, can be "keyed" in or out of the image so that the elements desired can be assembled in a more natural manner, unrestricted by rectangular boundaries." *Id.* at [Column 02, Line 54]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 4  *Id.* at [Figure 04] *Text from US6950097B1 (Hojabri)* "Referring to FIG. 5, one example of an advantage provided by the present invention is the ability to control various characteristics of the video signal and image display remotely from the computer 102 (FIG. 4) as opposed to locally via some form of control panel or switches on the housing of the display unit itself (not shown). Within the main video image window 60, video control windows 62, 64 can be introduced in which various "slider" controls 63, 65 are displayed for controlling the various video signal or image display characteristics as discussed above (e.g., by pointing and clicking with a computer

Asserted Claim of the '708 Patent	Exemplary Citations
	pointing device, or "mouse"). For example, in the first window 62, controls 63 a, 63 b can be exercised for controlling the brightness and contrast of the image, while in a second window 64, controls 65 a, 65 c can be exercised to control the height and width of the displayed image." *Id.* at [Column 05, Line 19]  **FIG. 5** *Id.* at Figure 05
[Claim 16(d)] detecting a user action on the object indicating a position on the axis;	It would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Hojabri: *Text from US6950097B1 (Hojabri)* "Referring to FIG. 5, one example of an advantage provided by the present invention is the ability to control various characteristics of the video signal and image display remotely from the computer 102 (FIG. 4) as opposed to locally via some form of control panel or switches on the housing of the display unit itself (not shown). Within the main video image window 60, video control windows 62, 64 can be introduced in which various "slider" controls 63, 65 are displayed for controlling the various video signal

Asserted Claim of the '708 Patent	Exemplary Citations
	or image display characteristics as discussed above (e.g., by pointing and clicking with a computer pointing device, or "mouse"). For example, in the first window 62, controls 63 a, 63 b can be exercised for controlling the brightness and contrast of the image, while in a second window 64, controls 65 a, 65 c can be exercised to control the height and width of the displayed image." *Id.* at [Column 05, Line 19]  **FIG. 5** *Id.* at Figure 05
[Claim 16(e)] selecting a layout, of the plurality of predefined layouts, associated with an interval among the intervals within which the position on the axis is lying; and	Wang either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100138767A1 (Wang)* "While this windowing user interface environment is effective and commonly understood, there may be situations where a user wishes to arrange content in a different manner on a screen." *Id.* at [Para 0002] "This disclosure describes a user interface and techniques for presenting subject matter on a screen. Generally, the user interface allows different subject matter (e.g., data, content, programs, browsers, etc.) to be displayed concurrently on a screen in predefined and resizable areas, or panels. A user can navigate

Asserted Claim of the '708 Patent	Exemplary Citations
	around the panels and intuitively resize them via a single actuation event, such as a single mouse click or a touch screen tap from a stylus or finger. The panels are separated by one or more demarcation bars. For instance, a single bar may be used to separate two panels, two bars may define four panels, three bars may define six panels, and so on. The bars are movable in response to a single actuation event (although, if desired, the UI may be configured to execute on multiple sequential actuation events). In one implementation, a bar navigation element is overlaid on the user interface to provide a visual cue that aids the user when repositioning the bars. In response to a single actuation of the bar navigation element, the bars are moved to new positions, thereby resizing the panels. After resizing, the panels remain in their original orientation and relative positioning. Additionally, all of the panels remain visible so that the user can easily track their location. The multi-panel user interface fosters an intuitive and viewer friendly environment for concurrent viewing of multiple programs and other items." *Id.* at [Para 0015]

Asserted Claim of the '708 Patent	Exemplary Citations
	 Fig. 3 *Id.* at Figure 03 "FIG. 3 shows an example where different subject matter is placed in the four panels of the UI 120. Here, an email program 302 is placed in the lower left panel 126. A browser 304 is put in the lower right panel 128. Two documents 306 and 308 are placed in the upper left panel 122 and upper right panel 124, respectively. The various forms of subject matter are presented in a viewer friendly layout, with non-overlapping panels that allow the user to see all the subject matter concurrently or focus on particular

Asserted Claim of the '708 Patent	Exemplary Citations
	panels more specifically. The user can drag-n-drop subject matter to and from the panel. In this way, the user can easily move subject matter around without having to open and track numerous independent pane interfaces. It is noted that while two programs and two documents are shown in this example, any number of combinations of any type of subject matter may be used." *Id.* at [Para 0027] "The UI 120 further includes a bar navigation element 134 that facilitates or initiates movement of the bars. The bar navigation element 134 provides visual cues to aid the user in navigating the bars among various preset positions. In the illustrated arrangement, the bar navigation element 134 is independent of the demarcation bars 130 and 132, but overlaid at the intersection of the two demarcation bars 130 and 132. Further, the bar navigation element 134 may be slightly transparent to expose the intersection of the two bars." *Id.* at [Para 0029] When a pointer 212 is moved atop different zones of the bar navigation element 134, a corresponding visual cue appears to inform the user of a corresponding navigation operation. If the user actuates the element 134 (e.g., single mouse click, stylus or finger tap, etc.), the bars are concurrently moved to one of the preset positions that corresponds to the visual cue. In this manner, the user can move the bars among the preset positions in response to a single actuation of the bar navigation element 134. Accordingly, the multi-panel UI 120 provides an intuitive navigation control that is easy to use with minimal control tasks. *Id.* at [Para 0030]

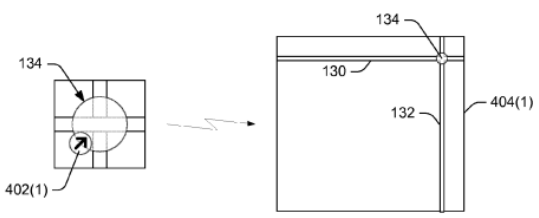


Fig. 4(a)

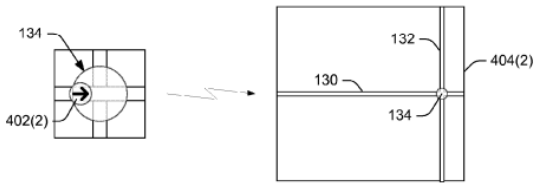


Fig. 4(b)

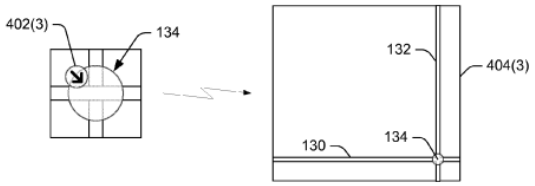


Fig. 4(c)

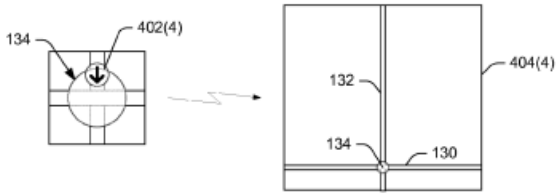


Fig. 4(d)

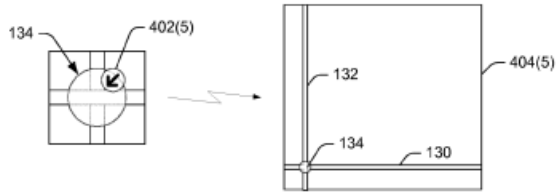


Fig. 4(e)

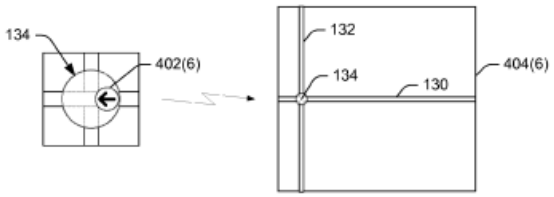
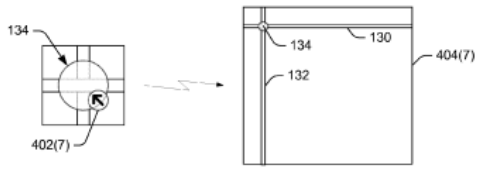
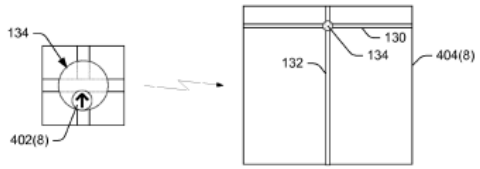
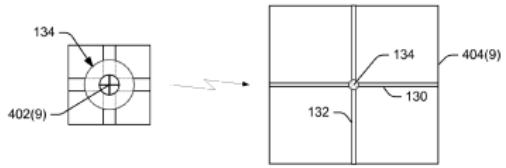
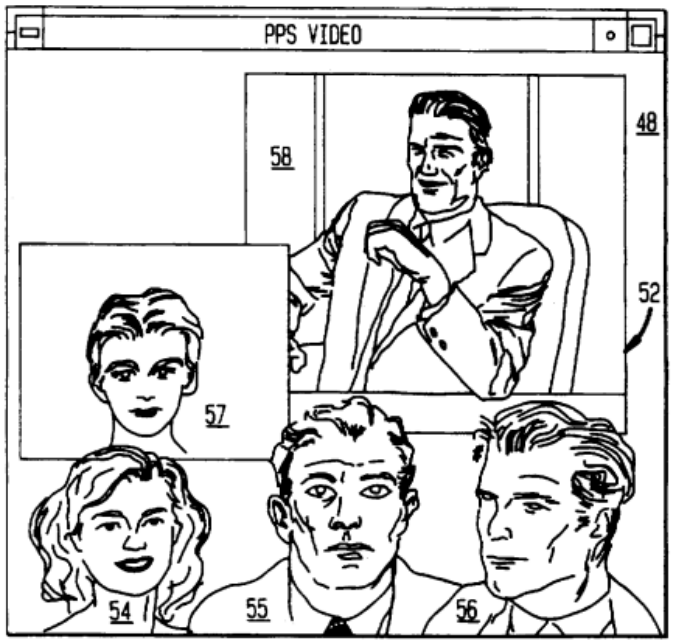
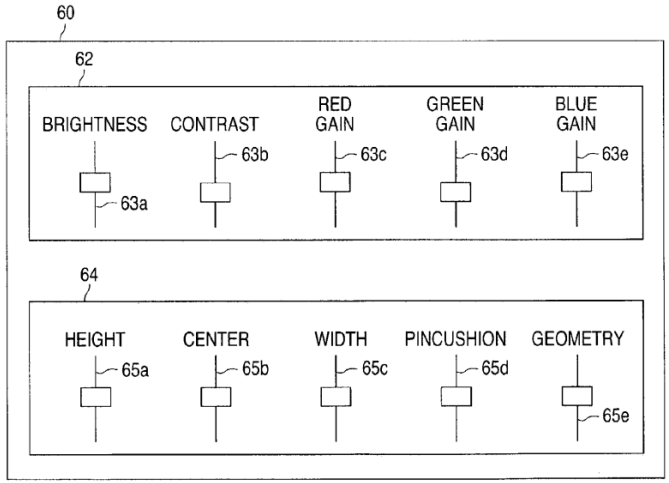


Fig. 4(f)

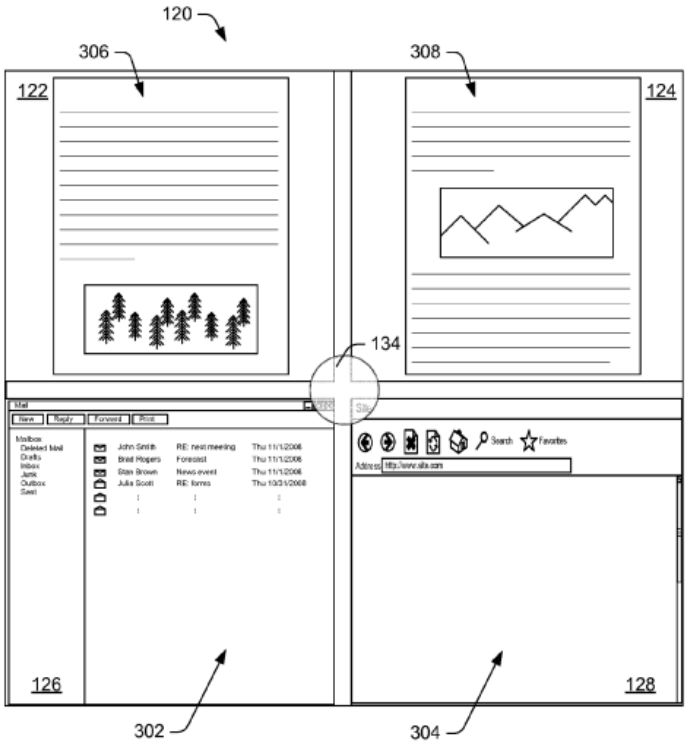
Asserted Claim of the '708 Patent	Exemplary Citations
	 Fig. 4(g)  Fig. 4(h)  Fig. 4(i) "FIGS. 4(a)-4(i) show an example set of navigation commands for navigating the two demarcation bars 130 and 132 to nine preset positions corresponding to nine visual cues provided by the bar navigation element 134. In the FIGS. 4(a)-4(i), a visual cue 402 is shown in different zones of the bar navigation element 134. The visual cue 402 appears, for example, when the user moves a pointer over a particular zone of the element 134. As shown, the visual cue 402 is a graphic with an arrow or pointer within a circle or bubble shaped element, although other representations may be used. The position of the visual cue 402 and direction of its interior arrow are intended to convey how the demarcation bars will be moved upon actuation of the navigation element 134. Moreover, single actuation of the element 134 when the visual cue 402 is visible causes the bars to reposition to a preset position indicated by the visual cue." *Id.* at [Para 0031]

Asserted Claim of the '708 Patent	Exemplary Citations
	"In FIG. 4(a), a first position of the visual cue, referenced as 402(1), is shown in a lower left portion (or southwest zone) of the bar navigation element 134. Upon single actuation of the element 134 when this visual cue is visible, the horizontal demarcation bar 130 is moved to an upper position and the vertical demarcation bar 132 is moved to a rightmost position, as shown in a representation 404(1) of the multi-panel UI. Movement of the bars may take place instantaneously, or via a slower animated sliding, depending upon implementation decisions. By moving the bars together, all four panels are simultaneously resized. The lower left panel is enlarged while the remaining three panels are reduced in size. Notice, however, that all four panels retain their original orientation and relative positioning. Further, all four panels remain visible so that the user can easily track their location. The bar navigation element 134 is also moved to overlay the intersection of the two bars 130 and 132 in the upper right hand corner of the UI." *Id.* at [Para 0032] To the extent that Cisco contends that Wang does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Boyer and Hojabri: *Text from US5896128A (Boyer)* "Each participant in a multimedia conference using the present invention may arrange the various video images into a display in a way that is pleasing to them, and rearrange them at any time during the session." *Id.* at [Column 02, Line 50] "To arrange their display, the conference participants can move and scale the video images and overlap them in a prioritized manner similar to a windowed workstation display. A user can select any of the images that appear on their video display for an operation on that image. The user's pointing device (e.g., mouse) can be used to move or resize an image, in an analogous way to the "click and drag" operations supported by PC Window environments. The present invention brings this unprecedented capability to the video work space. Additionally, various elements of each image, such as a person or a chart, can be "keyed" in or out of the image so that the elements desired can be assembled in a more natural manner, unrestricted by rectangular boundaries." *Id.* at [Column 02, Line 54]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 4  *Id.* at [Figure 04] "A video composing unit (VCU) 74 receives the normalized input video signals from the cameras and combines the signals. Also input to the VCU 74 are control signals provided by a control unit 76 which processes the user control signals C1, C2 . . . CN, to control the contents and presentation of the output of the VCU 74. Operation of the VCU 74 and the control unit 76 is described in more detail hereinafter. The output of the VCU 74 is a plurality of normalized video signals, each of which contains a video image similar to the one shown in the pop-up window 52 of FIG. 4." *Id.* at [Column 05, Line 62]

Asserted Claim of the '708 Patent	Exemplary Citations
	Text from US6950097B1 (Hojabri) "Referring to FIG. 5, one example of an advantage provided by the present invention is the ability to control various characteristics of the video signal and image display remotely from the computer 102 (FIG. 4) as opposed to locally via some form of control panel or switches on the housing of the display unit itself (not shown). Within the main video image window 60, video control windows 62, 64 can be introduced in which various "slider" controls 63, 65 are displayed for controlling the various video signal or image display characteristics as discussed above (e.g., by pointing and clicking with a computer pointing device, or "mouse"). For example, in the first window 62, controls 63 a, 63 b can be exercised for controlling the brightness and contrast of the image, while in a second window 64, controls 65 a, 65 c can be exercised to control the height and width of the displayed image." *Id.* at [Column 05, Line 19]  **FIG. 5** *Id.* at Figure 05
[Claim 16(f)] composing, in response to the detecting of the user	Wang either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate:

Asserted Claim of the '708 Patent	Exemplary Citations
action, a composite video signal using the layout, of the plurality of predefined layouts, associated with the interval among the intervals within which the position on the axis is lying.	*Text from US20100138767A1 (Wang)* "While this windowing user interface environment is effective and commonly understood, there may be situations where a user wishes to arrange content in a different manner on a screen." *Id.* at [Para 0002] "This disclosure describes a user interface and techniques for presenting subject matter on a screen. Generally, the user interface allows different subject matter (e.g., data, content, programs, browsers, etc.) to be displayed concurrently on a screen in predefined and resizable areas, or panels. A user can navigate around the panels and intuitively resize them via a single actuation event, such as a single mouse click or a touch screen tap from a stylus or finger. The panels are separated by one or more demarcation bars. For instance, a single bar may be used to separate two panels, two bars may define four panels, three bars may define six panels, and so on. The bars are movable in response to a single actuation event (although, if desired, the UI may be configured to execute on multiple sequential actuation events). In one implementation, a bar navigation element is overlaid on the user interface to provide a visual cue that aids the user when repositioning the bars. In response to a single actuation of the bar navigation element, the bars are moved to new positions, thereby resizing the panels. After resizing, the panels remain in their original orientation and relative positioning. Additionally, all of the panels remain visible so that the user can easily track their location. The multi-panel user interface fosters an intuitive and viewer friendly environment for concurrent viewing of multiple programs and other items." *Id.* at [Para 0015]

Asserted Claim of the '708 Patent	Exemplary Citations
	 Fig. 3 *Id.* at Figure 03 "FIG. 3 shows an example where different subject matter is placed in the four panels of the UI 120. Here, an email program 302 is placed in the lower left panel 126. A browser 304 is put in the lower right panel 128. Two documents 306 and 308 are placed in the upper left panel 122 and upper right panel 124, respectively. The various forms of subject matter are presented in a viewer friendly layout, with non-overlapping panels that allow the user to see all the subject matter concurrently or focus on particular

Asserted Claim of the '708 Patent	Exemplary Citations
	panels more specifically. The user can drag-n-drop subject matter to and from the panel. In this way, the user can easily move subject matter around without having to open and track numerous independent pane interfaces. It is noted that while two programs and two documents are shown in this example, any number of combinations of any type of subject matter may be used." *Id.* at [Para 0027] "The UI 120 further includes a bar navigation element 134 that facilitates or initiates movement of the bars. The bar navigation element 134 provides visual cues to aid the user in navigating the bars among various preset positions. In the illustrated arrangement, the bar navigation element 134 is independent of the demarcation bars 130 and 132, but overlaid at the intersection of the two demarcation bars 130 and 132. Further, the bar navigation element 134 may be slightly transparent to expose the intersection of the two bars." *Id.* at [Para 0029] When a pointer 212 is moved atop different zones of the bar navigation element 134, a corresponding visual cue appears to inform the user of a corresponding navigation operation. If the user actuates the element 134 (e.g., single mouse click, stylus or finger tap, etc.), the bars are concurrently moved to one of the preset positions that corresponds to the visual cue. In this manner, the user can move the bars among the preset positions in response to a single actuation of the bar navigation element 134. Accordingly, the multi-panel UI 120 provides an intuitive navigation control that is easy to use with minimal control tasks. *Id.* at [Para 0030]

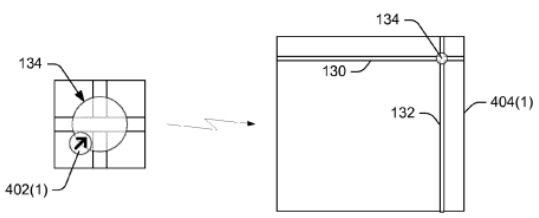


Fig. 4(a)

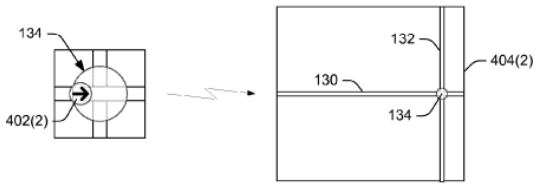


Fig. 4(b)

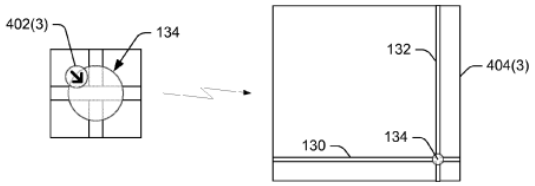


Fig. 4(c)

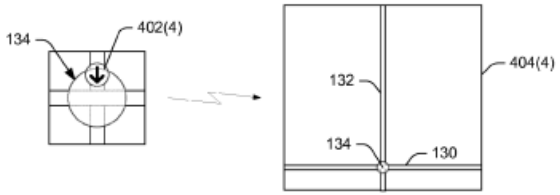


Fig. 4(d)

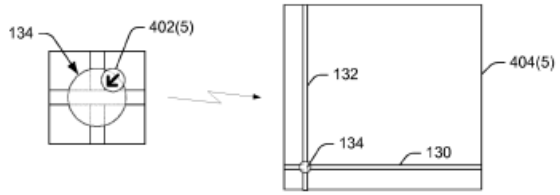


Fig. 4(e)

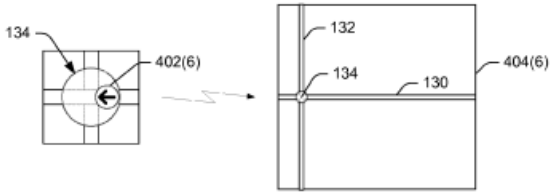
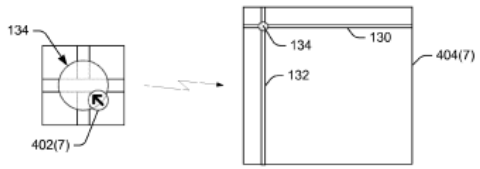
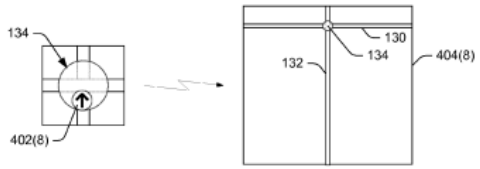
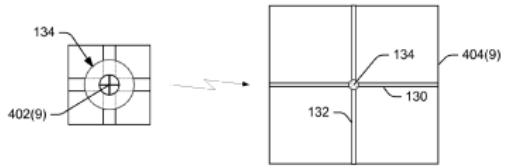
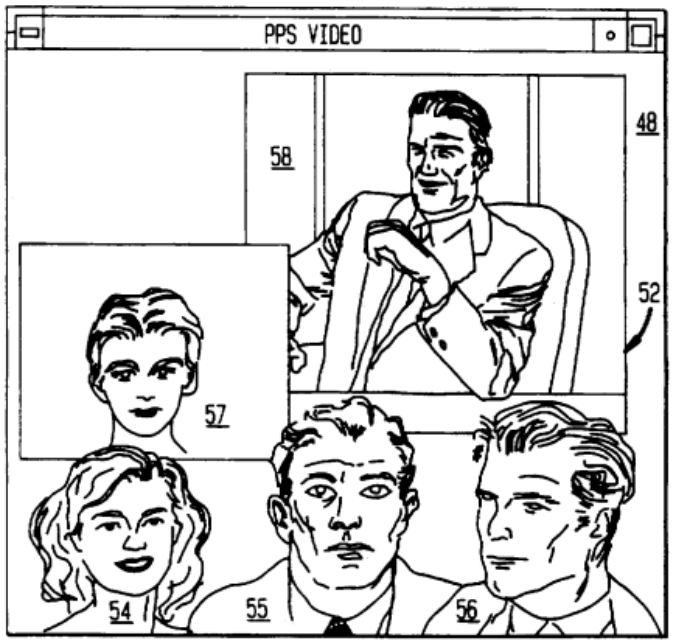
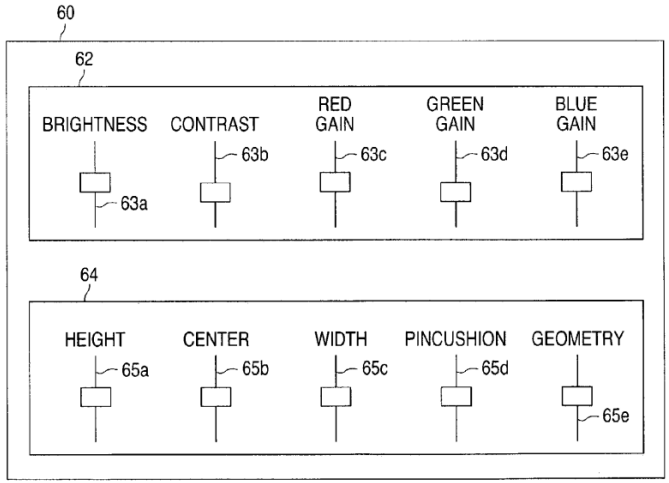


Fig. 4(f)

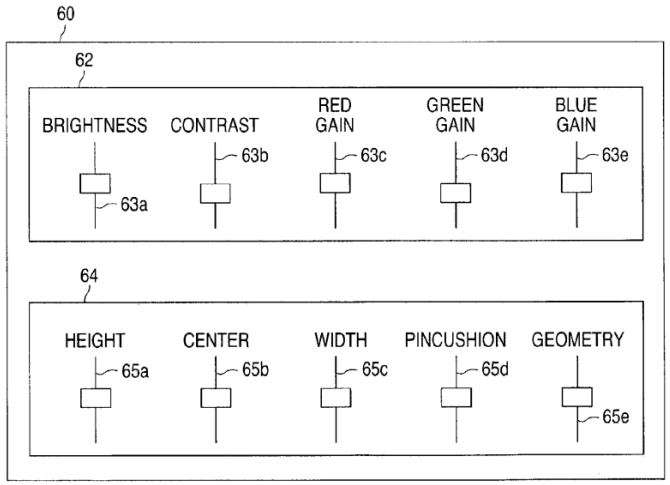
Asserted Claim of the '708 Patent	Exemplary Citations
	 Fig. 4(g)  Fig. 4(h)  Fig. 4(i) "FIGS. 4(a)-4(i) show an example set of navigation commands for navigating the two demarcation bars 130 and 132 to nine preset positions corresponding to nine visual cues provided by the bar navigation element 134. In the FIGS. 4(a)-4(i), a visual cue 402 is shown in different zones of the bar navigation element 134. The visual cue 402 appears, for example, when the user moves a pointer over a particular zone of the element 134. As shown, the visual cue 402 is a graphic with an arrow or pointer within a circle or bubble shaped element, although other representations may be used. The position of the visual cue 402 and direction of its interior arrow are intended to convey how the demarcation bars will be moved upon actuation of the navigation element 134. Moreover, single actuation of the element 134 when the visual cue 402 is visible causes the bars to reposition to a preset position indicated by the visual cue." *Id.* at [Para 0031]

Asserted Claim of the '708 Patent	Exemplary Citations
	"In FIG. 4(a), a first position of the visual cue, referenced as 402(1), is shown in a lower left portion (or southwest zone) of the bar navigation element 134. Upon single actuation of the element 134 when this visual cue is visible, the horizontal demarcation bar 130 is moved to an upper position and the vertical demarcation bar 132 is moved to a rightmost position, as shown in a representation 404(1) of the multi-panel UI. Movement of the bars may take place instantaneously, or via a slower animated sliding, depending upon implementation decisions. By moving the bars together, all four panels are simultaneously resized. The lower left panel is enlarged while the remaining three panels are reduced in size. Notice, however, that all four panels retain their original orientation and relative positioning. Further, all four panels remain visible so that the user can easily track their location. The bar navigation element 134 is also moved to overlay the intersection of the two bars 130 and 132 in the upper right hand corner of the UI." *Id.* at [Para 0032] To the extent that Cisco contends that Wang does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Boyer and Hojabri: *Text from US5896128A (Boyer)* "Each participant in a multimedia conference using the present invention may arrange the various video images into a display in a way that is pleasing to them, and rearrange them at any time during the session." *Id.* at [Column 02, Line 50] "To arrange their display, the conference participants can move and scale the video images and overlap them in a prioritized manner similar to a windowed workstation display. A user can select any of the images that appear on their video display for an operation on that image. The user's pointing device (e.g., mouse) can be used to move or resize an image, in an analogous way to the "click and drag" operations supported by PC Window environments. The present invention brings this unprecedented capability to the video work space. Additionally, various elements of each image, such as a person or a chart, can be "keyed" in or out of the image so that the elements desired can be assembled in a more natural manner, unrestricted by rectangular boundaries." *Id.* at [Column 02, Line 54]

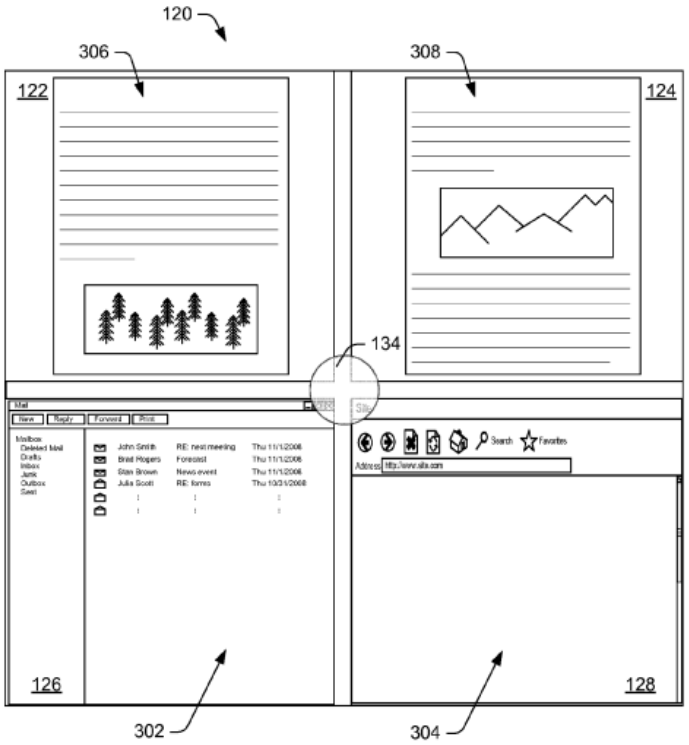
Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 4  *Id.* at [Figure 04] "A video composing unit (VCU) 74 receives the normalized input video signals from the cameras and combines the signals. Also input to the VCU 74 are control signals provided by a control unit 76 which processes the user control signals C1, C2 . . . CN, to control the contents and presentation of the output of the VCU 74. Operation of the VCU 74 and the control unit 76 is described in more detail hereinafter. The output of the VCU 74 is a plurality of normalized video signals, each of which contains a video image similar to the one shown in the pop-up window 52 of FIG. 4." *Id.* at [Column 05, Line 62]

Asserted Claim of the '708 Patent	Exemplary Citations
	Text from US6950097B1 (Hojabri) "Referring to FIG. 5, one example of an advantage provided by the present invention is the ability to control various characteristics of the video signal and image display remotely from the computer 102 (FIG. 4) as opposed to locally via some form of control panel or switches on the housing of the display unit itself (not shown). Within the main video image window 60, video control windows 62, 64 can be introduced in which various "slider" controls 63, 65 are displayed for controlling the various video signal or image display characteristics as discussed above (e.g., by pointing and clicking with a computer pointing device, or "mouse"). For example, in the first window 62, controls 63 a, 63 b can be exercised for controlling the brightness and contrast of the image, while in a second window 64, controls 65 a, 65 c can be exercised to control the height and width of the displayed image." *Id.* at [Column 05, Line 19]  **FIG. 5** *Id.* at Figure 05
[Claim 17(a)] An apparatus comprising: a processing unit configured to	Wang either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100138767A1 (Wang)*

Asserted Claim of the '708 Patent	Exemplary Citations
provide, on a display, an object configured to be moved by a user along an axis,	The system 200 is embodied as a computing device 202 that presents the multi-panel UI 120 on a display 204. The computing device 202 may be representative of any number of devices, including, for example, a personal computer, portable computer, communication device, entertainment device, and so forth. The computing device 202 has a processor 206 and a memory 208. The memory 208 includes computer-readable media in the form of volatile memory, such as Random Access Memory (RAM) and/or non-volatile memory, such as Read Only Memory (ROM) or flash RAM. In FIG. 2, the memory 208 stores an operating system 138 and one or more application programs 210 that are accessible by and executable on the processor 202. *Id.* at [Column 04, Line 26]. To the extent that Cisco contends that Wang does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Hojabri: *Text from US6950097B1 (Hojabri)* "Referring to FIG. 5, one example of an advantage provided by the present invention is the ability to control various characteristics of the video signal and image display remotely from the computer 102 (FIG. 4) as opposed to locally via some form of control panel or switches on the housing of the display unit itself (not shown). Within the main video image window 60, video control windows 62, 64 can be introduced in which various "slider" controls 63, 65 are displayed for controlling the various video signal or image display characteristics as discussed above (e.g., by pointing and clicking with a computer pointing device, or "mouse"). For example, in the first window 62, controls 63 a, 63 b can be exercised for controlling the brightness and contrast of the image, while in a second window 64, controls 65 a, 65 c can be exercised to control the height and width of the displayed image." *Id.* at [Column 05, Line 19]

Asserted Claim of the '708 Patent	Exemplary Citations
	 **FIG. 5** *Id.* at Figure 05
[Claim 17(b)] associate a plurality of predefined layouts with respective intervals along the axis, and	Wang either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100138767A1 (Wang)* "While this windowing user interface environment is effective and commonly understood, there may be situations where a user wishes to arrange content in a different manner on a screen." *Id.* at [Para 0002] "This disclosure describes a user interface and techniques for presenting subject matter on a screen. Generally, the user interface allows different subject matter (e.g., data, content, programs, browsers, etc.) to be displayed concurrently on a screen in predefined and resizable areas, or panels. A user can navigate around the panels and intuitively resize them via a single actuation event, such as a single mouse click or a touch screen tap from a stylus or finger. The panels are separated by one or more demarcation bars. For instance, a single bar may be used to separate two panels, two bars may define four panels, three bars may define six panels, and so on. The bars are movable in response to a single actuation event (although, if

Asserted Claim of the '708 Patent	Exemplary Citations
	desired, the UI may be configured to execute on multiple sequential actuation events). In one implementation, a bar navigation element is overlaid on the user interface to provide a visual cue that aids the user when repositioning the bars. In response to a single actuation of the bar navigation element, the bars are moved to new positions, thereby resizing the panels. After resizing, the panels remain in their original orientation and relative positioning. Additionally, all of the panels remain visible so that the user can easily track their location. The multi-panel user interface fosters an intuitive and viewer friendly environment for concurrent viewing of multiple programs and other items." *Id.* at [Para 0015]

Asserted Claim of the '708 Patent	Exemplary Citations
	 Fig. 3 *Id.* at Figure 03 "FIG. 3 shows an example where different subject matter is placed in the four panels of the UI 120. Here, an email program 302 is placed in the lower left panel 126. A browser 304 is put in the lower right panel 128. Two documents 306 and 308 are placed in the upper left panel 122 and upper right panel 124, respectively. The various forms of subject matter are presented in a viewer friendly layout, with non-overlapping panels that allow the user to see all the subject matter concurrently or focus on particular

Asserted Claim of the '708 Patent	Exemplary Citations
	panels more specifically. The user can drag-n-drop subject matter to and from the panel. In this way, the user can easily move subject matter around without having to open and track numerous independent pane interfaces. It is noted that while two programs and two documents are shown in this example, any number of combinations of any type of subject matter may be used." *Id.* at [Para 0027] "The UI 120 further includes a bar navigation element 134 that facilitates or initiates movement of the bars. The bar navigation element 134 provides visual cues to aid the user in navigating the bars among various preset positions. In the illustrated arrangement, the bar navigation element 134 is independent of the demarcation bars 130 and 132, but overlaid at the intersection of the two demarcation bars 130 and 132. Further, the bar navigation element 134 may be slightly transparent to expose the intersection of the two bars." *Id.* at [Para 0029] When a pointer 212 is moved atop different zones of the bar navigation element 134, a corresponding visual cue appears to inform the user of a corresponding navigation operation. If the user actuates the element 134 (e.g., single mouse click, stylus or finger tap, etc.), the bars are concurrently moved to one of the preset positions that corresponds to the visual cue. In this manner, the user can move the bars among the preset positions in response to a single actuation of the bar navigation element 134. Accordingly, the multi-panel UI 120 provides an intuitive navigation control that is easy to use with minimal control tasks. *Id.* at [Para 0030]

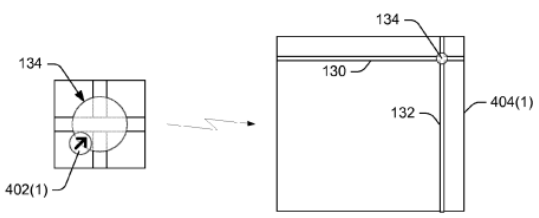


Fig. 4(a)

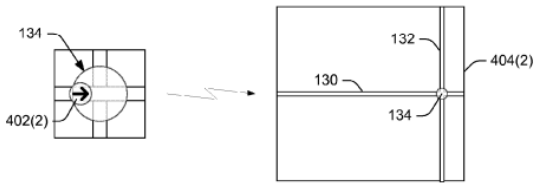


Fig. 4(b)

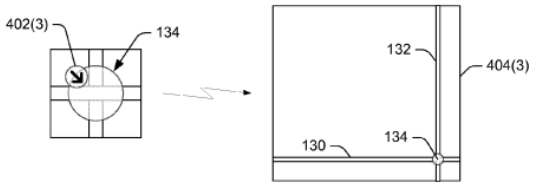


Fig. 4(c)

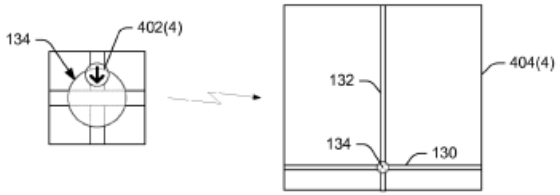


Fig. 4(d)

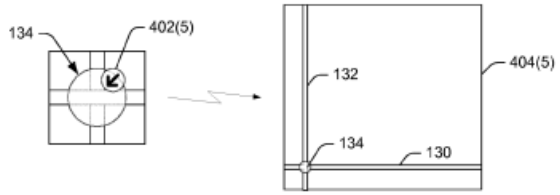


Fig. 4(e)

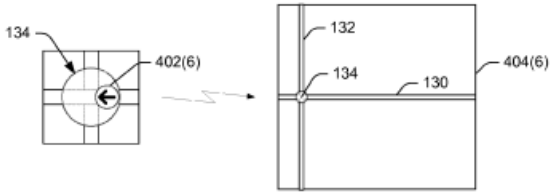
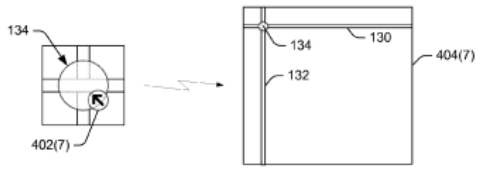
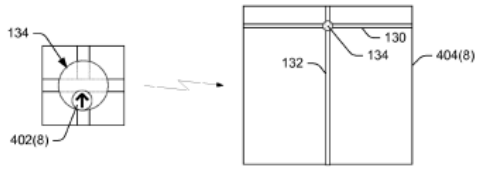
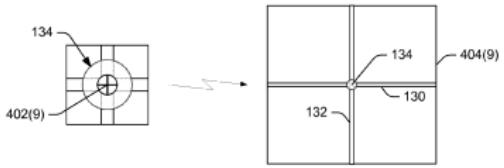
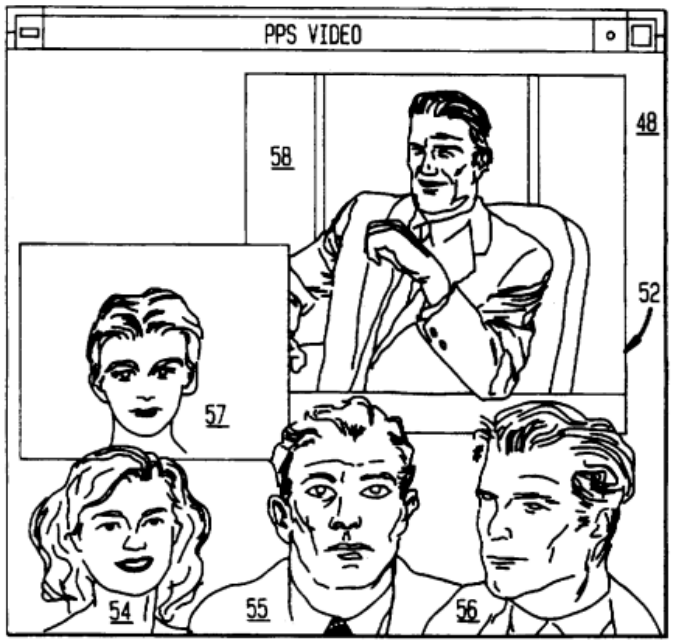
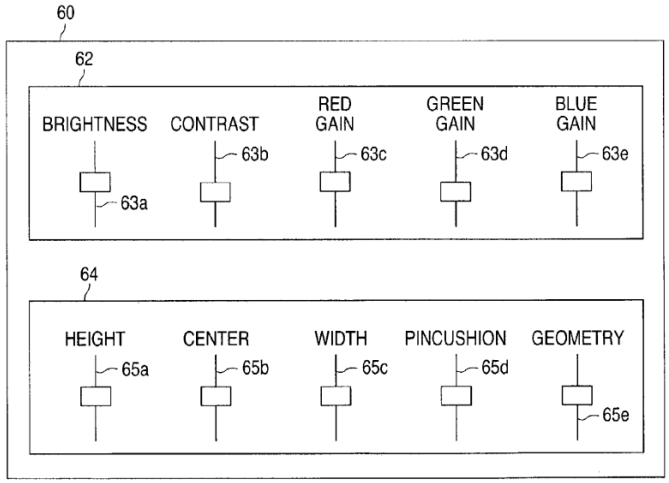


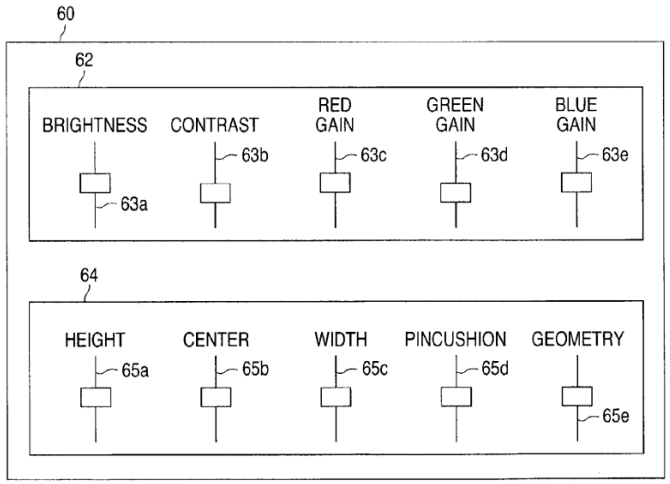
Fig. 4(f)

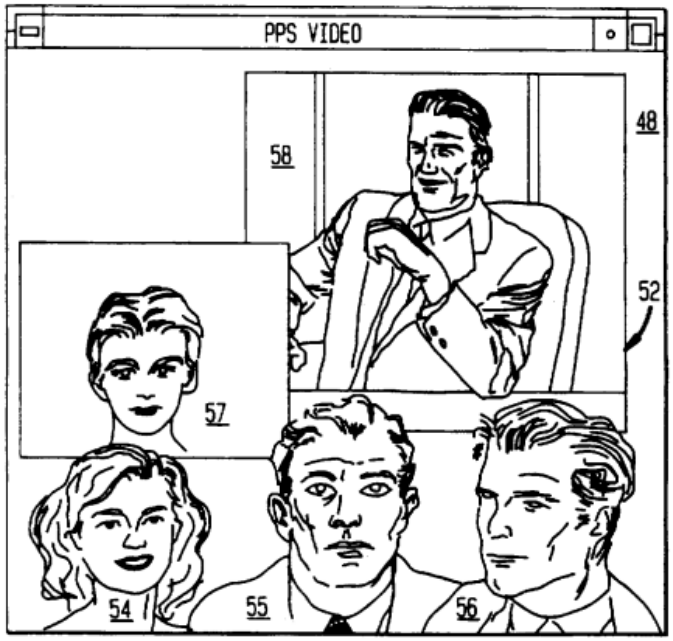
Asserted Claim of the '708 Patent	Exemplary Citations
	 Fig. 4(g)  Fig. 4(h)  Fig. 4(i) "FIGS. 4(a)-4(i) show an example set of navigation commands for navigating the two demarcation bars 130 and 132 to nine preset positions corresponding to nine visual cues provided by the bar navigation element 134. In the FIGS. 4(a)-4(i), a visual cue 402 is shown in different zones of the bar navigation element 134. The visual cue 402 appears, for example, when the user moves a pointer over a particular zone of the element 134. As shown, the visual cue 402 is a graphic with an arrow or pointer within a circle or bubble shaped element, although other representations may be used. The position of the visual cue 402 and direction of its interior arrow are intended to convey how the demarcation bars will be moved upon actuation of the navigation element 134. Moreover, single actuation of the element 134 when the visual cue 402 is visible causes the bars to reposition to a preset position indicated by the visual cue." *Id.* at [Para 0031]

Asserted Claim of the '708 Patent	Exemplary Citations
	"In FIG. 4(a), a first position of the visual cue, referenced as 402(1), is shown in a lower left portion (or southwest zone) of the bar navigation element 134. Upon single actuation of the element 134 when this visual cue is visible, the horizontal demarcation bar 130 is moved to an upper position and the vertical demarcation bar 132 is moved to a rightmost position, as shown in a representation 404(1) of the multi-panel UI. Movement of the bars may take place instantaneously, or via a slower animated sliding, depending upon implementation decisions. By moving the bars together, all four panels are simultaneously resized. The lower left panel is enlarged while the remaining three panels are reduced in size. Notice, however, that all four panels retain their original orientation and relative positioning. Further, all four panels remain visible so that the user can easily track their location. The bar navigation element 134 is also moved to overlay the intersection of the two bars 130 and 132 in the upper right hand corner of the UI." *Id.* at [Para 0032] *Text from US5896128A (Boyer)* "Each participant in a multimedia conference using the present invention may arrange the various video images into a display in a way that is pleasing to them, and rearrange them at any time during the session." *Id.* at [Column 02, Line 50] "To arrange their display, the conference participants can move and scale the video images and overlap them in a prioritized manner similar to a windowed workstation display. A user can select any of the images that appear on their video display for an operation on that image. The user's pointing device (e.g., mouse) can be used to move or resize an image, in an analogous way to the "click and drag" operations supported by PC Window environments. The present invention brings this unprecedented capability to the video work space. Additionally, various elements of each image, such as a person or a chart, can be "keyed" in or out of the image so that the elements desired can be assembled in a more natural manner, unrestricted by rectangular boundaries." *Id.* at [Column 02, Line 54]

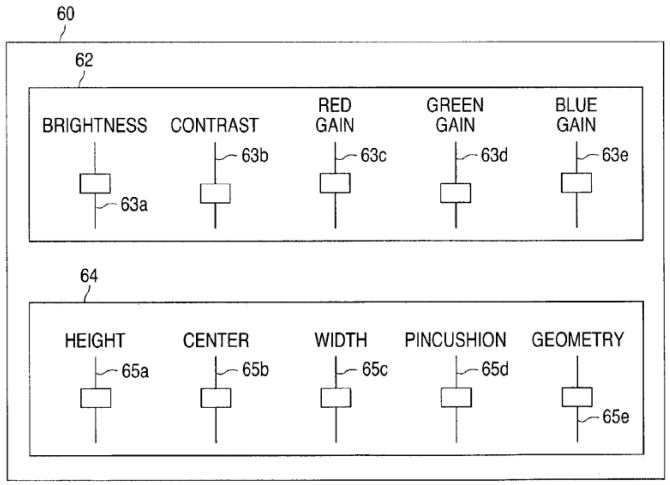
Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 4  *Id.* at [Figure 04] *Text from US6950097B1 (Hojabri)* "Referring to FIG. 5, one example of an advantage provided by the present invention is the ability to control various characteristics of the video signal and image display remotely from the computer 102 (FIG. 4) as opposed to locally via some form of control panel or switches on the housing of the display unit itself (not shown). Within the main video image window 60, video control windows 62, 64 can be introduced in which various "slider" controls 63, 65 are displayed for controlling the various video signal or image display characteristics as discussed above (e.g., by pointing and clicking with a computer

Asserted Claim of the '708 Patent	Exemplary Citations
	pointing device, or "mouse"). For example, in the first window 62, controls 63 a, 63 b can be exercised for controlling the brightness and contrast of the image, while in a second window 64, controls 65 a, 65 c can be exercised to control the height and width of the displayed image." *Id.* at [Column 05, Line 19]  **FIG. 5** *Id.* at Figure 05
[Claim 17(c)] detect a user action on the object indicating a position on the axis; and	It would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Hojabri: *Text from US6950097B1 (Hojabri)* "Referring to FIG. 5, one example of an advantage provided by the present invention is the ability to control various characteristics of the video signal and image display remotely from the computer 102 (FIG. 4) as opposed to locally via some form of control panel or switches on the housing of the display unit itself (not shown). Within the main video image window 60, video control windows 62, 64 can be introduced in which various "slider" controls 63, 65 are displayed for controlling the various video signal

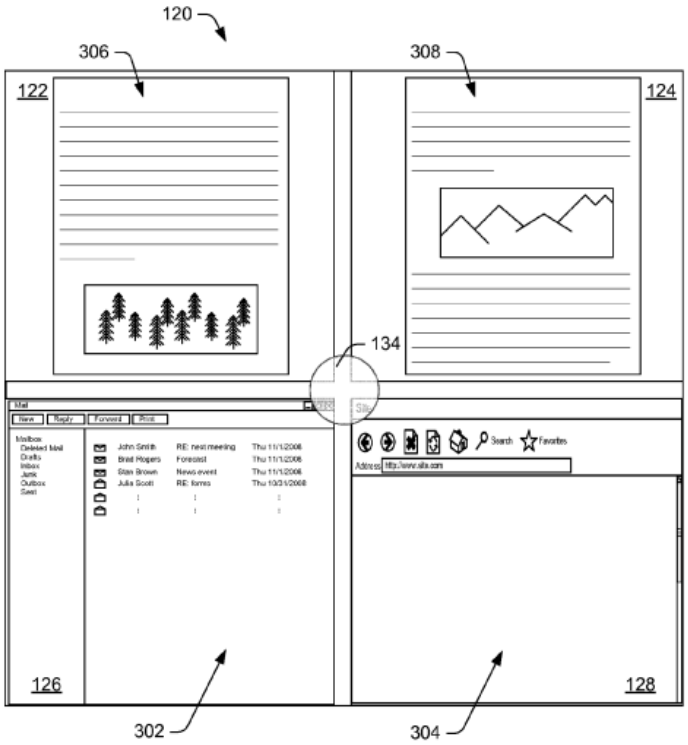
Asserted Claim of the '708 Patent	Exemplary Citations
	or image display characteristics as discussed above (e.g., by pointing and clicking with a computer pointing device, or "mouse"). For example, in the first window 62, controls 63 a, 63 b can be exercised for controlling the brightness and contrast of the image, while in a second window 64, controls 65 a, 65 c can be exercised to control the height and width of the displayed image." *Id.* at [Column 05, Line 19]  **FIG. 5** *Id.* at Figure 05
[Claim 17(d)] a video composing unit configured to compose, in response to the user action being detected by the processing unit, a composite video signal using a layout, of the plurality of predefined layouts, associated with	It would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Boyer: *Text from US5896128A (Boyer)* "Each participant in a multimedia conference using the present invention may arrange the various video images into a display in a way that is pleasing to them, and rearrange them at any time during the session." *Id.* at [Column 02, Line 50]

Asserted Claim of the '708 Patent	Exemplary Citations
an interval among the intervals within which the position is lying, wherein the processing unit is further configured to	"To arrange their display, the conference participants can move and scale the video images and overlap them in a prioritized manner similar to a windowed workstation display. A user can select any of the images that appear on their video display for an operation on that image. The user's pointing device (e.g., mouse) can be used to move or resize an image, in an analogous way to the "click and drag" operations supported by PC Window environments. The present invention brings this unprecedented capability to the video work space. Additionally, various elements of each image, such as a person or a chart, can be "keyed" in or out of the image so that the elements desired can be assembled in a more natural manner, unrestricted by rectangular boundaries." *Id.* at [Column 02, Line 54] FIG. 4  *Id.* at [Figure 04]

Asserted Claim of the '708 Patent	Exemplary Citations
	"A video composing unit (VCU) 74 receives the normalized input video signals from the cameras and combines the signals. Also input to the VCU 74 are control signals provided by a control unit 76 which processes the user control signals C1, C2 . . . CN, to control the contents and presentation of the output of the VCU 74. Operation of the VCU 74 and the control unit 76 is described in more detail hereinafter. The output of the VCU 74 is a plurality of normalized video signals, each of which contains a video image similar to the one shown in the pop-up window 52 of FIG. 4." *Id.* at [Column 05, Line 62]
[Claim 17(e)] identify an interval among the intervals within which the position is lying,	It would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Hojabri: *Text from US6950097B1 (Hojabri)* "Referring to FIG. 5, one example of an advantage provided by the present invention is the ability to control various characteristics of the video signal and image display remotely from the computer 102 (FIG. 4) as opposed to locally via some form of control panel or switches on the housing of the display unit itself (not shown). Within the main video image window 60, video control windows 62, 64 can be introduced in which various "slider" controls 63, 65 are displayed for controlling the various video signal or image display characteristics as discussed above (e.g., by pointing and clicking with a computer pointing device, or "mouse"). For example, in the first window 62, controls 63 a, 63 b can be exercised for controlling the brightness and contrast of the image, while in a second window 64, controls 65 a, 65 c can be exercised to control the height and width of the displayed image." *Id.* at [Column 05, Line 19]

Asserted Claim of the '708 Patent	Exemplary Citations
	 **FIG. 5** *Id.* at Figure 05
[Claim 17(f)] select the layout associated with the interval, and	Wang either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100138767A1 (Wang)* "While this windowing user interface environment is effective and commonly understood, there may be situations where a user wishes to arrange content in a different manner on a screen." *Id.* at [Para 0002] "This disclosure describes a user interface and techniques for presenting subject matter on a screen. Generally, the user interface allows different subject matter (e.g., data, content, programs, browsers, etc.) to be displayed concurrently on a screen in predefined and resizable areas, or panels. A user can navigate around the panels and intuitively resize them via a single actuation event, such as a single mouse click or a touch screen tap from a stylus or finger. The panels are separated by one or more demarcation bars. For instance, a single bar may be used to separate two panels, two bars may define four panels, three bars may define six panels, and so on. The bars are movable in response to a single actuation event (although, if

Asserted Claim of the '708 Patent	Exemplary Citations
	desired, the UI may be configured to execute on multiple sequential actuation events). In one implementation, a bar navigation element is overlaid on the user interface to provide a visual cue that aids the user when repositioning the bars. In response to a single actuation of the bar navigation element, the bars are moved to new positions, thereby resizing the panels. After resizing, the panels remain in their original orientation and relative positioning. Additionally, all of the panels remain visible so that the user can easily track their location. The multi-panel user interface fosters an intuitive and viewer friendly environment for concurrent viewing of multiple programs and other items." *Id.* at [Para 0015]

Asserted Claim of the '708 Patent	Exemplary Citations
	 Fig. 3 *Id.* at Figure 03 "FIG. 3 shows an example where different subject matter is placed in the four panels of the UI 120. Here, an email program 302 is placed in the lower left panel 126. A browser 304 is put in the lower right panel 128. Two documents 306 and 308 are placed in the upper left panel 122 and upper right panel 124, respectively. The various forms of subject matter are presented in a viewer friendly layout, with non-overlapping panels that allow the user to see all the subject matter concurrently or focus on particular

Asserted Claim of the '708 Patent	Exemplary Citations
	panels more specifically. The user can drag-n-drop subject matter to and from the panel. In this way, the user can easily move subject matter around without having to open and track numerous independent pane interfaces. It is noted that while two programs and two documents are shown in this example, any number of combinations of any type of subject matter may be used." *Id.* at [Para 0027] "The UI 120 further includes a bar navigation element 134 that facilitates or initiates movement of the bars. The bar navigation element 134 provides visual cues to aid the user in navigating the bars among various preset positions. In the illustrated arrangement, the bar navigation element 134 is independent of the demarcation bars 130 and 132, but overlaid at the intersection of the two demarcation bars 130 and 132. Further, the bar navigation element 134 may be slightly transparent to expose the intersection of the two bars." *Id.* at [Para 0029] When a pointer 212 is moved atop different zones of the bar navigation element 134, a corresponding visual cue appears to inform the user of a corresponding navigation operation. If the user actuates the element 134 (e.g., single mouse click, stylus or finger tap, etc.), the bars are concurrently moved to one of the preset positions that corresponds to the visual cue. In this manner, the user can move the bars among the preset positions in response to a single actuation of the bar navigation element 134. Accordingly, the multi-panel UI 120 provides an intuitive navigation control that is easy to use with minimal control tasks. *Id.* at [Para 0030]

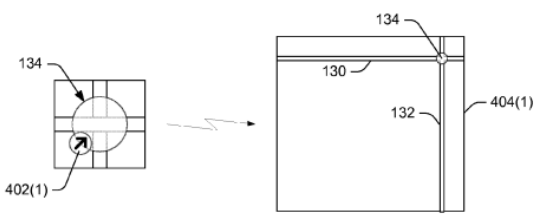


Fig. 4(a)

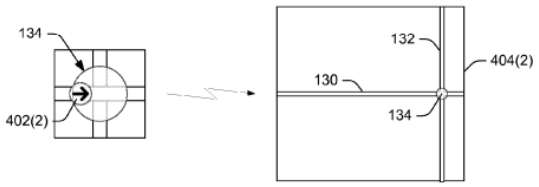


Fig. 4(b)

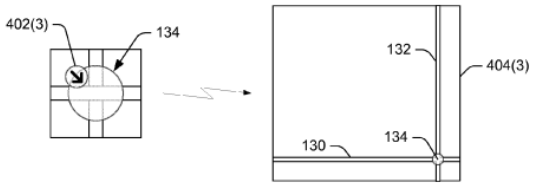


Fig. 4(c)

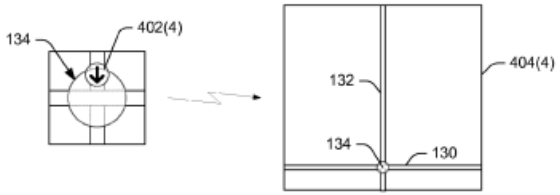


Fig. 4(d)

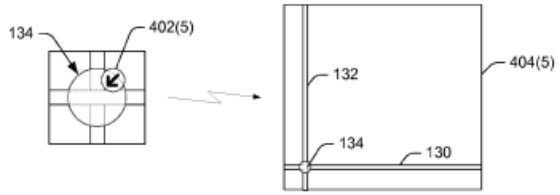


Fig. 4(e)

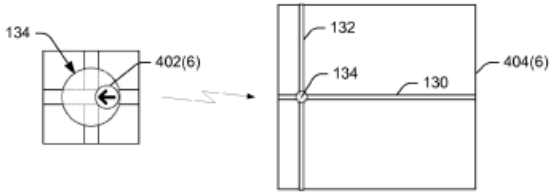
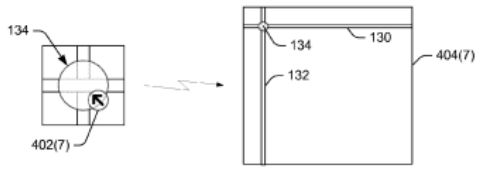
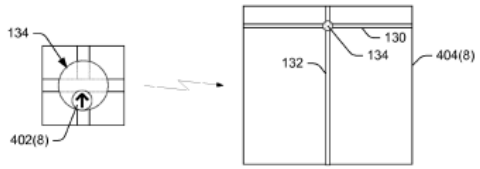
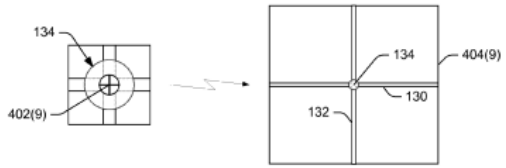
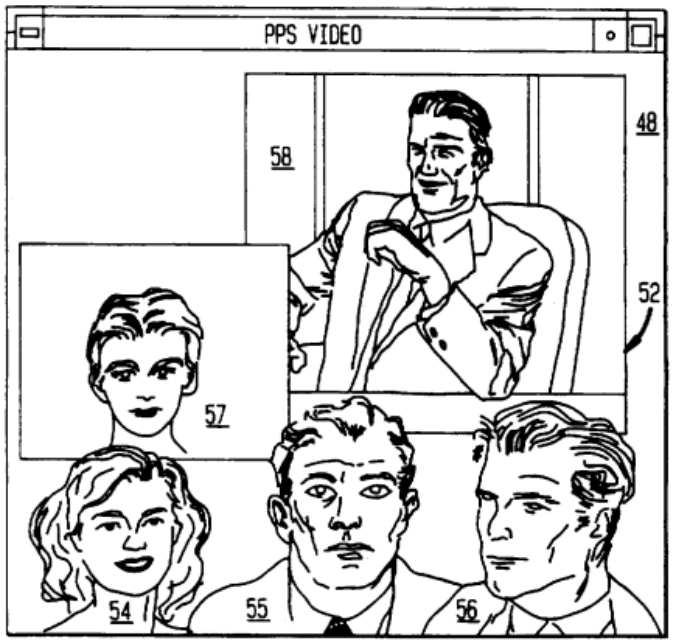
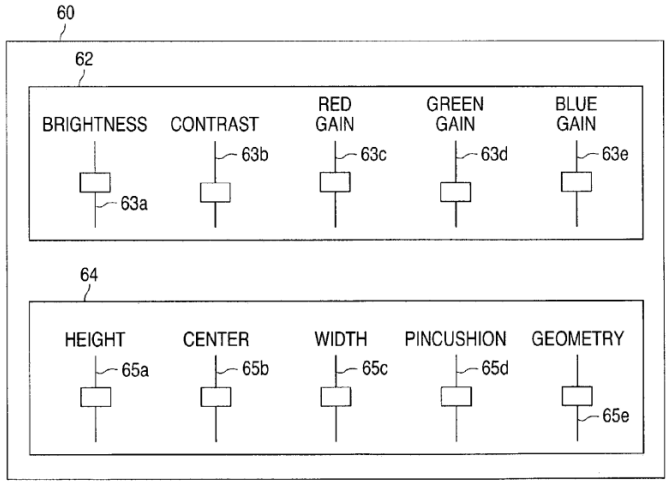


Fig. 4(f)

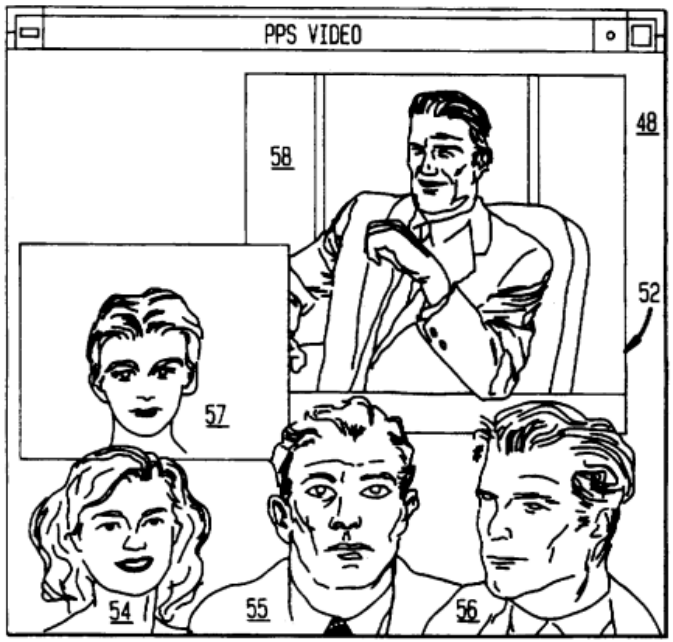
Asserted Claim of the '708 Patent	Exemplary Citations
	 Fig. 4(g)  Fig. 4(h)  Fig. 4(i) "FIGS. 4(a)-4(i) show an example set of navigation commands for navigating the two demarcation bars 130 and 132 to nine preset positions corresponding to nine visual cues provided by the bar navigation element 134. In the FIGS. 4(a)-4(i), a visual cue 402 is shown in different zones of the bar navigation element 134. The visual cue 402 appears, for example, when the user moves a pointer over a particular zone of the element 134. As shown, the visual cue 402 is a graphic with an arrow or pointer within a circle or bubble shaped element, although other representations may be used. The position of the visual cue 402 and direction of its interior arrow are intended to convey how the demarcation bars will be moved upon actuation of the navigation element 134. Moreover, single actuation of the element 134 when the visual cue 402 is visible causes the bars to reposition to a preset position indicated by the visual cue." *Id.* at [Para 0031]

Asserted Claim of the '708 Patent	Exemplary Citations
	"In FIG. 4(a), a first position of the visual cue, referenced as 402(1), is shown in a lower left portion (or southwest zone) of the bar navigation element 134. Upon single actuation of the element 134 when this visual cue is visible, the horizontal demarcation bar 130 is moved to an upper position and the vertical demarcation bar 132 is moved to a rightmost position, as shown in a representation 404(1) of the multi-panel UI. Movement of the bars may take place instantaneously, or via a slower animated sliding, depending upon implementation decisions. By moving the bars together, all four panels are simultaneously resized. The lower left panel is enlarged while the remaining three panels are reduced in size. Notice, however, that all four panels retain their original orientation and relative positioning. Further, all four panels remain visible so that the user can easily track their location. The bar navigation element 134 is also moved to overlay the intersection of the two bars 130 and 132 in the upper right hand corner of the UI." *Id.* at [Para 0032] To the extent that Cisco contends that Wang does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Boyer and Hojabri: *Text from US5896128A (Boyer)* "Each participant in a multimedia conference using the present invention may arrange the various video images into a display in a way that is pleasing to them, and rearrange them at any time during the session." *Id.* at [Column 02, Line 50] "To arrange their display, the conference participants can move and scale the video images and overlap them in a prioritized manner similar to a windowed workstation display. A user can select any of the images that appear on their video display for an operation on that image. The user's pointing device (e.g., mouse) can be used to move or resize an image, in an analogous way to the "click and drag" operations supported by PC Window environments. The present invention brings this unprecedented capability to the video work space. Additionally, various elements of each image, such as a person or a chart, can be "keyed" in or out of the image so that the elements desired can be assembled in a more natural manner, unrestricted by rectangular boundaries." *Id.* at [Column 02, Line 54]

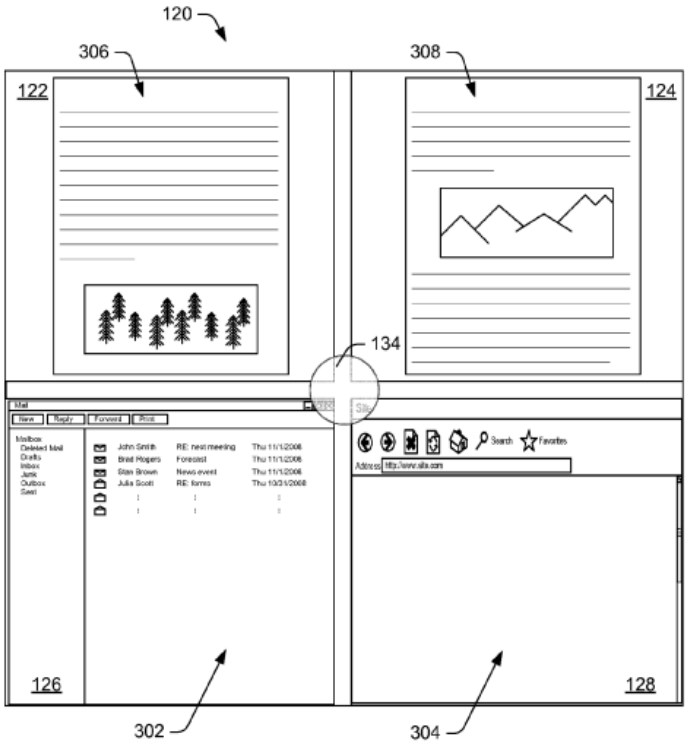
Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 4  *Id.* at [Figure 04] "A video composing unit (VCU) 74 receives the normalized input video signals from the cameras and combines the signals. Also input to the VCU 74 are control signals provided by a control unit 76 which processes the user control signals C1, C2 . . . CN, to control the contents and presentation of the output of the VCU 74. Operation of the VCU 74 and the control unit 76 is described in more detail hereinafter. The output of the VCU 74 is a plurality of normalized video signals, each of which contains a video image similar to the one shown in the pop-up window 52 of FIG. 4." *Id.* at [Column 05, Line 62]

Asserted Claim of the '708 Patent	Exemplary Citations
	Text from US6950097B1 (Hojabri) "Referring to FIG. 5, one example of an advantage provided by the present invention is the ability to control various characteristics of the video signal and image display remotely from the computer 102 (FIG. 4) as opposed to locally via some form of control panel or switches on the housing of the display unit itself (not shown). Within the main video image window 60, video control windows 62, 64 can be introduced in which various "slider" controls 63, 65 are displayed for controlling the various video signal or image display characteristics as discussed above (e.g., by pointing and clicking with a computer pointing device, or "mouse"). For example, in the first window 62, controls 63 a, 63 b can be exercised for controlling the brightness and contrast of the image, while in a second window 64, controls 65 a, 65 c can be exercised to control the height and width of the displayed image." *Id.* at [Column 05, Line 19]  **FIG. 5** *Id.* at Figure 05
[Claim 17(g)] provide the selected layout to the video composing unit.	It would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Boyer:

Asserted Claim of the '708 Patent	Exemplary Citations
	Text from US5896128A (Boyer) "Each participant in a multimedia conference using the present invention may arrange the various video images into a display in a way that is pleasing to them, and rearrange them at any time during the session." *Id.* at [Column 02, Line 50] "To arrange their display, the conference participants can move and scale the video images and overlap them in a prioritized manner similar to a windowed workstation display. A user can select any of the images that appear on their video display for an operation on that image. The user's pointing device (e.g., mouse) can be used to move or resize an image, in an analogous way to the "click and drag" operations supported by PC Window environments. The present invention brings this unprecedented capability to the video work space. Additionally, various elements of each image, such as a person or a chart, can be "keyed" in or out of the image so that the elements desired can be assembled in a more natural manner, unrestricted by rectangular boundaries." *Id.* at [Column 02, Line 54]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 4  *Id.* at [Figure 04] "A video composing unit (VCU) 74 receives the normalized input video signals from the cameras and combines the signals. Also input to the VCU 74 are control signals provided by a control unit 76 which processes the user control signals C1, C2 . . . CN, to control the contents and presentation of the output of the VCU 74. Operation of the VCU 74 and the control unit 76 is described in more detail hereinafter. The output of the VCU 74 is a plurality of normalized video signals, each of which contains a video image similar to the one shown in the pop-up window 52 of FIG. 4." *Id.* at [Column 05, Line 62]

Asserted Claim of the '708 Patent	Exemplary Citations
[Claim 18] The apparatus according to claim 17, wherein the composite video signal includes a spatial mix of one of more video conference streams, the layout defines one or more frames for containing the video conference streams, and the processing unit is further configured to provide, for at least one of the intervals, a relationship between positions within the at least one of the intervals and a size and position of one or more frames of a respective layout associated with the interval, and calculate, in response to the user action being detected, a layout wherein the size and position of each frame of the layout is based on the relationship and the position.	Wang either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100138767A1 (Wang)* "While this windowing user interface environment is effective and commonly understood, there may be situations where a user wishes to arrange content in a different manner on a screen." *Id.* at [Para 0002] "This disclosure describes a user interface and techniques for presenting subject matter on a screen. Generally, the user interface allows different subject matter (e.g., data, content, programs, browsers, etc.) to be displayed concurrently on a screen in predefined and resizable areas, or panels. A user can navigate around the panels and intuitively resize them via a single actuation event, such as a single mouse click or a touch screen tap from a stylus or finger. The panels are separated by one or more demarcation bars. For instance, a single bar may be used to separate two panels, two bars may define four panels, three bars may define six panels, and so on. The bars are movable in response to a single actuation event (although, if desired, the UI may be configured to execute on multiple sequential actuation events). In one implementation, a bar navigation element is overlaid on the user interface to provide a visual cue that aids the user when repositioning the bars. In response to a single actuation of the bar navigation element, the bars are moved to new positions, thereby resizing the panels. After resizing, the panels remain in their original orientation and relative positioning. Additionally, all of the panels remain visible so that the user can easily track their location. The multi-panel user interface fosters an intuitive and viewer friendly environment for concurrent viewing of multiple programs and other items." *Id.* at [Para 0015]

Asserted Claim of the '708 Patent	Exemplary Citations
	 Fig. 3 *Id.* at Figure 03 "FIG. 3 shows an example where different subject matter is placed in the four panels of the UI 120. Here, an email program 302 is placed in the lower left panel 126. A browser 304 is put in the lower right panel 128. Two documents 306 and 308 are placed in the upper left panel 122 and upper right panel 124, respectively. The various forms of subject matter are presented in a viewer friendly layout, with non-overlapping panels that allow the user to see all the subject matter concurrently or focus on particular

Asserted Claim of the '708 Patent	Exemplary Citations
	panels more specifically. The user can drag-n-drop subject matter to and from the panel. In this way, the user can easily move subject matter around without having to open and track numerous independent pane interfaces. It is noted that while two programs and two documents are shown in this example, any number of combinations of any type of subject matter may be used." *Id.* at [Para 0027] "The UI 120 further includes a bar navigation element 134 that facilitates or initiates movement of the bars. The bar navigation element 134 provides visual cues to aid the user in navigating the bars among various preset positions. In the illustrated arrangement, the bar navigation element 134 is independent of the demarcation bars 130 and 132, but overlaid at the intersection of the two demarcation bars 130 and 132. Further, the bar navigation element 134 may be slightly transparent to expose the intersection of the two bars." *Id.* at [Para 0029] When a pointer 212 is moved atop different zones of the bar navigation element 134, a corresponding visual cue appears to inform the user of a corresponding navigation operation. If the user actuates the element 134 (e.g., single mouse click, stylus or finger tap, etc.), the bars are concurrently moved to one of the preset positions that corresponds to the visual cue. In this manner, the user can move the bars among the preset positions in response to a single actuation of the bar navigation element 134. Accordingly, the multi-panel UI 120 provides an intuitive navigation control that is easy to use with minimal control tasks. *Id.* at [Para 0030]

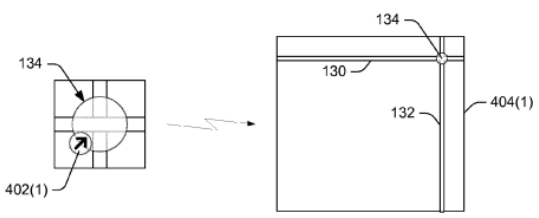


Fig. 4(a)

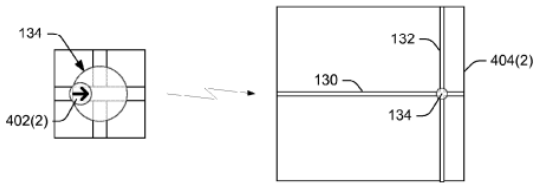


Fig. 4(b)

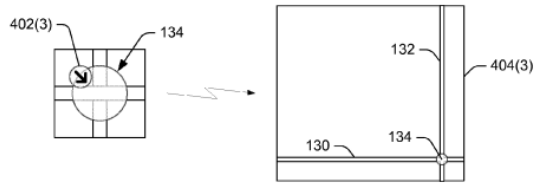


Fig. 4(c)

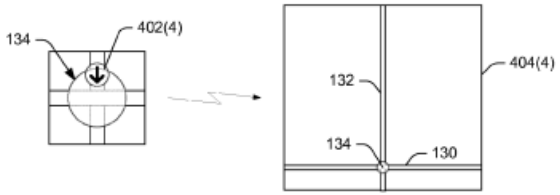


Fig. 4(d)

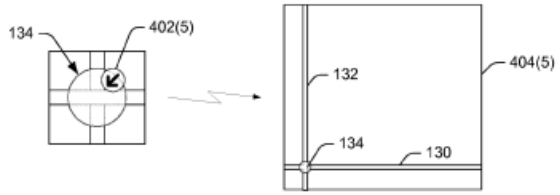


Fig. 4(e)

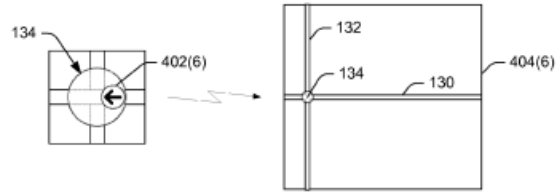
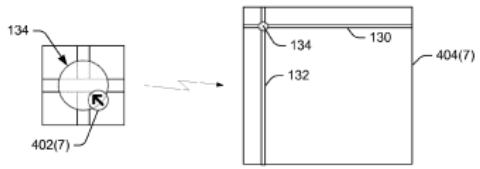
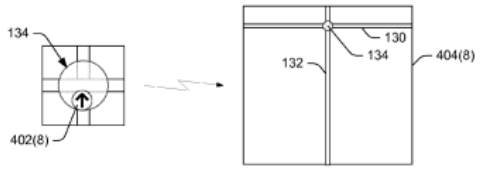
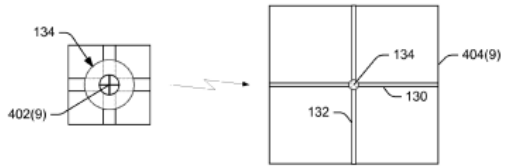
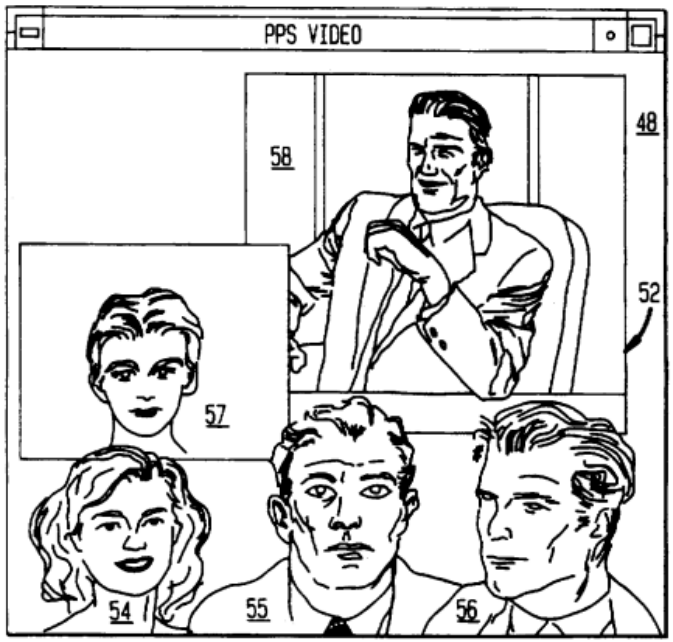
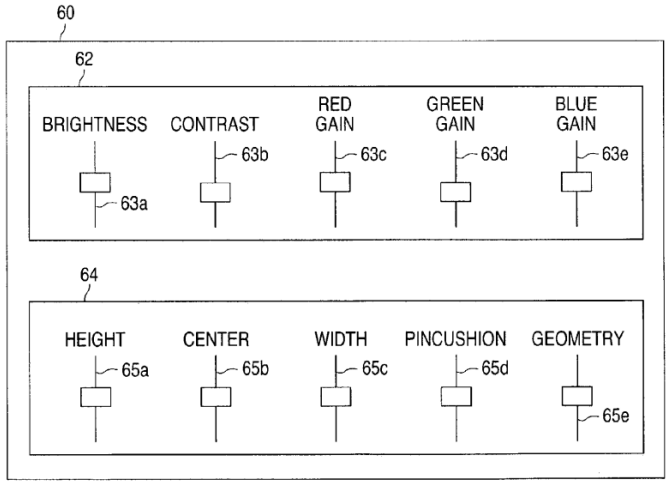


Fig. 4(f)

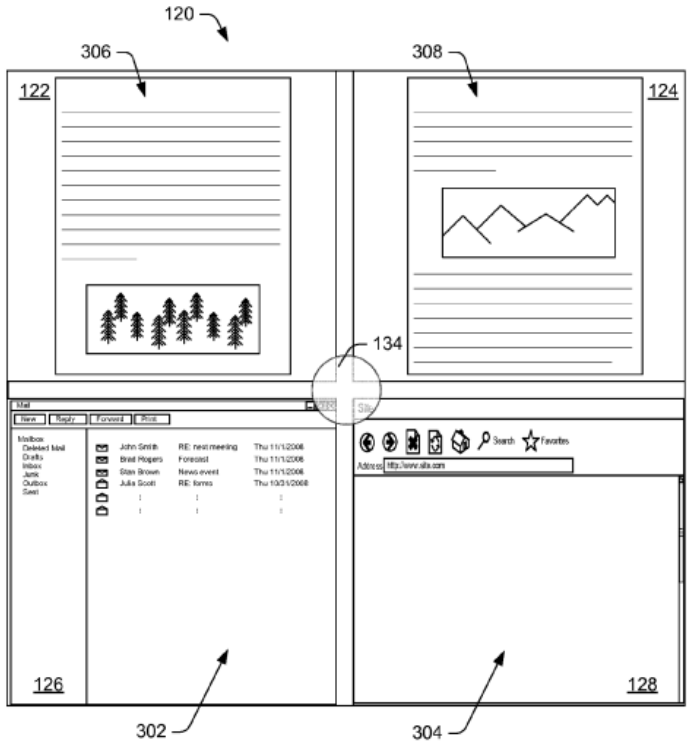
Asserted Claim of the '708 Patent	Exemplary Citations
	 Fig. 4(g)  Fig. 4(h)  Fig. 4(i) "FIGS. 4(a)-4(i) show an example set of navigation commands for navigating the two demarcation bars 130 and 132 to nine preset positions corresponding to nine visual cues provided by the bar navigation element 134. In the FIGS. 4(a)-4(i), a visual cue 402 is shown in different zones of the bar navigation element 134. The visual cue 402 appears, for example, when the user moves a pointer over a particular zone of the element 134. As shown, the visual cue 402 is a graphic with an arrow or pointer within a circle or bubble shaped element, although other representations may be used. The position of the visual cue 402 and direction of its interior arrow are intended to convey how the demarcation bars will be moved upon actuation of the navigation element 134. Moreover, single actuation of the element 134 when the visual cue 402 is visible causes the bars to reposition to a preset position indicated by the visual cue." *Id.* at [Para 0031]

Asserted Claim of the '708 Patent	Exemplary Citations
	"In FIG. 4(a), a first position of the visual cue, referenced as 402(1), is shown in a lower left portion (or southwest zone) of the bar navigation element 134. Upon single actuation of the element 134 when this visual cue is visible, the horizontal demarcation bar 130 is moved to an upper position and the vertical demarcation bar 132 is moved to a rightmost position, as shown in a representation 404(1) of the multi-panel UI. Movement of the bars may take place instantaneously, or via a slower animated sliding, depending upon implementation decisions. By moving the bars together, all four panels are simultaneously resized. The lower left panel is enlarged while the remaining three panels are reduced in size. Notice, however, that all four panels retain their original orientation and relative positioning. Further, all four panels remain visible so that the user can easily track their location. The bar navigation element 134 is also moved to overlay the intersection of the two bars 130 and 132 in the upper right hand corner of the UI." *Id.* at [Para 0032] To the extent that Cisco contends that Wang does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Boyer and Hojabri: *Text from US5896128A (Boyer)* "Each participant in a multimedia conference using the present invention may arrange the various video images into a display in a way that is pleasing to them, and rearrange them at any time during the session." *Id.* at [Column 02, Line 50] "To arrange their display, the conference participants can move and scale the video images and overlap them in a prioritized manner similar to a windowed workstation display. A user can select any of the images that appear on their video display for an operation on that image. The user's pointing device (e.g., mouse) can be used to move or resize an image, in an analogous way to the "click and drag" operations supported by PC Window environments. The present invention brings this unprecedented capability to the video work space. Additionally, various elements of each image, such as a person or a chart, can be "keyed" in or out of the image so that the elements desired can be assembled in a more natural manner, unrestricted by rectangular boundaries." *Id.* at [Column 02, Line 54]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 4  *Id.* at [Figure 04] "A video composing unit (VCU) 74 receives the normalized input video signals from the cameras and combines the signals. Also input to the VCU 74 are control signals provided by a control unit 76 which processes the user control signals C1, C2 . . . CN, to control the contents and presentation of the output of the VCU 74. Operation of the VCU 74 and the control unit 76 is described in more detail hereinafter. The output of the VCU 74 is a plurality of normalized video signals, each of which contains a video image similar to the one shown in the pop-up window 52 of FIG. 4." *Id.* at [Column 05, Line 62]

Asserted Claim of the '708 Patent	Exemplary Citations
	Text from US6950097B1 (Hojabri) "Referring to FIG. 5, one example of an advantage provided by the present invention is the ability to control various characteristics of the video signal and image display remotely from the computer 102 (FIG. 4) as opposed to locally via some form of control panel or switches on the housing of the display unit itself (not shown). Within the main video image window 60, video control windows 62, 64 can be introduced in which various "slider" controls 63, 65 are displayed for controlling the various video signal or image display characteristics as discussed above (e.g., by pointing and clicking with a computer pointing device, or "mouse"). For example, in the first window 62, controls 63 a, 63 b can be exercised for controlling the brightness and contrast of the image, while in a second window 64, controls 65 a, 65 c can be exercised to control the height and width of the displayed image." *Id.* at [Column 05, Line 19]  **FIG. 5** *Id.* at Figure 05
[Claim 19] The apparatus according to claim 17, wherein	Wang either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate:

Asserted Claim of the '708 Patent	Exemplary Citations
the processing unit is further configured to associate M numbers of variations of one of the plurality of predefined layouts with M number of sub-intervals within one or more of the intervals, identify, in response to the user action being detected, a sub-interval among the sub-intervals within which the position is lying, and select a layout, of the plurality of predefined layouts, associated with the sub-interval; and the video composing unit is configured to compose the composite video signal using the selected layout.	*Text from US20100138767A1 (Wang)* "While this windowing user interface environment is effective and commonly understood, there may be situations where a user wishes to arrange content in a different manner on a screen." *Id.* at [Para 0002] "This disclosure describes a user interface and techniques for presenting subject matter on a screen. Generally, the user interface allows different subject matter (e.g., data, content, programs, browsers, etc.) to be displayed concurrently on a screen in predefined and resizable areas, or panels. A user can navigate around the panels and intuitively resize them via a single actuation event, such as a single mouse click or a touch screen tap from a stylus or finger. The panels are separated by one or more demarcation bars. For instance, a single bar may be used to separate two panels, two bars may define four panels, three bars may define six panels, and so on. The bars are movable in response to a single actuation event (although, if desired, the UI may be configured to execute on multiple sequential actuation events). In one implementation, a bar navigation element is overlaid on the user interface to provide a visual cue that aids the user when repositioning the bars. In response to a single actuation of the bar navigation element, the bars are moved to new positions, thereby resizing the panels. After resizing, the panels remain in their original orientation and relative positioning. Additionally, all of the panels remain visible so that the user can easily track their location. The multi-panel user interface fosters an intuitive and viewer friendly environment for concurrent viewing of multiple programs and other items." *Id.* at [Para 0015]

Asserted Claim of the '708 Patent	Exemplary Citations
	 Fig. 3 *Id.* at Figure 03 "FIG. 3 shows an example where different subject matter is placed in the four panels of the UI 120. Here, an email program 302 is placed in the lower left panel 126. A browser 304 is put in the lower right panel 128. Two documents 306 and 308 are placed in the upper left panel 122 and upper right panel 124, respectively. The various forms of subject matter are presented in a viewer friendly layout, with non-overlapping panels that allow the user to see all the subject matter concurrently or focus on particular

Asserted Claim of the '708 Patent	Exemplary Citations
	panels more specifically. The user can drag-n-drop subject matter to and from the panel. In this way, the user can easily move subject matter around without having to open and track numerous independent pane interfaces. It is noted that while two programs and two documents are shown in this example, any number of combinations of any type of subject matter may be used." *Id.* at [Para 0027] "The UI 120 further includes a bar navigation element 134 that facilitates or initiates movement of the bars. The bar navigation element 134 provides visual cues to aid the user in navigating the bars among various preset positions. In the illustrated arrangement, the bar navigation element 134 is independent of the demarcation bars 130 and 132, but overlaid at the intersection of the two demarcation bars 130 and 132. Further, the bar navigation element 134 may be slightly transparent to expose the intersection of the two bars." *Id.* at [Para 0029] When a pointer 212 is moved atop different zones of the bar navigation element 134, a corresponding visual cue appears to inform the user of a corresponding navigation operation. If the user actuates the element 134 (e.g., single mouse click, stylus or finger tap, etc.), the bars are concurrently moved to one of the preset positions that corresponds to the visual cue. In this manner, the user can move the bars among the preset positions in response to a single actuation of the bar navigation element 134. Accordingly, the multi-panel UI 120 provides an intuitive navigation control that is easy to use with minimal control tasks. *Id.* at [Para 0030]

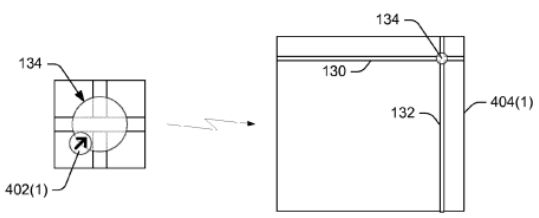


Fig. 4(a)

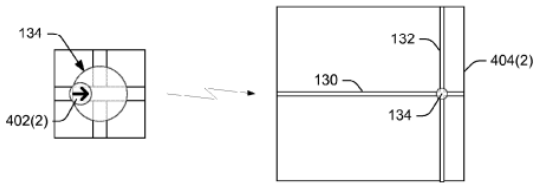


Fig. 4(b)

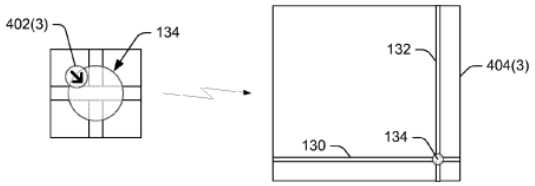


Fig. 4(c)

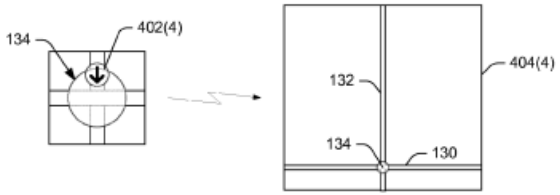


Fig. 4(d)

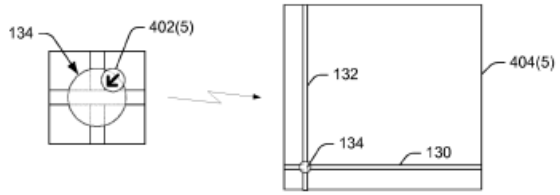


Fig. 4(e)

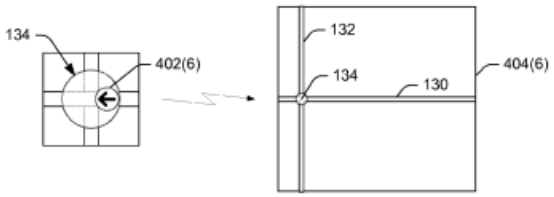
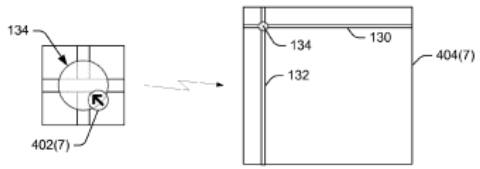
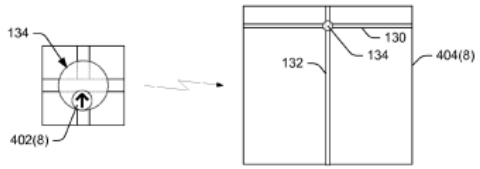
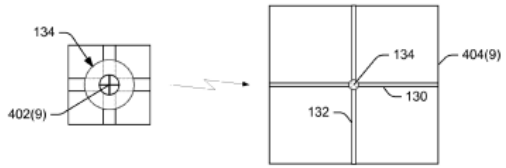
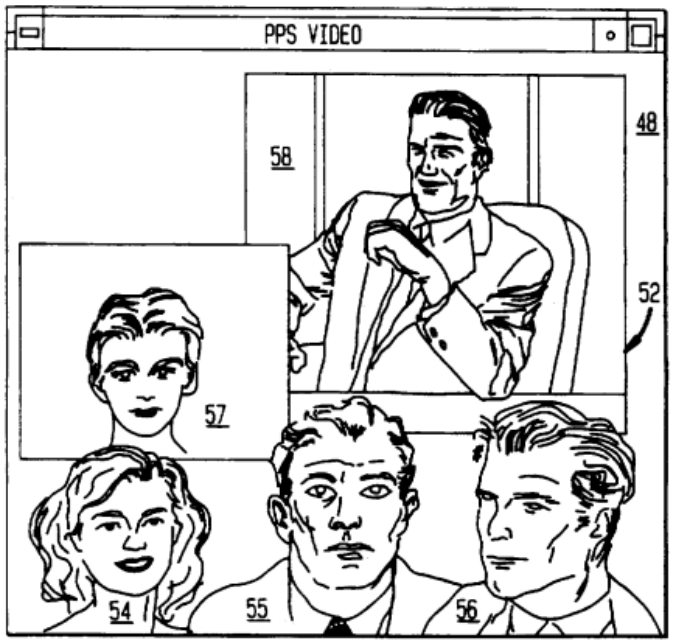


Fig. 4(f)

Asserted Claim of the '708 Patent	Exemplary Citations
	 Fig. 4(g)  Fig. 4(h)  Fig. 4(i) "FIGS. 4(a)-4(i) show an example set of navigation commands for navigating the two demarcation bars 130 and 132 to nine preset positions corresponding to nine visual cues provided by the bar navigation element 134. In the FIGS. 4(a)-4(i), a visual cue 402 is shown in different zones of the bar navigation element 134. The visual cue 402 appears, for example, when the user moves a pointer over a particular zone of the element 134. As shown, the visual cue 402 is a graphic with an arrow or pointer within a circle or bubble shaped element, although other representations may be used. The position of the visual cue 402 and direction of its interior arrow are intended to convey how the demarcation bars will be moved upon actuation of the navigation element 134. Moreover, single actuation of the element 134 when the visual cue 402 is visible causes the bars to reposition to a preset position indicated by the visual cue." *Id.* at [Para 0031]

Asserted Claim of the '708 Patent	Exemplary Citations
	"In FIG. 4(a), a first position of the visual cue, referenced as 402(1), is shown in a lower left portion (or southwest zone) of the bar navigation element 134. Upon single actuation of the element 134 when this visual cue is visible, the horizontal demarcation bar 130 is moved to an upper position and the vertical demarcation bar 132 is moved to a rightmost position, as shown in a representation 404(1) of the multi-panel UI. Movement of the bars may take place instantaneously, or via a slower animated sliding, depending upon implementation decisions. By moving the bars together, all four panels are simultaneously resized. The lower left panel is enlarged while the remaining three panels are reduced in size. Notice, however, that all four panels retain their original orientation and relative positioning. Further, all four panels remain visible so that the user can easily track their location. The bar navigation element 134 is also moved to overlay the intersection of the two bars 130 and 132 in the upper right hand corner of the UI." *Id.* at [Para 0032] To the extent that Cisco contends that Wang does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Wang with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Boyer and Hojabri: *Text from US5896128A (Boyer)* "Each participant in a multimedia conference using the present invention may arrange the various video images into a display in a way that is pleasing to them, and rearrange them at any time during the session." *Id.* at [Column 02, Line 50] "To arrange their display, the conference participants can move and scale the video images and overlap them in a prioritized manner similar to a windowed workstation display. A user can select any of the images that appear on their video display for an operation on that image. The user's pointing device (e.g., mouse) can be used to move or resize an image, in an analogous way to the "click and drag" operations supported by PC Window environments. The present invention brings this unprecedented capability to the video work space. Additionally, various elements of each image, such as a person or a chart, can be "keyed" in or out of the image so that the elements desired can be assembled in a more natural manner, unrestricted by rectangular boundaries." *Id.* at [Column 02, Line 54]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 4  *Id.* at [Figure 04] "A video composing unit (VCU) 74 receives the normalized input video signals from the cameras and combines the signals. Also input to the VCU 74 are control signals provided by a control unit 76 which processes the user control signals C1, C2 . . . CN, to control the contents and presentation of the output of the VCU 74. Operation of the VCU 74 and the control unit 76 is described in more detail hereinafter. The output of the VCU 74 is a plurality of normalized video signals, each of which contains a video image similar to the one shown in the pop-up window 52 of FIG. 4." *Id.* at [Column 05, Line 62]

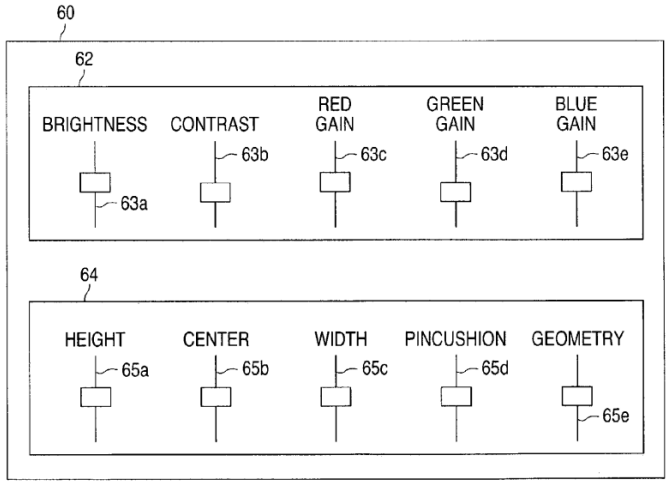
Asserted Claim of the '708 Patent	Exemplary Citations
	Text from US6950097B1 (Hojabri) "Referring to FIG. 5, one example of an advantage provided by the present invention is the ability to control various characteristics of the video signal and image display remotely from the computer 102 (FIG. 4) as opposed to locally via some form of control panel or switches on the housing of the display unit itself (not shown). Within the main video image window 60, video control windows 62, 64 can be introduced in which various "slider" controls 63, 65 are displayed for controlling the various video signal or image display characteristics as discussed above (e.g., by pointing and clicking with a computer pointing device, or "mouse"). For example, in the first window 62, controls 63 a, 63 b can be exercised for controlling the brightness and contrast of the image, while in a second window 64, controls 65 a, 65 c can be exercised to control the height and width of the displayed image." *Id.* at [Column 05, Line 19]  **FIG. 5** *Id.* at Figure 05

Exhibit B-6: Invalidity of U.S. Patent No. 8,941,708 in view of U.S. Patent Pub. No. 2010/0302130 A1 ("Kikuchi") in view of U.S. Patent Pub. No. 2010/0002069 A1 ("Eleftheriadis") in view of U.S. Patent Pub. No. 2008/0235612 A1 ("Nakagawa") [1]

This chart is subject to all reservations, objections, and disclaimers in Defendant's Invalidity Contentions and any amendment, supplement, or modification thereof, which are incorporated herein by reference in their entirety.

Kikuchi was originally filed May 28, 2010 and published as a publication on December 02, 2010, and thus is available as prior art to U.S. Patent No. 8,941,708 (the "708 Patent") under at least 35 U.S.C. § 103.

Eleftheriadis was originally filed June 09, 2008 and published as a publication on January 07, 2010, and thus is available as prior art to the '708 Patent under at least 35 U.S.C. § 103.

Nakagawa was originally filed March 18, 2008 and published as a publication on September 25, 2008, and thus is available as prior art the '708 Patent under at least 35 U.S.C. § 103.

Kikuchi is evidence of prior invention in the United States under 35 U.S.C. § 103. The conception of Kikuchi occurred at least as early as May 28, 2010. Eleftheriadis is evidence of prior invention in the United States under 35 U.S.C. § 103. The conception of Eleftheriadis occurred at least as early as June 09, 2008.Based on information currently available, the persons or entities involved in the conception and diligent reduction to practice of the ideas in Kikuchi, Eleftheriadis and Nakagawa include at least the named inventors and the

[1] Discovery in this case is ongoing and accordingly, this initial invalidity chart is not final. IPM has conducted its invalidity analysis herein based at least in part and in some instances entirely upon Cisco's apparent application of the claims of the '708 Patent. By charting the prior art against the claims and limitations herein, IPM is neither admitting nor agreeing to Cisco's application of the claims at issue in this case, and these charts should not be interpreted as an admission or concession by IPM that any particular construction or application of any claim limitation by Cisco is correct or proper. Additionally, these charts provide representative examples of portions of the charted references that disclose the indicated limitations under Cisco's application of the claims; additional portions of these references other than the representative examples provided herein may also disclose the indicated limitation(s) and IPM contends that the asserted claims are invalid in light of the charted reference(s) as a whole in its or their entirety. Where a particular figure is cited, the citation should be understood to encompass the caption and description of the figure as well as any text relating to or describing the figure. Conversely, where particular text referring to a figure is cited, the citation should be understood to include the figure as well.

assignee. Discovery is ongoing and Defendant will update this chart pursuant to Federal Rule of Civil Procedure 26(e), the Local Rules, and the Orders of record in this matter subject to further investigation and discovery regarding the reference, the Court's construction of the claims at issue, and discovery generally, including third-party discovery.

Kikuchi renders obvious the asserted claims of the '708 Patent, either alone or in combination with other prior art (including Eleftheriadis and Nakagawa) and/or in combination with (1) the general knowledge of one of ordinary skill in the art; (2) the teachings of any of the prior art references set forth in IPM's other invalidity claim charts with respect to the limitation-at-issue; and/or (3) the teachings of any of the prior art references set forth in the cover pleading of IPM's invalidity contentions with respect to the key concepts applicable for the limitation-at-issue.

To the extent that the following invalidity contentions reflect constructions of claim limitations consistent with or suggested by Cisco's Infringement Contentions, no inference is intended, nor should any be drawn that IPM agrees with Cisco's apparent claim constructions or infringement contentions. IPM offers such invalidity contentions solely in the alternative to any position it may ultimately take as to any claim construction issues. IPM denies that the accused products infringe the asserted claim and expressly reserves the right to contest Cisco's apparent claim constructions and infringement contentions.

Asserted Claim of the '708 Patent	Exemplary Citations
[Claim 1(a)] A method comprising: providing, on a display, an object configured to be moved by a user along an axis extending across video for a plurality of video conference streams;	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)* "In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002] "Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003] "As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342 is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS. 18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124] "FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 19A1

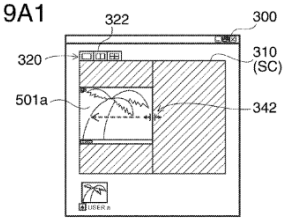


FIG. 19B1

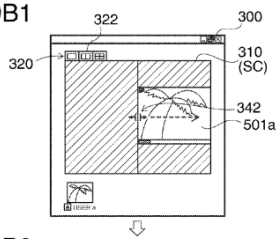


FIG. 19A2

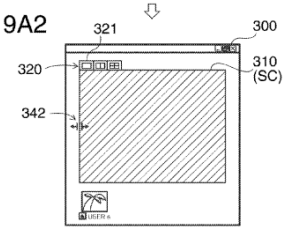
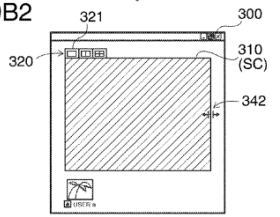


FIG. 19B2



Id. at Fig. 19

FIG. 20A1

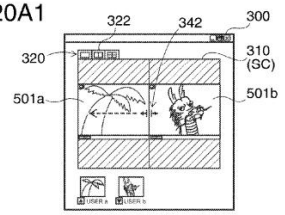


FIG. 20B1

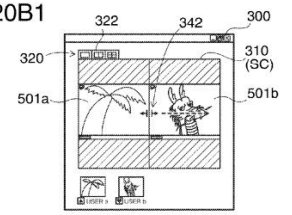


FIG. 20A2

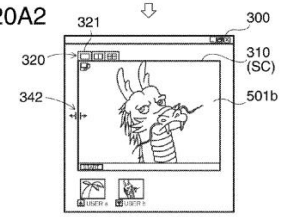
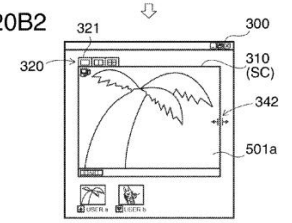
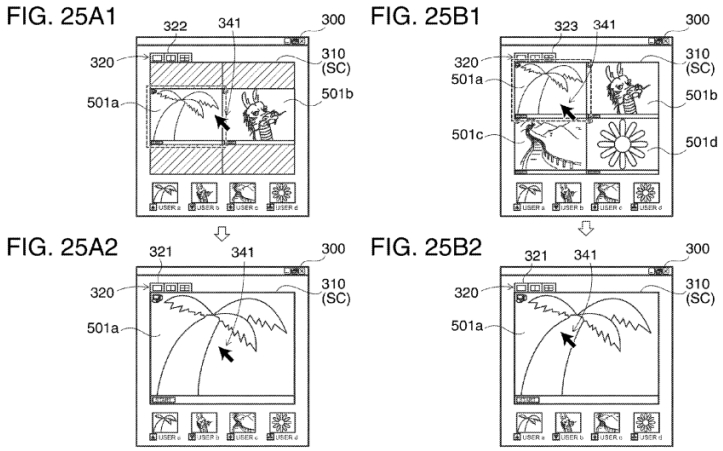


FIG. 20B2

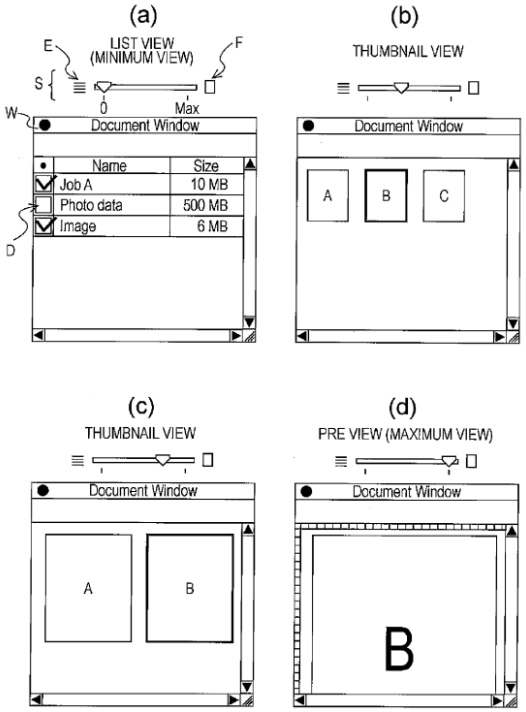


Id. at Fig. 20

"… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward,

Asserted Claim of the '708 Patent	Exemplary Citations
	the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]  *Id.* at Fig. 25 "Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…" To the extent that Cisco contends that Kikuchi does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Eleftheriadis and Nakagawa: *Text from US20100002069A1 (Eleftheriadis)* "The exemplary design detailed herein is well-suited for videoconferencing applications, where audio activity corresponds to a participant being silent or not." *Id.* at [Para 0141].

Asserted Claim of the '708 Patent	Exemplary Citations
	Text from US20080235612A1 (Nakagawa) "According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 1(b)] associating a plurality of predefined layouts for plurality of video conference streams with	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)* "In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality

Asserted Claim of the '708 Patent	Exemplary Citations
respective intervals along the axis;	of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002] "Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003] "As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342 is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS. 18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124] "FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 19A1

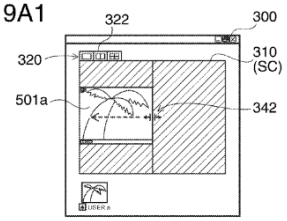


FIG. 19B1

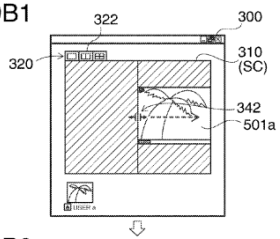


FIG. 19A2

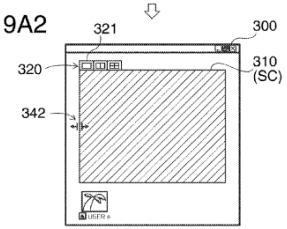
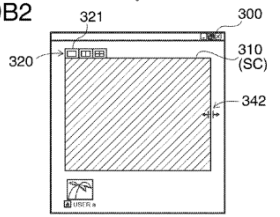


FIG. 19B2



Id. at Fig. 19

FIG. 20A1

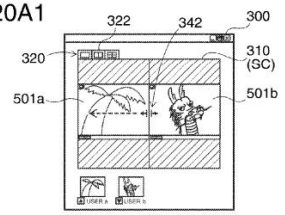


FIG. 20B1

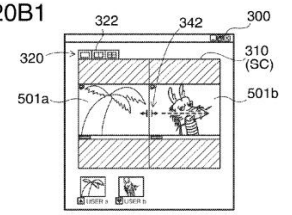


FIG. 20A2

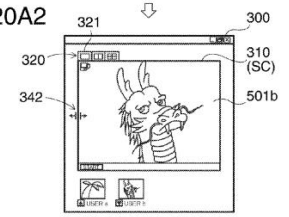
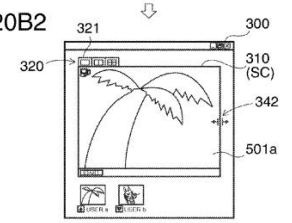
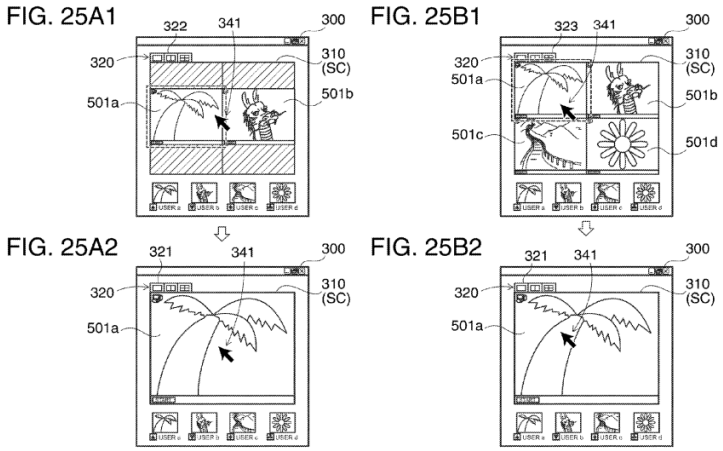


FIG. 20B2



Id. at Fig. 20

"… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward,

Asserted Claim of the '708 Patent	Exemplary Citations
	the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]  *Id.* at Fig. 25 "Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…" To the extent that Cisco contends that Kikuchi does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Eleftheriadis and Nakagawa: *Text from US20100002069A1 (Eleftheriadis)*

Asserted Claim of the '708 Patent	Exemplary Citations
	"The present application relates to video communication systems. In particular, it relates to mechanisms for managing the layout of multiple views of different scalable video sources on one or more displays." *Id.* at [Para 0003]

FIG. 4: Exemplary Rectangular Standard Mode Layouts

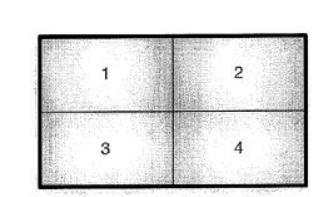


FIG. 4(a) 4-way, rectangular matrix

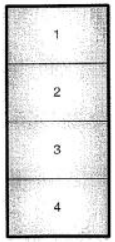


FIG. 4(b) 4-way, rectangular vertical

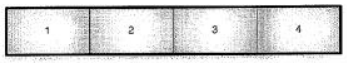


FIG. 4(c) 4-way, rectangular horizontal

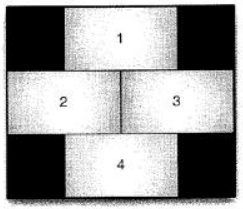


FIG. 4(d) 4-way, rectangular staggered

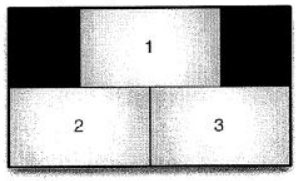


FIG. 4(e) 3-way, rectangular staggered



FIG. 4(f) 3-way, rectangular horizontal

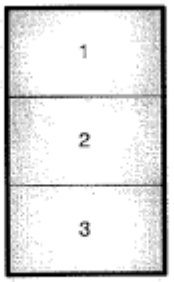
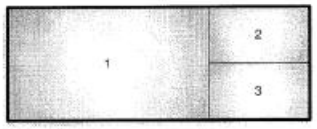
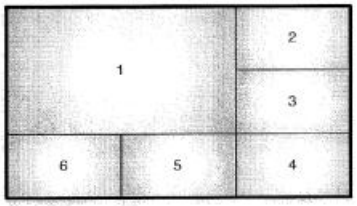
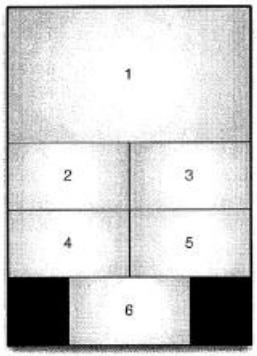
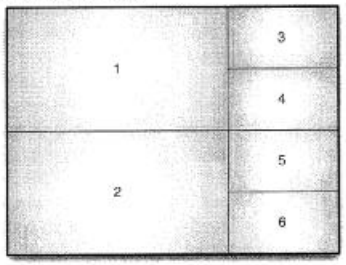


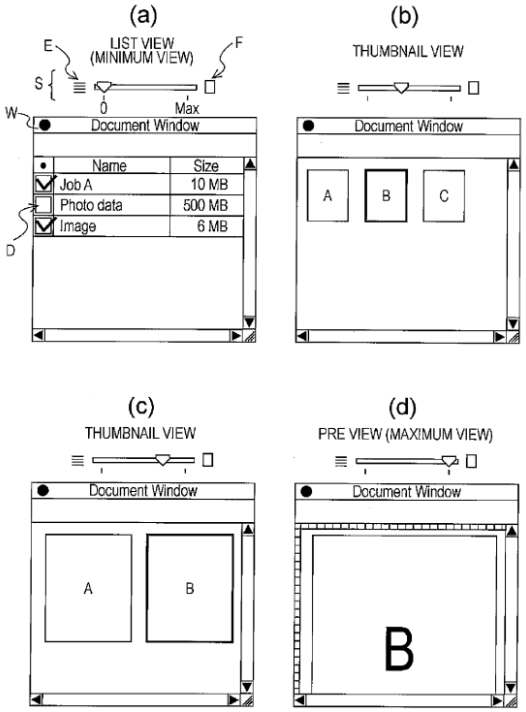
FIG. 4(g) 3-way, rectangular vertical

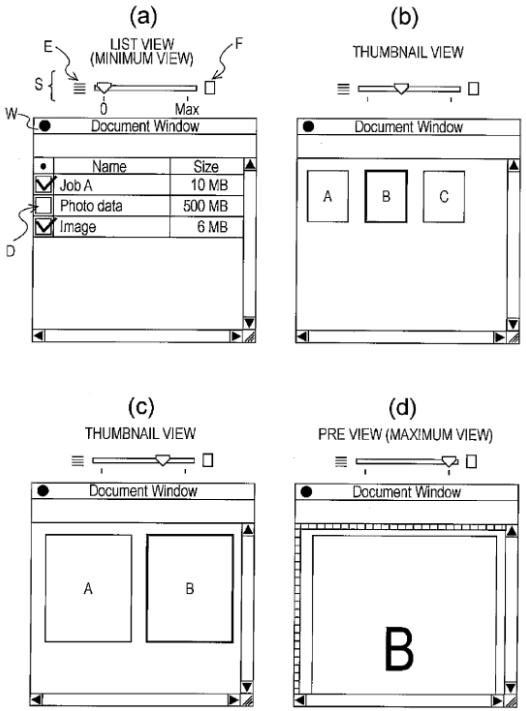
Id. at Figure 04

"FIG. 4(a)-(g) depict exemplary standard mode layouts using rectangular view organization. Each view within a screen is a rectangle. In one embodiment the rectangles can obey the picture aspect ratio of the original signal…" *Id.* at [Para 0066]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 8: Exemplary Enlarged Mode Layouts  FIG. 8(a) 3-way, rectangular horizontal  FIG. 8(b) 6-way, rectangular matrix  FIG. 8(c) 6-way, rectangular vertical  FIG. 8(d) 6-way, 2 enlarged views, rectangular matrix *Id.* at Figure 08. "The exemplary design detailed herein is well-suited for videoconferencing applications, where audio activity corresponds to a participant being silent or not." *Id.* at [Para 0141].

Asserted Claim of the '708 Patent	Exemplary Citations
	Text from US20080235612A1 (Nakagawa) "According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 1(c)] detecting a user action on the object indicating a position on the axis; and	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)*

Asserted Claim of the '708 Patent	Exemplary Citations
	"Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

Asserted Claim of the '708 Patent	Exemplary Citations
[Claim 1(d)] composing, in response to the detecting of the user action, a composite video signal using a layout, of the plurality of predefined layouts, associated with an interval among the intervals within which the position is lying.	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)* "In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002] "Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003] "As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342 is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS. 18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124] "FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 19A1

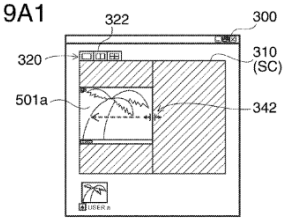


FIG. 19B1

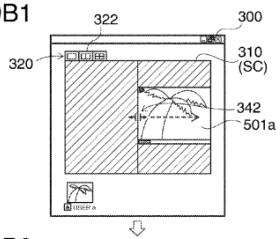


FIG. 19A2

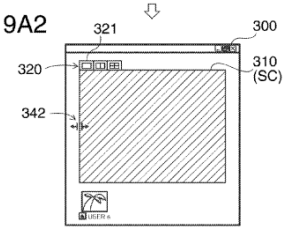
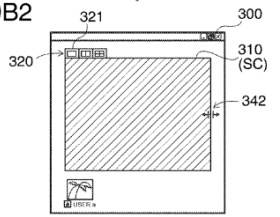


FIG. 19B2



Id. at Fig. 19

FIG. 20A1

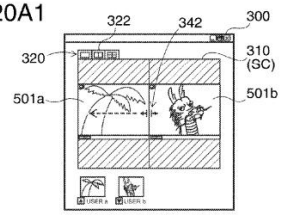


FIG. 20B1

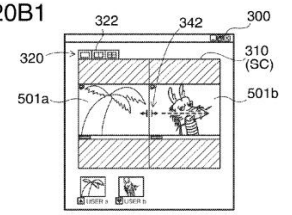


FIG. 20A2

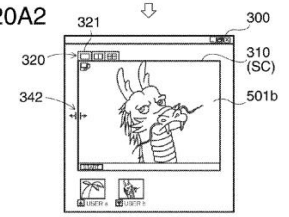
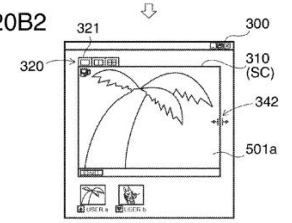
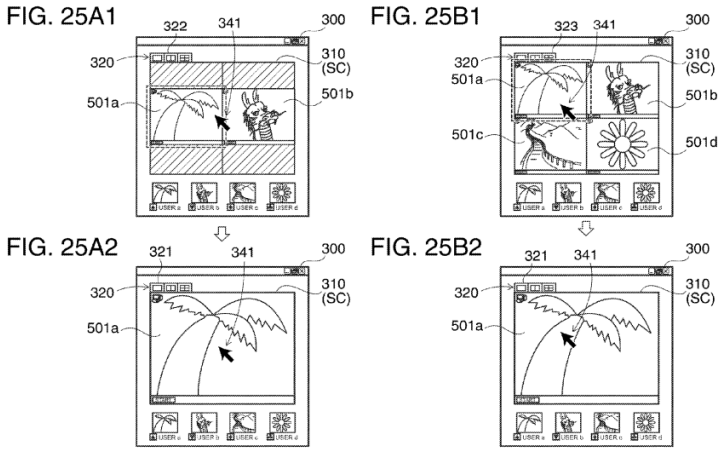


FIG. 20B2



Id. at Fig. 20

"… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward,

Asserted Claim of the '708 Patent	Exemplary Citations
	the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]  *Id.* at Fig. 25 "Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…" To the extent that Cisco contends that Kikuchi does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Eleftheriadis and Nakagawa: *Text from US20100002069A1 (Eleftheriadis)*

Asserted Claim of the '708 Patent	Exemplary Citations
	"The present application relates to video communication systems. In particular, it relates to mechanisms for managing the layout of multiple views of different scalable video sources on one or more displays." *Id.* at [Para 0003]

FIG. 4: Exemplary Rectangular Standard Mode Layouts

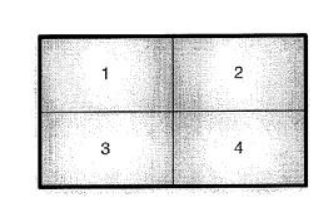


FIG. 4(a) 4-way, rectangular matrix

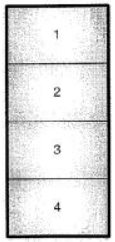


FIG. 4(b) 4-way, rectangular vertical

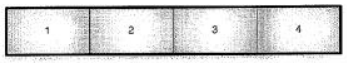


FIG. 4(c) 4-way, rectangular horizontal

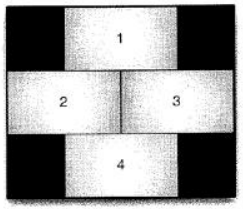


FIG. 4(d) 4-way, rectangular staggered

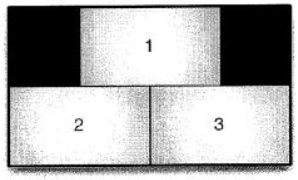


FIG. 4(e) 3-way, rectangular staggered



FIG. 4(f) 3-way, rectangular horizontal

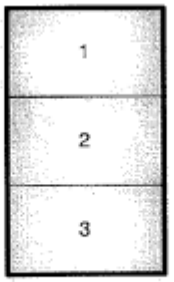


FIG. 4(g) 3-way, rectangular vertical

Id. at Figure 04

"FIG. 4(a)-(g) depict exemplary standard mode layouts using rectangular view organization. Each view within a screen is a rectangle. In one embodiment the rectangles can obey the picture aspect ratio of the original signal…" *Id.* at [Para 0066]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 8: Exemplary Enlarged Mode Layouts

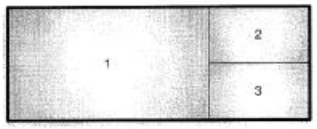


FIG. 8(a) 3-way, rectangular horizontal

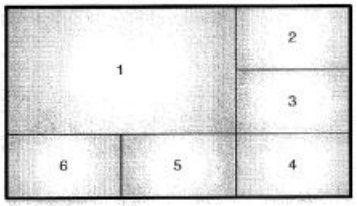


FIG. 8(b) 6-way, rectangular matrix

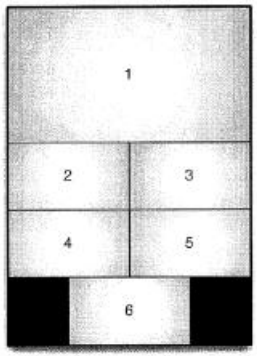


FIG. 8(c) 6-way, rectangular vertical

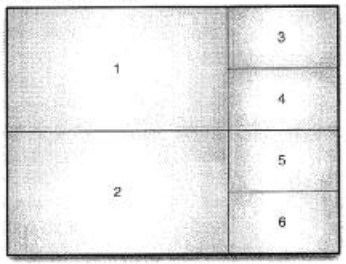


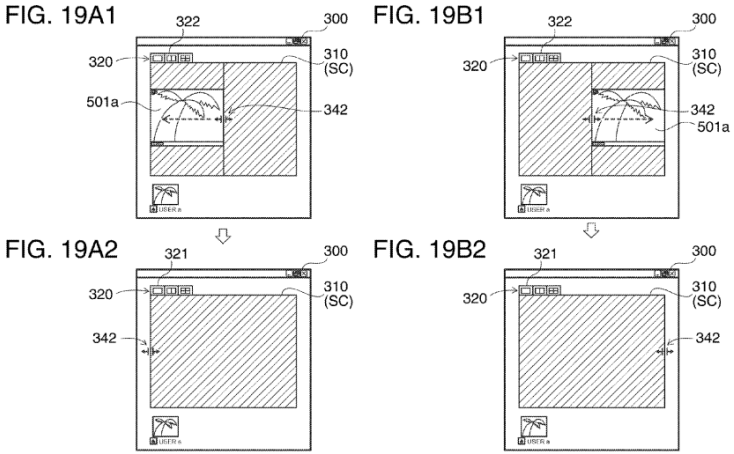
FIG. 8(d) 6-way, 2 enlarged views, rectangular matrix

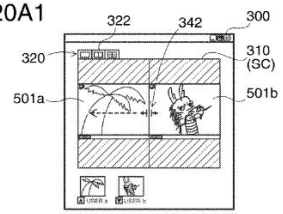
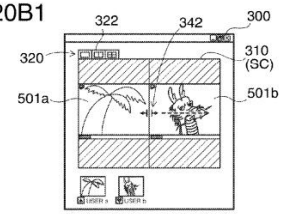
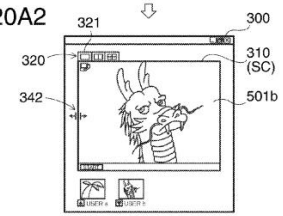
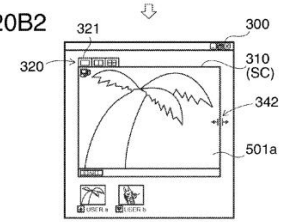
Id. at Figure 08

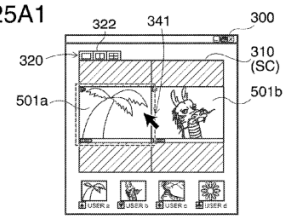
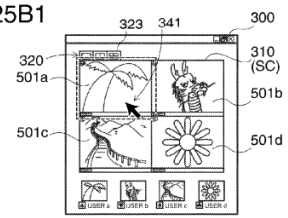
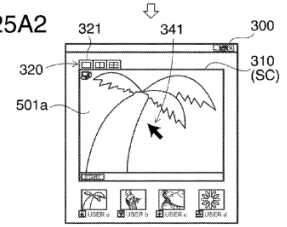
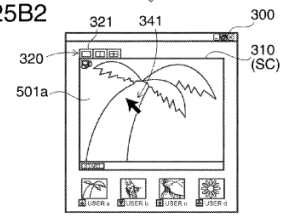
Text from US20080235612A1 (Nakagawa)

"According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device

Asserted Claim of the '708 Patent	Exemplary Citations
	is performed by the control device. The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]
[Claim 2] The method according to claim 1, wherein the composite video signal includes a spatial mix of the plurality of video conference streams, and the layout defines one or more frames for containing the plurality of video conference streams, the method further comprising: providing, for at least one of the intervals, a relationship between positions within the at	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)* "In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002] "Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003] "As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342

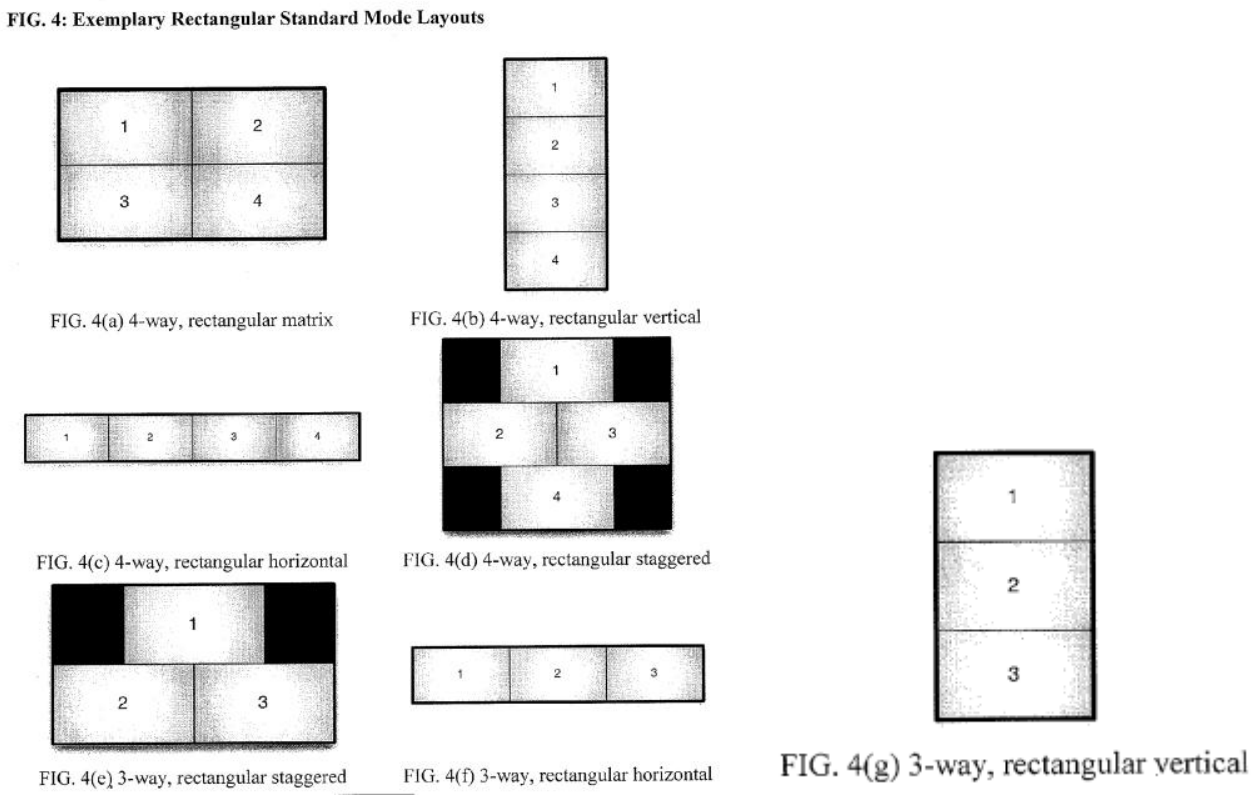
Asserted Claim of the '708 Patent	Exemplary Citations
least one of the intervals and a size and position of one or more frames of a respective layout associated with the interval, and calculating, in response to the detecting of the user action, a layout wherein the size and position of each frame of the layout is based on the relationship and the position.	is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS. 18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124] "FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127]  *Id.* at Fig. 19

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 20A1  FIG. 20B1  FIG. 20A2  FIG. 20B2  *Id.* at Fig. 20 "… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward, the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 25A1  FIG. 25B1  FIG. 25A2  FIG. 25B2  *Id.* at Fig. 25 "Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…" To the extent that Cisco contends that Kikuchi does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Eleftheriadis and Nakagawa: *Text from US20100002069A1 (Eleftheriadis)* "The present application relates to video communication systems. In particular, it relates to mechanisms for managing the layout of multiple views of different scalable video sources on one or more displays." *Id.* at [Para 0003]

Asserted Claim of the '708 Patent	Exemplary Citations
	"FIG. 2 depicts a typical example of a legacy system with three transmitting participants: Sender 1, Sender 2, and Sender 3, a Server 201, and a Receiver 203. The Server 201 operates as a transcoding MCU: it receives audio (A) streams 1A, 2A and 3A and video (V) streams 1V, 2V and 3V from each of the Senders 1, 2 and 3, respectively, decodes the signals, and composes the video according to the desired layout indicated to the Server 201 by the Receiver 203 via the Signaling path 202. The decoded audio signals are also mixed at the Server 201. The resulting composited video and mixed audio signals are encoded by the Server 201, and are transmitted to the Receiver 203 as two separate streams: mixed audio stream A(mixed) and composited video stream V(composited). It is noted that these streams can actually be transmitted to the Receiver 203 multiplexed over a single connection (e.g., a single Real-Time Protocol (RTP) port). The Receiver 203 decodes the audio and video signals and plays them back. FIG. 2 further depicts an example layout of the Receiver's screen 210, in which Sender 1, displayed in display box 1, is shown larger than Senders 2 and 3, displayed in display boxes 2 and 3, respectively. The total bit rate requirements for the audio and video streams communicated between the Server 201 and the Receiver 203 are that of a single stream at the resolution of the Receiver's screen 210. Note that any areas of the screen not covered by real content (i.e., pixels originating from any one of the participants) have to be encoded by the Server 201 as well. The coding overhead, however, will typically be small since these areas do not change from picture to picture, and thus the predictive coding used in codecs such as H.264 can reduce the prediction error to a small amount." *Id.* at [Para 0048]

Asserted Claim of the '708 Patent	Exemplary Citations



Id. at Figure 04

"FIG. 4(a)-(g) depict exemplary standard mode layouts using rectangular view organization. Each view within a screen is a rectangle. In one embodiment the rectangles can obey the picture aspect ratio of the original signal…" *Id.* at [Para 0066]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 8: Exemplary Enlarged Mode Layouts

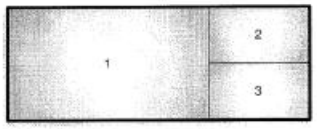


FIG. 8(a) 3-way, rectangular horizontal

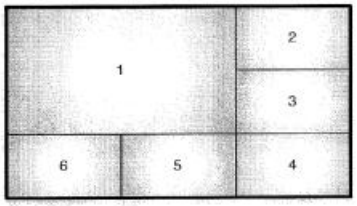


FIG. 8(b) 6-way, rectangular matrix

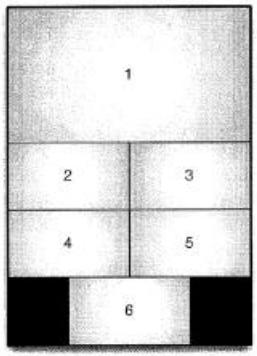


FIG. 8(c) 6-way, rectangular vertical

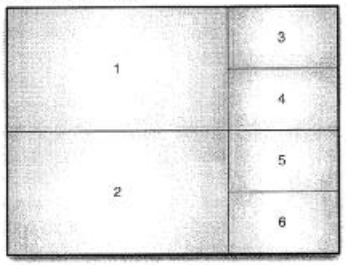


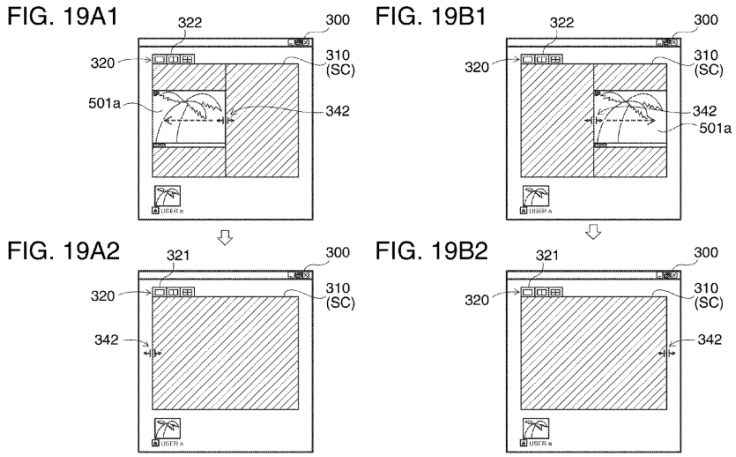
FIG. 8(d) 6-way, 2 enlarged views, rectangular matrix

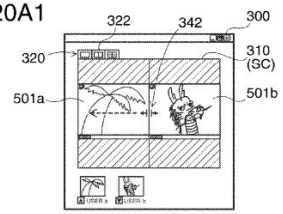
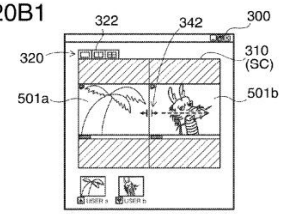
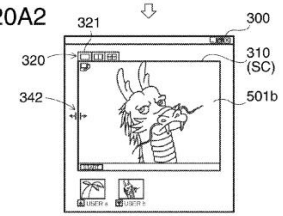
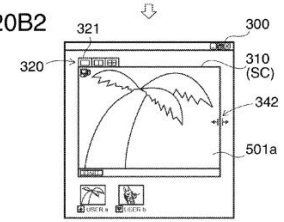
Id. at Figure 08

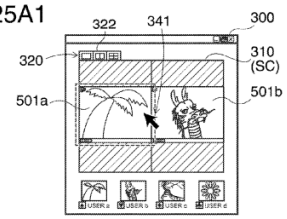
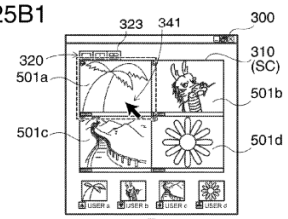
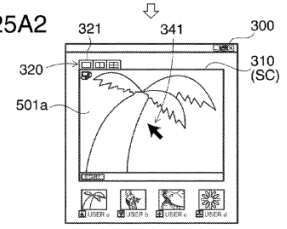
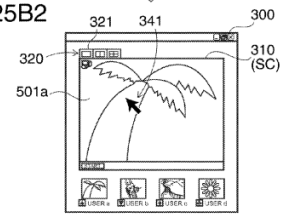
"The exemplary design detailed herein is well-suited for videoconferencing applications, where audio activity corresponds to a participant being silent or not." *Id.* at [Para 0141].

Text from US20080235612A1 (Nakagawa)

Asserted Claim of the '708 Patent	Exemplary Citations
	"According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]
[Claim 3] The method according to claim 1, further comprising: associating M numbers of variations of one of the plurality of predefined layouts with M number of sub-intervals within one or more of the intervals; identifying, in response to the detecting of the user action, a sub-interval among the sub-intervals within which the position is lying;	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)* "In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002] "Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003]

Asserted Claim of the '708 Patent	Exemplary Citations
selecting a layout, of the plurality of predefined layouts, associated with the sub-interval; and composing the composite video signal using the selected layout.	"As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342 is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS. 18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124] "FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127]  *Id.* at Fig. 19

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 20A1  FIG. 20B1  FIG. 20A2  FIG. 20B2  *Id.* at Fig. 20 "… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward, the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 25A1  FIG. 25B1  FIG. 25A2  FIG. 25B2  *Id.* at Fig. 25 "Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…" To the extent that Cisco contends that Kikuchi does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Eleftheriadis and Nakagawa: <u>*Text from US20100002069A1 (Eleftheriadis)*</u> "The present application relates to video communication systems. In particular, it relates to mechanisms for managing the layout of multiple views of different scalable video sources on one or more displays." *Id.* at [Para 0003] "FIG. 2 depicts a typical example of a legacy system with three transmitting participants: Sender 1, Sender 2, and Sender 3, a Server 201, and a Receiver 203. The Server 201 operates as a transcoding MCU: it receives audio (A) streams 1A, 2A and 3A and video

Asserted Claim of the '708 Patent	Exemplary Citations
	(V) streams 1V, 2V and 3V from each of the Senders 1, 2 and 3, respectively, decodes the signals, and composes the video according to the desired layout indicated to the Server 201 by the Receiver 203 via the Signaling path 202. The decoded audio signals are also mixed at the Server 201. The resulting composited video and mixed audio signals are encoded by the Server 201, and are transmitted to the Receiver 203 as two separate streams: mixed audio stream A(mixed) and composited video stream V(composited). It is noted that these streams can actually be transmitted to the Receiver 203 multiplexed over a single connection (e.g., a single Real-Time Protocol (RTP) port). The Receiver 203 decodes the audio and video signals and plays them back. FIG. 2 further depicts an example layout of the Receiver's screen 210, in which Sender 1, displayed in display box 1, is shown larger than Senders 2 and 3, displayed in display boxes 2 and 3, respectively. The total bit rate requirements for the audio and video streams communicated between the Server 201 and the Receiver 203 are that of a single stream at the resolution of the Receiver's screen 210. Note that any areas of the screen not covered by real content (i.e., pixels originating from any one of the participants) have to be encoded by the Server 201 as well. The coding overhead, however, will typically be small since these areas do not change from picture to picture, and thus the predictive coding used in codecs such as H.264 can reduce the prediction error to a small amount." *Id.* at [Para 0048]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 4: Exemplary Rectangular Standard Mode Layouts

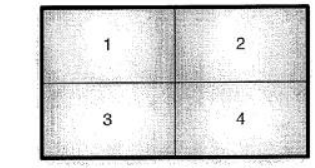


FIG. 4(a) 4-way, rectangular matrix

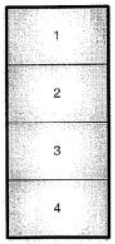


FIG. 4(b) 4-way, rectangular vertical

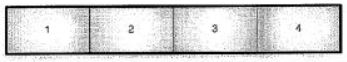


FIG. 4(c) 4-way, rectangular horizontal

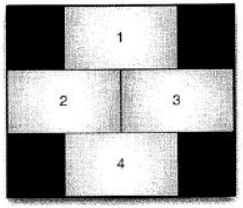


FIG. 4(d) 4-way, rectangular staggered

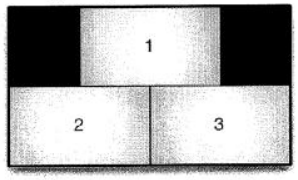


FIG. 4(e) 3-way, rectangular staggered



FIG. 4(f) 3-way, rectangular horizontal

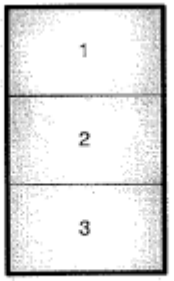
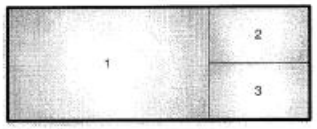
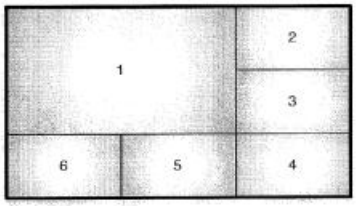
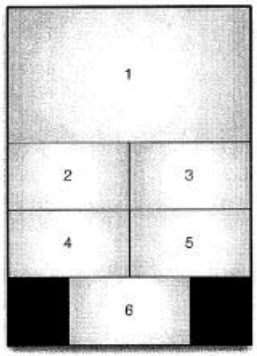
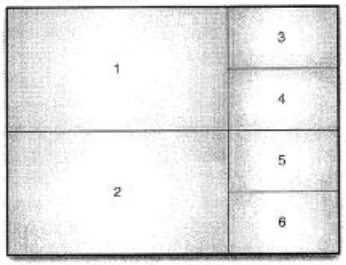


FIG. 4(g) 3-way, rectangular vertical

Id. at Figure 04

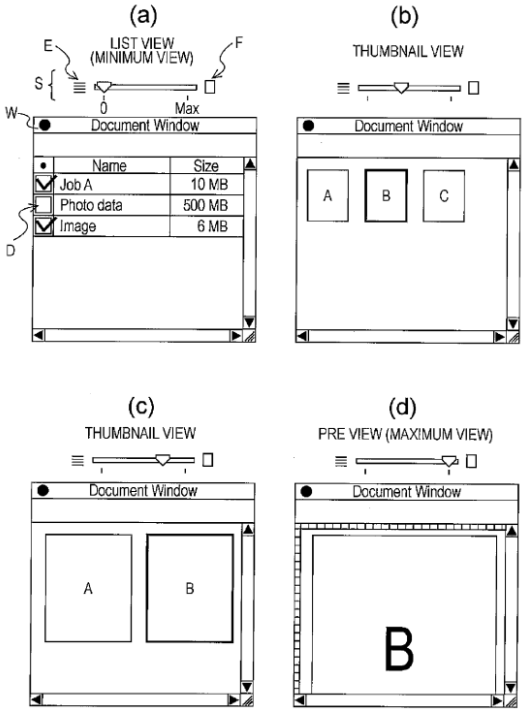
"FIG. 4(a)-(g) depict exemplary standard mode layouts using rectangular view organization. Each view within a screen is a rectangle. In one embodiment the rectangles can obey the picture aspect ratio of the original signal…" *Id.* at [Para 0066]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 8: Exemplary Enlarged Mode Layouts  FIG. 8(a) 3-way, rectangular horizontal  FIG. 8(b) 6-way, rectangular matrix  FIG. 8(c) 6-way, rectangular vertical  FIG. 8(d) 6-way, 2 enlarged views, rectangular matrix *Id.* at Figure 08 *Text from US20080235612A1 (Nakagawa)* "According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes

Asserted Claim of the '708 Patent	Exemplary Citations
	displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]
[Claim 4] The method of claim 1, further comprising: identifying the interval among the intervals within which the position is lying.	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 3



Id. at Fig. 3

"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are

Asserted Claim of the '708 Patent	Exemplary Citations
	examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]
[Claim 5] The method of claim 1, further comprising: wherein the composite video signal includes a spatial mix of one or more video conference streams, and the layout defines one or more frames for containing the video conference streams.	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)* "In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002] "Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003] "As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342 is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS. 18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124] "FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC

Asserted Claim of the '708 Patent	Exemplary Citations
	becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127]

FIG. 19A1

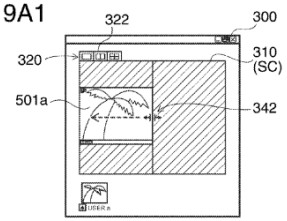


FIG. 19B1

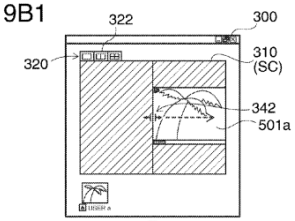


FIG. 19A2

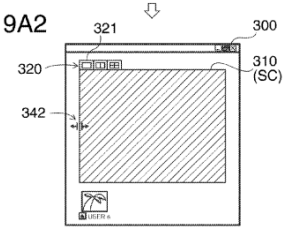
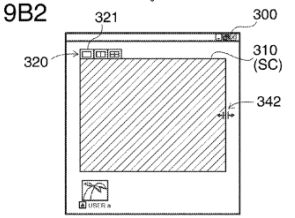


FIG. 19B2



Id. at Fig. 19

FIG. 20A1

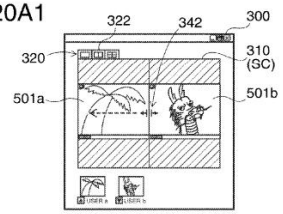


FIG. 20B1

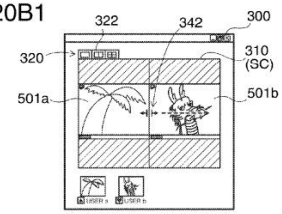


FIG. 20A2

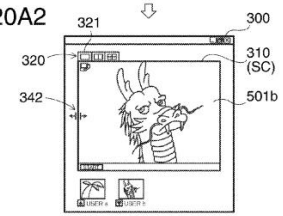
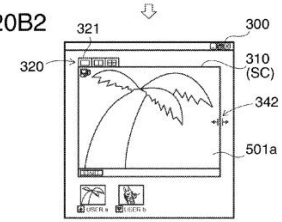
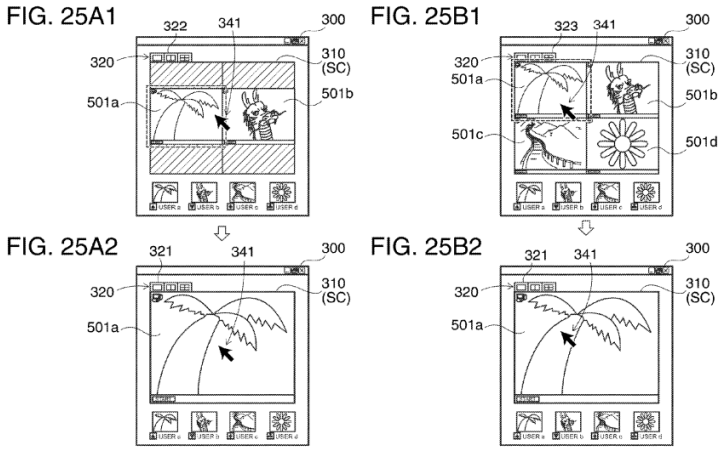


FIG. 20B2



Id. at Fig. 20

Asserted Claim of the '708 Patent	Exemplary Citations
	"… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward, the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]  *Id.* at Fig. 25 "Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…"
[Claim 6] The method of claim 5, further comprising: providing, for at least one of the intervals, a relationship between	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Eleftheriadis and Nakagawa: *Text from US20100002069A1 (Eleftheriadis)*

Asserted Claim of the '708 Patent	Exemplary Citations
positions within the at least one of the intervals and the size and position of one or more frames of a respective layout associated with the interval.	"The present application relates to video communication systems. In particular, it relates to mechanisms for managing the layout of multiple views of different scalable video sources on one or more displays." *Id.* at [Para 0003] "FIG. 2 depicts a typical example of a legacy system with three transmitting participants: Sender 1, Sender 2, and Sender 3, a Server 201, and a Receiver 203. The Server 201 operates as a transcoding MCU: it receives audio (A) streams 1A, 2A and 3A and video (V) streams 1V, 2V and 3V from each of the Senders 1, 2 and 3, respectively, decodes the signals, and composes the video according to the desired layout indicated to the Server 201 by the Receiver 203 via the Signaling path 202. The decoded audio signals are also mixed at the Server 201. The resulting composited video and mixed audio signals are encoded by the Server 201, and are transmitted to the Receiver 203 as two separate streams: mixed audio stream A(mixed) and composited video stream V(composited). It is noted that these streams can actually be transmitted to the Receiver 203 multiplexed over a single connection (e.g., a single Real-Time Protocol (RTP) port). The Receiver 203 decodes the audio and video signals and plays them back. FIG. 2 further depicts an example layout of the Receiver's screen 210, in which Sender 1, displayed in display box 1, is shown larger than Senders 2 and 3, displayed in display boxes 2 and 3, respectively. The total bit rate requirements for the audio and video streams communicated between the Server 201 and the Receiver 203 are that of a single stream at the resolution of the Receiver's screen 210. Note that any areas of the screen not covered by real content (i.e., pixels originating from any one of the participants) have to be encoded by the Server 201 as well. The coding overhead, however, will typically be small since these areas do not change from picture to picture, and thus the predictive coding used in codecs such as H.264 can reduce the prediction error to a small amount." *Id.* at [Para 0048]

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FIG. 4: Exemplary Rectangular Standard Mode Layouts

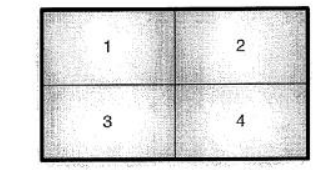


FIG. 4(a) 4-way, rectangular matrix

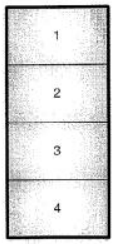


FIG. 4(b) 4-way, rectangular vertical

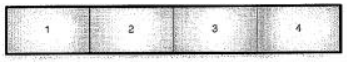


FIG. 4(c) 4-way, rectangular horizontal

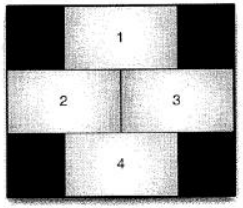


FIG. 4(d) 4-way, rectangular staggered

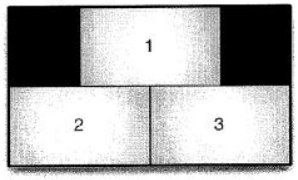


FIG. 4(e) 3-way, rectangular staggered



FIG. 4(f) 3-way, rectangular horizontal

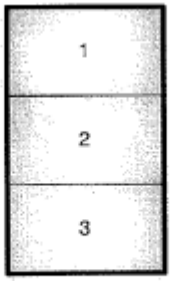
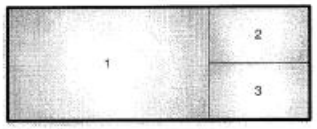
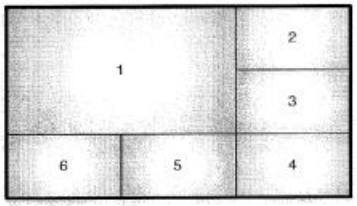
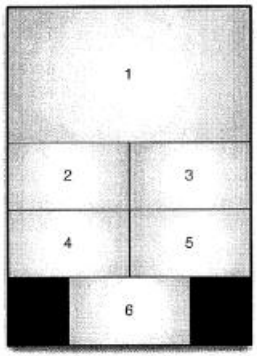
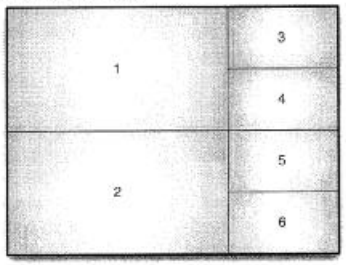
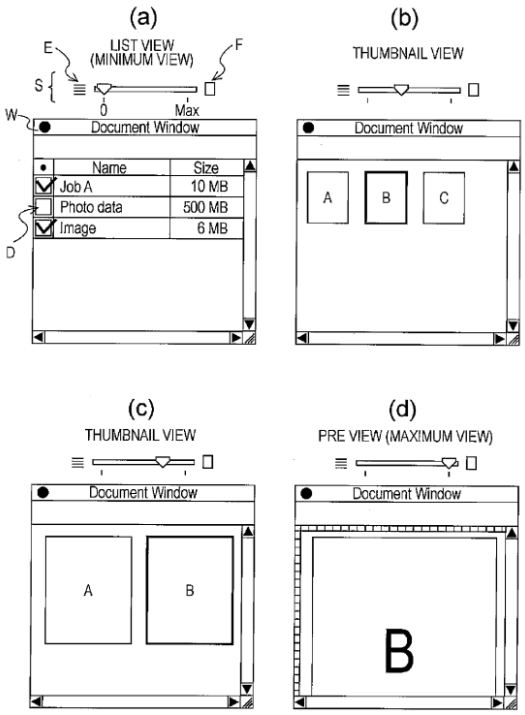


FIG. 4(g) 3-way, rectangular vertical

Id. at Figure 04

"FIG. 4(a)-(g) depict exemplary standard mode layouts using rectangular view organization. Each view within a screen is a rectangle. In one embodiment the rectangles can obey the picture aspect ratio of the original signal…" *Id.* at [Para 0066]

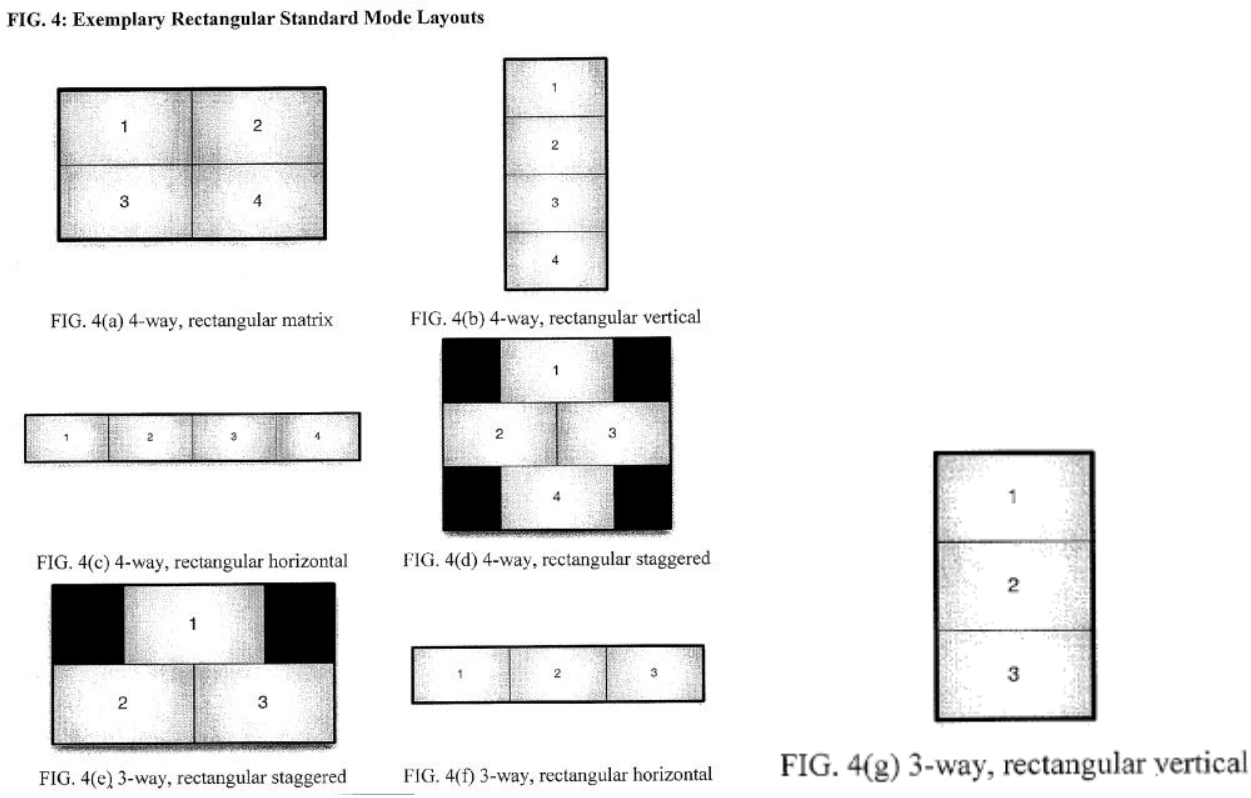
Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 8: Exemplary Enlarged Mode Layouts  FIG. 8(a) 3-way, rectangular horizontal  FIG. 8(b) 6-way, rectangular matrix  FIG. 8(c) 6-way, rectangular vertical  FIG. 8(d) 6-way, 2 enlarged views, rectangular matrix *Id.* at Figure 08. "The exemplary design detailed herein is well-suited for videoconferencing applications, where audio activity corresponds to a participant being silent or not." *Id.* at [Para 0141].

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	Text from US20080235612A1 (Nakagawa) "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3

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	"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043] For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]
[Claim 7] The method of claim 6, further comprising: calculating a layout wherein the size and position of each frame of the layout is based on the relationship and the position.	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Eleftheriadis and Nakagawa: *Text from US20100002069A1 (Eleftheriadis)* "The present application relates to video communication systems. In particular, it relates to mechanisms for managing the layout of multiple views of different scalable video sources on one or more displays." *Id.* at [Para 0003] "FIG. 2 depicts a typical example of a legacy system with three transmitting participants: Sender 1, Sender 2, and Sender 3, a Server 201, and a Receiver 203. The Server 201 operates as a transcoding MCU: it receives audio (A) streams 1A, 2A and 3A and video (V) streams 1V, 2V and 3V from each of the Senders 1, 2 and 3, respectively, decodes the signals, and composes the video according to the desired layout indicated to the Server 201 by the Receiver 203 via the Signaling path 202. The decoded audio signals are also mixed at the Server 201. The resulting composited video and mixed audio signals are encoded by the Server 201, and are transmitted to

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	the Receiver 203 as two separate streams: mixed audio stream A(mixed) and composited video stream V(composited). It is noted that these streams can actually be transmitted to the Receiver 203 multiplexed over a single connection (e.g., a single Real-Time Protocol (RTP) port). The Receiver 203 decodes the audio and video signals and plays them back. FIG. 2 further depicts an example layout of the Receiver's screen 210, in which Sender 1, displayed in display box 1, is shown larger than Senders 2 and 3, displayed in display boxes 2 and 3, respectively. The total bit rate requirements for the audio and video streams communicated between the Server 201 and the Receiver 203 are that of a single stream at the resolution of the Receiver's screen 210. Note that any areas of the screen not covered by real content (i.e., pixels originating from any one of the participants) have to be encoded by the Server 201 as well. The coding overhead, however, will typically be small since these areas do not change from picture to picture, and thus the predictive coding used in codecs such as H.264 can reduce the prediction error to a small amount." *Id.* at [Para 0048]

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Id. at Figure 04

"FIG. 4(a)-(g) depict exemplary standard mode layouts using rectangular view organization. Each view within a screen is a rectangle. In one embodiment the rectangles can obey the picture aspect ratio of the original signal…" *Id.* at [Para 0066]

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FIG. 8: Exemplary Enlarged Mode Layouts

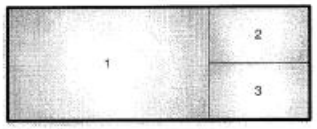


FIG. 8(a) 3-way, rectangular horizontal

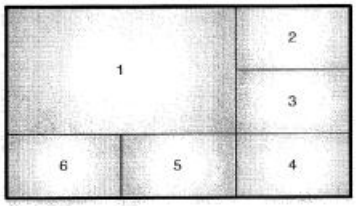


FIG. 8(b) 6-way, rectangular matrix

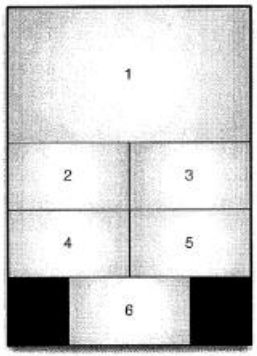


FIG. 8(c) 6-way, rectangular vertical

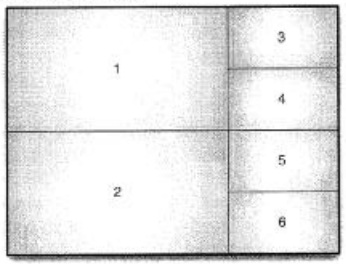
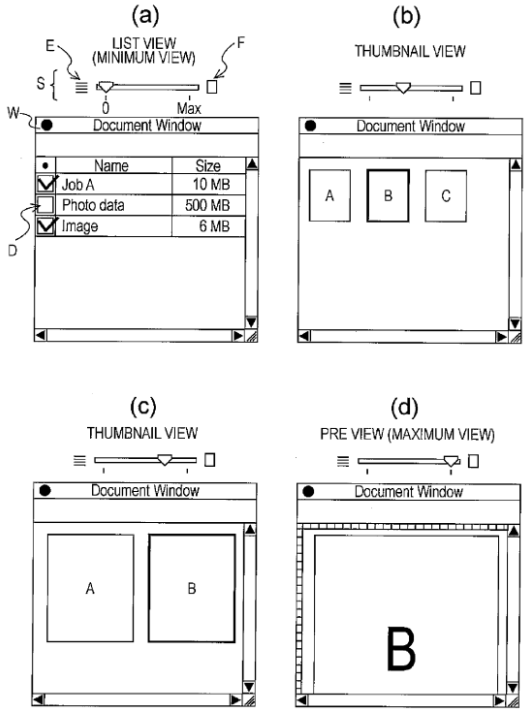


FIG. 8(d) 6-way, 2 enlarged views, rectangular matrix

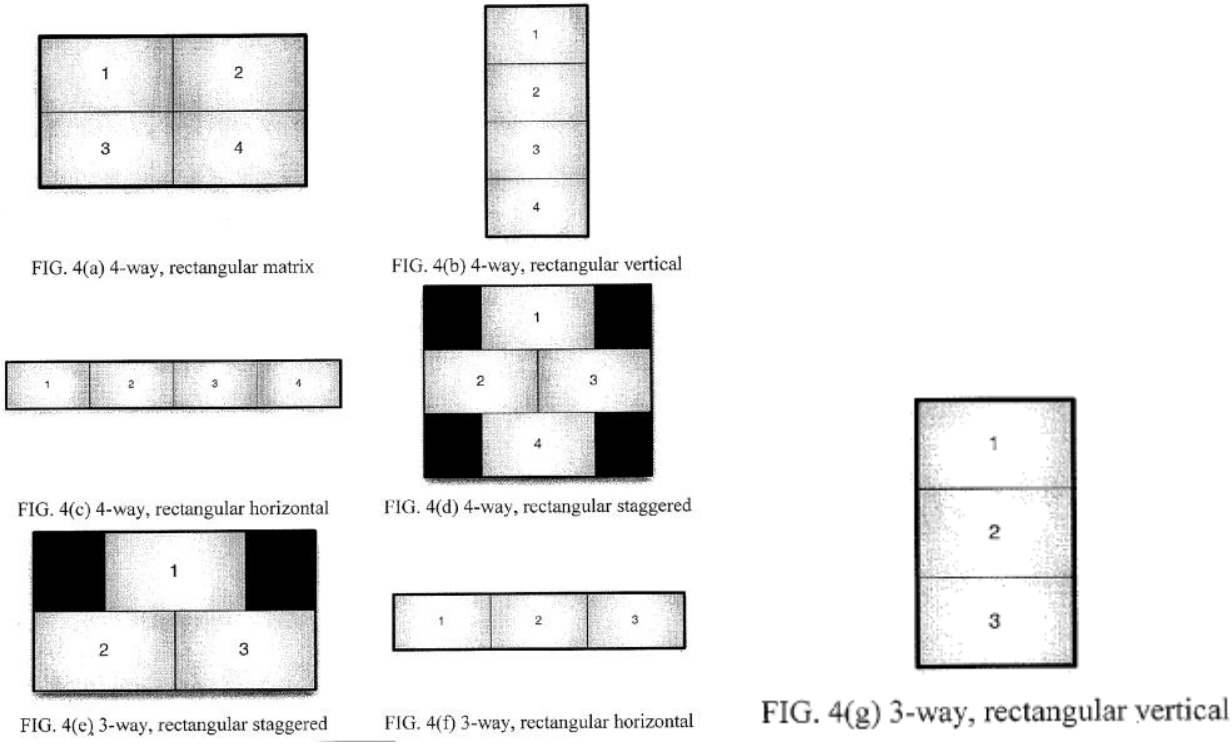
Id. at Figure 08

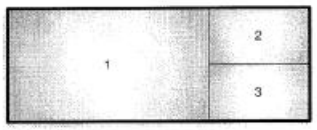
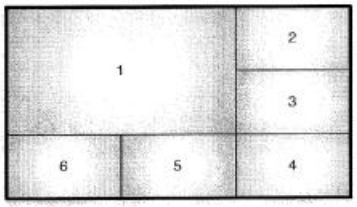
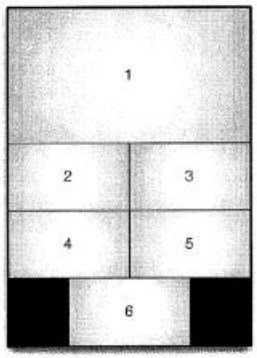
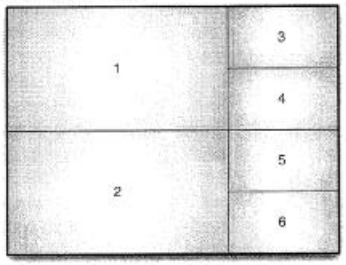
Text from US20080235612A1 (Nakagawa)

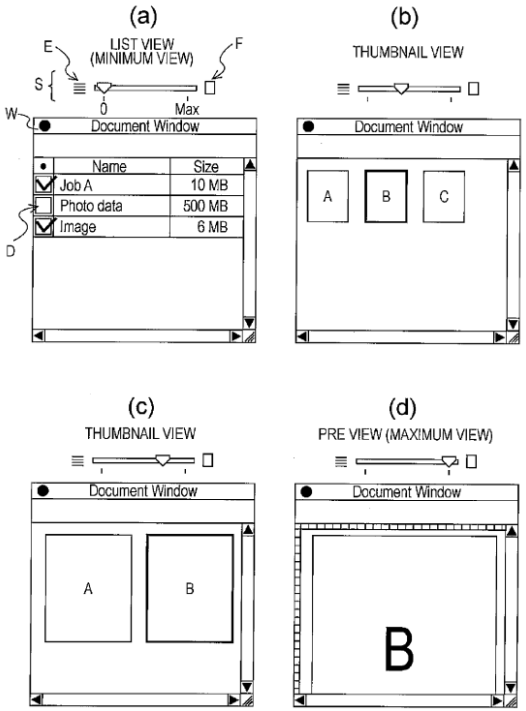
"Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window

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	(step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043] For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the

Asserted Claim of the '708 Patent	Exemplary Citations
	example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]
[Claim 8] The method of claim 1, further comprising: providing, for at least one of the intervals, a relationship between positions within the at least one of the intervals and the size and position of one or more frames of a respective layout associated with the interval.	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Eleftheriadis and Nakagawa: *Text from US20100002069A1 (Eleftheriadis)* "The present application relates to video communication systems. In particular, it relates to mechanisms for managing the layout of multiple views of different scalable video sources on one or more displays." *Id.* at [Para 0003] "FIG. 2 depicts a typical example of a legacy system with three transmitting participants: Sender 1, Sender 2, and Sender 3, a Server 201, and a Receiver 203. The Server 201 operates as a transcoding MCU: it receives audio (A) streams 1A, 2A and 3A and video (V) streams 1V, 2V and 3V from each of the Senders 1, 2 and 3, respectively, decodes the signals, and composes the video according to the desired layout indicated to the Server 201 by the Receiver 203 via the Signaling path 202. The decoded audio signals are also mixed at the Server 201. The resulting composited video and mixed audio signals are encoded by the Server 201, and are transmitted to the Receiver 203 as two separate streams: mixed audio stream A(mixed) and composited video stream V(composited). It is noted that these streams can actually be transmitted to the Receiver 203 multiplexed over a single connection (e.g., a single Real-Time Protocol (RTP) port). The Receiver 203 decodes the audio and video signals and plays them back. FIG. 2 further depicts an example layout of the Receiver's screen 210, in which Sender 1, displayed in display box 1, is shown larger than Senders 2 and 3, displayed in display boxes 2 and 3, respectively. The total bit rate requirements for

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	the audio and video streams communicated between the Server 201 and the Receiver 203 are that of a single stream at the resolution of the Receiver's screen 210. Note that any areas of the screen not covered by real content (i.e., pixels originating from any one of the participants) have to be encoded by the Server 201 as well. The coding overhead, however, will typically be small since these areas do not change from picture to picture, and thus the predictive coding used in codecs such as H.264 can reduce the prediction error to a small amount." *Id.* at [Para 0048] **FIG. 4: Exemplary Rectangular Standard Mode Layouts**  FIG. 4(a) 4-way, rectangular matrix FIG. 4(b) 4-way, rectangular vertical FIG. 4(c) 4-way, rectangular horizontal FIG. 4(d) 4-way, rectangular staggered FIG. 4(e) 3-way, rectangular staggered FIG. 4(f) 3-way, rectangular horizontal FIG. 4(g) 3-way, rectangular vertical *Id.* at Figure 04

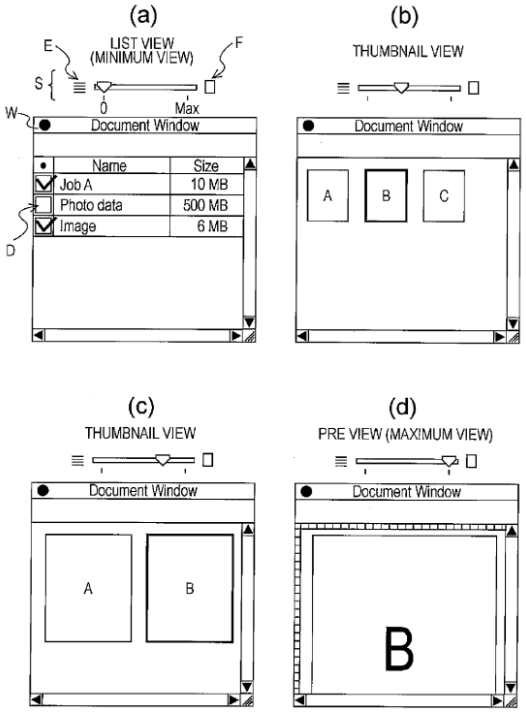
Asserted Claim of the '708 Patent	Exemplary Citations
	"FIG. 4(a)-(g) depict exemplary standard mode layouts using rectangular view organization. Each view within a screen is a rectangle. In one embodiment the rectangles can obey the picture aspect ratio of the original signal…" *Id.* at [Para 0066] **FIG. 8: Exemplary Enlarged Mode Layouts**  FIG. 8(a) 3-way, rectangular horizontal  FIG. 8(b) 6-way, rectangular matrix  FIG. 8(c) 6-way, rectangular vertical  FIG. 8(d) 6-way, 2 enlarged views, rectangular matrix *Id.* at Figure 08 *Text from US20080235612A1 (Nakagawa)*

Asserted Claim of the '708 Patent	Exemplary Citations
	"Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

Asserted Claim of the '708 Patent	Exemplary Citations
	For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]
[Claim 9] The method of claim 1, further comprising: calculating, in response to the detecting of the user action, a layout wherein a size and position of each frame of the layout is based on the relationship and the position.	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

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FIG. 3

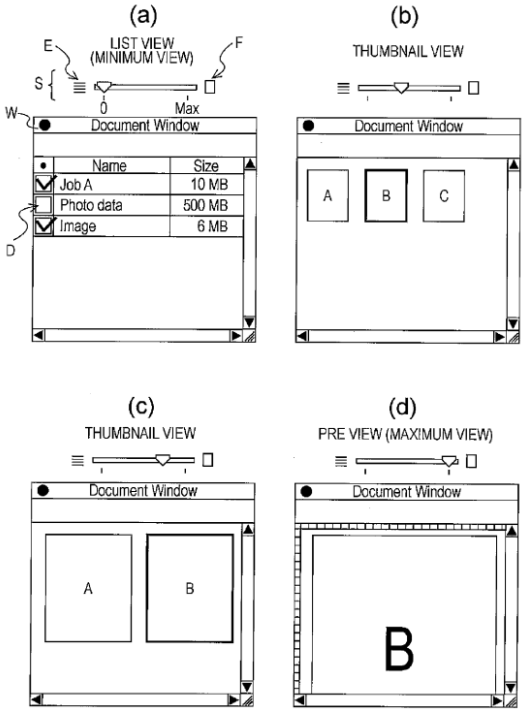


Id. at Fig. 3

"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are

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	examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]
[Claim 10(a)] A method comprising: providing, on a display, an object configured to be moved by a user along an axis;	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

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	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 10(b)] associating a plurality of predefined layouts with respective intervals along the axis;	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Eleftheriadis and Nakagawa:

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	Text from US20100002069A1 (Eleftheriadis) "The present application relates to video communication systems. In particular, it relates to mechanisms for managing the layout of multiple views of different scalable video sources on one or more displays." *Id.* at [Para 0003] "FIG. 2 depicts a typical example of a legacy system with three transmitting participants: Sender 1, Sender 2, and Sender 3, a Server 201, and a Receiver 203. The Server 201 operates as a transcoding MCU: it receives audio (A) streams 1A, 2A and 3A and video (V) streams 1V, 2V and 3V from each of the Senders 1, 2 and 3, respectively, decodes the signals, and composes the video according to the desired layout indicated to the Server 201 by the Receiver 203 via the Signaling path 202. The decoded audio signals are also mixed at the Server 201. The resulting composited video and mixed audio signals are encoded by the Server 201, and are transmitted to the Receiver 203 as two separate streams: mixed audio stream A(mixed) and composited video stream V(composited). It is noted that these streams can actually be transmitted to the Receiver 203 multiplexed over a single connection (e.g., a single Real-Time Protocol (RTP) port). The Receiver 203 decodes the audio and video signals and plays them back. FIG. 2 further depicts an example layout of the Receiver's screen 210, in which Sender 1, displayed in display box 1, is shown larger than Senders 2 and 3, displayed in display boxes 2 and 3, respectively. The total bit rate requirements for the audio and video streams communicated between the Server 201 and the Receiver 203 are that of a single stream at the resolution of the Receiver's screen 210. Note that any areas of the screen not covered by real content (i.e., pixels originating from any one of the participants) have to be encoded by the Server 201 as well. The coding overhead, however, will typically be small since these areas do not change from picture to picture, and thus the predictive coding used in codecs such as H.264 can reduce the prediction error to a small amount." *Id.* at [Para 0048]

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FIG. 4: Exemplary Rectangular Standard Mode Layouts

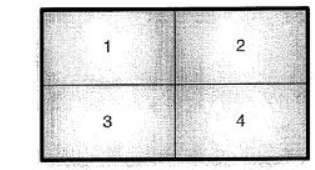


FIG. 4(a) 4-way, rectangular matrix

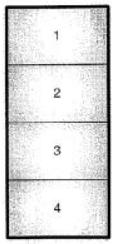


FIG. 4(b) 4-way, rectangular vertical

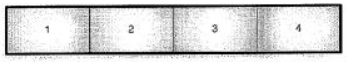


FIG. 4(c) 4-way, rectangular horizontal

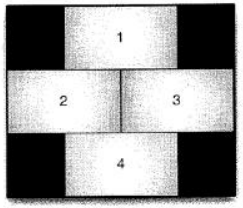


FIG. 4(d) 4-way, rectangular staggered

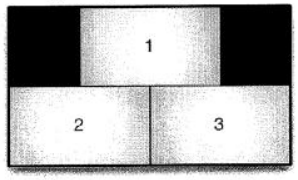


FIG. 4(e) 3-way, rectangular staggered



FIG. 4(f) 3-way, rectangular horizontal

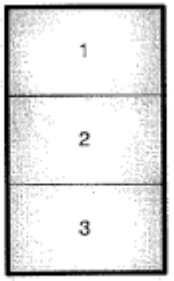


FIG. 4(g) 3-way, rectangular vertical

Id. at Figure 04

"FIG. 4(a)-(g) depict exemplary standard mode layouts using rectangular view organization. Each view within a screen is a rectangle. In one embodiment the rectangles can obey the picture aspect ratio of the original signal…" *Id.* at [Para 0066]

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FIG. 8: Exemplary Enlarged Mode Layouts

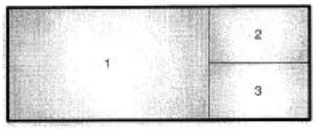


FIG. 8(a) 3-way, rectangular horizontal

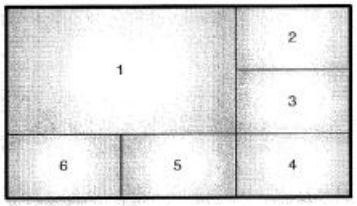


FIG. 8(b) 6-way, rectangular matrix

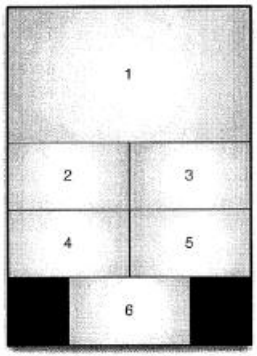


FIG. 8(c) 6-way, rectangular vertical

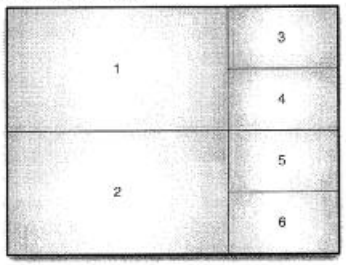


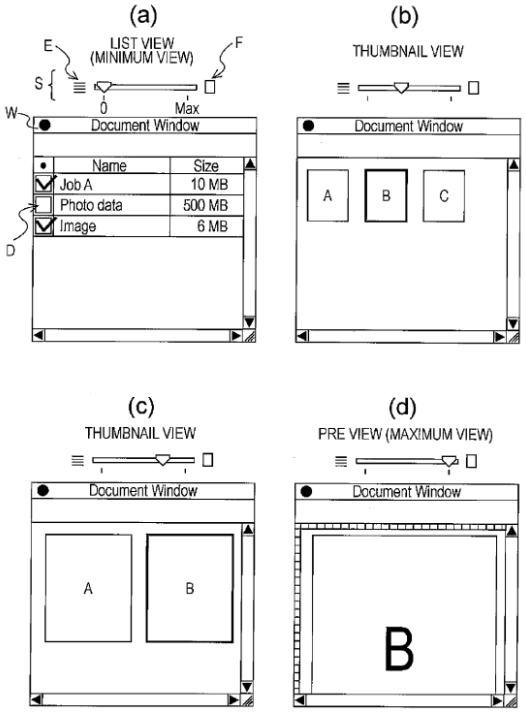
FIG. 8(d) 6-way, 2 enlarged views, rectangular matrix

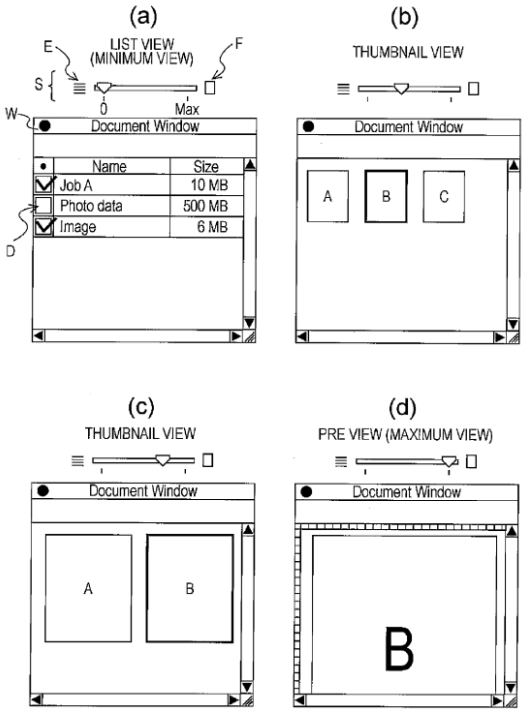
Id. at Figure 08

Text from US20080235612A1 (Nakagawa)

"According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes

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	displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

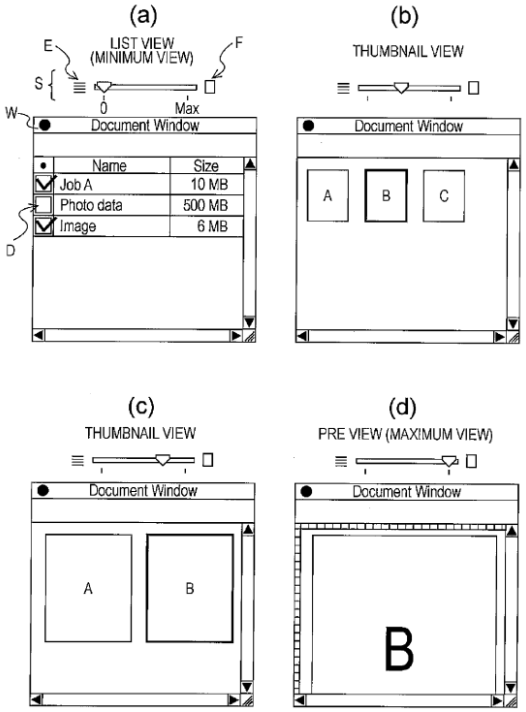
Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 10(c)] detecting a user action on the object indicating a position on the axis;	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)*

Asserted Claim of the '708 Patent	Exemplary Citations
	"Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

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[Claim 10(d)] identifying an interval among the intervals within which the position is lying;	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

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FIG. 3



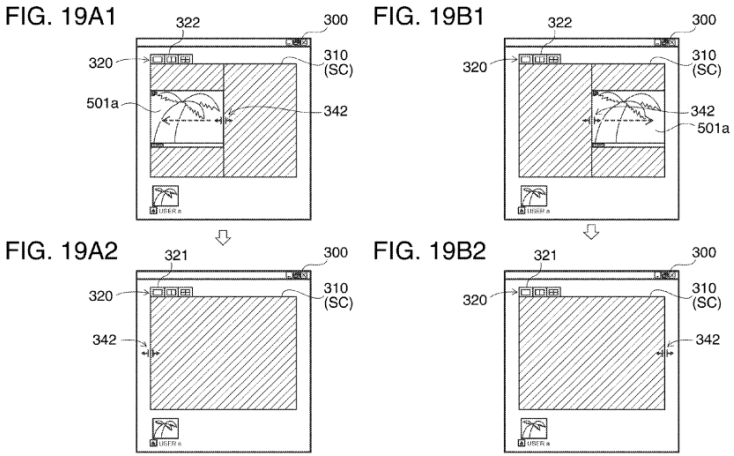
Id. at Fig. 3

"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]

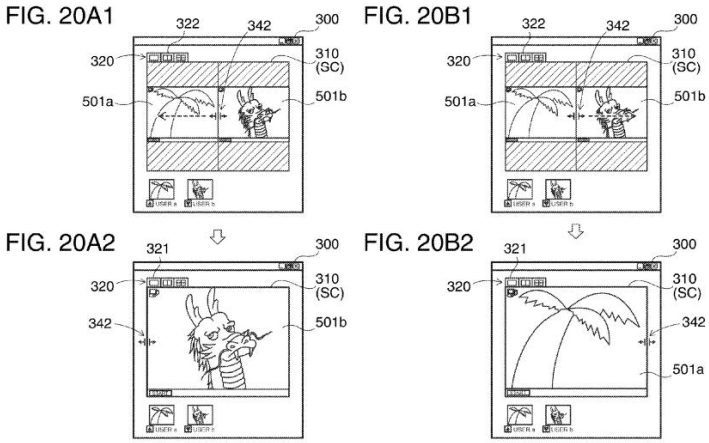
For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are

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	examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]
[Claim 10(e)] selecting the layout associated with the interval; and composing, in response to the detecting of the user action, a composite video signal using the layout, of the plurality of predefined layouts, associated with the interval among the intervals within which the position is lying.	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)* "In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002] "Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003] "As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342 is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS. 18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124] "FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the

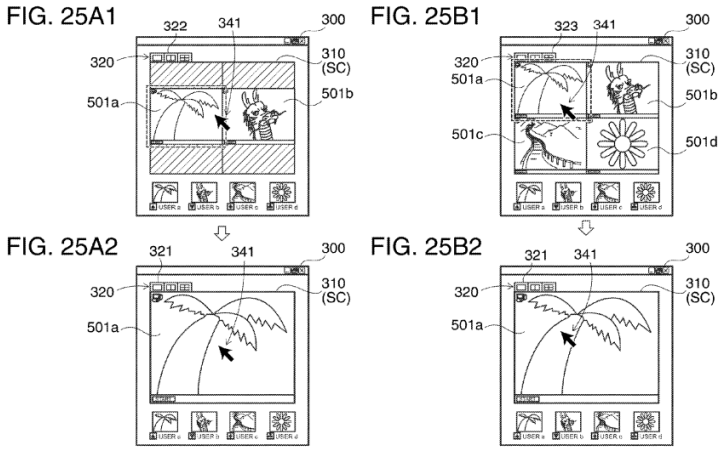
Asserted Claim of the '708 Patent	Exemplary Citations
	supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127]



Id. at Fig. 19

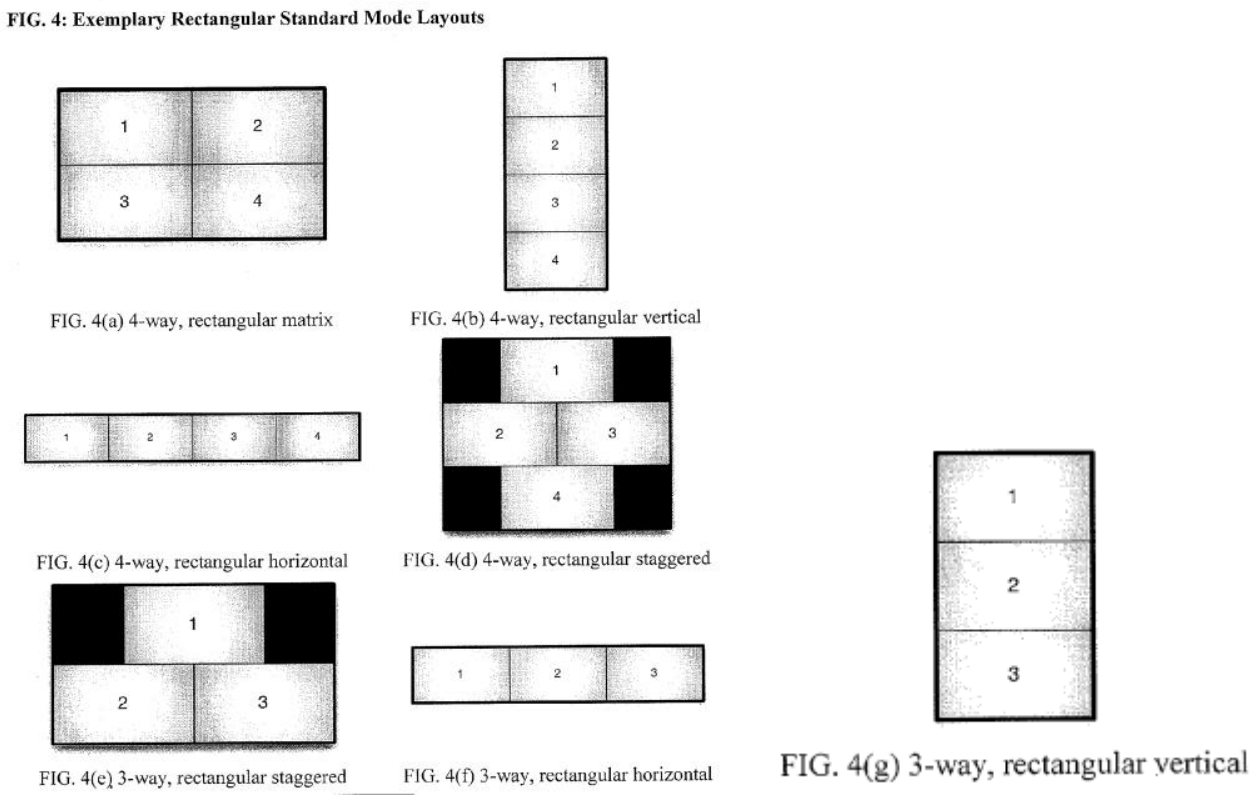


Id. at Fig. 20

Asserted Claim of the '708 Patent	Exemplary Citations
	"… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward, the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]  *Id.* at Fig. 25 "Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…" To the extent that Cisco contends that Kikuchi does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Eleftheriadis and Nakagawa:

Asserted Claim of the '708 Patent	Exemplary Citations
	Text from US20100002069A1 (Eleftheriadis) "The present application relates to video communication systems. In particular, it relates to mechanisms for managing the layout of multiple views of different scalable video sources on one or more displays." *Id.* at [Para 0003] "FIG. 2 depicts a typical example of a legacy system with three transmitting participants: Sender 1, Sender 2, and Sender 3, a Server 201, and a Receiver 203. The Server 201 operates as a transcoding MCU: it receives audio (A) streams 1A, 2A and 3A and video (V) streams 1V, 2V and 3V from each of the Senders 1, 2 and 3, respectively, decodes the signals, and composes the video according to the desired layout indicated to the Server 201 by the Receiver 203 via the Signaling path 202. The decoded audio signals are also mixed at the Server 201. The resulting composited video and mixed audio signals are encoded by the Server 201, and are transmitted to the Receiver 203 as two separate streams: mixed audio stream A(mixed) and composited video stream V(composited). It is noted that these streams can actually be transmitted to the Receiver 203 multiplexed over a single connection (e.g., a single Real-Time Protocol (RTP) port). The Receiver 203 decodes the audio and video signals and plays them back. FIG. 2 further depicts an example layout of the Receiver's screen 210, in which Sender 1, displayed in display box 1, is shown larger than Senders 2 and 3, displayed in display boxes 2 and 3, respectively. The total bit rate requirements for the audio and video streams communicated between the Server 201 and the Receiver 203 are that of a single stream at the resolution of the Receiver's screen 210. Note that any areas of the screen not covered by real content (i.e., pixels originating from any one of the participants) have to be encoded by the Server 201 as well. The coding overhead, however, will typically be small since these areas do not change from picture to picture, and thus the predictive coding used in codecs such as H.264 can reduce the prediction error to a small amount." *Id.* at [Para 0048]

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Id. at Figure 04

"FIG. 4(a)-(g) depict exemplary standard mode layouts using rectangular view organization. Each view within a screen is a rectangle. In one embodiment the rectangles can obey the picture aspect ratio of the original signal…" *Id.* at [Para 0066]

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FIG. 8: Exemplary Enlarged Mode Layouts

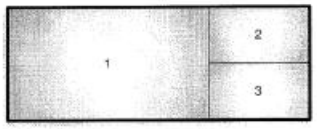


FIG. 8(a) 3-way, rectangular horizontal

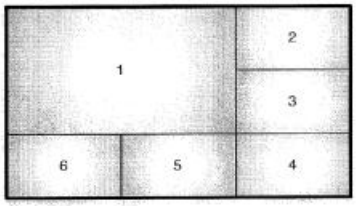


FIG. 8(b) 6-way, rectangular matrix

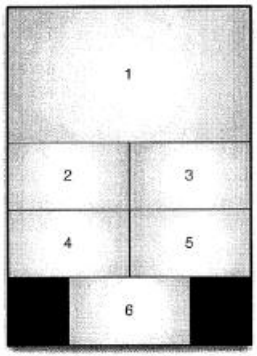


FIG. 8(c) 6-way, rectangular vertical

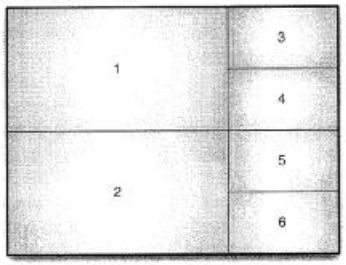
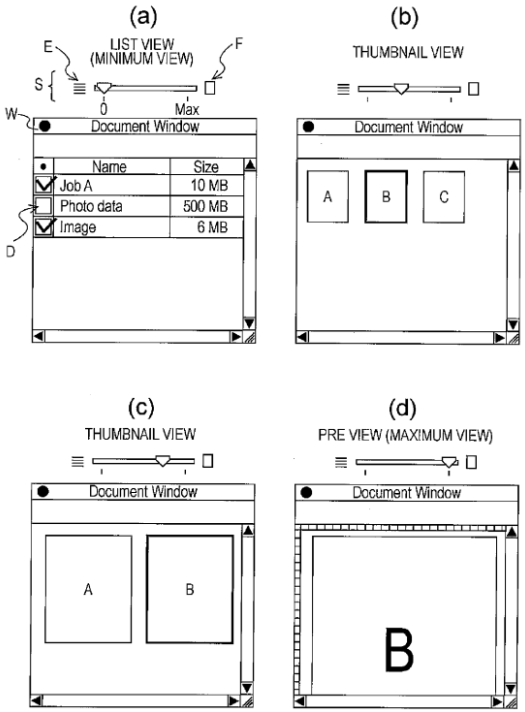


FIG. 8(d) 6-way, 2 enlarged views, rectangular matrix

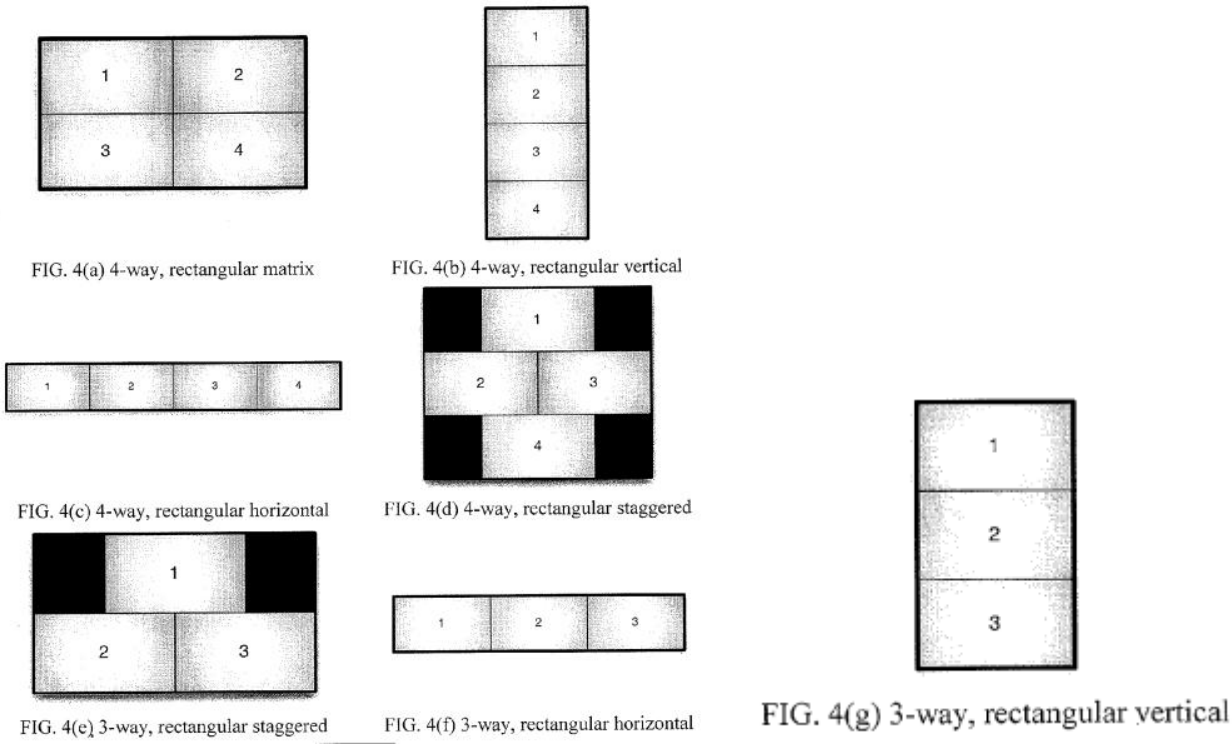
Id. at Figure 08

Text from US20080235612A1 (Nakagawa)

"Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the

Asserted Claim of the '708 Patent	Exemplary Citations
	slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043] For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target

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	data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]
[Claim 11] The method according to claim 10, further comprising: providing the selected layout to a video composing unit, which composes the composite image and which is configured to receive a plurality of video conference streams and output a composite video signal comprising one or more of the received video conference streams based on a layout.	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Eleftheriadis: *Text from US20100002069A1 (Eleftheriadis)* "The present application relates to video communication systems. In particular, it relates to mechanisms for managing the layout of multiple views of different scalable video sources on one or more displays." *Id.* at [Para 0003] "FIG. 2 depicts a typical example of a legacy system with three transmitting participants: Sender 1, Sender 2, and Sender 3, a Server 201, and a Receiver 203. The Server 201 operates as a transcoding MCU: it receives audio (A) streams 1A, 2A and 3A and video (V) streams 1V, 2V and 3V from each of the Senders 1, 2 and 3, respectively, decodes the signals, and composes the video according to the desired layout indicated to the Server 201 by the Receiver 203 via the Signaling path 202. The decoded audio signals are also mixed at the Server 201. The resulting composited video and mixed audio signals are encoded by the Server 201, and are transmitted to the Receiver 203 as two separate streams: mixed audio stream A(mixed) and composited video stream V(composited). It is noted that these streams can actually be transmitted to the Receiver 203 multiplexed over a single connection (e.g., a single Real-Time Protocol (RTP) port). The Receiver 203 decodes the audio and video signals and plays them back. FIG. 2 further depicts an example layout of the Receiver's screen 210, in which Sender 1, displayed in display box 1, is shown larger than Senders 2 and 3, displayed in display boxes 2 and 3, respectively. The total bit rate requirements for the audio and video streams communicated between the Server 201 and the Receiver 203 are that of a

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	single stream at the resolution of the Receiver's screen 210. Note that any areas of the screen not covered by real content (i.e., pixels originating from any one of the participants) have to be encoded by the Server 201 as well. The coding overhead, however, will typically be small since these areas do not change from picture to picture, and thus the predictive coding used in codecs such as H.264 can reduce the prediction error to a small amount." *Id.* at [Para 0048] **FIG. 4: Exemplary Rectangular Standard Mode Layouts**  FIG. 4(a) 4-way, rectangular matrix FIG. 4(b) 4-way, rectangular vertical FIG. 4(c) 4-way, rectangular horizontal FIG. 4(d) 4-way, rectangular staggered FIG. 4(e) 3-way, rectangular staggered FIG. 4(f) 3-way, rectangular horizontal FIG. 4(g) 3-way, rectangular vertical *Id.* at Figure 04 "FIG. 4(a)-(g) depict exemplary standard mode layouts using rectangular view organization. Each view within a screen is a rectangle. In one embodiment the rectangles can obey the picture aspect ratio of the original signal…" *Id.* at [Para 0066]

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FIG. 8: Exemplary Enlarged Mode Layouts

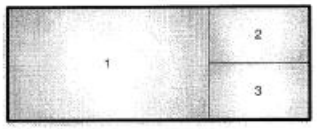


FIG. 8(a) 3-way, rectangular horizontal

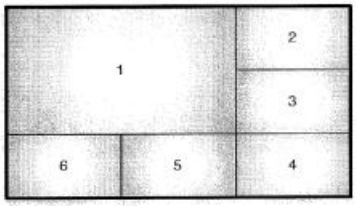


FIG. 8(b) 6-way, rectangular matrix

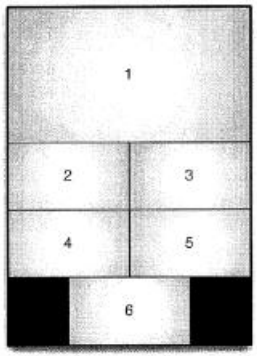


FIG. 8(c) 6-way, rectangular vertical

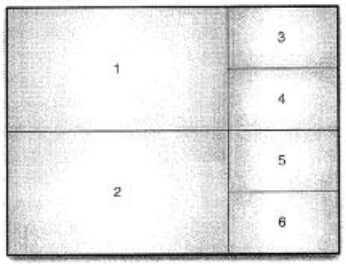


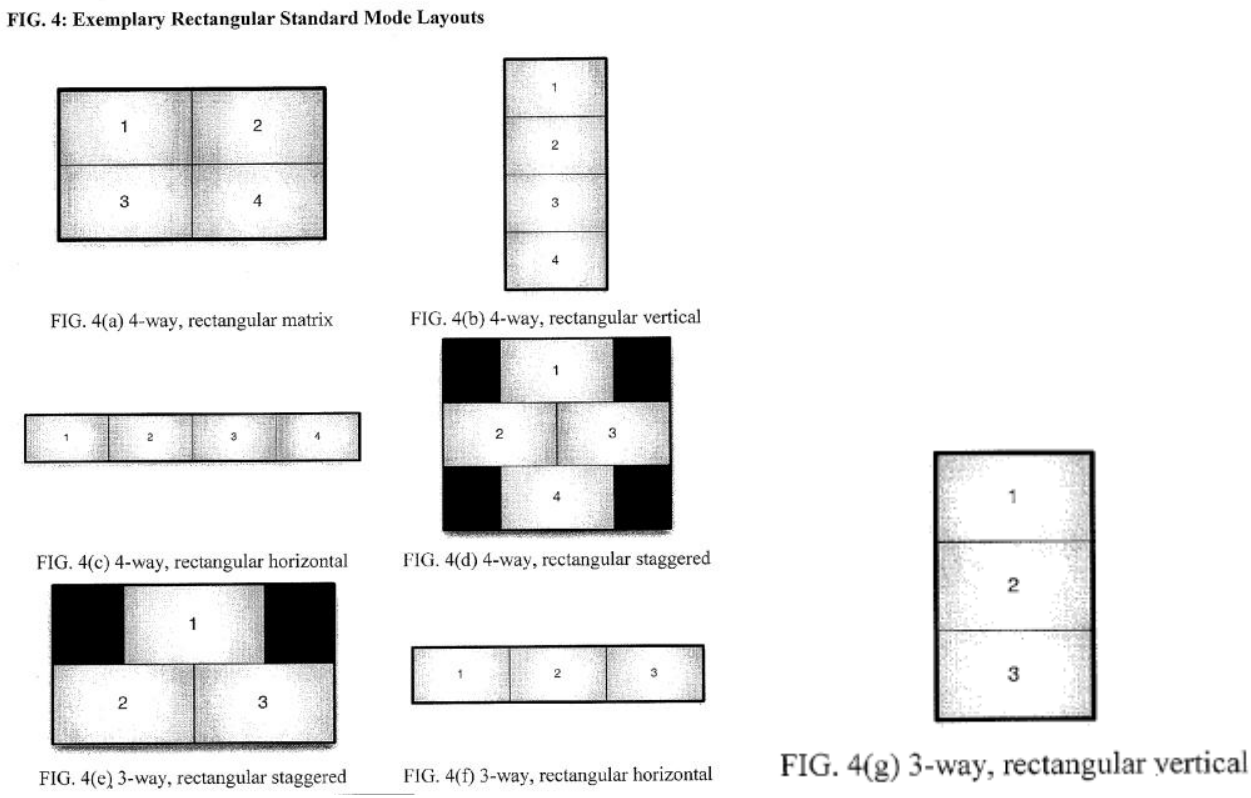
FIG. 8(d) 6-way, 2 enlarged views, rectangular matrix

Id. at Figure 08.

"The exemplary design detailed herein is well-suited for videoconferencing applications, where audio activity corresponds to a participant being silent or not." *Id.* at [Para 0141].

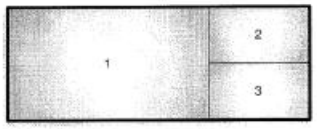
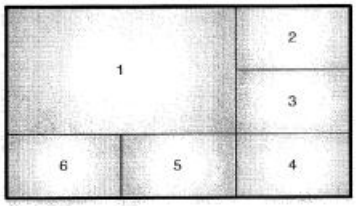
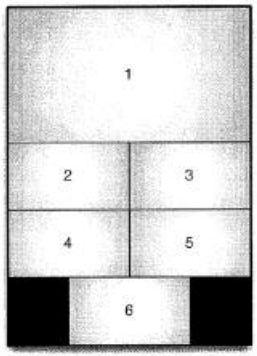
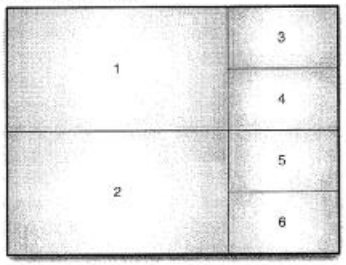
Asserted Claim of the '708 Patent	Exemplary Citations
[Claim 12] The method according to claim 10, further comprising: displaying the composite video signal on the display, the display being of a video conference terminal.	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Eleftheriadis: *Text from US20100002069A1 (Eleftheriadis)* "The present application relates to video communication systems. In particular, it relates to mechanisms for managing the layout of multiple views of different scalable video sources on one or more displays." *Id.* at [Para 0003] "FIG. 2 depicts a typical example of a legacy system with three transmitting participants: Sender 1, Sender 2, and Sender 3, a Server 201, and a Receiver 203. The Server 201 operates as a transcoding MCU: it receives audio (A) streams 1A, 2A and 3A and video (V) streams 1V, 2V and 3V from each of the Senders 1, 2 and 3, respectively, decodes the signals, and composes the video according to the desired layout indicated to the Server 201 by the Receiver 203 via the Signaling path 202. The decoded audio signals are also mixed at the Server 201. The resulting composited video and mixed audio signals are encoded by the Server 201, and are transmitted to the Receiver 203 as two separate streams: mixed audio stream A(mixed) and composited video stream V(composited). It is noted that these streams can actually be transmitted to the Receiver 203 multiplexed over a single connection (e.g., a single Real-Time Protocol (RTP) port). The Receiver 203 decodes the audio and video signals and plays them back. FIG. 2 further depicts an example layout of the Receiver's screen 210, in which Sender 1, displayed in display box 1, is shown larger than Senders 2 and 3, displayed in display boxes 2 and 3, respectively. The total bit rate requirements for the audio and video streams communicated between the Server 201 and the Receiver 203 are that of a single stream at the resolution of the Receiver's screen 210. Note that any areas of the screen not covered by real content (i.e., pixels originating from any one of the participants) have to be encoded by the Server 201 as well. The coding overhead, however, will typically be small since these areas do not change from picture to picture, and thus the predictive coding used in codecs such as H.264 can reduce the prediction error to a small amount." *Id.* at [Para 0048]

Asserted Claim of the '708 Patent	Exemplary Citations



Id. at Figure 04

"FIG. 4(a)-(g) depict exemplary standard mode layouts using rectangular view organization. Each view within a screen is a rectangle. In one embodiment the rectangles can obey the picture aspect ratio of the original signal…" *Id.* at [Para 0066]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 8: Exemplary Enlarged Mode Layouts  FIG. 8(a) 3-way, rectangular horizontal  FIG. 8(b) 6-way, rectangular matrix  FIG. 8(c) 6-way, rectangular vertical  FIG. 8(d) 6-way, 2 enlarged views, rectangular matrix *Id.* at Figure 08
[Claim 13] The method according to claim 12, further comprising:	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)*

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displaying the object on a display of a control device, which is connected to the video conference terminal, together with a replica of the composite video signal currently displayed on the display of the video conference terminal.	"In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002] "Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003] "As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342 is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS. 18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124] "FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127]

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FIG. 19A1

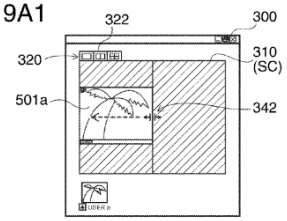


FIG. 19B1

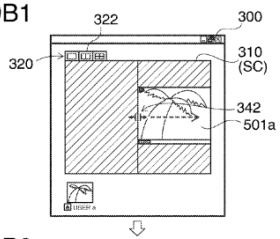


FIG. 19A2

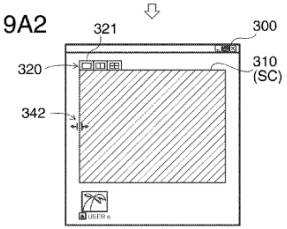
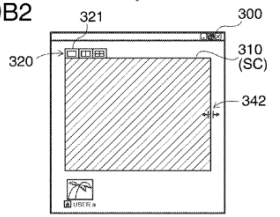


FIG. 19B2



Id. at Fig. 19

FIG. 20A1

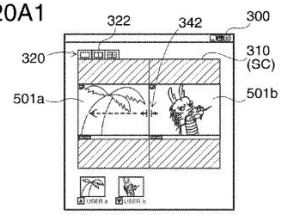


FIG. 20B1

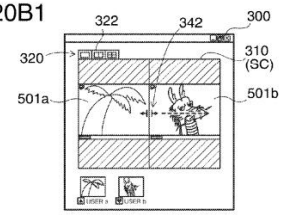


FIG. 20A2

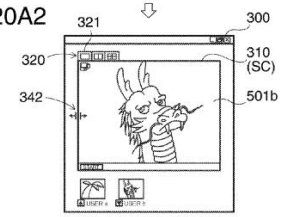
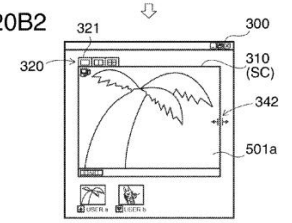
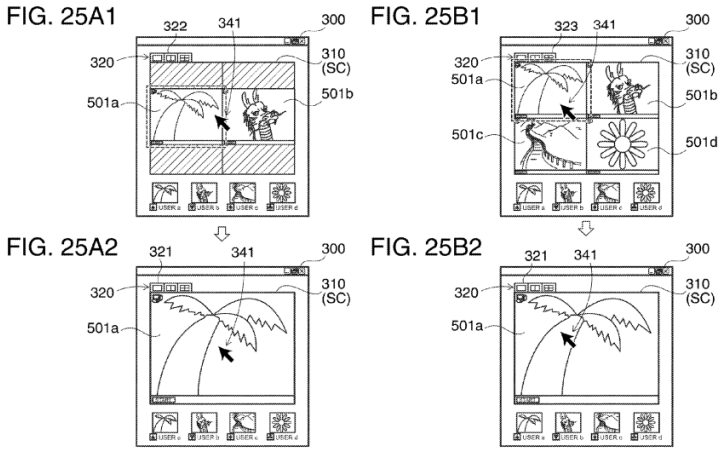


FIG. 20B2



Id. at Fig. 20

"… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward,

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	the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]  *Id.* at Fig. 25 "Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…" To the extent that Cisco contends that Kikuchi does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Eleftheriadis and Nakagawa: *Text from US20100002069A1 (Eleftheriadis)*

Asserted Claim of the '708 Patent	Exemplary Citations
	"The present application relates to video communication systems. In particular, it relates to mechanisms for managing the layout of multiple views of different scalable video sources on one or more displays." *Id.* at [Para 0003] "FIG. 2 depicts a typical example of a legacy system with three transmitting participants: Sender 1, Sender 2, and Sender 3, a Server 201, and a Receiver 203. The Server 201 operates as a transcoding MCU: it receives audio (A) streams 1A, 2A and 3A and video (V) streams 1V, 2V and 3V from each of the Senders 1, 2 and 3, respectively, decodes the signals, and composes the video according to the desired layout indicated to the Server 201 by the Receiver 203 via the Signaling path 202. The decoded audio signals are also mixed at the Server 201. The resulting composited video and mixed audio signals are encoded by the Server 201, and are transmitted to the Receiver 203 as two separate streams: mixed audio stream A(mixed) and composited video stream V(composited). It is noted that these streams can actually be transmitted to the Receiver 203 multiplexed over a single connection (e.g., a single Real-Time Protocol (RTP) port). The Receiver 203 decodes the audio and video signals and plays them back. FIG. 2 further depicts an example layout of the Receiver's screen 210, in which Sender 1, displayed in display box 1, is shown larger than Senders 2 and 3, displayed in display boxes 2 and 3, respectively. The total bit rate requirements for the audio and video streams communicated between the Server 201 and the Receiver 203 are that of a single stream at the resolution of the Receiver's screen 210. Note that any areas of the screen not covered by real content (i.e., pixels originating from any one of the participants) have to be encoded by the Server 201 as well. The coding overhead, however, will typically be small since these areas do not change from picture to picture, and thus the predictive coding used in codecs such as H.264 can reduce the prediction error to a small amount." *Id.* at [Para 0048]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 4: Exemplary Rectangular Standard Mode Layouts

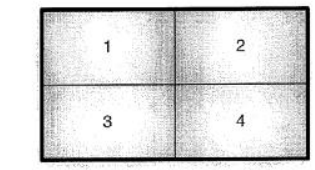


FIG. 4(a) 4-way, rectangular matrix

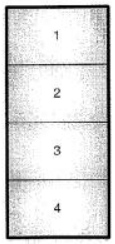


FIG. 4(b) 4-way, rectangular vertical

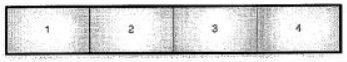


FIG. 4(c) 4-way, rectangular horizontal

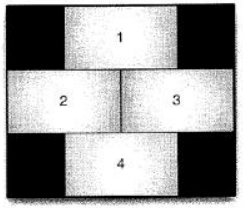


FIG. 4(d) 4-way, rectangular staggered

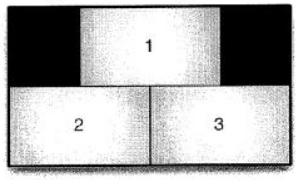


FIG. 4(e) 3-way, rectangular staggered



FIG. 4(f) 3-way, rectangular horizontal

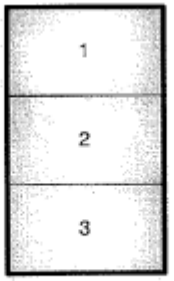


FIG. 4(g) 3-way, rectangular vertical

Id. at Figure 04

"FIG. 4(a)-(g) depict exemplary standard mode layouts using rectangular view organization. Each view within a screen is a rectangle. In one embodiment the rectangles can obey the picture aspect ratio of the original signal…" *Id.* at [Para 0066]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 8: Exemplary Enlarged Mode Layouts

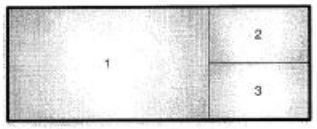


FIG. 8(a) 3-way, rectangular horizontal

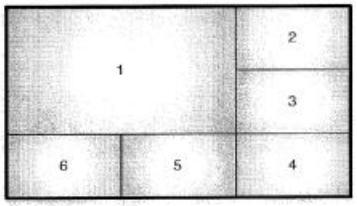


FIG. 8(b) 6-way, rectangular matrix

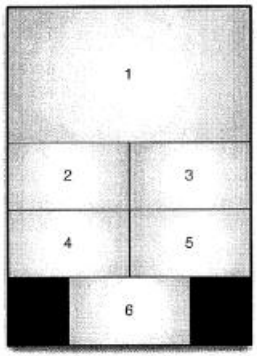


FIG. 8(c) 6-way, rectangular vertical

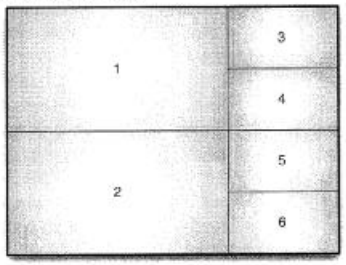
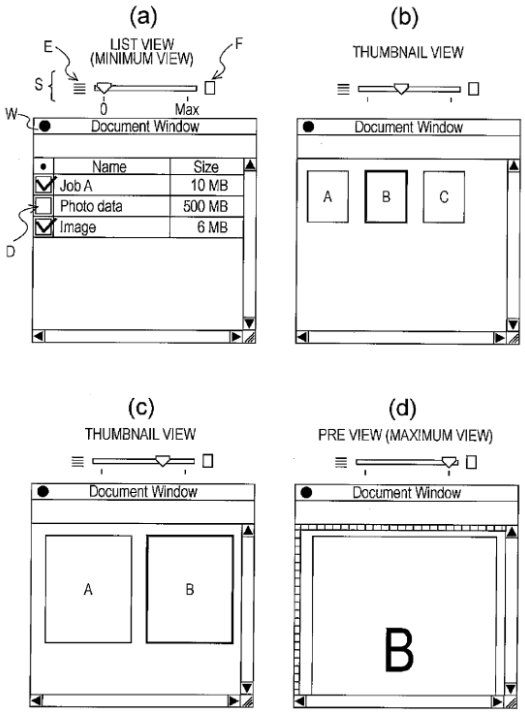


FIG. 8(d) 6-way, 2 enlarged views, rectangular matrix

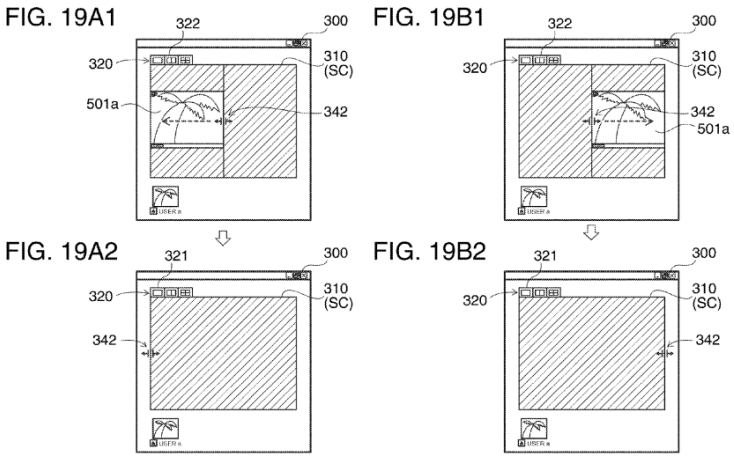
Id. at Figure 08

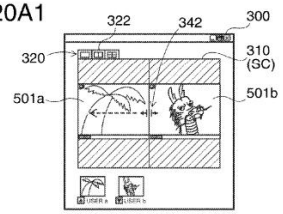
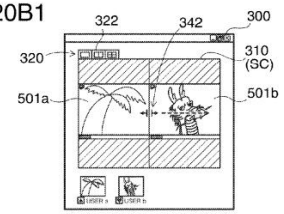
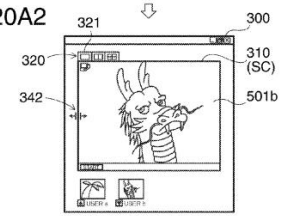
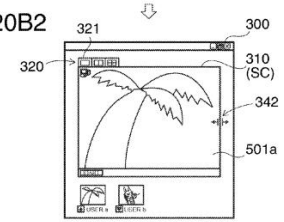
Text from US20080235612A1 (Nakagawa)

"Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the

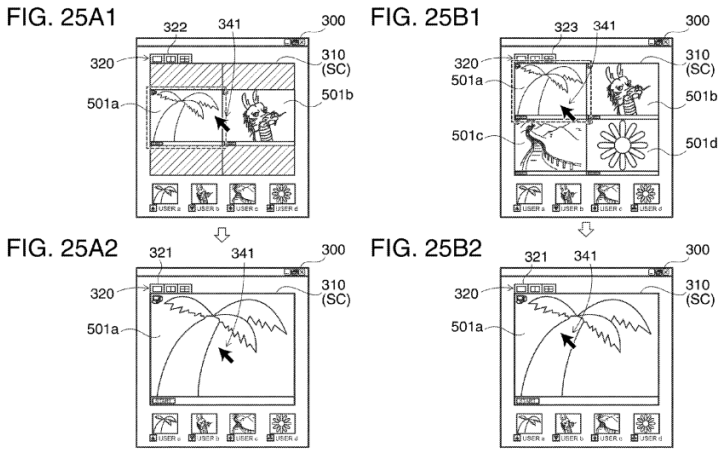
Asserted Claim of the '708 Patent	Exemplary Citations
	slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043] For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target

Asserted Claim of the '708 Patent	Exemplary Citations
	data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]
[Claim 14] The method according to claim 10, further comprising: displaying the object on the display, which is of a video conference terminal.	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)* "In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002] "Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003] "As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342 is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS. 18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124]

Asserted Claim of the '708 Patent	Exemplary Citations
	"FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127]  *Id.* at Fig. 19

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 20A1  FIG. 20B1  FIG. 20A2  FIG. 20B2  *Id.* at Fig. 20 "… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward, the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]

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Id. at Fig. 25

"Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…"

To the extent that Cisco contends that Kikuchi does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Eleftheriadis and Nakagawa:

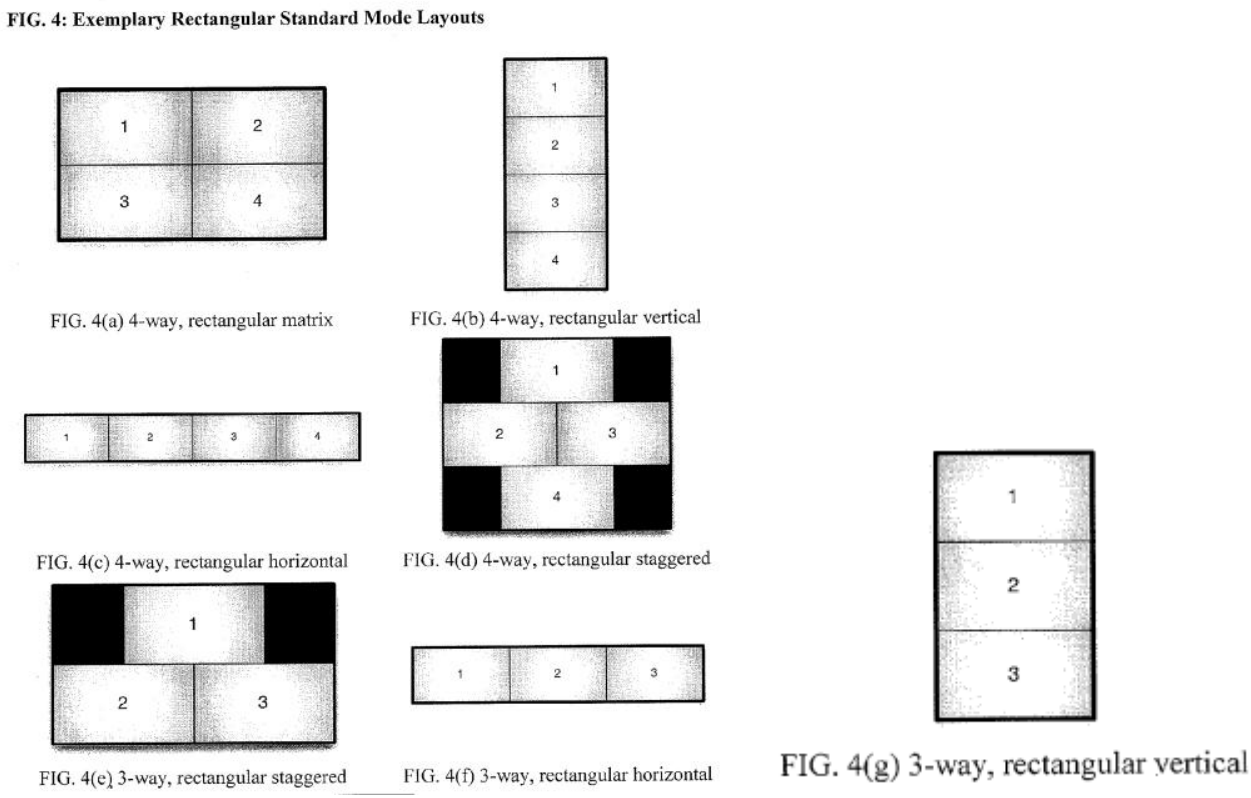
Text from US20100002069A1 (Eleftheriadis)

"The present application relates to video communication systems. In particular, it relates to mechanisms for managing the layout of multiple views of different scalable video sources on one or more displays." *Id.* at [Para 0003]

"FIG. 2 depicts a typical example of a legacy system with three transmitting participants: Sender 1, Sender 2, and Sender 3, a Server 201, and a Receiver 203. The Server 201 operates as a transcoding MCU: it receives audio (A) streams 1A, 2A and 3A and video

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	(V) streams 1V, 2V and 3V from each of the Senders 1, 2 and 3, respectively, decodes the signals, and composes the video according to the desired layout indicated to the Server 201 by the Receiver 203 via the Signaling path 202. The decoded audio signals are also mixed at the Server 201. The resulting composited video and mixed audio signals are encoded by the Server 201, and are transmitted to the Receiver 203 as two separate streams: mixed audio stream A(mixed) and composited video stream V(composited). It is noted that these streams can actually be transmitted to the Receiver 203 multiplexed over a single connection (e.g., a single Real-Time Protocol (RTP) port). The Receiver 203 decodes the audio and video signals and plays them back. FIG. 2 further depicts an example layout of the Receiver's screen 210, in which Sender 1, displayed in display box 1, is shown larger than Senders 2 and 3, displayed in display boxes 2 and 3, respectively. The total bit rate requirements for the audio and video streams communicated between the Server 201 and the Receiver 203 are that of a single stream at the resolution of the Receiver's screen 210. Note that any areas of the screen not covered by real content (i.e., pixels originating from any one of the participants) have to be encoded by the Server 201 as well. The coding overhead, however, will typically be small since these areas do not change from picture to picture, and thus the predictive coding used in codecs such as H.264 can reduce the prediction error to a small amount." *Id.* at [Para 0048]

Asserted Claim of the '708 Patent	Exemplary Citations



Id. at Figure 04

"FIG. 4(a)-(g) depict exemplary standard mode layouts using rectangular view organization. Each view within a screen is a rectangle. In one embodiment the rectangles can obey the picture aspect ratio of the original signal…" *Id.* at [Para 0066]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 8: Exemplary Enlarged Mode Layouts

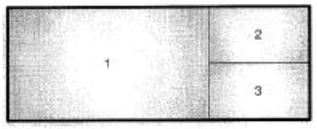


FIG. 8(a) 3-way, rectangular horizontal

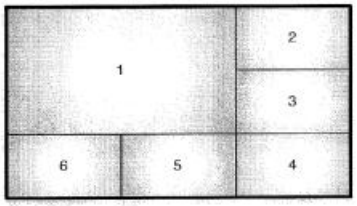


FIG. 8(b) 6-way, rectangular matrix

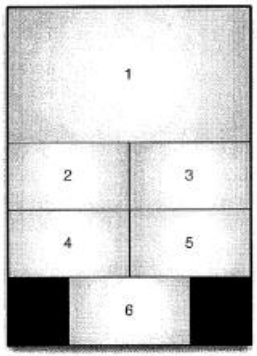


FIG. 8(c) 6-way, rectangular vertical

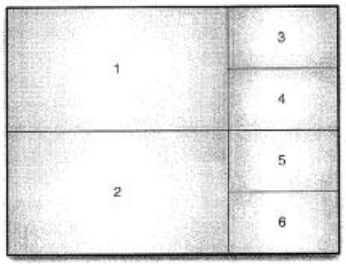
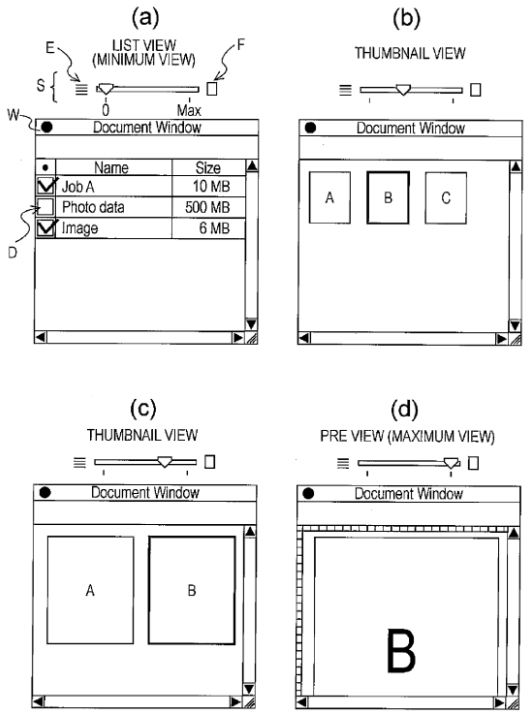


FIG. 8(d) 6-way, 2 enlarged views, rectangular matrix

Id. at Figure 08

Text from US20080235612A1 (Nakagawa)

"Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window

Asserted Claim of the '708 Patent	Exemplary Citations
	(step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 15]	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art,

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The method according to claim 13, further comprising: updating one of the composite video signal and the replica in real time as the object is moved by the user.	discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)* "In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002] "Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003] "As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342 is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS. 18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124] "FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 19A1

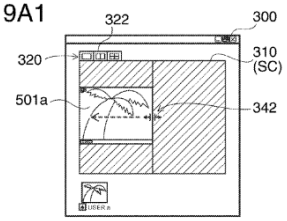


FIG. 19B1

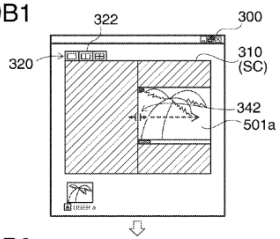


FIG. 19A2

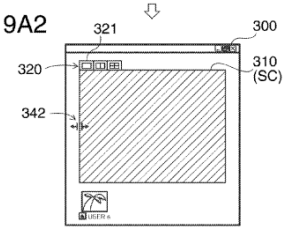
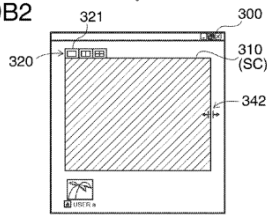


FIG. 19B2



Id. at Fig. 19

FIG. 20A1

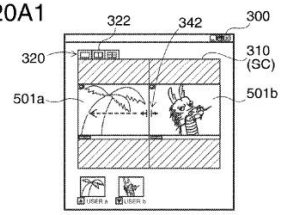


FIG. 20B1

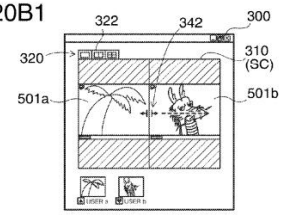


FIG. 20A2

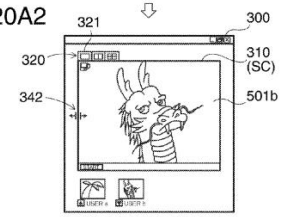
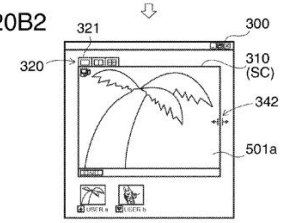
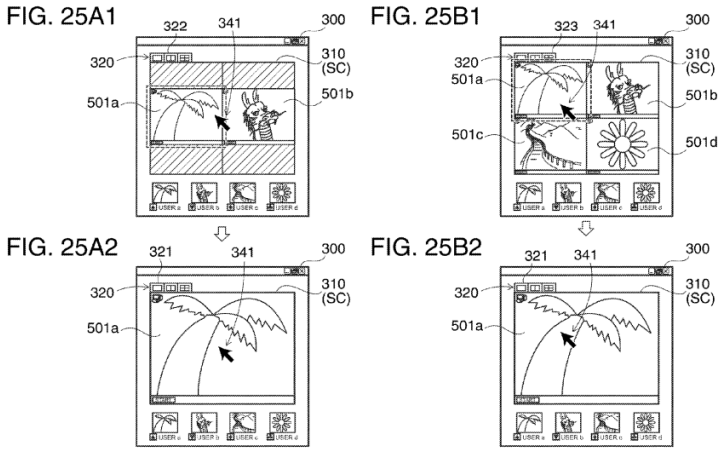


FIG. 20B2



Id. at Fig. 20

"… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward,

Asserted Claim of the '708 Patent	Exemplary Citations
	the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]  *Id.* at Fig. 25 "Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…" To the extent that Cisco contends that Kikuchi does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Eleftheriadis and Nakagawa: *Text from US20100002069A1 (Eleftheriadis)*

Asserted Claim of the '708 Patent	Exemplary Citations
	"The present application relates to video communication systems. In particular, it relates to mechanisms for managing the layout of multiple views of different scalable video sources on one or more displays." *Id.* at [Para 0003] "FIG. 2 depicts a typical example of a legacy system with three transmitting participants: Sender 1, Sender 2, and Sender 3, a Server 201, and a Receiver 203. The Server 201 operates as a transcoding MCU: it receives audio (A) streams 1A, 2A and 3A and video (V) streams 1V, 2V and 3V from each of the Senders 1, 2 and 3, respectively, decodes the signals, and composes the video according to the desired layout indicated to the Server 201 by the Receiver 203 via the Signaling path 202. The decoded audio signals are also mixed at the Server 201. The resulting composited video and mixed audio signals are encoded by the Server 201, and are transmitted to the Receiver 203 as two separate streams: mixed audio stream A(mixed) and composited video stream V(composited). It is noted that these streams can actually be transmitted to the Receiver 203 multiplexed over a single connection (e.g., a single Real-Time Protocol (RTP) port). The Receiver 203 decodes the audio and video signals and plays them back. FIG. 2 further depicts an example layout of the Receiver's screen 210, in which Sender 1, displayed in display box 1, is shown larger than Senders 2 and 3, displayed in display boxes 2 and 3, respectively. The total bit rate requirements for the audio and video streams communicated between the Server 201 and the Receiver 203 are that of a single stream at the resolution of the Receiver's screen 210. Note that any areas of the screen not covered by real content (i.e., pixels originating from any one of the participants) have to be encoded by the Server 201 as well. The coding overhead, however, will typically be small since these areas do not change from picture to picture, and thus the predictive coding used in codecs such as H.264 can reduce the prediction error to a small amount." *Id.* at [Para 0048]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 4: Exemplary Rectangular Standard Mode Layouts

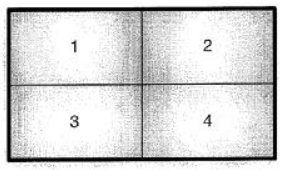


FIG. 4(a) 4-way, rectangular matrix

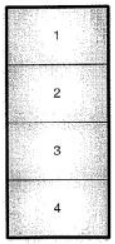


FIG. 4(b) 4-way, rectangular vertical

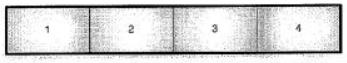


FIG. 4(c) 4-way, rectangular horizontal

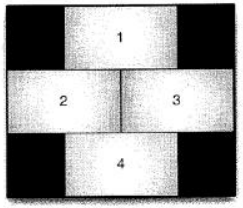


FIG. 4(d) 4-way, rectangular staggered

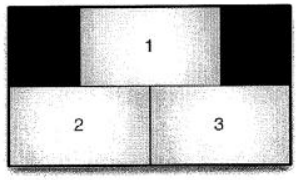


FIG. 4(e) 3-way, rectangular staggered



FIG. 4(f) 3-way, rectangular horizontal

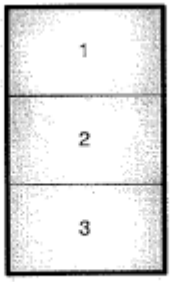


FIG. 4(g) 3-way, rectangular vertical

Id. at Figure 04

"FIG. 4(a)-(g) depict exemplary standard mode layouts using rectangular view organization. Each view within a screen is a rectangle. In one embodiment the rectangles can obey the picture aspect ratio of the original signal…" *Id.* at [Para 0066]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 8: Exemplary Enlarged Mode Layouts

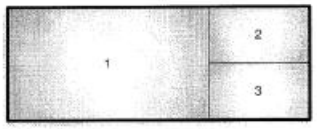


FIG. 8(a) 3-way, rectangular horizontal

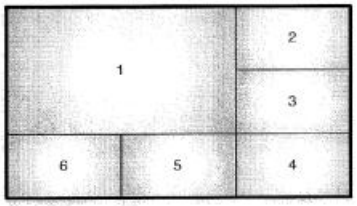


FIG. 8(b) 6-way, rectangular matrix

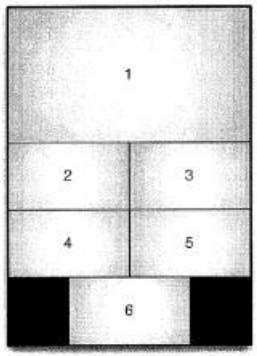


FIG. 8(c) 6-way, rectangular vertical

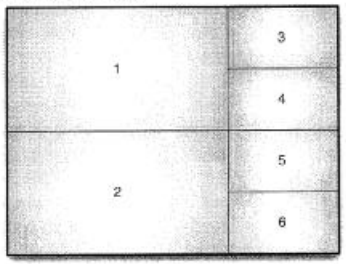
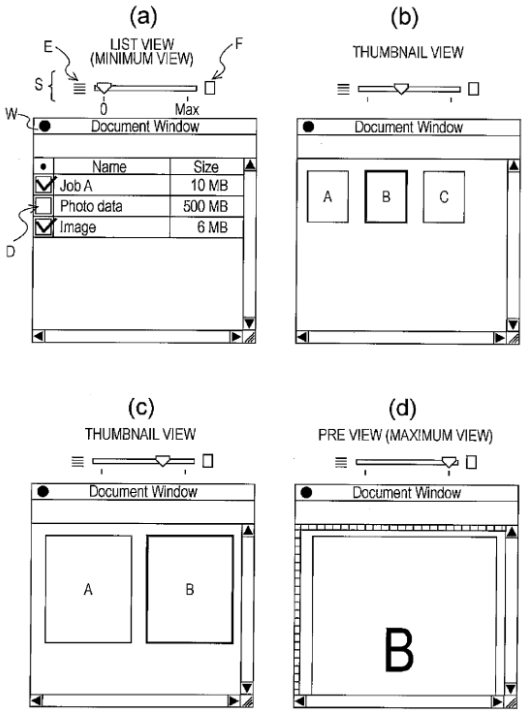


FIG. 8(d) 6-way, 2 enlarged views, rectangular matrix

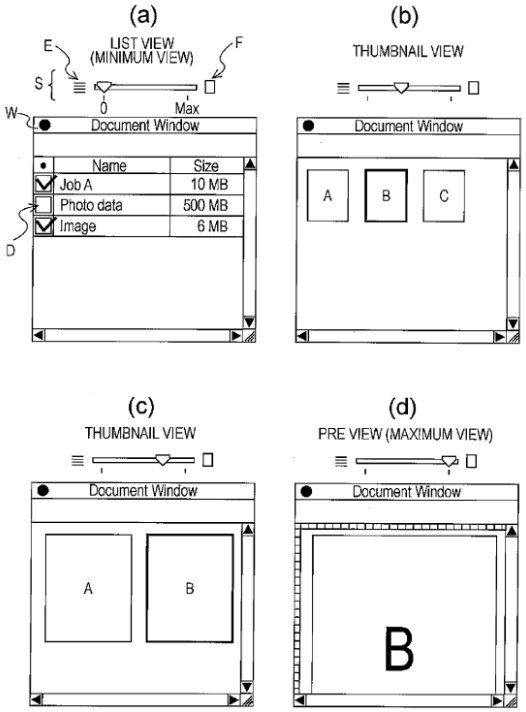
Id. at Figure 08

Text from US20080235612A1 (Nakagawa)

"Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the

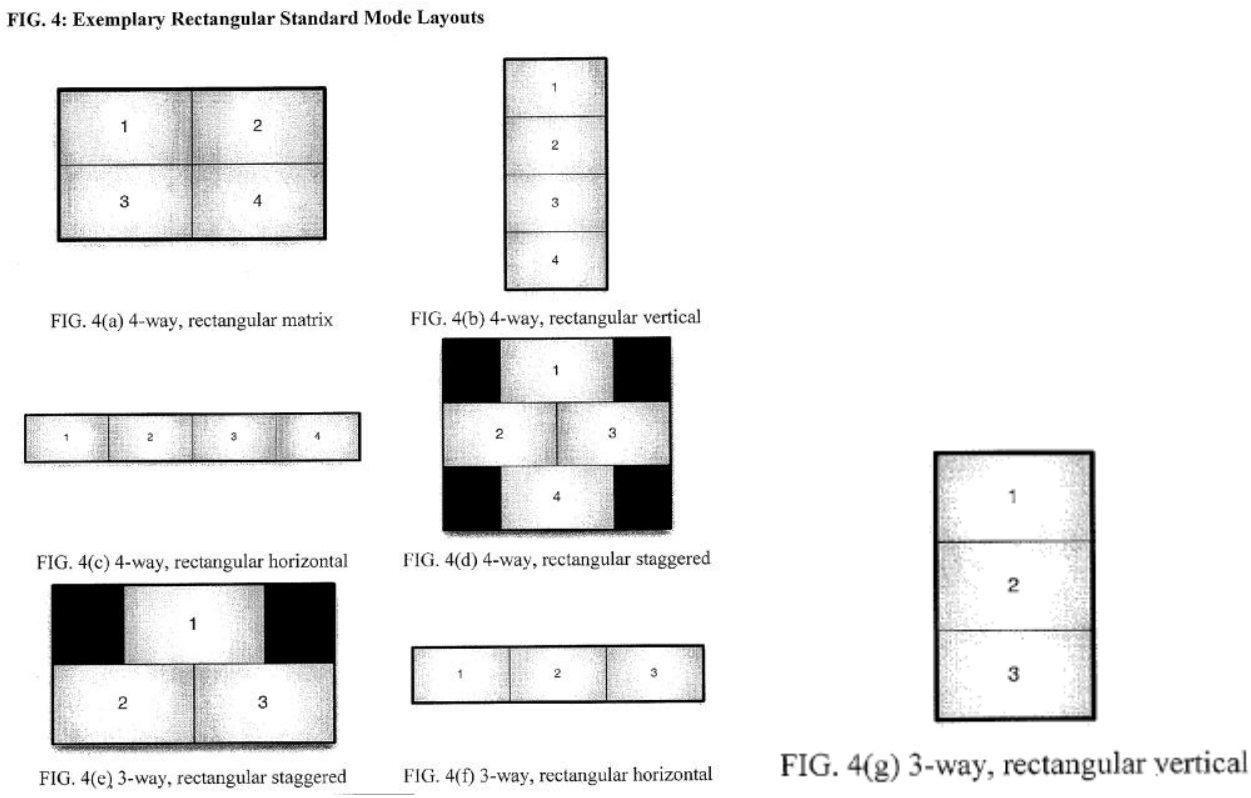
Asserted Claim of the '708 Patent	Exemplary Citations
	slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043] For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target

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	data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]
[Claim 16(a)] A non-transitory computer-readable storage medium including computer executable instructions, wherein the instructions, when executed by a computer, cause the computer to perform a method, the method comprising:	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Eleftheriadis: *Text from US20100002069A1 (Eleftheriadis)* "It will be understood that in accordance with the disclosed subject matter, the techniques described herein can be implemented using any suitable combination of hardware and software. The software (i.e., instructions) for implementing and operating the aforementioned layout management techniques can be provided on computer-readable media, which can include, without limitation, firmware, memory, storage devices, microcontrollers, microprocessors, integrated circuits, ASICs, on-line downloadable media, and other available media." *Id.* at [Para 0160]
[Claim 16(b)] providing, on a display, an object configured to be moved by a user along an axis;	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial

Asserted Claim of the '708 Patent	Exemplary Citations
	view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 16(c)] associating a plurality of predefined layouts with	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Eleftheriadis and Nakagawa:

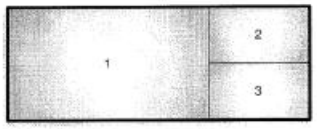
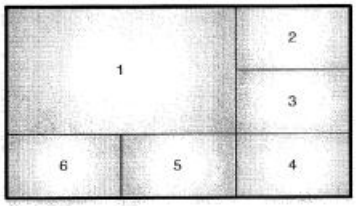
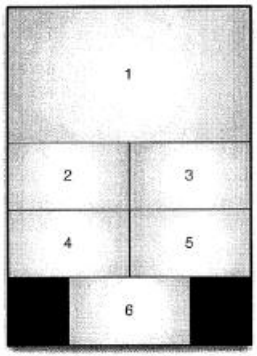
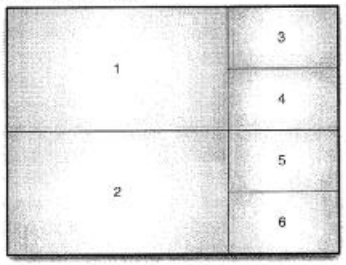
Asserted Claim of the '708 Patent	Exemplary Citations
respective intervals along the axis;	*Text from US20100002069A1 (Eleftheriadis)* "The present application relates to video communication systems. In particular, it relates to mechanisms for managing the layout of multiple views of different scalable video sources on one or more displays." *Id.* at [Para 0003] "FIG. 2 depicts a typical example of a legacy system with three transmitting participants: Sender 1, Sender 2, and Sender 3, a Server 201, and a Receiver 203. The Server 201 operates as a transcoding MCU: it receives audio (A) streams 1A, 2A and 3A and video (V) streams 1V, 2V and 3V from each of the Senders 1, 2 and 3, respectively, decodes the signals, and composes the video according to the desired layout indicated to the Server 201 by the Receiver 203 via the Signaling path 202. The decoded audio signals are also mixed at the Server 201. The resulting composited video and mixed audio signals are encoded by the Server 201, and are transmitted to the Receiver 203 as two separate streams: mixed audio stream A(mixed) and composited video stream V(composited). It is noted that these streams can actually be transmitted to the Receiver 203 multiplexed over a single connection (e.g., a single Real-Time Protocol (RTP) port). The Receiver 203 decodes the audio and video signals and plays them back. FIG. 2 further depicts an example layout of the Receiver's screen 210, in which Sender 1, displayed in display box 1, is shown larger than Senders 2 and 3, displayed in display boxes 2 and 3, respectively. The total bit rate requirements for the audio and video streams communicated between the Server 201 and the Receiver 203 are that of a single stream at the resolution of the Receiver's screen 210. Note that any areas of the screen not covered by real content (i.e., pixels originating from any one of the participants) have to be encoded by the Server 201 as well. The coding overhead, however, will typically be small since these areas do not change from picture to picture, and thus the predictive coding used in codecs such as H.264 can reduce the prediction error to a small amount." *Id.* at [Para 0048]

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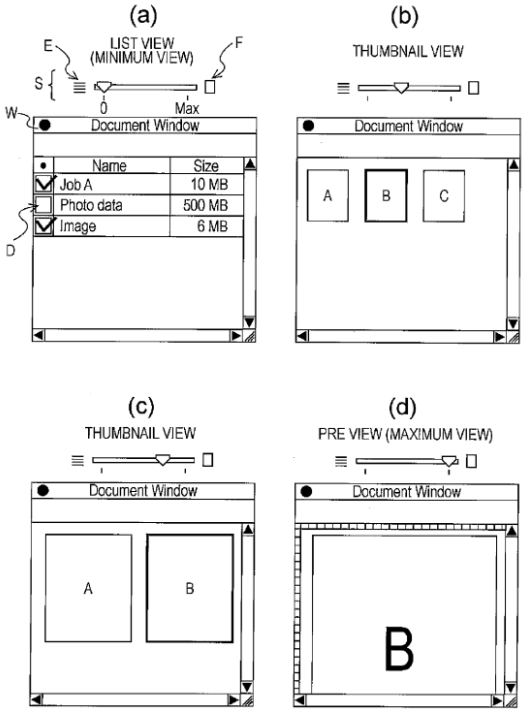


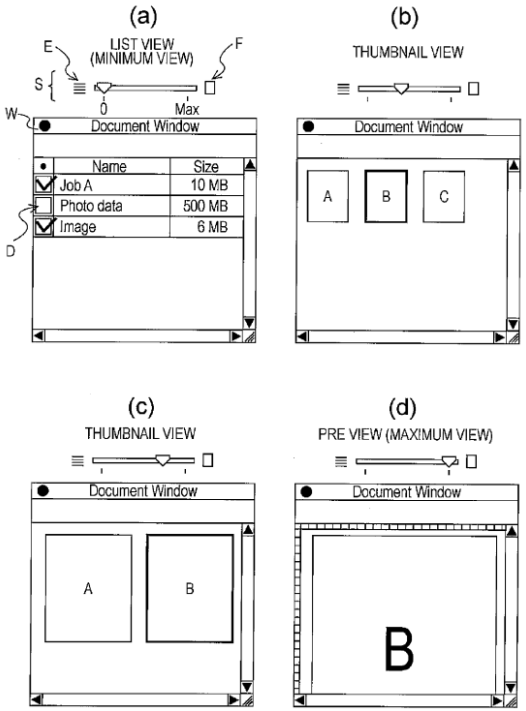
Id. at Figure 04

"FIG. 4(a)-(g) depict exemplary standard mode layouts using rectangular view organization. Each view within a screen is a rectangle. In one embodiment the rectangles can obey the picture aspect ratio of the original signal…" *Id.* at [Para 0066]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 8: Exemplary Enlarged Mode Layouts  FIG. 8(a) 3-way, rectangular horizontal  FIG. 8(b) 6-way, rectangular matrix  FIG. 8(c) 6-way, rectangular vertical  FIG. 8(d) 6-way, 2 enlarged views, rectangular matrix *Id.* at Figure 08 *Text from US20080235612A1 (Nakagawa)* "According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes

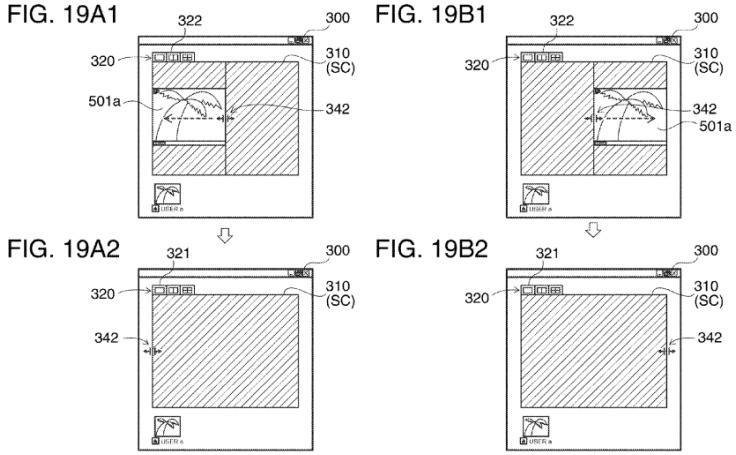
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	displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 16(d)] detecting a user action on the object indicating a position on the axis;	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)*

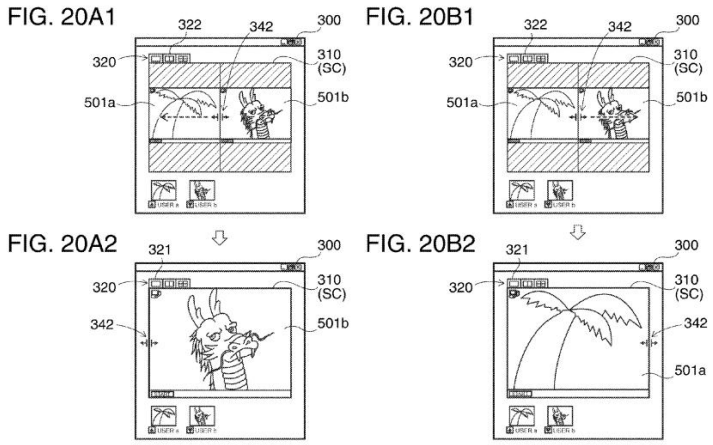
Asserted Claim of the '708 Patent	Exemplary Citations
	"Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3

Asserted Claim of the '708 Patent	Exemplary Citations
	"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 16(e)] selecting a layout, of the plurality of predefined layouts, associated with an interval among the intervals within which the position on the axis is lying; and	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)* "In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002] "Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003] "As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342 is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS. 18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124] "FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC

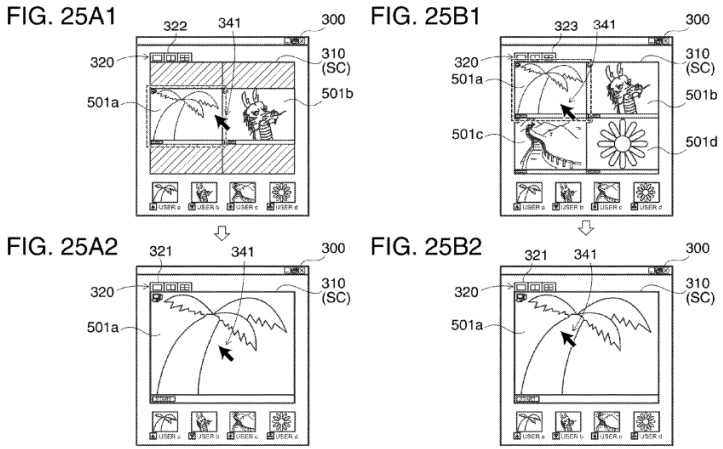
Asserted Claim of the '708 Patent	Exemplary Citations
	becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127]



Id. at Fig. 19

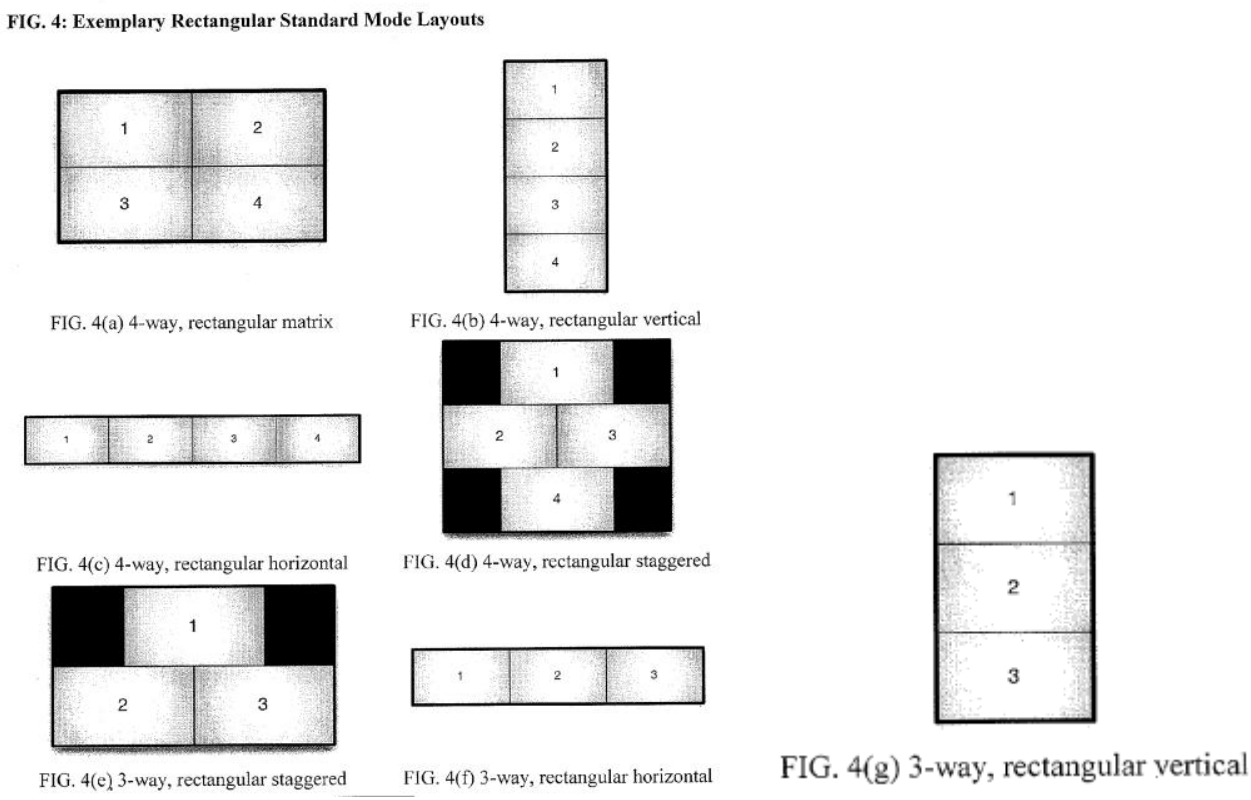


Id. at Fig. 20

Asserted Claim of the '708 Patent	Exemplary Citations
	"… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward, the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]  *Id.* at Fig. 25 "Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…" To the extent that Cisco contends that Kikuchi does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Eleftheriadis and Nakagawa:

Asserted Claim of the '708 Patent	Exemplary Citations
	Text from US20100002069A1 (Eleftheriadis) "The present application relates to video communication systems. In particular, it relates to mechanisms for managing the layout of multiple views of different scalable video sources on one or more displays." *Id.* at [Para 0003] "FIG. 2 depicts a typical example of a legacy system with three transmitting participants: Sender 1, Sender 2, and Sender 3, a Server 201, and a Receiver 203. The Server 201 operates as a transcoding MCU: it receives audio (A) streams 1A, 2A and 3A and video (V) streams 1V, 2V and 3V from each of the Senders 1, 2 and 3, respectively, decodes the signals, and composes the video according to the desired layout indicated to the Server 201 by the Receiver 203 via the Signaling path 202. The decoded audio signals are also mixed at the Server 201. The resulting composited video and mixed audio signals are encoded by the Server 201, and are transmitted to the Receiver 203 as two separate streams: mixed audio stream A(mixed) and composited video stream V(composited). It is noted that these streams can actually be transmitted to the Receiver 203 multiplexed over a single connection (e.g., a single Real-Time Protocol (RTP) port). The Receiver 203 decodes the audio and video signals and plays them back. FIG. 2 further depicts an example layout of the Receiver's screen 210, in which Sender 1, displayed in display box 1, is shown larger than Senders 2 and 3, displayed in display boxes 2 and 3, respectively. The total bit rate requirements for the audio and video streams communicated between the Server 201 and the Receiver 203 are that of a single stream at the resolution of the Receiver's screen 210. Note that any areas of the screen not covered by real content (i.e., pixels originating from any one of the participants) have to be encoded by the Server 201 as well. The coding overhead, however, will typically be small since these areas do not change from picture to picture, and thus the predictive coding used in codecs such as H.264 can reduce the prediction error to a small amount." *Id.* at [Para 0048]

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Id. at Figure 04

"FIG. 4(a)-(g) depict exemplary standard mode layouts using rectangular view organization. Each view within a screen is a rectangle. In one embodiment the rectangles can obey the picture aspect ratio of the original signal…" *Id.* at [Para 0066]

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FIG. 8: Exemplary Enlarged Mode Layouts

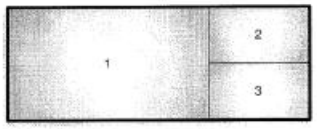


FIG. 8(a) 3-way, rectangular horizontal

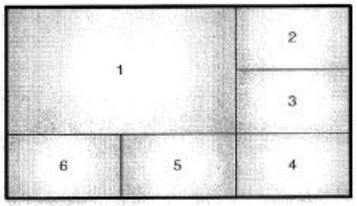


FIG. 8(b) 6-way, rectangular matrix

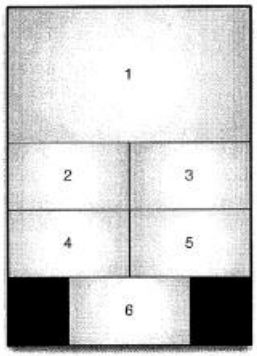


FIG. 8(c) 6-way, rectangular vertical

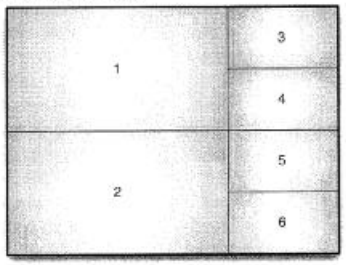
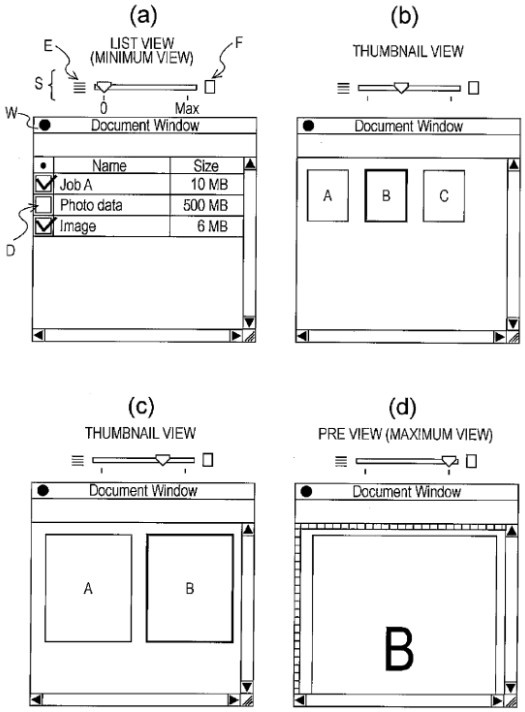


FIG. 8(d) 6-way, 2 enlarged views, rectangular matrix

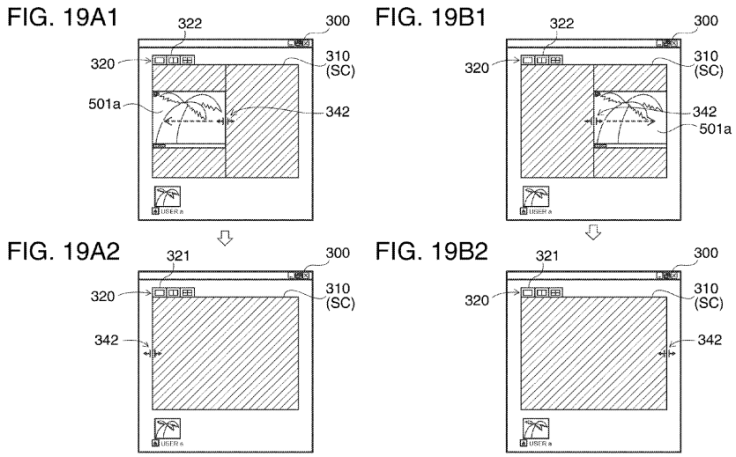
Id. at Figure 08

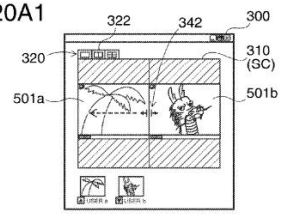
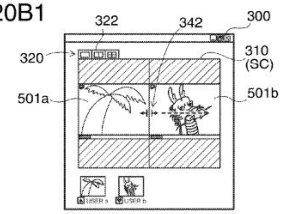
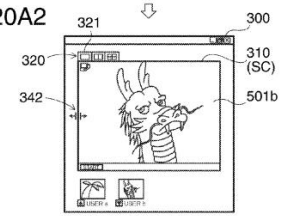
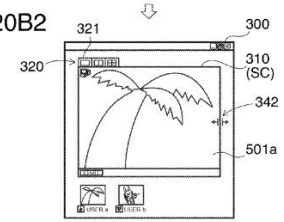
Text from US20080235612A1 (Nakagawa)

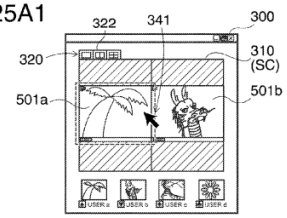
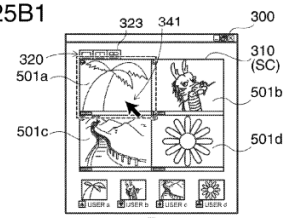
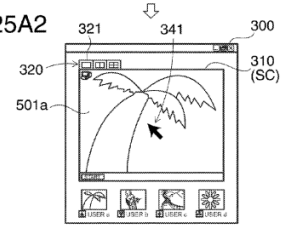
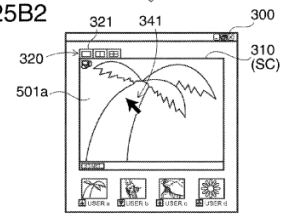
"Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial

Asserted Claim of the '708 Patent	Exemplary Citations
	view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043] For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c)

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	is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]
[Claim 16(f)] composing, in response to the detecting of the user action, a composite video signal using the layout, of the plurality of predefined layouts, associated with the interval among the intervals within which the position on the axis is lying.	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)* "In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002] "Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003] "As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342 is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS. 18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124]

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	"FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127]  *Id.* at Fig. 19

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 20A1  FIG. 20B1  FIG. 20A2  FIG. 20B2  *Id.* at Fig. 20 "… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward, the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]

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	FIG. 25A1  FIG. 25B1  FIG. 25A2  FIG. 25B2  *Id.* at Fig. 25 "Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…" To the extent that Cisco contends that Kikuchi does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Eleftheriadis and Nakagawa: *Text from US20100002069A1 (Eleftheriadis)* "The present application relates to video communication systems. In particular, it relates to mechanisms for managing the layout of multiple views of different scalable video sources on one or more displays." *Id.* at [Para 0003] "FIG. 2 depicts a typical example of a legacy system with three transmitting participants: Sender 1, Sender 2, and Sender 3, a Server 201, and a Receiver 203.

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	The Server 201 operates as a transcoding MCU: it receives audio (A) streams 1A, 2A and 3A and video (V) streams 1V, 2V and 3V from each of the Senders 1, 2 and 3, respectively, decodes the signals, and composes the video according to the desired layout indicated to the Server 201 by the Receiver 203 via the Signaling path 202. The decoded audio signals are also mixed at the Server 201. The resulting composited video and mixed audio signals are encoded by the Server 201, and are transmitted to the Receiver 203 as two separate streams: mixed audio stream A(mixed) and composited video stream V(composited). It is noted that these streams can actually be transmitted to the Receiver 203 multiplexed over a single connection (e.g., a single Real-Time Protocol (RTP) port). The Receiver 203 decodes the audio and video signals and plays them back. FIG. 2 further depicts an example layout of the Receiver's screen 210, in which Sender 1, displayed in display box 1, is shown larger than Senders 2 and 3, displayed in display boxes 2 and 3, respectively. The total bit rate requirements for the audio and video streams communicated between the Server 201 and the Receiver 203 are that of a single stream at the resolution of the Receiver's screen 210. Note that any areas of the screen not covered by real content (i.e., pixels originating from any one of the participants) have to be encoded by the Server 201 as well. The coding overhead, however, will typically be small since these areas do not change from picture to picture, and thus the predictive coding used in codecs such as H.264 can reduce the prediction error to a small amount." *Id.* at [Para 0048]

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FIG. 4: Exemplary Rectangular Standard Mode Layouts

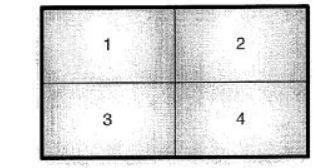


FIG. 4(a) 4-way, rectangular matrix

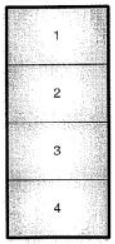


FIG. 4(b) 4-way, rectangular vertical

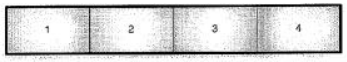


FIG. 4(c) 4-way, rectangular horizontal

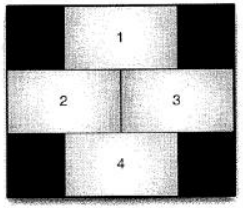


FIG. 4(d) 4-way, rectangular staggered

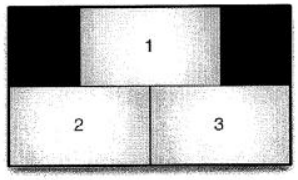


FIG. 4(e) 3-way, rectangular staggered



FIG. 4(f) 3-way, rectangular horizontal

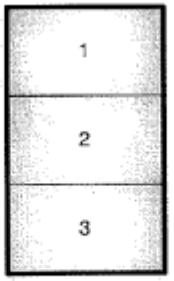


FIG. 4(g) 3-way, rectangular vertical

Id. at Figure 04

"FIG. 4(a)-(g) depict exemplary standard mode layouts using rectangular view organization. Each view within a screen is a rectangle. In one embodiment the rectangles can obey the picture aspect ratio of the original signal…" *Id.* at [Para 0066]

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FIG. 8: Exemplary Enlarged Mode Layouts

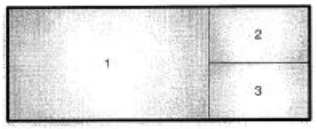


FIG. 8(a) 3-way, rectangular horizontal

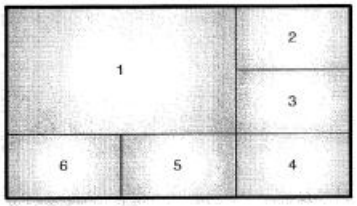


FIG. 8(b) 6-way, rectangular matrix

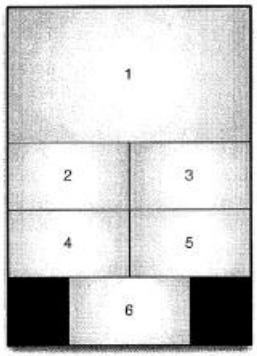


FIG. 8(c) 6-way, rectangular vertical

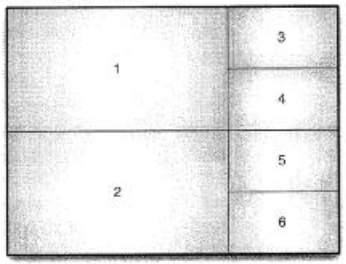
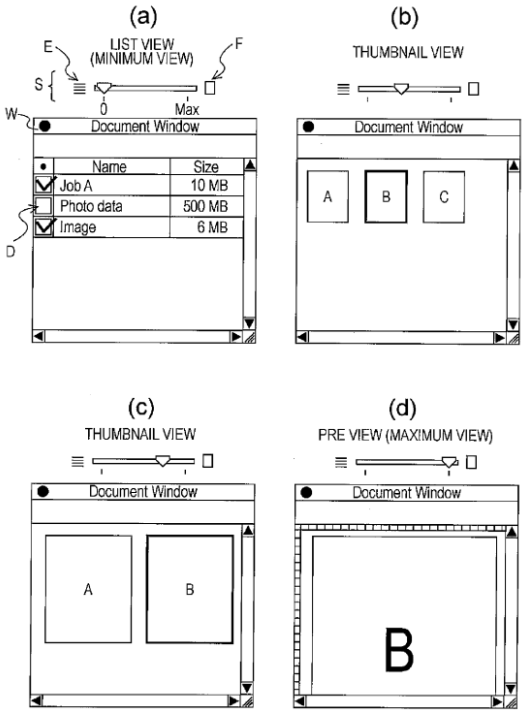


FIG. 8(d) 6-way, 2 enlarged views, rectangular matrix

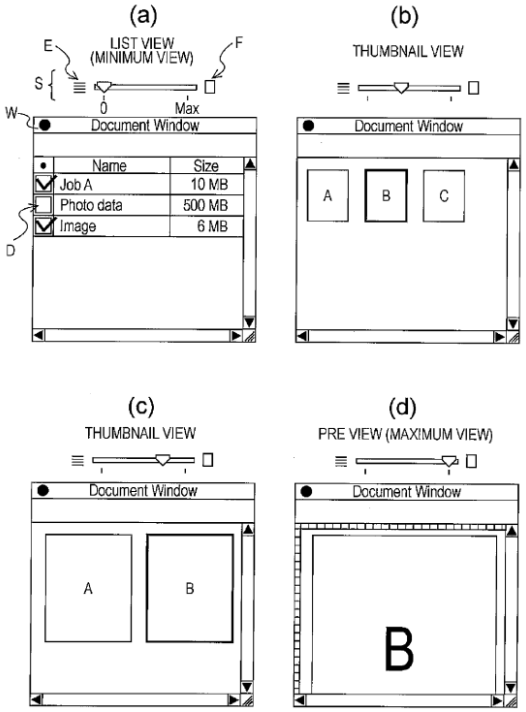
Id. at Figure 08

Text from US20080235612A1 (Nakagawa)

"Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the

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	slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043] For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target

Asserted Claim of the '708 Patent	Exemplary Citations
	data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]
[Claim 17(a)] An apparatus comprising: a processing unit configured to provide, on a display, an object configured to be moved by a user along an axis,	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)* "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 17(b)] associate a plurality of predefined layouts with respective intervals along the axis, and	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Eleftheriadis and Nakagawa: *Text from US20100002069A1 (Eleftheriadis)*

Asserted Claim of the '708 Patent	Exemplary Citations
	"The present application relates to video communication systems. In particular, it relates to mechanisms for managing the layout of multiple views of different scalable video sources on one or more displays." *Id.* at [Para 0003] "FIG. 2 depicts a typical example of a legacy system with three transmitting participants: Sender 1, Sender 2, and Sender 3, a Server 201, and a Receiver 203. The Server 201 operates as a transcoding MCU: it receives audio (A) streams 1A, 2A and 3A and video (V) streams 1V, 2V and 3V from each of the Senders 1, 2 and 3, respectively, decodes the signals, and composes the video according to the desired layout indicated to the Server 201 by the Receiver 203 via the Signaling path 202. The decoded audio signals are also mixed at the Server 201. The resulting composited video and mixed audio signals are encoded by the Server 201, and are transmitted to the Receiver 203 as two separate streams: mixed audio stream A(mixed) and composited video stream V(composited). It is noted that these streams can actually be transmitted to the Receiver 203 multiplexed over a single connection (e.g., a single Real-Time Protocol (RTP) port). The Receiver 203 decodes the audio and video signals and plays them back. FIG. 2 further depicts an example layout of the Receiver's screen 210, in which Sender 1, displayed in display box 1, is shown larger than Senders 2 and 3, displayed in display boxes 2 and 3, respectively. The total bit rate requirements for the audio and video streams communicated between the Server 201 and the Receiver 203 are that of a single stream at the resolution of the Receiver's screen 210. Note that any areas of the screen not covered by real content (i.e., pixels originating from any one of the participants) have to be encoded by the Server 201 as well. The coding overhead, however, will typically be small since these areas do not change from picture to picture, and thus the predictive coding used in codecs such as H.264 can reduce the prediction error to a small amount." *Id.* at [Para 0048]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 4: Exemplary Rectangular Standard Mode Layouts

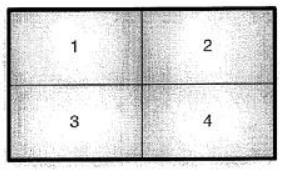


FIG. 4(a) 4-way, rectangular matrix

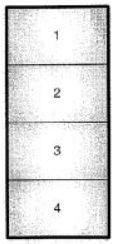


FIG. 4(b) 4-way, rectangular vertical

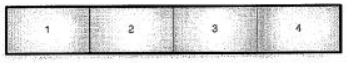


FIG. 4(c) 4-way, rectangular horizontal

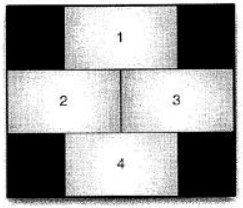


FIG. 4(d) 4-way, rectangular staggered

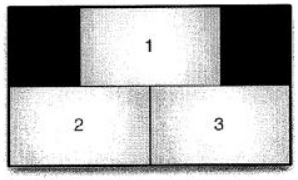


FIG. 4(e) 3-way, rectangular staggered



FIG. 4(f) 3-way, rectangular horizontal

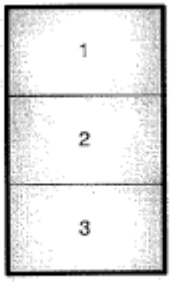


FIG. 4(g) 3-way, rectangular vertical

Id. at Figure 04

"FIG. 4(a)-(g) depict exemplary standard mode layouts using rectangular view organization. Each view within a screen is a rectangle. In one embodiment the rectangles can obey the picture aspect ratio of the original signal…" *Id.* at [Para 0066]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 8: Exemplary Enlarged Mode Layouts

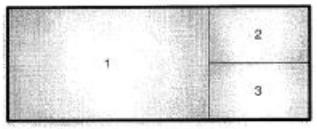


FIG. 8(a) 3-way, rectangular horizontal

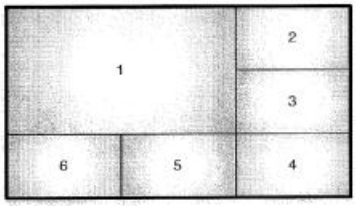


FIG. 8(b) 6-way, rectangular matrix

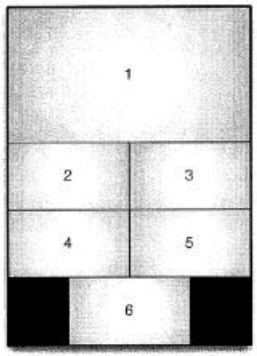


FIG. 8(c) 6-way, rectangular vertical

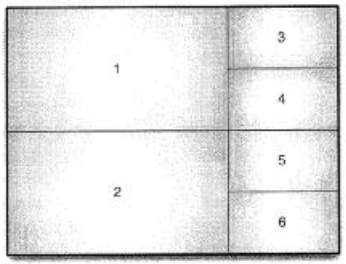


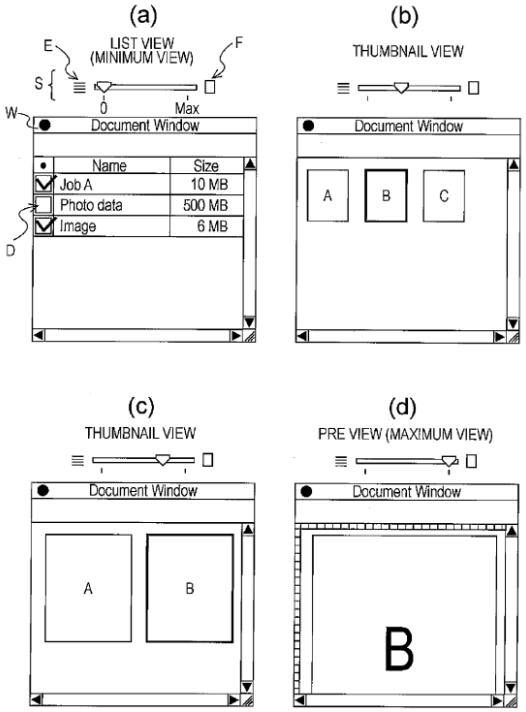
FIG. 8(d) 6-way, 2 enlarged views, rectangular matrix

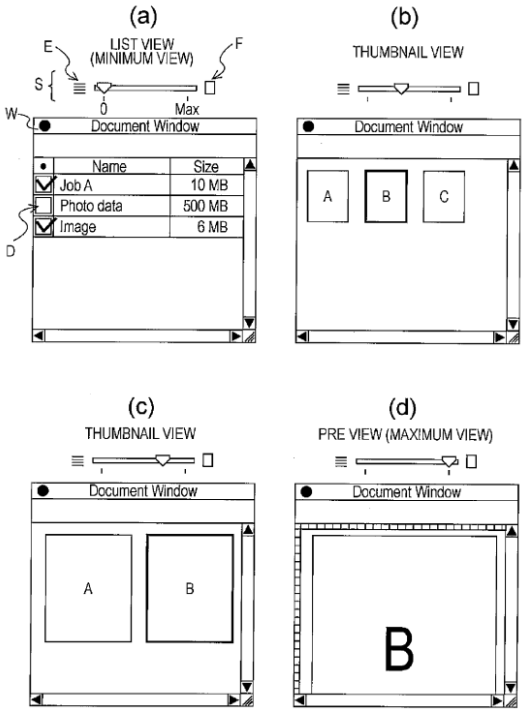
Id. at Figure 08

Text from US20080235612A1 (Nakagawa)

"According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device

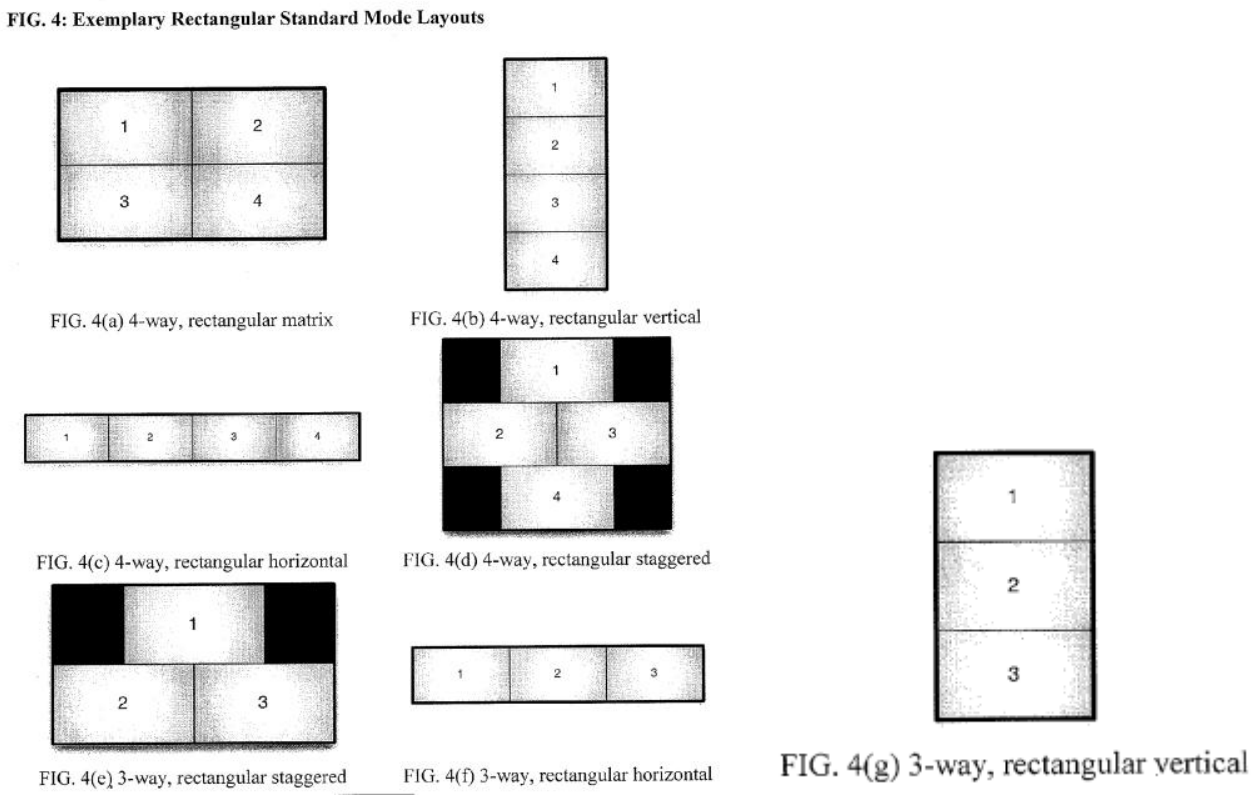
Asserted Claim of the '708 Patent	Exemplary Citations
	is performed by the control device. The process performed by the user interface control program includes displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 17(c)] detect a user action on the object indicating a position on the axis; and	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa: *Text from US20080235612A1 (Nakagawa)*

Asserted Claim of the '708 Patent	Exemplary Citations
	"Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3

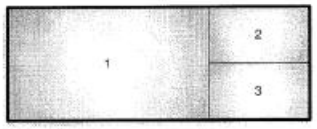
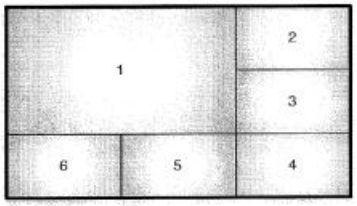
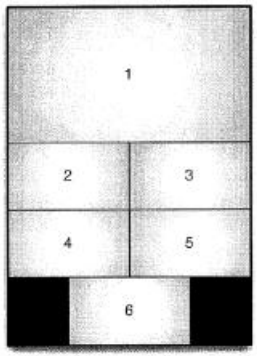
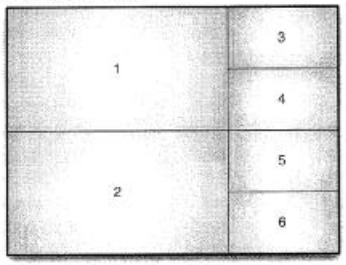
Asserted Claim of the '708 Patent	Exemplary Citations
	"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043]
[Claim 17(d)] a video composing unit configured to compose, in response to the user action being detected by the processing unit, a composite video signal using a layout, of the plurality of predefined layouts, associated with an interval among the intervals within which the position is lying, wherein the processing unit is further configured to	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Eleftheriadis: *Text from US20100002069A1 (Eleftheriadis)* "The present application relates to video communication systems. In particular, it relates to mechanisms for managing the layout of multiple views of different scalable video sources on one or more displays." *Id.* at [Para 0003] "FIG. 2 depicts a typical example of a legacy system with three transmitting participants: Sender 1, Sender 2, and Sender 3, a Server 201, and a Receiver 203. The Server 201 operates as a transcoding MCU: it receives audio (A) streams 1A, 2A and 3A and video (V) streams 1V, 2V and 3V from each of the Senders 1, 2 and 3, respectively, decodes the signals, and composes the video according to the desired layout indicated to the Server 201 by the Receiver 203 via the Signaling path 202. The decoded audio signals are also mixed at the Server 201. The resulting composited video and mixed audio signals are encoded by the Server 201, and are transmitted to the Receiver 203 as two separate streams: mixed audio stream A(mixed) and composited video stream V(composited). It is noted that these streams can actually be transmitted to the Receiver 203 multiplexed over a single connection (e.g., a single Real-Time Protocol (RTP) port). The Receiver 203 decodes the audio and video signals and plays them back. FIG. 2 further depicts an example layout of the Receiver's screen 210, in which Sender 1, displayed in display box 1, is shown larger than Senders 2 and 3, displayed in display boxes 2 and 3, respectively. The total bit rate requirements for the audio and video streams communicated between the Server 201 and the Receiver 203 are that of a single stream at the resolution of the Receiver's screen 210. Note that any areas of the screen not covered by real content (i.e., pixels originating from any one of the participants) have to be encoded by the Server 201 as well. The coding overhead, however, will typically be small since these areas do not change from picture to picture, and thus the predictive coding used in codecs such as H.264 can reduce the prediction error to a small amount." *Id.* at [Para 0048]

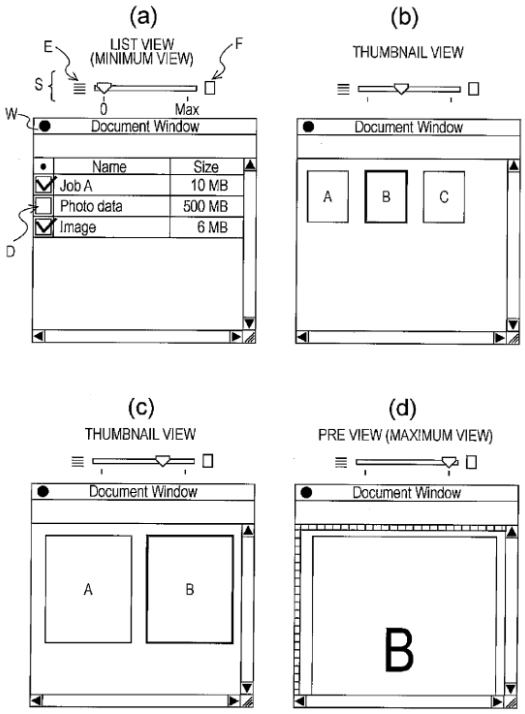
Asserted Claim of the '708 Patent	Exemplary Citations



Id. at Figure 04

"FIG. 4(a)-(g) depict exemplary standard mode layouts using rectangular view organization. Each view within a screen is a rectangle. In one embodiment the rectangles can obey the picture aspect ratio of the original signal…" *Id.* at [Para 0066]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 8: Exemplary Enlarged Mode Layouts  FIG. 8(a) 3-way, rectangular horizontal  FIG. 8(b) 6-way, rectangular matrix  FIG. 8(c) 6-way, rectangular vertical  FIG. 8(d) 6-way, 2 enlarged views, rectangular matrix *Id.* at Figure 08
[Claim 17(e)] identify an interval among the intervals within which the position is lying,	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Nakagawa:

Asserted Claim of the '708 Patent	Exemplary Citations
	Text from US20080235612A1 (Nakagawa) "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3

Asserted Claim of the '708 Patent	Exemplary Citations
	"Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043] For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]
[Claim 17(f)] select the layout associated with the interval, and	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Eleftheriadis and Nakagawa: *Text from US20100002069A1 (Eleftheriadis)* "The present application relates to video communication systems. In particular, it relates to mechanisms for managing the layout of multiple views of different scalable video sources on one or more displays." *Id.* at [Para 0003] "FIG. 2 depicts a typical example of a legacy system with three transmitting participants: Sender 1, Sender 2, and Sender 3, a Server 201, and a Receiver 203. The Server 201 operates as a transcoding MCU: it receives audio (A) streams 1A, 2A and 3A and video (V) streams 1V, 2V and 3V from each of the Senders 1, 2 and 3, respectively, decodes the signals, and composes the video according to the desired layout indicated to the Server 201 by the Receiver 203 via the Signaling path 202. The decoded audio signals are also mixed at the Server 201. The resulting composited video and mixed audio signals are encoded by the Server 201, and are transmitted to

Asserted Claim of the '708 Patent	Exemplary Citations
	the Receiver 203 as two separate streams: mixed audio stream A(mixed) and composited video stream V(composited). It is noted that these streams can actually be transmitted to the Receiver 203 multiplexed over a single connection (e.g., a single Real-Time Protocol (RTP) port). The Receiver 203 decodes the audio and video signals and plays them back. FIG. 2 further depicts an example layout of the Receiver's screen 210, in which Sender 1, displayed in display box 1, is shown larger than Senders 2 and 3, displayed in display boxes 2 and 3, respectively. The total bit rate requirements for the audio and video streams communicated between the Server 201 and the Receiver 203 are that of a single stream at the resolution of the Receiver's screen 210. Note that any areas of the screen not covered by real content (i.e., pixels originating from any one of the participants) have to be encoded by the Server 201 as well. The coding overhead, however, will typically be small since these areas do not change from picture to picture, and thus the predictive coding used in codecs such as H.264 can reduce the prediction error to a small amount." *Id.* at [Para 0048]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 4: Exemplary Rectangular Standard Mode Layouts

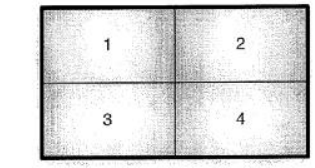


FIG. 4(a) 4-way, rectangular matrix

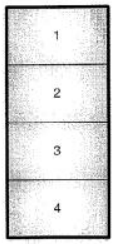


FIG. 4(b) 4-way, rectangular vertical

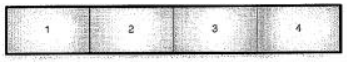


FIG. 4(c) 4-way, rectangular horizontal

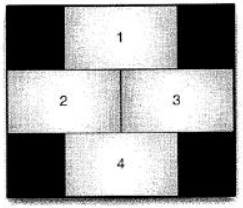


FIG. 4(d) 4-way, rectangular staggered

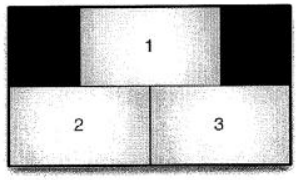


FIG. 4(e) 3-way, rectangular staggered



FIG. 4(f) 3-way, rectangular horizontal

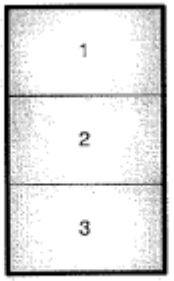


FIG. 4(g) 3-way, rectangular vertical

Id. at Figure 04

"FIG. 4(a)-(g) depict exemplary standard mode layouts using rectangular view organization. Each view within a screen is a rectangle. In one embodiment the rectangles can obey the picture aspect ratio of the original signal…" *Id.* at [Para 0066]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 8: Exemplary Enlarged Mode Layouts

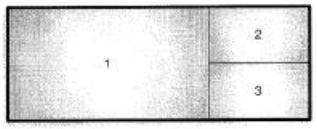


FIG. 8(a) 3-way, rectangular horizontal

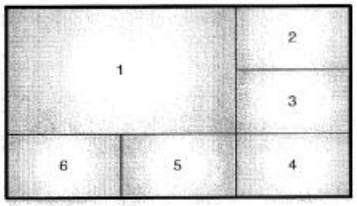


FIG. 8(b) 6-way, rectangular matrix

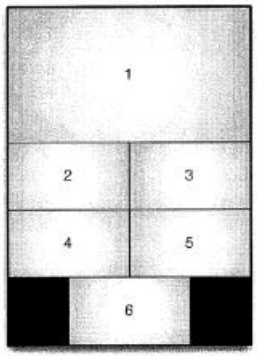


FIG. 8(c) 6-way, rectangular vertical

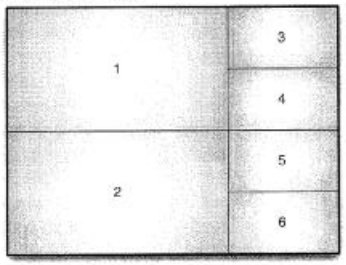
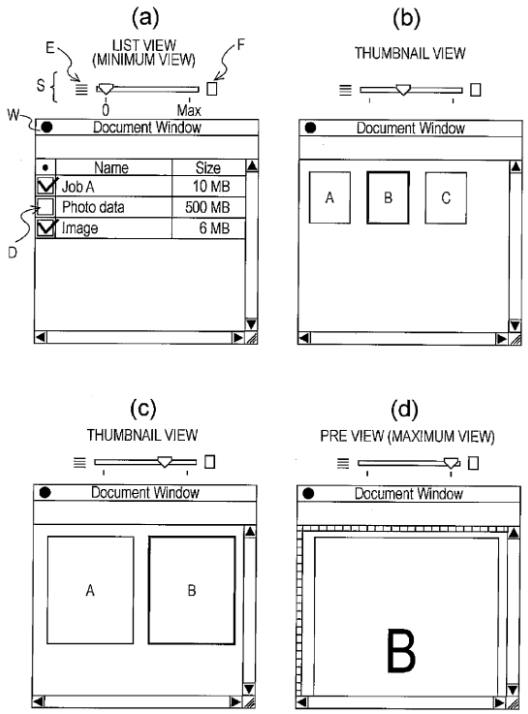


FIG. 8(d) 6-way, 2 enlarged views, rectangular matrix

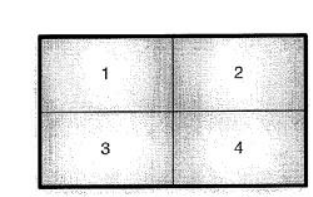
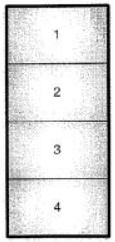
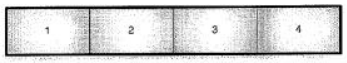
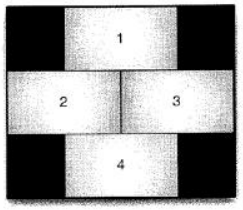
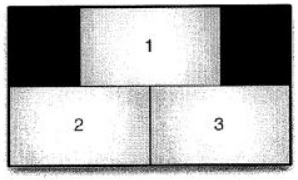
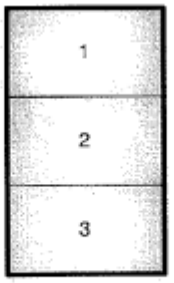
Id. at Figure 08

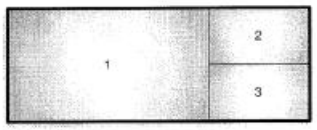
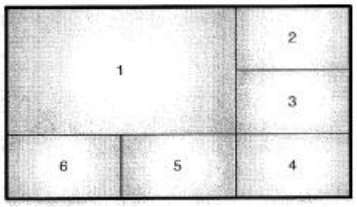
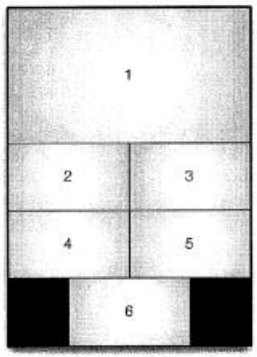
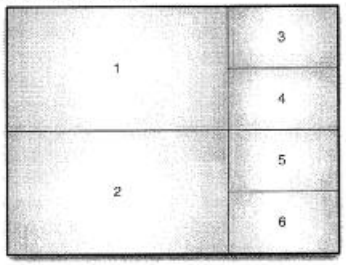
Text from US20080235612A1 (Nakagawa)

"Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window

Asserted Claim of the '708 Patent	Exemplary Citations
	(step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041] FIG. 3  *Id.* at Fig. 3 "Further, in other words, the above three views can be switched and displayed by moving the knob of the slider S to each position of the left end, right end, and intermediate portion, and the display is magnified as the position comes close to the right end in the intermediate portion." *Id.* at [Para 0043] For example, the view shown in the view display window of FIG. 3 (b) or FIG. 3 (c) is displayed. A reduced image which is a target of printing is displayed in the thumbnail view. Accordingly, in the

Asserted Claim of the '708 Patent	Exemplary Citations
	example, images of miniature version are respectively displayed as for the three print target data 23 displayed in the list view (A, B, C in FIG. 3). In this regard, the enlargement factor of FIG. 3 (c) is larger than that of FIG. 3 (b) as the knob is positioned at the right side than FIG. 3 (b), so that only two print target data 23 (A, B) are displayed. Further, the display states of FIG. 3 (b) and FIG. 3 (c) are examples of the thumbnail view which can be continuously displayed at different enlargement factors. Accordingly, by moving the knob to another position, the user can display the thumbnail view at an enlargement factor different therefrom. The user can view output image of each data at various enlargement factors by such a thumbnail view in order to select the data which is a target of printing. *Id.* at [Para 0052]
[Claim 17(g)] provide the selected layout to the video composing unit.	It would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Eleftheriadis: *Text from US20100002069A1 (Eleftheriadis)* "The present application relates to video communication systems. In particular, it relates to mechanisms for managing the layout of multiple views of different scalable video sources on one or more displays." *Id.* at [Para 0003] "FIG. 2 depicts a typical example of a legacy system with three transmitting participants: Sender 1, Sender 2, and Sender 3, a Server 201, and a Receiver 203. The Server 201 operates as a transcoding MCU: it receives audio (A) streams 1A, 2A and 3A and video (V) streams 1V, 2V and 3V from each of the Senders 1, 2 and 3, respectively, decodes the signals, and composes the video according to the desired layout indicated to the Server 201 by the Receiver 203 via the Signaling path 202. The decoded audio signals are also mixed at the Server 201. The resulting composited video and mixed audio signals are encoded by the Server 201, and are transmitted to the Receiver 203 as two separate streams: mixed audio stream A(mixed) and composited video stream V(composited). It is noted that these streams can actually be transmitted to the Receiver 203 multiplexed over a single connection (e.g., a single Real-Time Protocol (RTP) port). The Receiver 203 decodes the audio and video signals and plays them back. FIG. 2 further depicts an example layout of the Receiver's screen 210, in which Sender 1, displayed in display box 1, is shown larger than Senders 2 and 3, displayed in display boxes 2 and 3, respectively. The total bit rate requirements for

Asserted Claim of the '708 Patent	Exemplary Citations
	the audio and video streams communicated between the Server 201 and the Receiver 203 are that of a single stream at the resolution of the Receiver's screen 210. Note that any areas of the screen not covered by real content (i.e., pixels originating from any one of the participants) have to be encoded by the Server 201 as well. The coding overhead, however, will typically be small since these areas do not change from picture to picture, and thus the predictive coding used in codecs such as H.264 can reduce the prediction error to a small amount." *Id.* at [Para 0048] **FIG. 4: Exemplary Rectangular Standard Mode Layouts**  FIG. 4(a) 4-way, rectangular matrix  FIG. 4(b) 4-way, rectangular vertical  FIG. 4(c) 4-way, rectangular horizontal  FIG. 4(d) 4-way, rectangular staggered  FIG. 4(e) 3-way, rectangular staggered  FIG. 4(f) 3-way, rectangular horizontal  FIG. 4(g) 3-way, rectangular vertical *Id.* at Figure 04

Asserted Claim of the '708 Patent	Exemplary Citations
	"FIG. 4(a)-(g) depict exemplary standard mode layouts using rectangular view organization. Each view within a screen is a rectangle. In one embodiment the rectangles can obey the picture aspect ratio of the original signal…" *Id.* at [Para 0066] **FIG. 8: Exemplary Enlarged Mode Layouts**  FIG. 8(a) 3-way, rectangular horizontal  FIG. 8(b) 6-way, rectangular matrix  FIG. 8(c) 6-way, rectangular vertical  FIG. 8(d) 6-way, 2 enlarged views, rectangular matrix *Id.* at Figure 08
[Claim 18]	

Asserted Claim of the '708 Patent	Exemplary Citations
The apparatus according to claim 17, wherein the composite video signal includes a spatial mix of one of more video conference streams, the layout defines one or more frames for containing the video conference streams, and the processing unit is further configured to provide, for at least one of the intervals, a relationship between positions within the at least one of the intervals and a size and position of one or more frames of a respective layout associated with the interval, and calculate, in response to the user action being detected, a layout wherein the size and position of each frame of the layout is based on the relationship and the position.	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)* "In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002] "Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003] "As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342 is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS. 18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124] "FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 19A1

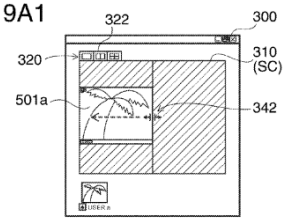


FIG. 19B1

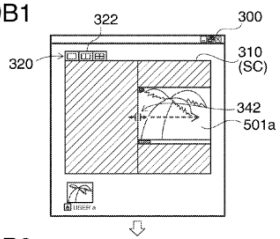


FIG. 19A2

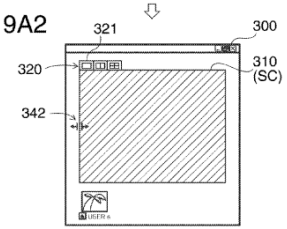
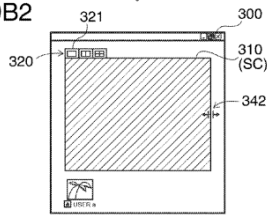


FIG. 19B2



Id. at Fig. 19

FIG. 20A1

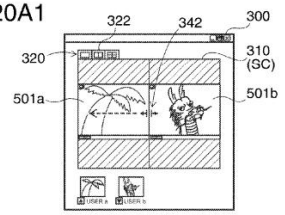


FIG. 20B1

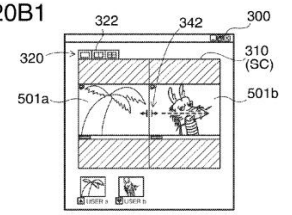


FIG. 20A2

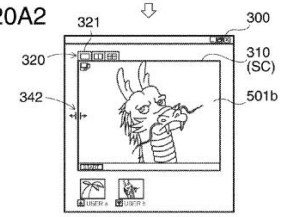
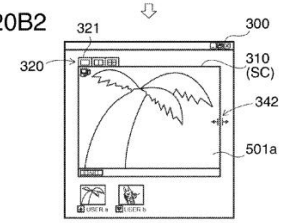
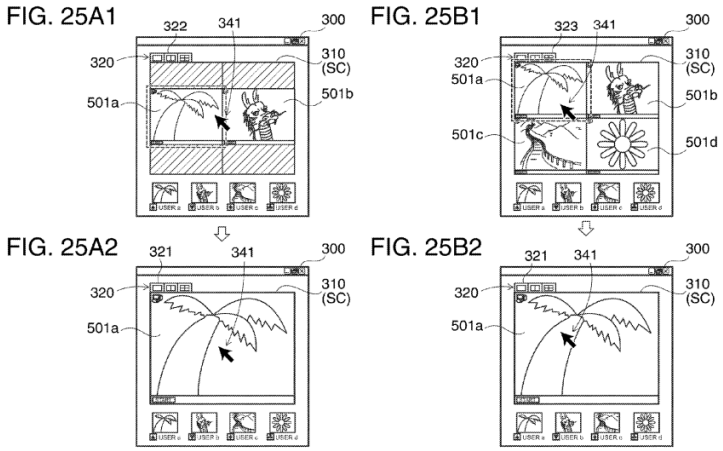


FIG. 20B2



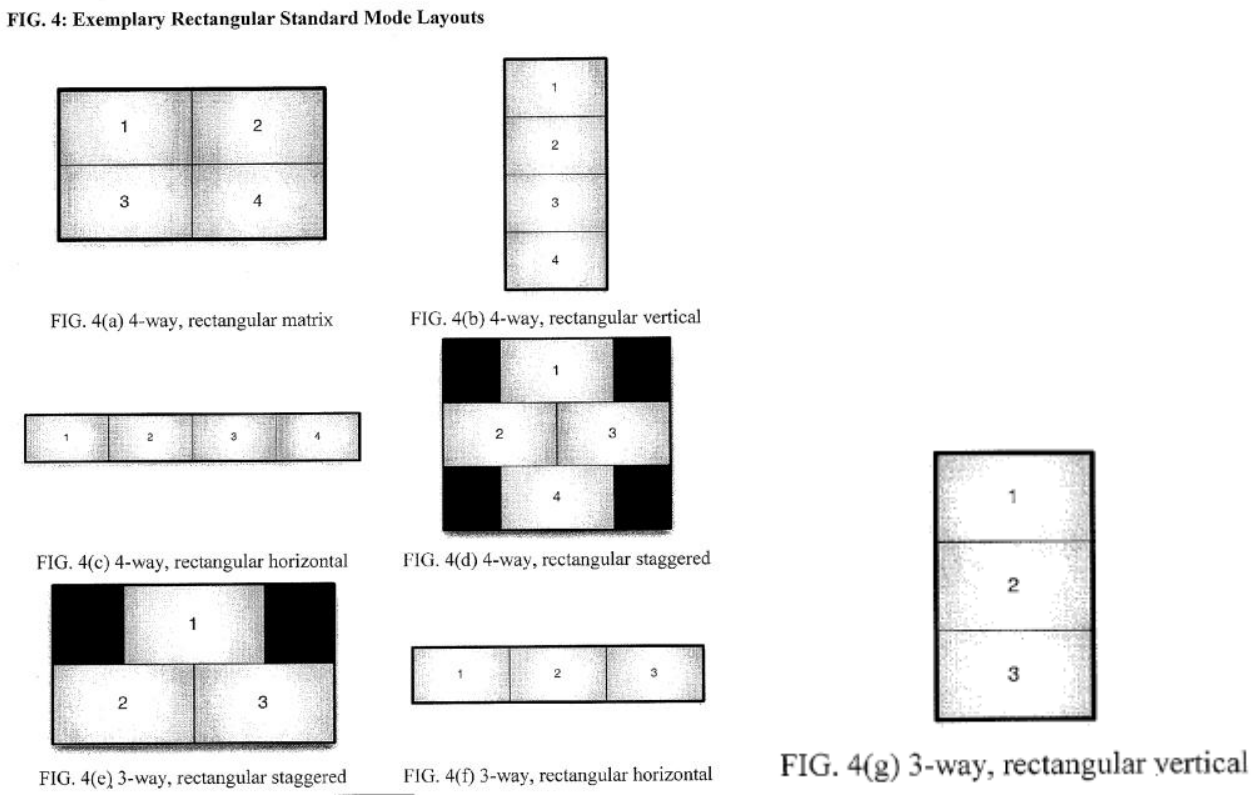
Id. at Fig. 20

"… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward,

Asserted Claim of the '708 Patent	Exemplary Citations
	the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]  *Id.* at Fig. 25 "Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…" To the extent that Cisco contends that Kikuchi does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Eleftheriadis and Nakagawa: *Text from US20100002069A1 (Eleftheriadis)*

Asserted Claim of the '708 Patent	Exemplary Citations
	"The present application relates to video communication systems. In particular, it relates to mechanisms for managing the layout of multiple views of different scalable video sources on one or more displays." *Id.* at [Para 0003] "FIG. 2 depicts a typical example of a legacy system with three transmitting participants: Sender 1, Sender 2, and Sender 3, a Server 201, and a Receiver 203. The Server 201 operates as a transcoding MCU: it receives audio (A) streams 1A, 2A and 3A and video (V) streams 1V, 2V and 3V from each of the Senders 1, 2 and 3, respectively, decodes the signals, and composes the video according to the desired layout indicated to the Server 201 by the Receiver 203 via the Signaling path 202. The decoded audio signals are also mixed at the Server 201. The resulting composited video and mixed audio signals are encoded by the Server 201, and are transmitted to the Receiver 203 as two separate streams: mixed audio stream A(mixed) and composited video stream V(composited). It is noted that these streams can actually be transmitted to the Receiver 203 multiplexed over a single connection (e.g., a single Real-Time Protocol (RTP) port). The Receiver 203 decodes the audio and video signals and plays them back. FIG. 2 further depicts an example layout of the Receiver's screen 210, in which Sender 1, displayed in display box 1, is shown larger than Senders 2 and 3, displayed in display boxes 2 and 3, respectively. The total bit rate requirements for the audio and video streams communicated between the Server 201 and the Receiver 203 are that of a single stream at the resolution of the Receiver's screen 210. Note that any areas of the screen not covered by real content (i.e., pixels originating from any one of the participants) have to be encoded by the Server 201 as well. The coding overhead, however, will typically be small since these areas do not change from picture to picture, and thus the predictive coding used in codecs such as H.264 can reduce the prediction error to a small amount." *Id.* at [Para 0048]

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Id. at Figure 04

"FIG. 4(a)-(g) depict exemplary standard mode layouts using rectangular view organization. Each view within a screen is a rectangle. In one embodiment the rectangles can obey the picture aspect ratio of the original signal…" *Id.* at [Para 0066]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 8: Exemplary Enlarged Mode Layouts

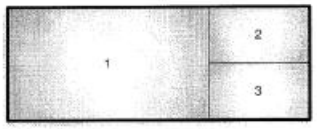


FIG. 8(a) 3-way, rectangular horizontal

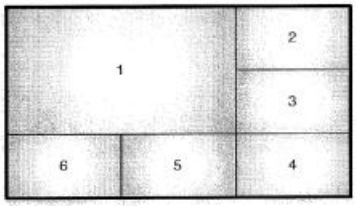


FIG. 8(b) 6-way, rectangular matrix

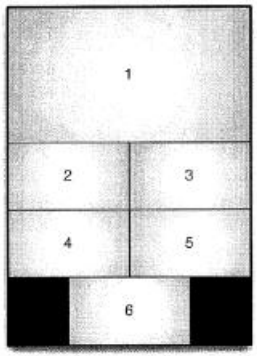


FIG. 8(c) 6-way, rectangular vertical

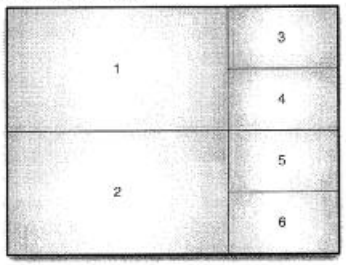


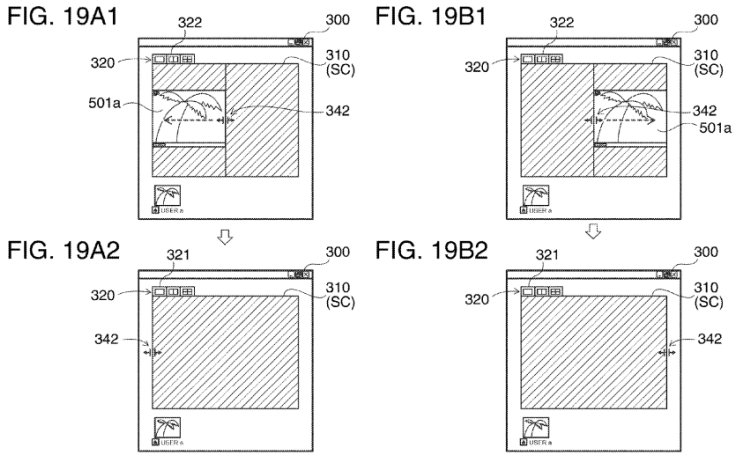
FIG. 8(d) 6-way, 2 enlarged views, rectangular matrix

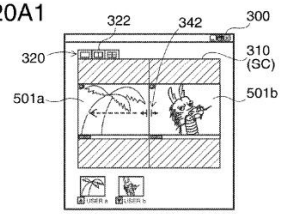
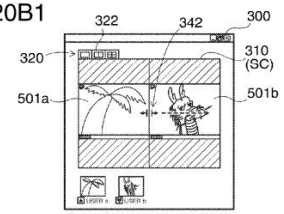
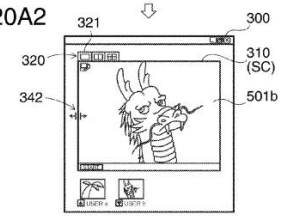
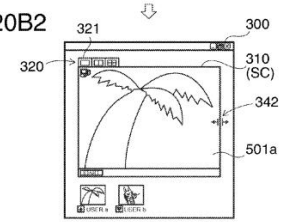
Id. at Figure 08

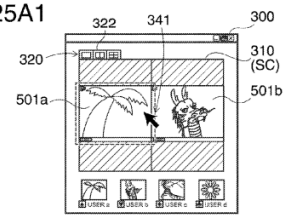
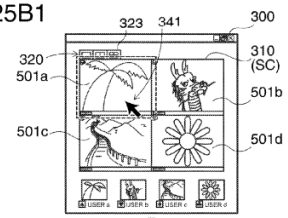
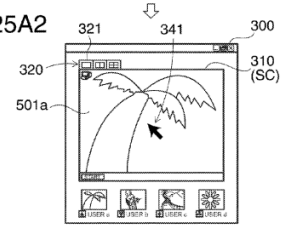
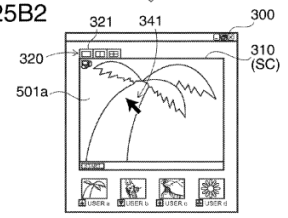
Text from US20080235612A1 (Nakagawa)

"According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes

Asserted Claim of the '708 Patent	Exemplary Citations
	displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]
[Claim 19] The apparatus according to claim 17, wherein the processing unit is further configured to associate M numbers of variations of one of the plurality of predefined layouts with M number of sub-intervals within one or more of the intervals, identify, in response to the user action being detected, a sub-interval among the sub-intervals within which the position is lying, and	Kikuchi, either alone or in combination with the knowledge of a person with ordinary skill in the art, discloses this limitation as the following examples illustrate: *Text from US20100302130A1 (Kikuchi)* "In presentations, conferences, or the like, in some cases, there is used an image display system capable of displaying a display screen of a terminal such as a personal computer operated by each of a plurality of participants on a common screen area, which can be viewed by all of the participants…" *Id.* at [Para 0002] "Incidentally, in presentations or conferences, in general, roles of the participants are replaced with each other flexibly such as a presenter and a speaker changed in a rotating manner. Therefore, in the case in which the display screens of the terminals of the respective participants are displayed on the common screen area thus divided, it is preferable in terms of effective presentation and invigoration of discussion that the operation of changing the layout of the common screen area can be performed efficiently. However, it is very much a situation in which a sufficient devise has not ever been provided to improvement of the convenience of such an image display system." *Id.* at [Para 0003] "As described above, in the single screen display mode, the slider 342 is displayed at either one of the right circumferential end and the left circumferential end of the screen image 310, and then the slider 342 is consecutively dragged toward the center of the screen image 310. Then, the projection screen SC is

Asserted Claim of the '708 Patent	Exemplary Citations
select a layout, of the plurality of predefined layouts, associated with the sub-interval; and the video composing unit is configured to compose the composite video signal using the selected layout.	switched to the dual screen display mode, and the supply image 501 a having been displayed there is displayed in the layout frame located on the side of the direction in which the slider 342 is dragged (FIGS. 18A2 and 18B2). Further, the display state of the display mode switching buttons 320 is changed to show the state in which the second button 322 is held down instead of the first button 321." *Id.* at [Para 0124] "FIGS. 19A1 and 19B1 are substantially the same as FIGS. 18A2 and 18B2, respectively. In this case, the slider 342 is previously displayed on the boundary between the layout frames located at the center of the screen image 310, and then dragged consecutively toward the side of the layout frame where the supply image 501 a is displayed. Then, the supply image 501 a is deleted, and the projection screen SC becomes in the nondisplay state in the single screen display mode (FIGS. 19A2 and 19B2)." *Id.* at [Para 0127]  *Id.* at Fig. 19

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 20A1  FIG. 20B1  FIG. 20A2  FIG. 20B2  *Id.* at Fig. 20 "… When the slider 342 is dragged leftward, the projection screen SC is switched to the single screen display mode, and the supply image 501 b having been displayed in the layout frame on the right side is displayed in the entire surface (FIG. 20A2). On the other hand, when the slider 342 is dragged rightward, the projection screen SC is switched to the single screen display mode, and the supply image 501 a having been displayed in the layout frame on the left side is displayed in the entire surface (FIG. 20B2)." *Id.* at [Para 0128]

Asserted Claim of the '708 Patent	Exemplary Citations
	FIG. 25A1  FIG. 25B1  FIG. 25A2  FIG. 25B2  *Id.* at Fig. 25 "Here, the supply image 501 a is designated on the screen image 310 of the operation window 300 by the pointer 341 and then double-click is performed. Then, the display mode of the projection screen SC is switched to the single screen display mode, and the supply image 501 a is displayed in an enlarged manner (FIG. 25A2)…" To the extent that Cisco contends that Kikuchi does not expressly or inherently disclose this limitation, it would have been obvious to a person of ordinary skill in the art to combine Kikuchi with the common general knowledge and/or the teachings of the numerous prior art references that disclose this limitation, including Eleftheriadis and Nakagawa: *Text from US20100002069A1 (Eleftheriadis)* "The present application relates to video communication systems. In particular, it relates to mechanisms for managing the layout of multiple views of different scalable video sources on one or more displays." *Id.* at [Para 0003] "FIG. 2 depicts a typical example of a legacy system with three transmitting participants: Sender 1, Sender 2, and Sender 3, a Server 201, and a Receiver 203.

Asserted Claim of the '708 Patent	Exemplary Citations
	The Server 201 operates as a transcoding MCU: it receives audio (A) streams 1A, 2A and 3A and video (V) streams 1V, 2V and 3V from each of the Senders 1, 2 and 3, respectively, decodes the signals, and composes the video according to the desired layout indicated to the Server 201 by the Receiver 203 via the Signaling path 202. The decoded audio signals are also mixed at the Server 201. The resulting composited video and mixed audio signals are encoded by the Server 201, and are transmitted to the Receiver 203 as two separate streams: mixed audio stream A(mixed) and composited video stream V(composited). It is noted that these streams can actually be transmitted to the Receiver 203 multiplexed over a single connection (e.g., a single Real-Time Protocol (RTP) port). The Receiver 203 decodes the audio and video signals and plays them back. FIG. 2 further depicts an example layout of the Receiver's screen 210, in which Sender 1, displayed in display box 1, is shown larger than Senders 2 and 3, displayed in display boxes 2 and 3, respectively. The total bit rate requirements for the audio and video streams communicated between the Server 201 and the Receiver 203 are that of a single stream at the resolution of the Receiver's screen 210. Note that any areas of the screen not covered by real content (i.e., pixels originating from any one of the participants) have to be encoded by the Server 201 as well. The coding overhead, however, will typically be small since these areas do not change from picture to picture, and thus the predictive coding used in codecs such as H.264 can reduce the prediction error to a small amount." *Id.* at [Para 0048]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 4: Exemplary Rectangular Standard Mode Layouts

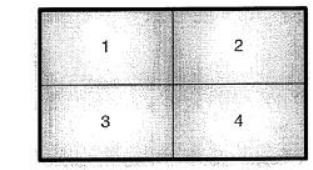


FIG. 4(a) 4-way, rectangular matrix

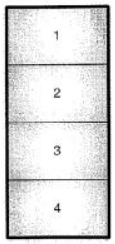


FIG. 4(b) 4-way, rectangular vertical

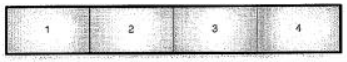


FIG. 4(c) 4-way, rectangular horizontal

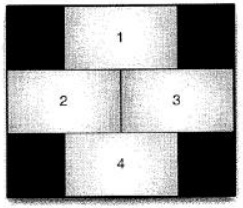


FIG. 4(d) 4-way, rectangular staggered

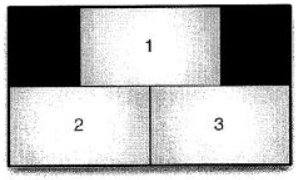


FIG. 4(e) 3-way, rectangular staggered



FIG. 4(f) 3-way, rectangular horizontal

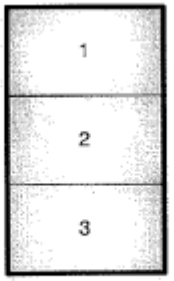


FIG. 4(g) 3-way, rectangular vertical

Id. at Figure 04

"FIG. 4(a)-(g) depict exemplary standard mode layouts using rectangular view organization. Each view within a screen is a rectangle. In one embodiment the rectangles can obey the picture aspect ratio of the original signal…" *Id.* at [Para 0066]

Asserted Claim of the '708 Patent	Exemplary Citations

FIG. 8: Exemplary Enlarged Mode Layouts

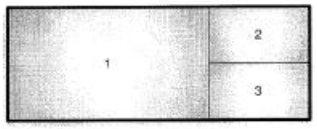


FIG. 8(a) 3-way, rectangular horizontal

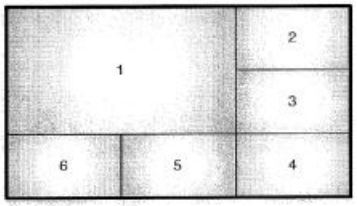


FIG. 8(b) 6-way, rectangular matrix

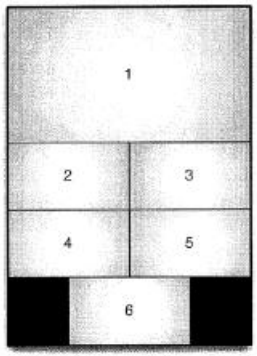


FIG. 8(c) 6-way, rectangular vertical

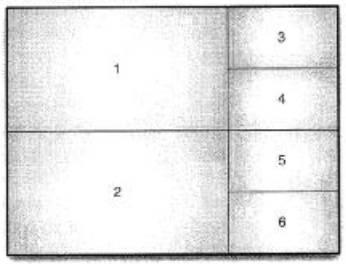


FIG. 8(d) 6-way, 2 enlarged views, rectangular matrix

Id. at Figure 08

Text from US20080235612A1 (Nakagawa)

"According to an aspect of the invention, there is provided a user interface control program by which a process for controlling a user interface in a computer equipped with a control device and a display device is performed by the control device. The process performed by the user interface control program includes

Asserted Claim of the '708 Patent	Exemplary Citations
	displaying a graphic interface of a slider type for instructing a predetermined performance in which a state of a predetermined index which continuously changes is specified on the display device, when a position except an end of the graphic interface is instructed, instructing the predetermined performance in which a state of the predetermined index corresponding to the instructed position is specified, and when a position of an end of the graphic interface is instructed, instructing a performance different from the predetermined performance." *Id.* at [Para 0012] "Next, the GUI control module 221 displays the slider and the view display window based on the taken out data on the monitor 24 and displays an initial view created in step S1 in the view display window (step S2). FIG. 3 is a diagram exemplifying the view display window for displaying each view and the slider. FIG. 3 (a) exemplifies the state displayed on the monitor 24 by the above process when the initial view is a list view. The portion shown by S in FIG. 3 is the slider and the window shown by W in FIG. 3 is the view display window." *Id.* at [Para 0041]

CERTIFICATE OF SERVICE

I, Brian E. Farnan, hereby certify that on October 13, 2025, a copy of Defendant Intelligent Protection Management Corp.'s Initial Invalidity Contentions was served on the following as indicated:

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