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Summary

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871 word(s) moved
11436 word(s) matched

36 page(s) added
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Different	Word(s) different only in style

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD. AND SAMSUNG ELECTRONICS AMERICA, INC.,
Petitioners

v.

MAXELL, LTD.,
Patent Owner

Inter Partes Review No.: IPR2024-~~00735~~

PETITION FOR INTER PARTES REVIEW OF U.S. PATENT NO. 11,017,815 UNDER 35 U.S.C. §§ 311-319 AND 37 C.F.R. §§ 42.1-100, ET SEQ

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SAMSUNG ELECTRONICS CO., LTD. AND
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Petitioners

v.

MAXELL, LTD.,
Patent Owner

Inter Partes Review No.: IPR2024-00777

PETITION FOR INTER PARTES REVIEW OF CLAIMS 16-27 OF U.S. PATENT NO. 11,017,815 UNDER 35 U.S.C. §§ 311-319 AND 37 C.F.R. §§ 42.1-100, ET SEQ

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1005	U.S. Patent No. 7,275,063 ("Horn")
1006	U.S. Patent No. 7,970,240 ("Chao")
1007	U.S. Patent No. 7,650,361 ("Wong")
1008	Declaration of Nathaniel E. Frank-White
1009	*Fandango Media, LLC v. Maxell, Ltd.*, IPR2018-01432, Paper 32 (PTAB Feb. 10, 2020) ("01432FWD")
1010	WinTV Installation and Reference Manual (June 30, 1999) ("WinTV")
1011	Archived Specifications - WinTV PCI boards including the WinCast/TV and WinTV-pci (November 10, 1999) (https://web.archive.org/web/19991110153658/http://hauppauge.com:80/html/wc_data.htm)
1012	Bt848/848A/849A - Single-Chip Video Capture for PCI – Datasheet ("BT848")
1013	U.S. Patent Application Publication No. 20030174844A1 ("Candelore")
1014	U.S. Patent Application Publication No. 20010056434A1 ("Kaplan")
1015	U.S. Patent Application Publication No. 20040201691 ("Bryant")
1016	U.S. Patent Application Publication No. 20050160458A1 ("Baumgartner")
1017	Appendix 5 to PO's January 11, 2024 Infringement Contentions
1018	U.S. Patent No. 6,259,418 ("Jones")
1019	U.S. Patent No. 5,911, 129 ("Towell")
1020	JP-A-2000-152180
1021	Machine Translation of JP-A-2000-152180
1022	U.S. Patent No. RE32,632 to Atkinson
1023	Brent Ethington, *Introducing Microsoft Windows 95*, Microsoft Press (1995), with authenticating declaration of Carmen Debord
1024	U.S. Patent No. 6,493,006 to Gourdol et al.
1025	Microsoft Computer Dictionary, 4th Ed., Microsoft Press (1999)
1026	James Cohoon & Jack Davidson, C++ Program Design: An ~~Introduction to Programming and Object-Oriented Design, 3rd~~

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1026	James Cohoon & Jack Davidson, C++ Program Design: An

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Exhibit No.	Description
	Ed., McGraw Hill (2002)
1027	George W. Furnas and Jeff Zacks, 1994, *Multitrees: Enriching and Reusing Hierarchical Structure*, In Proceedings of the SIGCHI Conference on Human Factors in Computer Systems (CHI 1994), Beth Adelson, Susan Dumais, and Judith Olson (Eds.), ACM, New York, NY, USA, 330-336. DOI http://dx.doi.org/10.1145/191666.191778, with authenticating declaration of Scott Delman.
1028	U.S. Patent Application Publication No. 2004/0064476 to Rounds ("Rounds")
1029	U.S. Patent Application Publication No. 2002/0082730 to Capps et al. ("Capps")
1030	U.S. Patent No. 6,166,735 to Dom et al. ("Dom")
1031	U.S. Patent No. 5,884,056 to Steele ("Steele")
1032	U.S. Patent No. 5,442,744 to Piech et al. ("Piech")
1033	U.S. Patent Application Publication No. 2006/0107289 to DeYonker et al. ("DeYonker")
1034	Benjamin B. Bederson, 2001, PhotoMesa: A Zoomable Image Browser Using Quantum Treemaps and Bubblemaps, In Proceedings of the 14th annual ACM symposium on User Interface Software and Technology (UIST 2001), ACM, New York, NY, USA, 71-80. DOI http://dx.doi.org/10.1145/502348.502359
1035	U.S. Patent No. 6,609,253 to Swix et al. ("Swix")
1036	U.S. Patent Application Publication No. 2004/0078383 to Mercer et al. ("Mercer")
1037	WIPO Patent Publication No. WO 02/32122
1038	U.S. Patent No. 5,767,897
1039	"Windows XP Media Center Exposed" (AnandTech, January 8, 2003)
1040	File History of U.S. Patent No. 10,679,674
1041	File History of U.S. Patent No. 10,199,072
1042	File History of U.S. Patent No. 9,818,449
1043	File History of U.S. Patent No. 9,384,783
1044	File History of U.S. Patent No. 8,644,684
1045	File History of U.S. Patent No. 7,613,383
1046	Ex. 2002 from IPR2018-01432
1047	Excerpt from American Heritage Dictionary (4th ed. 2000)

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Exhibit No.	Description
	Introduction to Programming and Object-Oriented Design, 3rd Ed., McGraw Hill (2002)
1027	George W. Furnas and Jeff Zacks, 1994, *Multitrees: Enriching and Reusing Hierarchical Structure*, In Proceedings of the SIGCHI Conference on Human Factors in Computer Systems (CHI 1994), Beth Adelson, Susan Dumais, and Judith Olson (Eds.), ACM, New York, NY, USA, 330-336. DOI http://dx.doi.org/10.1145/191666.191778, with authenticating declaration of Scott Delman.
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1030	U.S. Patent No. 6,166,735 to Dom et al. ("Dom")
1031	U.S. Patent No. 5,884,056 to Steele ("Steele")
1032	U.S. Patent No. 5,442,744 to Piech et al. ("Piech")
1033	U.S. Patent Application Publication No. 2006/0107289 to DeYonker et al. ("DeYonker")
1034	Benjamin B. Bederson, 2001, PhotoMesa: A Zoomable Image Browser Using Quantum Treemaps and Bubblemaps, In Proceedings of the 14th annual ACM symposium on User Interface Software and Technology (UIST 2001), ACM, New York, NY, USA, 71-80. DOI http://dx.doi.org/10.1145/502348.502359
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1036	U.S. Patent Application Publication No. 2004/0078383 to Mercer et al. ("Mercer")
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1043	File History of U.S. Patent No. 9,384,783
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1045	File History of U.S. Patent No. 7,613,383
1046	Ex. 2002 from IPR2018-01432

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1048	Excerpt from Microsoft Computer Dictionary (5th ed. 2002)
1049	U.S. Patent No. 7,292,692 to Bonan et al. ("Bonan")
1050	Printout of https://www.atsc.org/news/security-content-protection-high-priorities-for-nextgen-tv/ (visited April 18, 2024)

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CLAIMS
[1pre] An information processing apparatus comprising:
[1a] a network interface;
[1b] a recording medium on which is stored a plurality of video information including first video information received wirelessly by the network interface over a network from another information processing apparatus,
[1c] wherein at least some of the plurality of video information is associated with a user profile;
[1d] a display; and
[1e] a processor for controlling the display to display:
[1f] a first area including a first character associated with a first group of video information for a first classification and a second character associated with a second group of video information for a second classification different from the first classification,
[1g] the first group of video information being configured to allow a user to edit,
[1h] wherein the first group of video information and the second group of video information are part of the plurality of stored video information, and
[1i] a second area displaying thumbnails corresponding to at least a portion of the plurality of stored video information,
[1j] wherein user selection of the first character enables the display of a first group of thumbnails corresponding to the first group of video information in the second area,
[1k] wherein user selection of the second character enables the display of a second group of thumbnails corresponding to the second group of video information in the second area,
[1l] wherein, upon one video information stored on the recording medium included in both the first group of video information and the second group of video information being deleted from the first group of video information, the one video information continues to be included in the second group of video information and
[1m] the processor controls the display to display a thumbnail corresponding to the one video information as one of the second group of thumbnails when the second character is selected.
[2] The information processing apparatus of claim 1, further comprising: wherein the processor generates a group of video information based on user preferences determined by the user selections of the video information, and wherein, upon user selection of the group, the processor controls the display to display thumbnails that correspond to the video information and no other thumbnails associated with video information of other users.

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CLAIMS
[16pre] A method for reproducing video content associated with user profiles being implemented on an information processing apparatus, comprising:
[16a] receiving, via a network, first video information wirelessly from a device external to the information processing apparatus, the first video information being received including second video information that is encrypted;
[16b] displaying, on a display device, a first user interface for a user to select a user profile from among a plurality of user profiles including a first user profile associated with a first character and a second user profile associated with a second character,
[16c] the plurality of user profiles being associated with video information and the first user interface including an option for a user to select the first user profile from the plurality of user profiles by selecting the first character;
[16d] receiving a selection of the first user profile;
[16e] displaying, in response to the selection, a second user interface for a user to select desired video information to be reproduced from among the first video information,
[16f] the second user interface being associated with the first user profile and displaying the first character, the first character associated with a first group of video information and indicating an identity of the user of the first user profile,
[16g] the second user interface further displaying thumbnails corresponding to the first group of video information;
[16h] displaying the second character and a second group of thumbnails corresponding to a second group of video information associated with the second user profile when the second character is selected,
[16i] the first group of video information and the second group of video information including one video information that is the same;
[16j] receiving a selection to remove the one video information from the first group of video information associated with the first user profile;
[16k] removing the one video information from the first group of video information, wherein, upon the one video information being removed from the first group of video information, the one video information continues to be included in the second group of video information for the second user profile and the second group of thumbnails continues to display a thumbnail corresponding to the one video information when the second character is selected;
[16l] receiving a selection of desired video information based on a selection of a thumbnail from the first group of thumbnails, the desired video information included in the second video information;

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CLAIMS
[3] The information processing apparatus of claim 1, further comprising: an antenna for wirelessly receiving the first video information from the other information processing apparatus.
[4a] The information processing apparatus of claim 1, wherein the plurality of stored video information includes third video information recorded by the information processing apparatus, fourth video information, and fifth video information,
[4b] wherein the display displays a user interface having thumbnails corresponding to each of the third, fourth, and fifth video information.
[5] The information processing apparatus of claim 4, wherein the display displays the third, fourth, and fifth video information according to predetermined playback sequence.
[6a] The information processing apparatus of claim 1, wherein the plurality of stored video information includes third video information, fourth video information, and fifth video information,
[6b] wherein the plurality of stored video information includes management information corresponding to the third, fourth, and fifth video information,
[6c] wherein the management information includes filename information and timing information for each of the third, fourth, and fifth video information such that when the third, fourth, and fifth video information is stored in the recording medium the filename information is updated according to a predetermined sequence.
[7a] The information processing apparatus of claim 1, further comprising: an analog to digital converter for converting analog audio information being recorded into digital audio information;
[7b] a compressor for compressing the plurality of video information including digital video information and the digital audio information;
[7c] a decoder for decoding, during playback, the compressed digital video information and the compressed digital audio information included in the plurality of stored video information and selected for reproduction by the user; and
[7d] a digital to analog converter for converting at least the decoded digital audio information into analog audio information during playback.
[8a] The information processing apparatus of claim 1, further comprising: an on screen display generator generating on screen display information,
[8b] wherein the plurality of stored video information includes third video information such that, upon selection for playback, the third video information is

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CLAIMS
[16m] decrypting video information corresponding to the selected thumbnail; and displaying the decrypted video information.
[17] The method of claim 16, wherein any user can delete stored video information regardless of a user profile from the plurality of user profiles that was used to record the stored video information.
[18] The method of claim 16, further comprising: generating a list of video information based on preferences of a user determined by a user selections of thumbnails from the first or second group of thumbnails.
[19a] The method of claim 16, further comprising: generating a list of video information based on preferences of a user determined by a user selections of thumbnails associated with the first video information, the list including third video information;
[19b] receiving a selection of the list by the user; and in response to the selection of the list, displaying the thumbnails that correspond to the third video information and no other thumbnails associated with video information of other users.
[20a] The method of claim 16, further comprising: generating on screen display information,
[20b] wherein the first video information includes third video information such that, upon selection for playback, the third video information is outputted with the on screen display information for display of the third video information and the on screen display information.
[21pre] An information processing apparatus comprising:
[21a] a network interface receiving first video information wirelessly from a device external to the information processing apparatus, the first video information being received including second video information that is encrypted;
[21b] a display displaying a first user interface for a user to select a user profile from among a plurality of user profiles including a first user profile associated with a first character and a second user profile associated with a second character,
[21c] the plurality of user profiles being associated with video information and the first user interface including an option for a user to select the first user profile from the plurality of user profiles by selecting the first character;
[21d] an input interface receiving a selection of the first user profile at a first time and a selection of the second character at a second time,
[21e] wherein, in response to the selection of the first user profile, the display displays a second user interface for a user to select desired video information to be reproduced from among the first video information,

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CLAIMS
outputted with the on screen display information for display of the third video information and the on screen display information.
[9pre] An information processing method implemented on an information processing apparatus, the information processing method comprising:
[9a] storing a plurality of video information including first video information received wirelessly by a network interface over a network from another information processing apparatus,
[9b] wherein at least some of the plurality of video information is associated with a user profile; and
[9c] displaying:
[9d] a first area including a first character associated with a first group of video information for a first classification and a second character associated with a second group of video information for a second classification different from the first classification,
[9e] the first group of video information being configured to allow a user to edit,
[9f] wherein the first group of video information and the second group of video information are part of the plurality of stored video information, and
[9g] a second area displaying thumbnails corresponding to at least a portion of the plurality of stored video information,
[9h] wherein user selection of the first character enables the display of a first group of thumbnails corresponding to the first group of video information in the second area, and
[9i] wherein user selection of the second character enables the display of a second group of thumbnails corresponding to the second group of video information in the second area;
[9j] upon one video information stored on the recording medium included in both the first group of video information and the second group of video information being deleted from the first group of video information, the one video information continues to be included in the second group of video information,
[9k] and displaying a thumbnail corresponding to the one video information as one of the second group of thumbnails when the second character is selected;
[9l] wherein the processor generating a group of video information based on user preferences determined by the user selections of the video information, and
[9m] upon user selection of the group, displaying thumbnails that correspond to the video information and no other thumbnails associated with video information of other users.

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CLAIMS
[21f] the second user interface being associated with the first user profile and displaying the first character, the first character associated with a first group of video information and indicating an identity of the user which the first user profile is associated with,
[21g] the second user interface further displaying thumbnails corresponding to the first group of video information, and
[21h] wherein, in response to the selection of the second user profile, the display displays the second character and a second group of thumbnails corresponding to a second group of video information associated with the second user profile when the second character is selected,
[21i] the first group of video information and the second group of video information including one video information that is the same; and
[21j] a processor for removing one video information from the first group of video information after the input interface receives a selection to remove the one video information from the first group of video information associated with the first user profile,
[21k] wherein, upon the one video information being removed from the first group of video information, the one video information continues to be included in the second group of video information for the second user profile and the second group of thumbnails continues to display a thumbnail corresponding to the one video information when the second character is selected,
[21l] wherein the processor decrypts second video information corresponding to a selected thumbnail when the input interface receives a selection of desired video information based on a selection of a thumbnail from the first group of thumbnails, and
[21m] wherein the display displays the decrypted video information.
[22] The information processing apparatus of claim 21, further comprising: an antenna for wirelessly receiving the first video information.
[23] The information processing apparatus of claim 21, wherein any user can delete stored video information regardless of a user profile from the plurality of user profiles that was used to record the stored video information.
[24] The information processing apparatus of claim 21, wherein the processor generates a list of video information based on preferences of a user determined by a user selections of thumbnails from the first or second group of thumbnails.
[25a] The information processing apparatus of claim 21, wherein the processor generates a list of video information based on preferences of a user determined by a user selections of thumbnails associated with the first video information, the list including third and fourth video information, and,

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CLAIMS
[10] The information processing method of claim 9, further comprising: wirelessly receiving the first video information from the other information processing apparatus via an antenna of the information processing apparatus.
[11a] The information processing method of claim 9, wherein the plurality of stored video information includes third video information recorded by the information processing apparatus, fourth video information, and fifth video information,
[11b] wherein the information processing apparatus displays a user interface having thumbnails corresponding to each of the third, fourth, and fifth video information.
[12] The information processing method of claim 11, wherein the information processing apparatus displays the third, fourth, and fifth video information according to predetermined playback sequence.
[13pre] The information processing method of claim 9,
[13a] wherein the plurality of stored video information includes third video information, fourth video information, and fifth video information,
[13b] wherein the plurality of stored video information includes management information corresponding to the third, fourth, and fifth video information,
[13c] wherein the management information includes filename information and timing information for each of the third, fourth, and fifth video information such that when the third, fourth, and fifth video information is stored in the recording medium the filename information is updated according to a predetermined sequence.
[14a] The information processing method of claim 9, further comprising: converting, by an analog to digital converter of the information processing apparatus, analog audio information being recorded into digital audio information;
[14b] compressing, by a compressor of the information processing apparatus, the plurality of video information including digital video information and the digital audio information;
[14c] decoding, during playback and by a decoder of the information processing apparatus, the compressed digital video information and the compressed digital audio information included in the plurality of stored video information and selected for reproduction by the user; and
[14d] converting, by a digital to analog converter of the information processing apparatus, at least the decoded digital audio information into analog audio information during playback.

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CLAIMS
[25b] in response to the input interface receiving a selection of the list by the user, the display displays only those thumbnails that correspond to the third and fourth video information and no other thumbnails associated with video information of other users.
[26a] The information processing apparatus of claim 21, further comprising: an analog to digital converter for converting analog audio information being recorded into digital audio information;
[26b] a compressor for compressing the first video information;
[26c] a decoder for decoding, during playback, audio and video information included in the first video information and selected for reproduction by the user; and
[26d] a digital to analog converter for converting at least the digital audio information into audio information during playback.
[27a] The information processing apparatus of claim 21, further comprising: an on screen display generator generating on screen display information,
[27b] wherein the first video information includes third video information such that, upon selection for playback, the third video information is outputted with the on screen display information for display of the third video information and the on screen display information.

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~~CLAIMS~~
~~[15a]~~ The information processing ~~method~~ of claim ~~9,~~ further comprising: ~~generating, by the information processing apparatus,~~ on screen display information,
~~[15b]~~ wherein the ~~plurality of stored~~ video information includes third video information such that, upon selection for playback, the third video information is outputted with the on screen display information for display of the third video information and the on screen display information.

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I. INTRODUCTION

Samsung Electronics Co. Ltd. and Samsung Electronics America, Inc. ("Petitioners") request *inter partes* review of claims 1-15 ("the Challenged Claims") of U.S. Patent No. 11,017,815 ("the '815 patent," EX**Error! Reference source not found.**), owned by Maxell, Ltd. ("PO"), pursuant to 35 U.S.C. §§311-19 and 37 C.F.R. §42.100.

II. STATEMENT OF PRECISE RELIEF REQUESTED

Petitioners request cancelation of claims 1-15 of the '815 patent in view of the following grounds:

Ground	Claims	Stat. Basis	Prior Art
1	1-6, 9-13	35 U.S.C. § 103[1]	Horn, Baumgartner
2	7, 8, 14, 15	35 U.S.C. § 103	Horn, Baumgartner, WinTV
3	1-15	35 U.S.C. § 103	Horn, Baumgartner, WinTV, Chao
4	1-6, 9-13	35 U.S.C. § 103	Kaplan, Bryant
5	7, 8, 14, 15	35 U.S.C. § 103	Kaplan, Bryant, WinTV

[1] This Petition applies pre-AIA 35 U.S.C. §102 due to the '815 patent's earliest claimed U.S. priority date of 8/11/2005. To the extent that post-AIA §102 applies, all of the references relied on herein is prior art under post-AIA §102(a).

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I. INTRODUCTION

Samsung Electronics Co. Ltd. and Samsung Electronics America, Inc. ("Petitioners") request *inter partes* review of claims 16-27 ("Challenged Claims") of U.S. Pat. No. 11,017,815 ("'815 patent," EX**Error! Reference source not found.**), owned by Maxell, Ltd. ("PO").

II. STATEMENT OF PRECISE RELIEF REQUESTED

Petitioners request cancelation of the Challenged Claims in view of the following grounds:

Ground	Claims	Stat. Basis	Prior Art
6	16-19, 21-25	35 U.S.C. § 103	Horn, Baumgartner, Candelore
7	20, 26, 27	35 U.S.C. § 103	Horn, Baumgartner, Candelore, WinTV
8	16-27	35 U.S.C. § 103	Horn, Baumgartner, Candelore, WinTV, Chao
9	16-19, 21-25	35 U.S.C. § 103	Kaplan, Bryant, Wong, Candelore
10	20, 26, 27	35 U.S.C. § 103	Kaplan, Bryant, Wong, Candelore, WinTV

III. THE '815 PATENT

A. Overview of the '815 Patent

The '815 patent discloses a recording and reproducing device which records data onto a recording medium, reproduces data from the recording medium, and allows users to select and manage "arbitrary play lists" of the data. EX1001,

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III. THE ’815 PATENT

A. Overview of the ’815 Patent

The ’815 patent ~~claims priority to a number of U.S. and Japanese applications and lists 12/2/2004 as its earliest possible priority date. EX1001, (30).~~

~~The ’815 patent~~ discloses a recording and reproducing device which records ~~data, such as multimedia digital~~ data ~~files (*e.g.*, audio and videos files),~~ onto a recording medium, reproduces data from ~~these files on~~ the recording medium, and allows users to select and manage “arbitrary play lists” of the data. EX1001, Abstract, 1:35-37. The ’815 patent discloses a unit of management for managing “all registered play list information” and an upper management hierarchical level. EX1001, Abstract.

According to the ’815 patent, in the related art, a user of a recording and reproduction device can “generat[e] and manipulat[e] a list indicating the reproduction sequence (hereinafter referred to as play list)” of digital data, such as videos. EX1001, 1:51-59. In reference to the prior art (FIG. 2), “for a catalog of the play lists, it is impossible on the user’s interface to alter the display sequence.” EX1001, 2:32-34. Accordingly, in the purported invention, “the user can select and manage arbitrary play lists.” EX1001, 2:48-51. In the case where a plurality of users shares a single recording medium, “each user can manage favorite reproduction contents, resulting in improved usage.” EX1001, 2:66-3:2.

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Abstract, 1:35-37. The '815 patent discloses a unit of management for managing "all registered play list information" and an upper management hierarchical level. EX1001, Abstract.

According to the '815 patent, in the related art, a user of a recording and reproduction device can "generat[e] and manipulat[e] a list indicating the reproduction sequence (hereinafter referred to as play list)" of digital data, such as videos. EX1001, 1:51-59. In reference to the prior art (FIG. 2), "for a catalog of the play lists, it is impossible on the user's interface to alter the display sequence." EX1001, 2:32-34. Accordingly, in the purported invention, "the user can select and manage arbitrary play lists." EX1001, 2:48-51. In the case where a plurality of users shares a single recording medium, "each user can manage favorite reproduction contents, resulting in improved usage." EX1001, 2:66-3:2.

According to FIG. 1, the purported invention adds a new "management hierarchical level" that includes a "plurality of unified information pieces." EX1001, 3:47-4:39. A user can "successively reproduce all registered playlists" and furthermore, when a plurality of users uses a single recording medium, "it becomes possible to manage reproduced contents that meet respective users' tastes by using one user-defined unified information [for] every user." EX1001, 4:14-39.

FIG. 5 shows an example of a menu display conducted by using the play list unified information. EX1001, 6:5-7. Elements 502 and 503 are "thumbnails"

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According to FIG. 1, the purported invention adds a new "management hierarchical level" that includes a "plurality of unified information pieces." EX1001, 3:47-4:39. A user can "successively reproduce all registered playlists" and furthermore, when a plurality of users uses a single recording medium, "it becomes possible to manage reproduced contents that meet respective users' tastes by using one user-defined unified information [for] every user." EX1001, 4:14-39.

FIG. 5 shows an example of a menu display conducted by using the play list unified information. EX1001, 6:5-7. Elements 502 and 503 are "thumbnails" indicating unique play list information. EX1001, 6:7-10. The user moves a cursor to select a thumbnail by using "a remote controller or the like" and as a result, "the user can reproduce arbitrary play lists or all play lists." EX1001, 6:10-14.

FIG.5

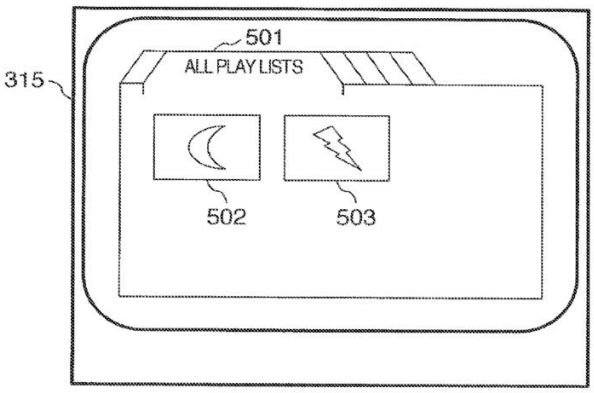


FIG. 7 shows an example of a menu display conducted by using the user-defined unified information. EX1001, 6:28-30. Element 701 designates a menu display tag for a user ("Father"). EX1001, 6:21-23. Elements 503 and 502

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indicating unique play list information. EX1001, 6:7-10. The user moves a cursor to select a thumbnail by using "a remote controller or the like" and as a result, "the user can reproduce arbitrary play lists or all play lists." EX1001, 6:10-14.

FIG.5

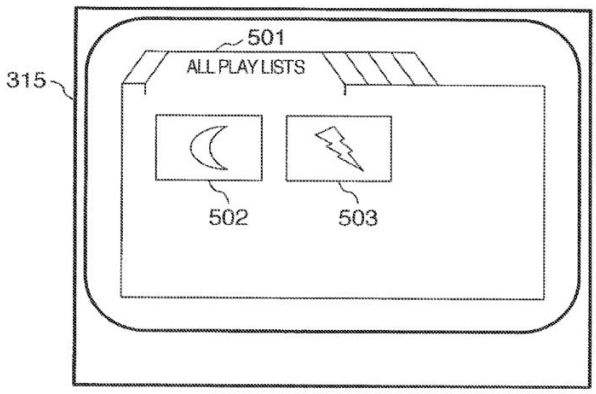
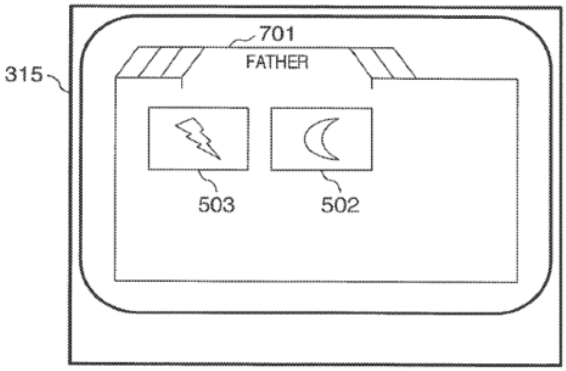


FIG. 7 shows an example of a menu display conducted by using the user-defined unified information. EX1001, 6:28-30. Element 701 designates a menu display tag for a user ("Father"). EX1001, 6:21-23. Elements 503 and 502 designate thumbnails indicating unique play list information. EX1001, 6:32-35. In this case, the user selects two play lists, but the reproduction sequence of them can be altered. EX1001, 6:35-37. The "Father" can use the menu display tag 701 as a folder dedicated to himself and freely register and delete data to be reproduced. EX1001, 6:37-40.

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designate thumbnails indicating unique play list information. EX1001, 6:32-35. In this case, the user selects two play lists, but the reproduction sequence of them can be altered. EX1001, 6:35-37. The "Father" can use the menu display tag 701 as a folder dedicated to himself and freely register and delete data to be reproduced. EX1001, 6:37-40.

FIG.7



B. '815 Patent Prosecution History

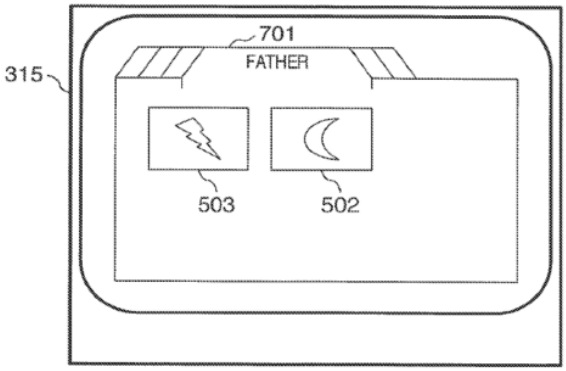
The '815 patent was filed on 5/26/2020, as one of a long string of applications that claim priority to Japanese Patent Application No. JP2004-349264, filed on 12/2/2004. EX1001, (30). The application was filed with 27 original claims. EX1002, 77-~~89~~ ~~(5/26/2020 Claims).~~ The claims were allowed on January 21, 2021, without any intervening office actions. EX1002, ~~11 (1/27/2021 Notice of Allowability).~~

The examiner provided a brief statement of reasons for allowance:

> Honkaniemi (US 2007/022382) disclose user interface includes items, each item having a media file and arranged to be visible as

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FIG.7



B. ’815 Patent Prosecution History

The ’815 patent was filed on 5/26/2020, as one of a long string of applications that claim priority to Japanese Patent Application No. JP2004-349264, filed on 12/2/2004. EX1001, (30). The application was filed with 27 original claims. EX1002, 77-89. The claims were allowed on January 21, 2021, without any intervening office actions. EX1002, 11.

The examiner provided a brief statement of reasons for allowance:

> Honkaniemi (US 2007/022382) disclose user interface includes items, each item having a media file and arranged to be visible as a thumbnail to the user interface. The item are arrange to establish at least one playlist so that a series of thumbnails are arranged to establish the playlist.
>
> The prior arts do not disclose or suggest continue to include the video information upon the video information is included in both the first group and the second group after the video information is deleted.

EX1002, 12. This purported novel feature, however, was disclosed explicitly or at least implicitly by Horn, Kaplan, Bryant and others before the ’815 patent’s priority date.

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> a thumbnail to the user interface. The item are arrange to establish at least one playlist so that a series of thumbnails are arranged to establish the playlist.
>
> The prior arts do not disclose or suggest continue to include the video information upon the video information is included in both the first group and the second group after the video information is deleted.

EX1002, ~~12~~ ~~(1/27/2021 Notice of Allowability).~~ This purported novel feature, however, was disclosed explicitly or at least implicitly by Horn, Kaplan, Bryant and others ~~well~~ before the '815 patent's priority date.

C. Person of Ordinary Skill in the Art

A person of ordinary skill in the art ("POSITA") at the time of the alleged invention of the '815 patent would have had a bachelor's degree in Computer Science, Electrical Engineering, Computer Engineering, or a related field, and two years of practical experience in digital data management. ~~EX1009, 9; EX1002, ¶67.~~

~~IV.~~ PRIOR ART REFERENCES

The challenges in this Petition are based on the knowledge of a POSITA and the prior art described below.

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C. Person of Ordinary Skill in the Art

A person of ordinary skill in the art ("POSITA") at the time of the alleged invention of the '815 patent would have had a bachelor's degree in Computer Science, Electrical Engineering, Computer Engineering, or a related field, and two years of practical experience in digital data management. *Fandango Media, LLC v. Maxell, Ltd.*, IPR2018-01432, Paper 32 at 9 (PTAB Feb. 10, 2020) (EX1009); EX1002, ¶67.

IV. CLAIM CONSTRUCTION UNDER 37 C.F.R. § 42.104(B)(3)

The Challenged Claims are interpreted using the same claim construction standard that is used to construe the claim in a civil action in federal district court. 37 C.F.R. § 42.100(b).

A. "video information" (claims 16, 21)

This term should be construed as referring to audio-visual data (e.g., a video such as a recording of a TV program) or information referring to a storage location of such audio-visual data (e.g., a pointer to the audio-visual data), as well as information constituting or specifying a group of audio-visual data (e.g., a playlist). Information specifying a group of audio-visual data may further include information specifying time periods of such audio-visual data that should be displayed to a user and/or a sequence in which audio-visual data should be displayed to a user. *See, e.g.*, FIGS. 1, 5, 6, and 7, and the corresponding text at EX1001 at 3:48-4:39, 6:5-65, and claim 1. That "video information" includes

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A. U.S. Patent No. 7,275,063 ("Horn") (EX1005)

Horn was filed on 7/16/2003 and issued on 9/25/2007. EX1005, front cover. Horn is prior art to the '815 patent under pre-AIA 35 U.S.C. § 102(e).

Horn discloses a computer data processing system including a central processing unit configured with a novel integrated computer control software system for the management of data objects including dynamic and automatic organization, linking, finding, cross-referencing, viewing and retrieval of multiple objects regardless of nature or source. EX1005, Abstract. The overall inventive computer control system is termed "MFS" for metadata filing system. EX1005, 5:31-46.

B. WinTV (EX1010)

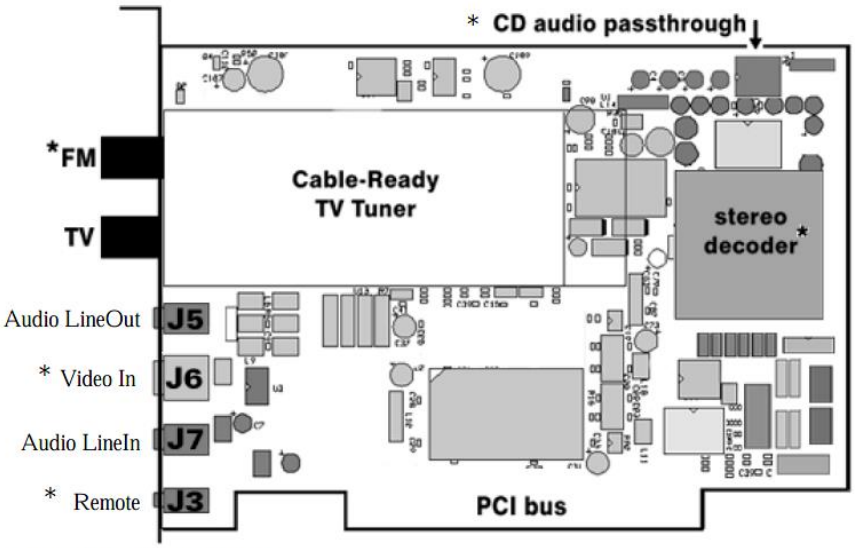
The WinTV card was a product offered for sale/sold in the U.S. by Hauppauge Computer Works, Inc. at least by 11/10/1999 (EX1011), and its Installation and Reference Manual (EX1010, hereinafter "WinTV") is dated 6/30/1999 (EX1010, 6 (native p. iii)). WinTV was published no later than September 14, 2003 on the hauppauge.com website. EX1008, 1 ¶5(explaining date encoding in URL), 2 (referencing Folder 002 with capture date in URL of 9/14/2003) and 296-380 (EX1010 is a copy of pages 296-380 of EX1008). A POSITA would have been familiar with Hauppauge WinTV products as they were among the early TV tuner products at that time and were one of only two TV tuner

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products supported by the Windows Media PC. A POSITA would therefore have known to look on the Hauppauge website for relevant information. These products were also mentioned in patents that would have come to the attention of a POSITA looking for information on such products. *E.g.*, EX1037, 2:6-8; EX1038, 3:51-55. As a result, WinTV is prior art to the '815 patent under pre-AIA 35 U.S.C. § 102(b).

The WinTV card was a "Plug-and-Play" device installed in PCs running Windows95, 98 and NT 4.0, EX1010, p. 1-1, that along with its software applications (*e.g.*, WinTV-Capture) allowed for the receipt, playback and "motion video capture" of video and, in combination with a sound card, audio information such as those contained in NTSC formatted television signals. EX1010, pp. 3-4, 4-1, 4-5.

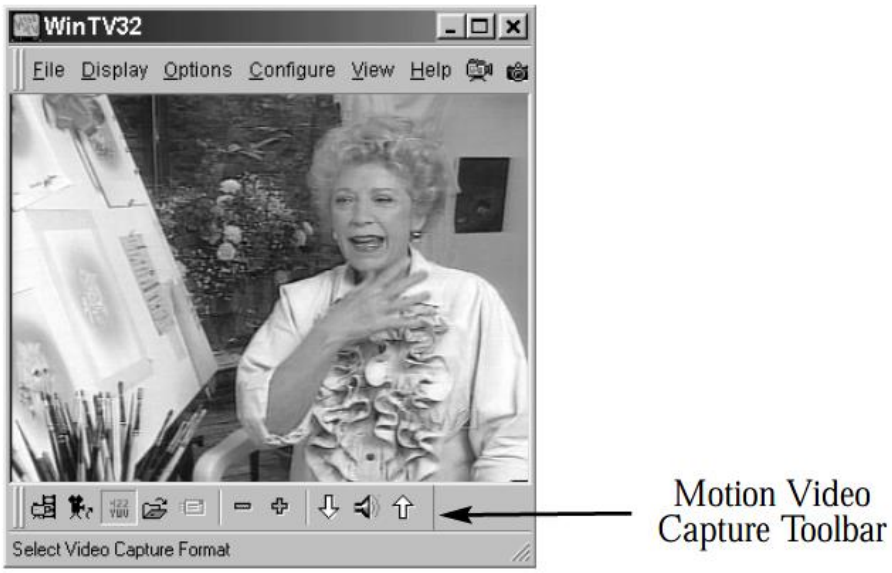


*Note: not available on all models.
Note: this outline may not reflect the current revision of your WinTV board. For the most up to date information, see the WinTV QuickInstall Guide provided with your WinTV board.

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EX1010, p. 1-1.

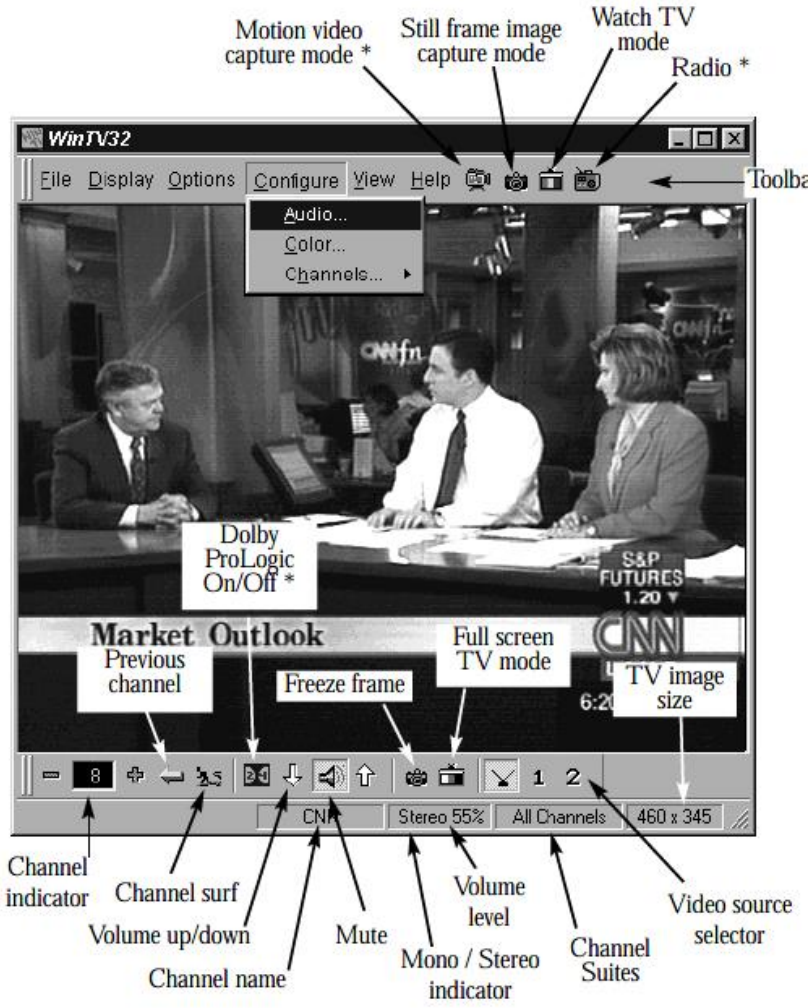


EX1010, p. 3-4.

The video information can come from a connected device such as a VCR, video camera or camcorder, EX1010, p. 1-13, or a live feed such as over the air or cable TV programming. EX1010, pp. 1-1, 6-1.

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EX1010, p. 3-1.

WinTV also discloses signal conversion (*e.g.*, A-D) and video and audio compression techniques designed to increase efficiency and storage. EX1010, pp. 3-9, 4-1, 4-5, 4-6, 7-1.

C. U.S. Patent No. 7,970,240 ("Chao") (EX1006)

Chao was filed on 12/17/2002 and issued on 6/28/2011. EX1006, (54), (22), (45). Chao is prior art under pre-AIA 35 U.S.C. § 102(e).

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Chao discloses a computer based, digital image management system that visually presents an entire archive in a manner that facilitates easy, non-textual, searching for specific images. EX1006, Abstract. For example, images represented by thumbnails (as shown in the green highlighted area below) are clustered into collections/albums which themselves are represented by thumbnails (as shown in the gold highlighted area below) based on events, which are then clustered by time such as the year the photos were taken (1997-2002 in the gold highlighted area below). EX1006, 12:56-13:9, FIG. 8:

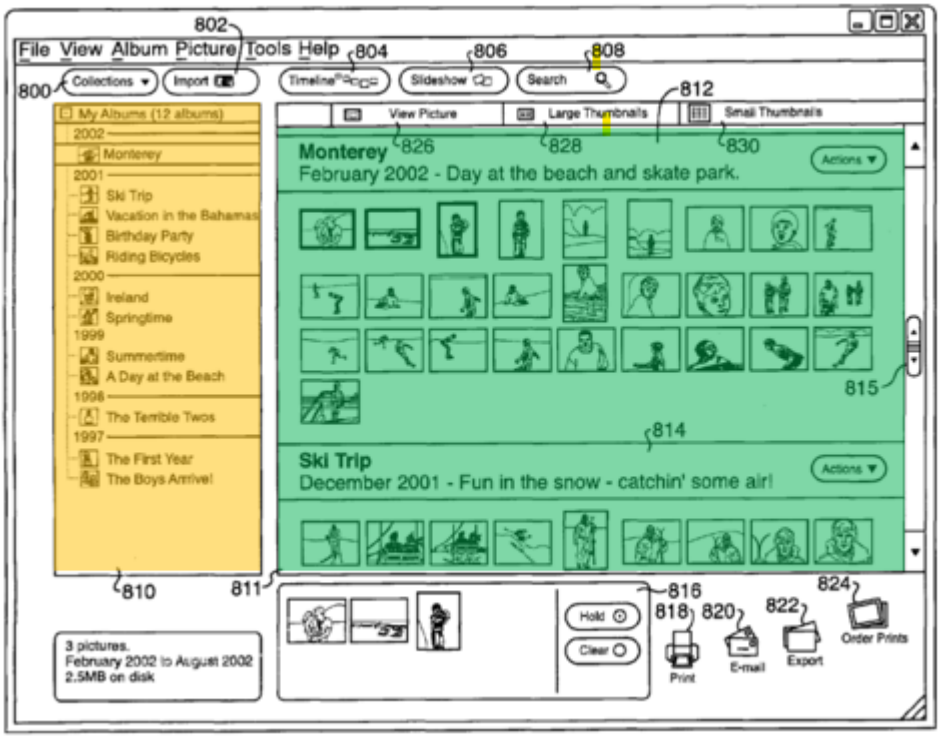


FIG. 8

D. U.S. Patent Application Publication No. 20010056434A1 ("Kaplan") (EX1014)

Kaplan was filed on 3/29 2001 and published on 12/27/2001. EX1014, front cover. Kaplan is prior art under pre-AIA 35 U.S.C. §§ 102(a), 102(b).

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As explained in EX1009 at 16-18, Kaplan is directed to "a multimedia management system for storing, manipulating, and displaying multimedia content." EX1014, ¶4. To facilitate the storage and subsequent retrieval of multimedia data files, the system includes a user interface with a plurality of predefined functions to uniquely index multimedia files, create an index database file, and create visual representations of the files for later retrieval. *Id.*, ¶ 44. The indexed file stores a pointer in a management system database to a physical file location, while providing a thumbnail image that can be used to represent the file in the user interface. *Id.* Multiple pointers in the database may be related to a single physical file stored on computer media, so there is no need to store multiple physical files of the same multimedia data. *Id.*

Figure 4 of Kaplan is reproduced below.

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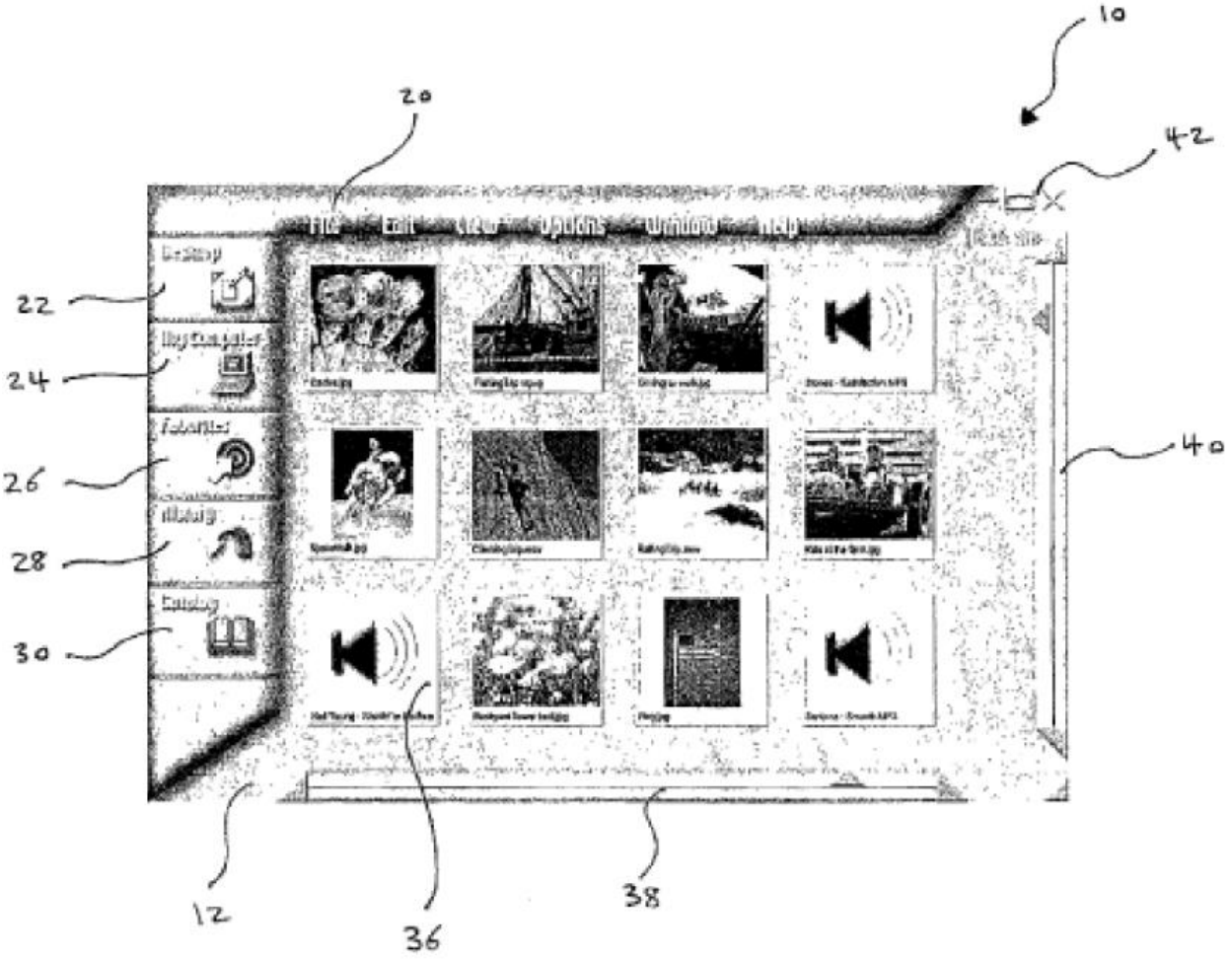


FIG-4

Figure 4 is a graphical representation of control options available to a user via interface 12 that can be displayed on a "monitor or TV." *Id.*, ¶¶14, 39. Functions associated with user interface 12 may be carried out via control buttons for various primary options in user interface 12, including Desktop 22, My Computer 24, Favorites 26, History 28, and Catalog 30. *Id.*, ¶¶ 39–40. For example, users may store their favorite multimedia content by way of the Favorites 26 primary option. *Id.*, ¶42. All information and multimedia content is displayed through thumbnails

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36, which are small image representations of larger images. *Id.*, ¶40. A user may click on thumbnails to view and/or listen to multimedia content. *Id.*, ¶50. Playback may occur within the thumbnail itself, in a partial screen mode, or in a full screen mode. *Id.*, ¶51.

E. U.S. Patent Application Publication No. 20040201691 ("Bryant") (EX1015)

Bryant was filed on 4/11/2003 and published on 10/14/2004. EX1015, front cover. Bryant is prior art under pre-AIA 35 U.S.C. §§102(a), 102(e).

As explained in EX1009 at 18-21, Bryant is directed to "grouping and classifying digital still images and digital motion images captured using a handheld digital camera." EX1015, ¶29. Grouping and classification data are stored in a database on a host computer. Id. The classification provides "affective information," which is information that relates to the feelings or emotions of a person toward images. *Id.*, ¶30. An example of affective information is the level of importance a user associates with an image, such as whether the image is a "favorite." *Id.*

Figure 8 of Bryant is reproduced below.

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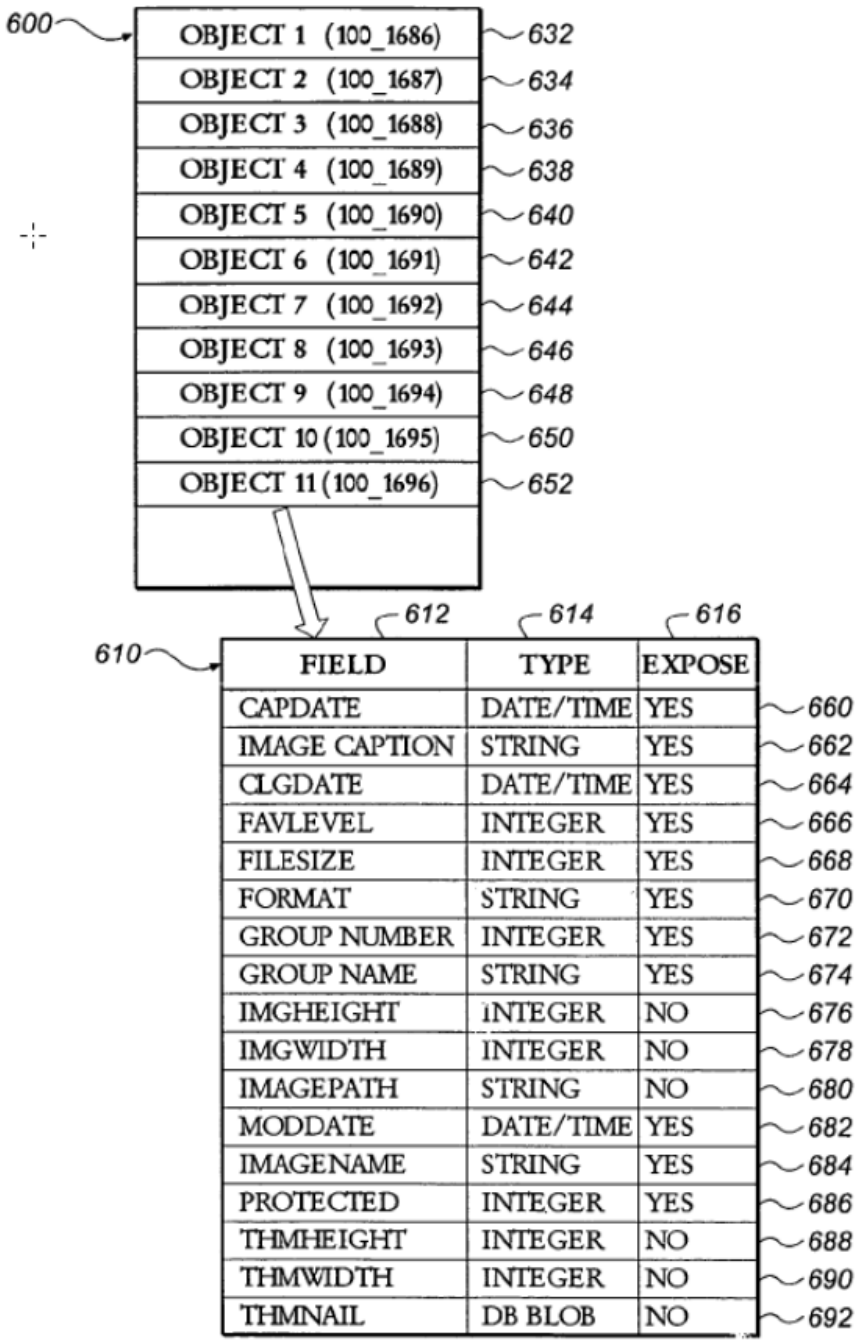


FIG. 8

Figure 8 depicts database information including general assets table 600 that includes image data objects 632, 634, 636, 638, 640, 642, 644, 646, 648, 650, and 652 corresponding to various transferred image files (*e.g.*, "100_1686"). *Id.* ¶ 82.

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For example, object 11 (100_1696) 652 includes table of data fields 610, and each row 660, 662, 664, 666, 668, 670, 672, 674, 676, 678, 680, 682, 684, 686, 688, 690, and 692 of table 610 includes a particular type of metadata describing the image. Among the rows of table 610 are "favlevel" metadata in row 666, which indicates whether the user has selected the image as a favorite; "group number" metadata in row 672, which indicates the number of the group of images of which the image is a part; "group name" metadata in row 674, which indicates an optional name for the group; and "thmnail" metadata in row 692, which holds a copy of the compressed thumbnail image as stored by the digital camera. *Id.*, ¶¶84, 85, 87.

Figure 9A of Bryant is reproduced below.

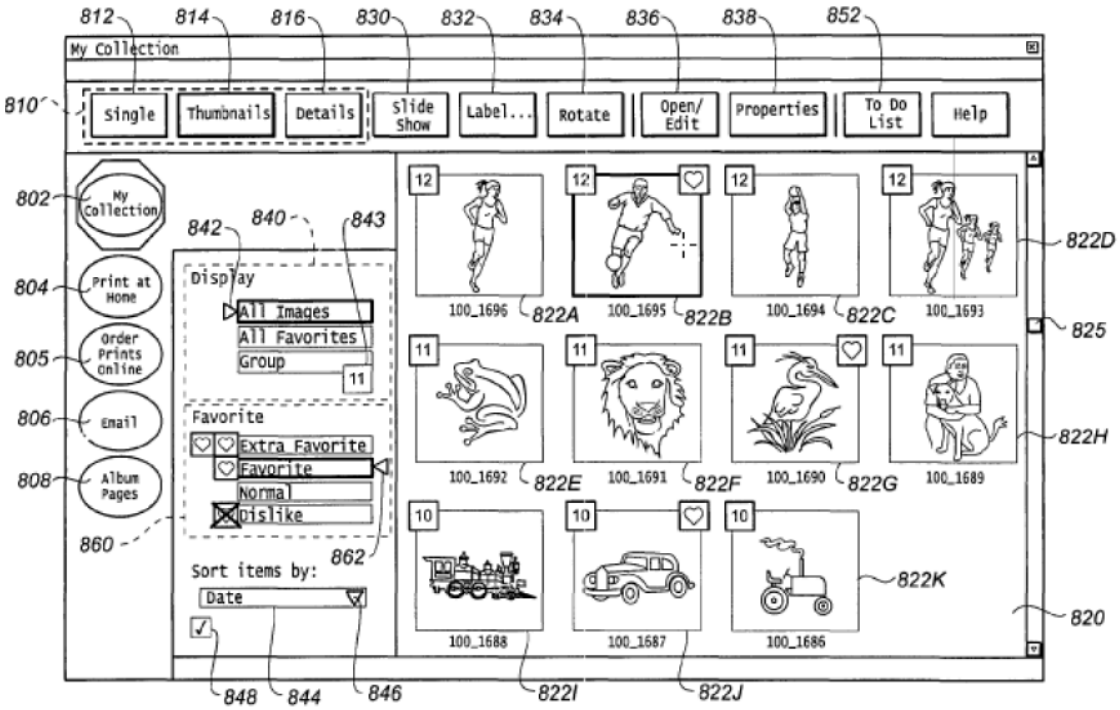


FIG. 9A

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Figure 9A depicts an example of a computer user interface screen for displaying all of the transferred images. *Id.*, ¶ 89. The user interface screen includes area 820 for displaying the thumbnail images provided using "thmnail" metadata 692 of each object from general assets table 600. *Id.* By moving selector 842 within display selection area 840, the user can select among the display of "All Images," "All Favorites," or "Group" based on group number/name box 843. Id. The user also can change the level of a selected image to be an "Extra Favorite," a "Favorite," a "Normal," or a "Dislike" image using selector 862 in favorites level selection area 860. *Id.*, ¶96.

F. U.S. Patent Application Publication No. 20050160458A1 ("Baumgartner") (EX1016)

Baumgartner was filed on 1/21/2004 and published on 7/21/2005. EX1016, front cover. Baumgartner is prior art under pre-AIA 35 U.S.C. § 102(e).

Baumgartner is directed toward an "interactive television system with custom video-on-demand menus based on personal profiles." EX1016, title. The video may be television programming, video on demand content, and other information. EX1016, ¶82. Baumgartner's system 10 shown in Fig. 1 below includes "user equipment" such as a personal computer which receives videos from a server 36 via a communications network 34 such as the Internet. EX1016, ¶55 (user computer equipment 22 accesses server 36 using communications path 48), ¶57 (video on demand content and video recorded using a network based video

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recorder are stored on server 36 and provided to user equipment including personal computers), ¶82 (user equipment 22 in Fig. 1 may be a personal computer 98 as shown in Fig. 5 that receives via communications path 48 using input/output 104), and Figs. 1, 5:

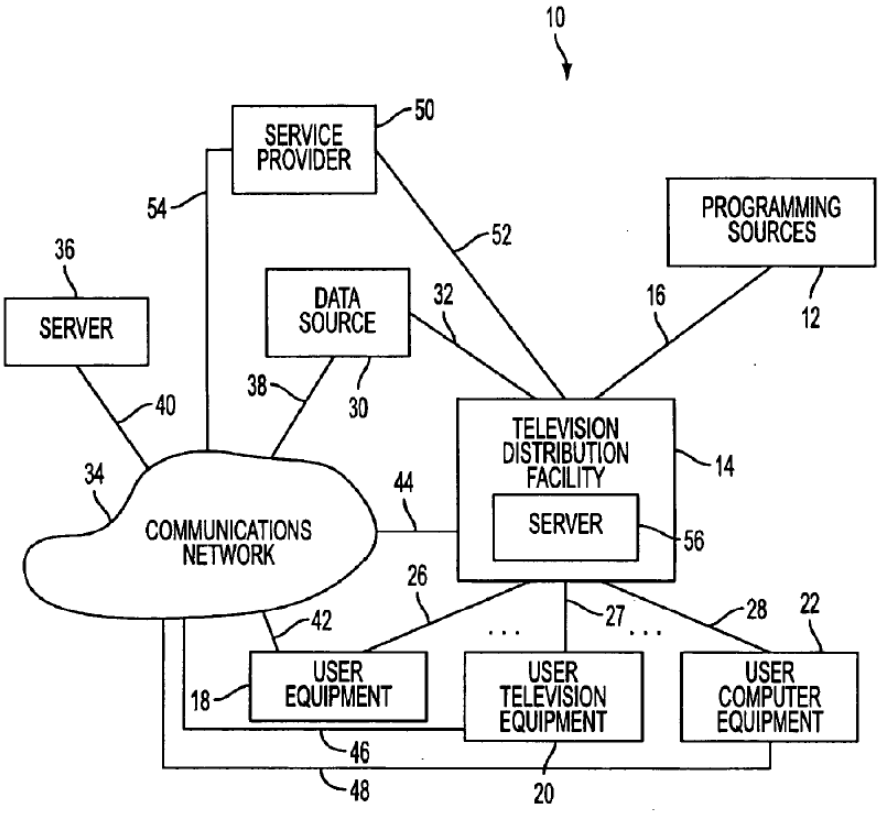


FIG. 1

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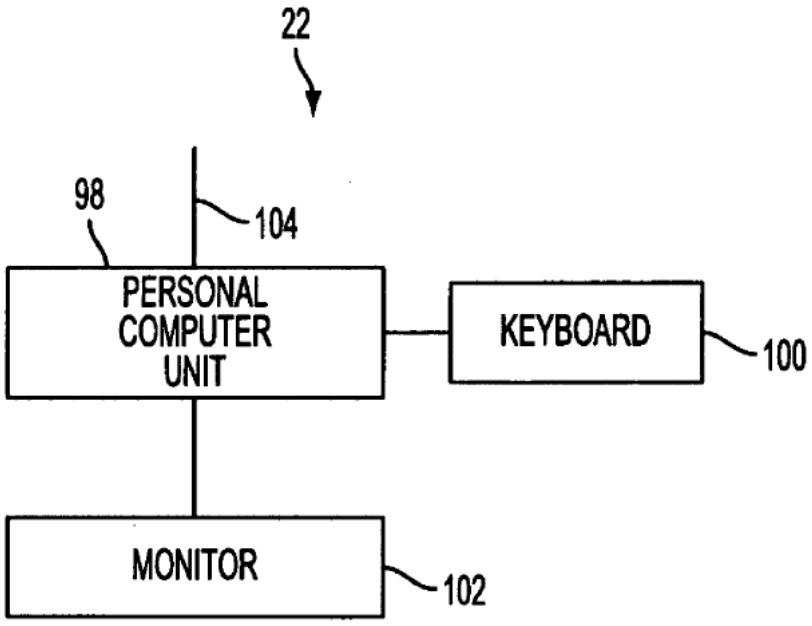


FIG. 5

~~V.~~ CLAIM CONSTRUCTION UNDER 37 C.F.R. § 42.104(B)(3)

The Challenged Claims are interpreted using the same claim construction standard that is used to construe the claim in a civil action in federal district court. 37 C.F.R. § 42.100(b). ~~Claim terms not addressed below should be construed according to their plain and ordinary meaning to a POSITA.~~

A. ~~"~~video information" (claims ~~1, 9, 16 and~~ 21)

This term should be construed as referring to audio-visual data (*e.g.*, a video such as a recording of a TV program) or information referring to a storage location of such audio-visual data (*e.g.*, a pointer to the audio-visual data), as well as

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information constituting or specifying a group of audio-visual data (*e.g.*, a playlist). Information specifying a group of audio-visual data may further include information specifying time periods ~~of,~~ or a sequence in ~~which, such~~ audio-visual data ~~that~~ should be displayed to a user. *See, e.g.*, FIGS. 1, 5, 6, and 7, and the corresponding text at ~~EX1001,~~ 3:48-4:39, 6:5-65, and claim 1. That "video information" includes groups such as playlists is clear from passages in the '815 patent such as 1:63-2:27 and 3:55-4:13. That "video information" includes an individual item of audio-visual data such as an individual video is evident from, *e.g.*, claim 7, which recites "an analog to digital converter for converting analog audio information being recorded into digital audio information" and "compressing the plurality of *video information* including digital video information and the digital audio information" (emphasis added). EX1001, 9:60-67. The recitation in claim 7 that "video information" includes audio information that has been converted to digital form indicates that "video information" is broader than groups/playlists and includes individual items of audio-visual information such as a video of a recorded TV program. EX1002, ¶73.

B. "one video information" (claims ~~1,~~ ~~9,~~ 16, 21)

The Board determined that the "one video information" included in the first and second group is the same "one video information," not merely copies thereof as argued by PO in ~~IPR2018-01432. EX1009,~~ 13-15. This ~~construction~~ should be

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groups such as playlists is clear from passages in the '815 patent such as 1:63-2:27 and 3:55-4:13. That "video information" includes an individual item of audio-visual data such as an individual video is evident from, e.g., claim 7, which recites "an analog to digital converter for converting analog audio information being recorded into digital audio information" and "compressing the plurality of *video information* including digital video information and the digital audio information" (emphasis added). EX1001, 9:60-67. The recitation in claim 7 that "video information" includes audio information that has been converted to digital form indicates that "video information" is broader than groups/playlists and includes individual items of audio-visual information such as a video of a recorded TV program. EX1002, ¶73.

B. "one video information" (claims 16, 21)

The Board also determined that the "one video information" included in the first and second group is the same "one video information," not merely copies thereof as argued by PO in a prior IPR. EX1009 at 13-15. This construction, too, should be maintained. The limitation uses the article "one" to refer to "one video information," and subsequent references recite "*the* one video information." The plain usage of these words implies that the same "one video information" is initially included in each group. *Id.* at 11. If different copies of video information existed in the first and second groups, then the "one video information" deleted

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maintained. The limitation uses the article "one" to refer to "one video information," and subsequent references recite "*the* one video information." The plain usage of these words implies that the same "one video information" is initially included in each group. ~~*Id.*,~~ 11. If different copies of video information existed in the first and second groups, then the "one video information" deleted from the first group could not "continue to be included in the second group," because there would be different video information in the second group. ~~*Id.*,~~ 11-12. The specification of the '815 patent supports this construction, which describes two users' groups (*i.e.*, user-defined unified information for "mother" and "father") ultimately referring to the same "one video information" (*e.g.*, underlying AV data for program #1). ~~*Id.*,~~ 12-13; EX1001, FIG. 1, 2:63-3:4, 3:48-60, 6:19-40; EX1002, ¶74.

C. "one video information … being deleted from the first group of video information" ~~(~~claims ~~1, 9)~~

The Board ~~also~~ construed the usage of "deleted" in the phrase "one video information ~~. . .~~ is deleted from the first group of video information" in the ~~01432FWD. EX1009,~~ 13-15. The Board determined that "delet[ing]" video information from the first group includes reversing a registration (*i.e.*, unregistering) of video information from the first group. ~~*Id.*,~~ 14-15. The Board further determined that "delet[ing]" video information from a group does not necessarily require deleting underlying AV data. ~~*Id.*,~~ 15.

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from the first group could not "continue to be included in the second group," because there would be different video information in the second group. *Id.* at 11-12. The specification of the '815 patent supports this construction, which describes two users' groups (*i.e.*, user-defined unified information for "mother" and "father") ultimately referring to the same "one video information" (*e.g.*, underlying AV data for program #1). *Id.* at 12-13; EX1001, FIG. 1, 2:63-3:4, 3:48-60, 6:19-40; EX1002, ¶74.

C. "one video information being removed from the first group of video information" (claims 16, 21)

Claims 16 and 21 recite "one video information being removed from the first group of video information." A POSITA would have understood that this term is substantially the same as "one video information … being deleted from the first group of video information" recited in claims 1 and 9 as they are performing the same function. EX1002, ¶79. The Board already construed the usage of "deleted" in the phrase "one video information ... is deleted from the first group of video information" in the Final Written Decision invalidating claims of U.S. No. 9,384,783, a patent related to the '815 patent that shares its specification. EX1009 at 13-15. The Board determined that "delet[ing]" video information from the first group includes reversing a registration (*i.e.*, unregistering) of video information from the first group. *Id.* at 14-15. The Board further determined that "delet[ing]"

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There is no reason to deviate from the Board's reasoning here for the terms in Challenged claims 1 and 9, even though it reached its conclusions under the broadest reasonable interpretation standard. The deletion "from the first group of video information" implies that the deletion may relate to group membership, rather than to the underlying video data themselves. *Id.*, 14. Such construction is also consistent with the only instances of the word "delete" in the specification of the '815 patent, where users "freely *register and delete* data to be reproduced." *Id.*; EX1001, 6:25-28, 6:37-53; EX1002, ¶¶75-76. And such construction also is consistent with the language of the claim limitation itself, because deletion from a group is contrasted with inclusion in a group: "one video information … being *deleted* from the first group of video information, the one video information continues to be *included* in the second group of video information." EX1001, 9:11-16.

D. "the first group of video information being configured to allow a user to edit" (claims 1 and 9)

This limitation should be construed for the purposes of this proceeding as meaning at least that a user can modify which video information is a part of the first group of video information. EX1002, ¶77. Petitioners reserve the right to assert in the District Court Litigation (No. 5:23-CV-00092-RWS) that this term is ambiguous and/or that the specification of the '815 patent does not satisfy the

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video information from a group does not necessarily require deleting underlying AV data. *Id.* at 15.

There is no reason to deviate from the Board's reasoning here for the similar term in Challenged claims 16 and 21, even though it reached its conclusions under the broadest reasonable interpretation standard. The removal/deletion "from the first group of video information" implies that the removal/deletion may relate to group membership, rather than to the underlying video data themselves. *Id.* at 14. Such construction is also consistent with the only instances of the word "delete"[1] in the specification of the '815 patent, where users "freely *register and delete* data to be reproduced." *Id.*; EX1001, 6:25-28, 6:37-53; EX1002, ¶80. And such construction also is consistent with the language of the claim limitation itself, because removal from a group is contrasted with inclusion in a group: "one video information being *removed* from the first group of video information, the one video information continues to be *included* in the second group of video information for the second user profile." EX1001, 12:29-34.

D. "user profile" / "user profiles" (16, 17, 21, 23)

These limitations should be construed as requiring data representing distinctive features and characteristics of a user. EX1047, 3 (defining "profile" as

[1] The terms removed and removing only appear in the claims of the '815 patent.

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enablement and/or written description requirements of 35 U.S.C. § 112 for the full scope of this term.

E. "user profile" / "user profiles" (1, 9)

These limitations should be construed as requiring data representing distinctive features and characteristics of a user. EX1047, 3 (defining "profile" as "5. A formal summary or analysis of data, often in the form of a graph or table, representing distinctive features or characteristics"); *see also* EX1048, 3 (defining "user profile" as "A computer-based record maintained about an authorized user of a multi-user computer system. A user profile is needed for security and other reasons; it can contain information such as the person's access restrictions, mailbox location, type of terminal, and so on."). EX1002, ¶78.

VI. GROUND 1: HORN AND BAUMGARTNER

A. Motivation to Combine Horn with Baumgartner

At the time of the '815 patent, it would have been obvious to a POSITA to combine Horn with Baumgartner by configuring a personal computer with functionality such as a Metadata Filing System (MFS) and associated content management software for managing information including movies, photos and music as taught by Horn to receive, locally store, and manage video information including video on demand content and television programs via a wireless connection to the Internet and associate such information with user profiles as

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"5. A formal summary or analysis of data, often in the form of a graph or table, representing distinctive features or characteristics"); *see also* EX1048, 3 (defining "user profile" as "A computer-based record maintained about an authorized user of a multi-user computer system. A user profile is needed for security and other reasons; it can contain information such as the person's access restrictions, mailbox location, type of terminal, and so on.").

V. PRIOR ART REFERENCES

The challenges in this Petition are based on the knowledge of a POSITA and the prior art described below.

Challenges 9 and 10 in this Petition rely on Wong, which may only be prior art under post-AIA §102. Post-AIA §102 applies to the Challenged Claims because those claims are not entitled to priority any earlier than 11/9/2017. This is because none of the applications to which the '815 patent claims priority that were filed prior to 11/9/2017 (i.e., 11/203,457; 12/56,898; 14/141,417; and 15/176,535 – see EX1001, front cover)[2] (collectively, the "Pre-2017 Applications") satisfy the

[2] Written description support under §112 for Terms 1-3 cannot be supplied via incorporation by reference to any Japanese application because such essential material can only be incorporated by reference to U.S. patents or documents which themselves do not incorporate such essential material. *Droplets, Inc. v. E*TRADE*

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requirements of 35 U.S.C. § 112 for at least the following terms found in each independent claim of the Challenged Claims:

- "receiving . . . first video information wirelessly from a device external to the information processing apparatus, the first video information being received including second video information that is encrypted" ("Term 1")
- "upon the one video being removed from the first group of video information, the one video information continues to be included in the second group of video information for the second user profile and the second group of thumbnails continues to display a thumbnail corresponding to the one video information when the second character is selected" ("Term 2")
- "user profile" or "user profiles" ("Term 3")

Bank, 887 F.3d 1309, 1318-19 (Fed. Cir. 2018); *Mars, Inc. v. JCM Am. Corp.*, No. CIV 05-3165 RBK, 2006 WL 3373284, at *4 (D.N.J. Nov. 21, 2006) (essential material cannot be incorporated by reference to foreign application).

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EX1003, ¶85. The lack of written description support for any one of these terms is sufficient to defeat the claim to priority for all of the Challenged Claims.[3]

For Term 1, there is no disclosure anywhere in the Pre-2017 Applications of receiving video that is encrypted, i.e., is received in encrypted form. EX1003, ¶86. The only disclosure of any kind regarding encryption in the specifications of these four Pre-2017 Applications, which are identical to the '815 patent, is that video information is received at the information processing apparatus 300 of Fig. 3 via terminals 301, 3011 or 3012 and then - only after it has been received - it is encrypted by the encryption circuit 331 and stored on a medium 305 in a recording and reproducing unit 304 (which is not itself an information *processing* apparatus and which is not disclosed as being wirelessly connected to encryption circuit 331). EX1001, 4:43-5:27 and Fig. 3. This description does not disclose, either expressly or by implication, the wireless receipt of video information that is in encrypted form when received as required by Term 1. EX1003, ¶¶86-92. Indeed, the absence of any path to the decryption circuit 332 that does not first pass through encryption

[3] Demonstrating lack of entitlement to the Pre-2017 Applications is sufficient for the purposes of this proceeding, but Petitioners reserve the right to assert and demonstrate that claims of the '815 patent are not entitled to priority to additional applications to which the '815 patent claims priority.

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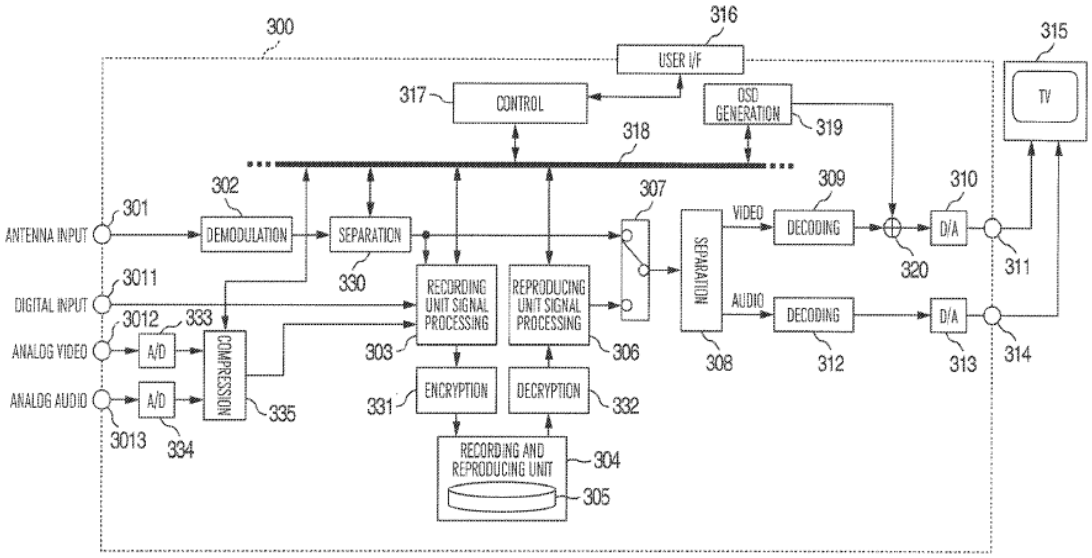
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circuit 331, and the absence of any disclosure in the '815 patent of the encryption circuit 331 not performing encryption on any video that passes through it, implies that no video is received in encrypted form. EX1003, ¶91. Encryption is also not inherent in any of the Pre-2017 Applications because video received at any of terminals 301, 3011 or 3012 need not be encrypted and often were not. For example, both analog and digital television signals were broadcast in the clear in the United States at the time of the '815 patent and still are today, and video received via a wireless cellular or WiFi modem in, e.g., an email or a web site download, is often not encrypted. EX1049, 3:20-67 (discussing conventional digital TV broadcast system that transmitted digital TV signals in the clear); EX1050, 1-2 (ATSC 1.0 digital TV signals are unencrypted even today); EX1003, ¶91. Accordingly, there is no written description support for Term 1 in any of the Pre-2017 Applications. EX1003, ¶94.

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FIG.3



For Term 2, nowhere in the specifications is there any disclosure of whether or not the deletion of video information from one group or playlist results in that video information not being deleted from any other group or playlist in which it appears. While the three-level structure of Fig. 3 may make this functionality obvious and enable it, it is not inherent. Whether to configure the system to allow video information to remain in other groups when it is deleted from one group is a design choice, and as PO's expert testified in IPR2018-01432 for the predecessor '783 patent, a POSITA would have considered it more common to delete the underlying video information when a user deletes a pointer to it rather than deleting just the pointer alone so that the video information can remain a part of another group. EX1009, 36 (citing Ex. 2002, ¶65 in IPR2018-01432 (EX1046, ¶65)). This lack of inherency becomes even more apparent when one considers the

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subject matter of claim 17, which states that any user can delete stored video information regardless of what user profile was used to record it. EX1003, ¶¶95-96. Disclosure that merely makes a limitation obvious is not sufficient written description support to satisfy §112.

There is also no written description support for Term 3 of claims 16-21 in any of the Pre-2017 Applications. "Profile" (let alone the claim term "user profile") does not appear anywhere in the specification of these applications. Term 3 was first added during prosecution in an amendment on 1/9/2020, nearly 15 years after the filing of the first application to which the '815 application claims priority. EX1040, 56. While the '815 patent discusses terms such as "Mother" and "Father" that appear on the file tabs in Figs. 6 and 7, these terms are simply user names, and a POSITA would understand a profile to include more than a user name. Additionally, claim 16 recites "a first user profile associated with a first character" and further recites "the first group of video information associated with the first user profile." EX1001, 12:1-2 and 1227-28. Thus, the first user profile, whatever it may be, must be something *more* and *different* from both the "first character" *and* the identity of the videos associated with the "first character." EX1003, ¶97. To find otherwise renders the "user profile" limitations superfluous. Constructions that render claim terms superfluous are disfavored. *Wasica Fin. GmbH v. Cont'l Auto. Sys., Inc.*, 853 F.3d 1272, 1288 n. 10 (Fed. Cir. 2017)

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The Challenged Claims of the '815 patent therefore cannot benefit from the earlier filing dates of any of Pre-2017 Applications. As such, the earliest possible priority date for the Challenged Claims should be 11/9/2017 and post-AIA §102 applies to the Challenged Claims. EX1003, ¶98.

A. Horn (EX1005)

Horn was filed on 7/16/2003 and issued on 9/25/2007. EX1005, (54), (22), (45). Horn is prior art under pre-AIA §102(e) and post-AIA §102(a).

B. WinTV (EX1010)

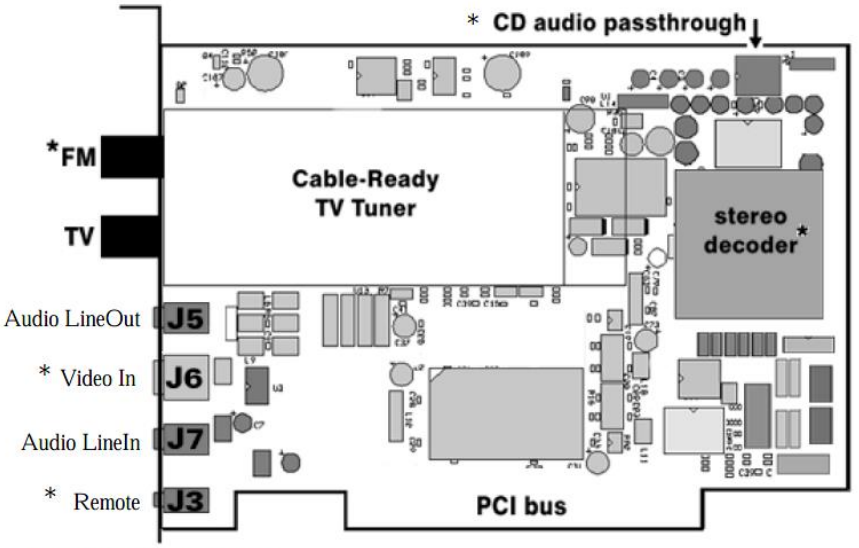
The WinTV card was a product offered for sale/sold in the U.S. by Hauppauge Computer Works, Inc. at least by 11/10/1999 (EX1011), and its Installation and Reference Manual (EX1010, hereinafter "WinTV") is dated 6/30/1999 (EX1010, 6 (native p. iii)). WinTV was published no later than September 14, 2003 on the hauppauge.com website. EX1008, 1 ¶5(explaining date encoding in URL), 2 (referencing Folder 002 with capture date in URL of 9/14/2003) and 296-380 (EX1010 is a copy of pages 296-380 of EX1008). A POSITA would have been familiar with Hauppauge WinTV products as they were among the early TV tuner products at that time and were one of only two TV tuner products supported by the Windows Media PC. A POSITA would therefore have known to look on the Hauppauge website for relevant information. These products were also mentioned in patents that would have come to the attention of a POSITA

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looking for information on such products. E.g., EX1037, 2:6-8; EX1038, 3:51-55; EX1003, ¶101. As a result, WinTV is prior art under pre-AIA §102(b) and post-AIA §102(a).

The WinTV card was a "Plug-and-Play" device installed in PCs running Windows95, 98 and NT 4.0, EX1010, p. 1-1, that along with its software applications (e.g., WinTV-Capture) allowed for the receipt, playback and "motion video capture" of video and, in combination with a sound card, audio information such as those contained in NTSC formatted television signals. EX1010, pp. 3-4, 4-1, 4-5.

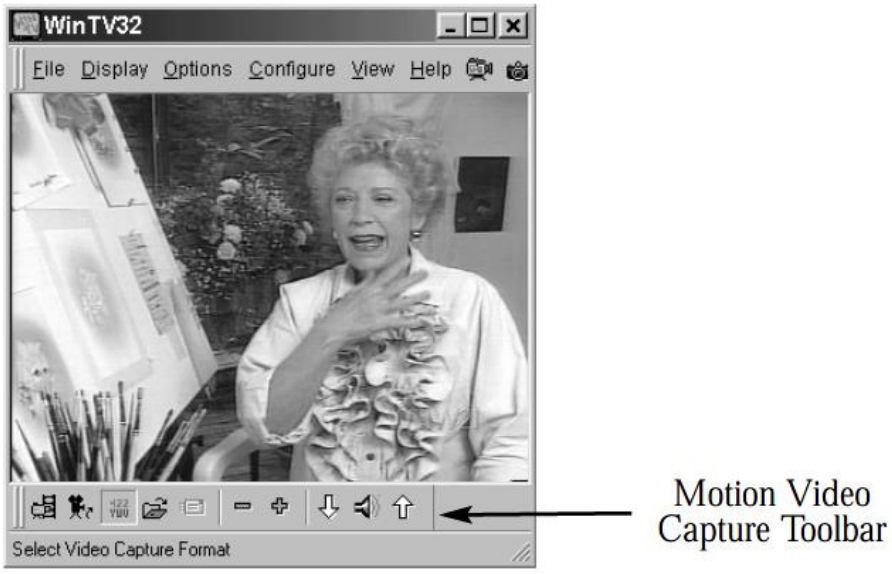


*Note: not available on all models.
Note: this outline may not reflect the current revision of your WinTV board. For the most up to date information, see the WinTV QuickInstall Guide provided with your WinTV board.

EX1010, p. 1-1, EX1003, ¶102.

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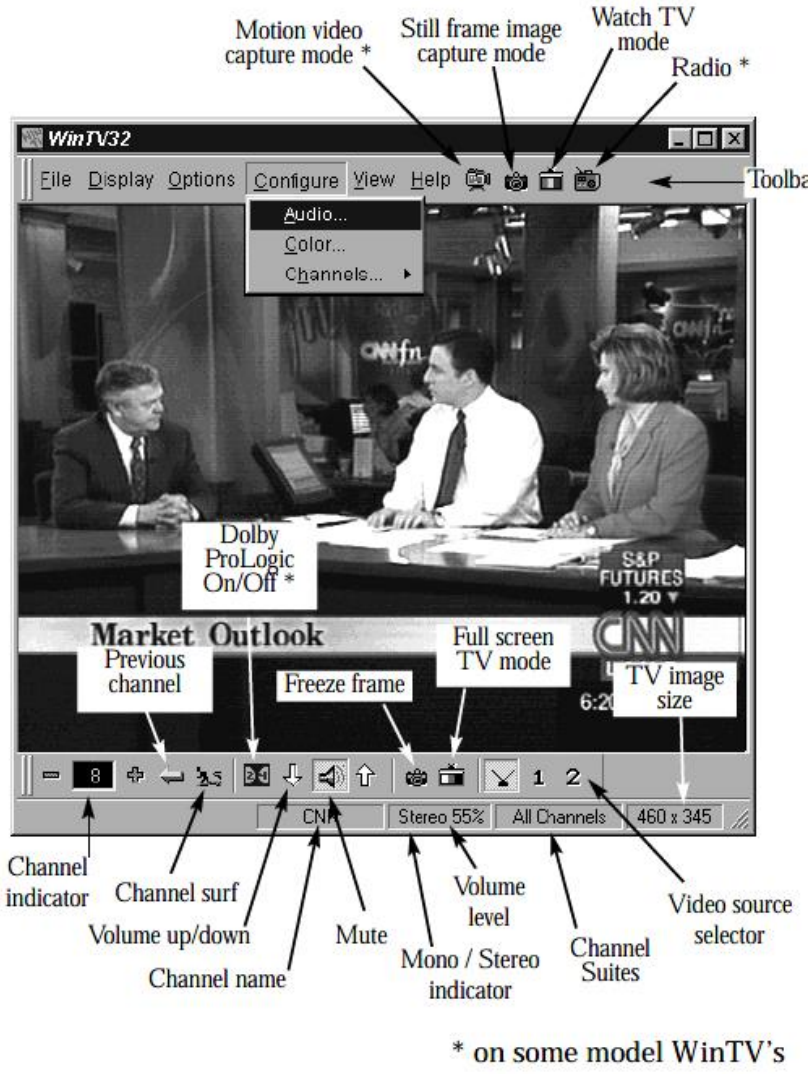


EX1010, p. 3-4.

The video information can come from a connected device such as a VCR, video camera or camcorder, EX1010, p. 1-13, or a live feed such as over the air or cable TV programming. EX1010, pp. 1-1, 6-1; EX1003, ¶103.

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EX1010, p. 3-1.

WinTV also discloses signal conversion (e.g., A-D) and video and audio compression techniques designed to increase efficiency and storage. EX1010, pp. 3-9, 4-1, 4-5, 4-6, 7-1. EX1003, ¶104.

C. Chao (EX1006)

Chao was filed on 12/17/2002 and issued on 6/28/2011. EX1006, (54), (22), (45). Chao is prior art under pre-AIA §102(e) and post-AIA §102(a).

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D. Kaplan (EX1014)

Kaplan was filed on 3/29 2001 and published on 12/27/2001. EX1014, front cover. Kaplan is prior art under pre-AIA §§ 102(a), 102(b) and post-AIA §102(a).

E. Bryant (EX1015)

Bryant was filed on 4/11/2003 and published on 10/14/2004. EX1015, front cover. Bryant is prior art under pre-AIA §§102(a), 102(e) and post-AIA §102(a).

F. Baumgartner (EX1016)

Baumgartner was filed on 1/21/2004 and published on 7/21/2005. EX1016, front cover. Baumgartner is prior art under pre-AIA §102(e) and post-AIA §102(a).

G. Wong (EX1007)

Wong was filed on 7/21/2005 and issued on 1/19/2010. EX1007, (22), (45). Wong is prior art under post-AIA §102(a).

H. Candelore (EX1013)

Candelore was filed on 3/11/2003 and published on 9/18/2003. EX1013, (22), (43). Candelore is prior art under pre-AIA §§102(a), 102(b) and post-AIA §102(a).

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taught by Baumgartner. A POSITA would have been motivated to and capable of combining the disclosures of Horn and Baumgartner to do so. EX1003, ¶131.

Horn discloses that "[a] primary use of computer information systems is the creation, organization, transmission and storage of ***information of a variety of types in the form of content data***, including but not limited to ... ***photographs***; ***sounds***; [and] ***music***." EX1005, 1:34-43.[2] The patent's disclosed MFS system "comprises one or more application(s) for organizing all types of text and image information-from word processing documents and spreadsheets; to web pages and multimedia; to illustrations, ***images***, ***movies***, and ***photographs***; to contacts, notes, and appointments; ***to sounds and music***; ***or anything else that is stored and retrieved on a computer***." EX1005, 12:8-18. One of the benefits of Horn is its utility across all content data types. EX1003, ¶132.

A POSITA would have understood video information was among the content data and information Horn organizes, indexes, and views. EX1003, ¶133. Although Horn focuses on photographs and music, Horn explicitly discloses video information, *i.e.*, "movies." EX1005, 12:13. Baumgartner is directed toward a system for managing a user's access to videos, including video-on-demand content such as movies. EX1016, ¶8. Baumgartner discloses embodiments in which a

[2] All emphasis, color, and annotations are added, unless otherwise indicated.

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VI. GROUND 6[4]: HORN, BAUMGARTNER & CANDELORE

A. Motivation to Combine

Horn and Baumgartner

It would have been obvious to a POSITA to combine Horn with Baumgartner by configuring a PC with functionality such as a Metadata Filing System (MFS) and associated content management software for managing information including movies, photos and music as taught by Horn to receive, locally store, and manage video information including video on demand content and television programs via a wireless connection to the Internet and associate such information with user-selectable user profiles as taught by Baumgartner. A POSITA would have been motivated to and capable of doing so. EX1003, ¶131.

Horn discloses that one of the primary use of computers is the organization of content such as photographs and music. EX1005, 1:34-43. Horn's MFS system "comprises one or more application(s) for organizing all types of text and image information-from word processing documents and spreadsheets . . . to illustrations, images, movies, and photographs . . . or anything else that is stored and retrieved on a computer." EX1005, 12:8-18. A POSITA would have understood video information was among the content Horn organizes because, although Horn

[4] Grounds 1-5 appear in the Petition for IPR2024-00735.

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user's device is a personal computer like Horn's that obtains video information from a server via the Internet as in Horn. EX1016, ¶¶54-55, 82, and Figs. 1, 5. Horn does not disclose how to implement such an Internet connection, whereas Baumgartner discloses a wireless implementation of an Internet connection to server 36. EX1016, ¶54, Fig. 1. Additionally, Baumgartner explicitly discloses storing video information on the computer's hard disk drive. EX1016, ¶85. EX1003, ¶133. Thus, a POSITA would have looked at Baumgartner to improve Horn, and vice-versa. *Id.*

A POSITA would have recognized the benefit of managing Baumgartner's video information using the techniques taught in Horn because video information recorded on the user's computer was among the plethora of digital content the user needed organized, indexed, and viewed at the time of Horn and Baumgartner. EX1003, ¶134. A POSITA would have understood that the management of Baumgartner's video information enhances the utility of Horn by providing this type of content. *Id.* The benefit of providing the organization, indexing, and viewing of video information, including the association of user profiles with video information as taught by both Horn and Baumgartner, would have motivated the POSITA to make the combination. Because Horn discloses a connection to the Internet and a LAN but does not provide any implementation details for that

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focuses on photographs and music, Horn explicitly discloses video information, *i.e.*, "movies." EX1005 at 12:13; EX1003, ¶132. Baumgartner is directed toward a system for managing a user's access to videos, including video-on-demand content such as movies. EX1016, ¶8. Baumgartner discloses embodiments in which a user's device is a PC like Horn's that obtains video information from a server via the Internet as in Horn. EX1016, ¶¶54-55, 82, FIGS. 1, 5. Horn does not disclose how to implement such an Internet connection, whereas Baumgartner discloses a wireless implementation of an Internet connection to server 36. EX1016, ¶54, FIG. 1. Additionally, Baumgartner explicitly discloses storing video information on the computer's hard disk drive. EX1016, ¶85. EX1003, ¶133. Baumgartner also discloses multiple user profiles that are selectable by a user, and a POSITA would have recognized the desirability of providing this functionality in Horn's system because Horn teaches personalizing information organization for each individual user based on user preferences. EX1005, 6:11-39. Horn also discloses user customized collections. EX1005, 8:58-67, 9:46-52, 15:12-27, 16:5-23, 38:16-24, FIG. 10b:

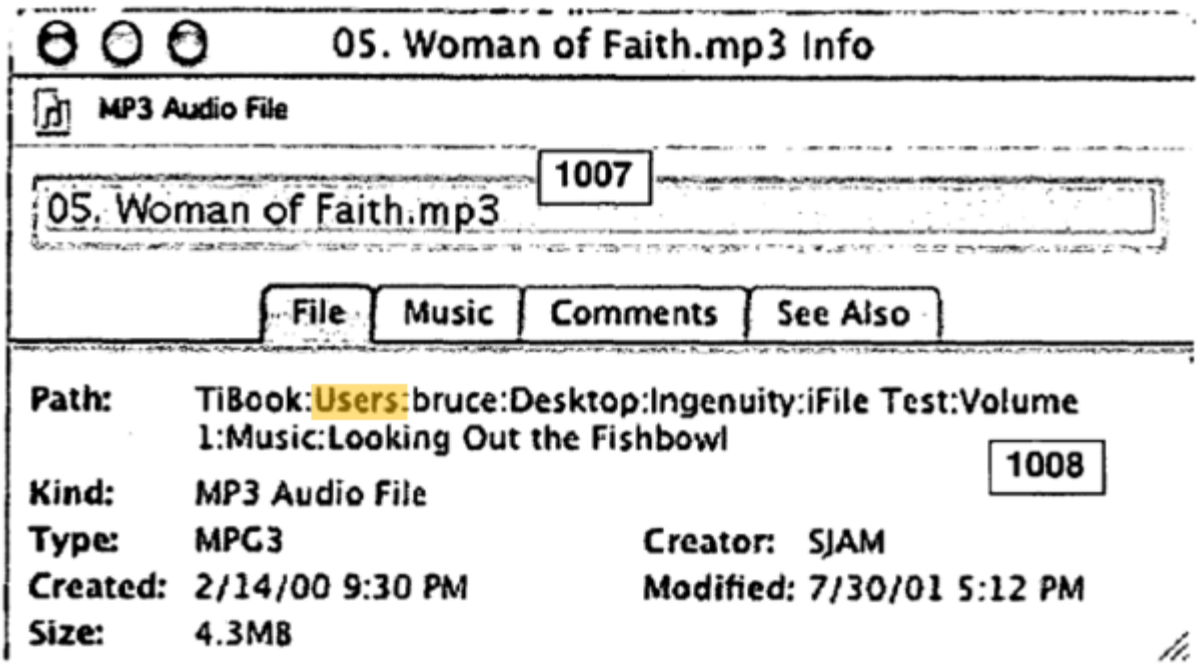
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connection, a POSITA would similarly look to Baumgartner for additional detail for that implementation. *Id.*

Combining Horn with Baumgartner would simply involve applying known techniques (*i.e.*, wirelessly receiving video information via the Internet on a computer as taught by Baumgartner) to a known device ready for improvement (Horn's computer system for content management) to yield predictable results (recording and playing back video information on a computer). *KSR*, 550 U.S. at 416 ("[I]f a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious."). Therefore, a POSITA would recognize Baumgartner's obvious utility in enhancing Horn as a content management and playback platform for "anything ... that is stored and retrieved on a computer." EX1005, 12:8-18; EX1003, ¶135.

A POSITA would have had a reasonable expectation of success in the combination because Horn is explicitly designed to organize, index, and view a plurality of nearly every type of "content data" at the time, including images and movies, which is a form of Baumgartner's video information. EX1005, 1:34-43, 12:8-18; EX1003, ¶136. A POSITA thus would have had a reasonable expectation that the modification of Horn with Baumgartner would be successful because a POSITA would have found that the teachings of Horn and Baumgartner could have

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Thus, a POSITA would have looked at Baumgartner to improve Horn, and vice-versa. EX1003, ¶133.

Combining Horn with Baumgartner would simply involve applying known techniques (*i.e.*, wirelessly receiving video information via the Internet on a computer as taught by Baumgartner) to a known device ready for improvement (Horn's computer system for content management) to yield predictable results (recording and playing back video information on a computer). Therefore, a POSITA would have recognized Baumgartner's obvious utility in enhancing Horn as a content management and playback platform for "anything ... that is stored and retrieved on a computer." EX1005, 12:8-18; EX1003, ¶¶134-135. A POSITA would have had a reasonable expectation of success in the combination because Horn is explicitly designed to organize nearly every type of content including

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been predictably combined due to the predictability of the computer system art and the known interchangeability of the various elements, including file storage, organization, recording, and playback, and wireless communication and networking. EX1003, ¶136.

Therefore, a POSITA would have considered it obvious to include the video information and functionality of Baumgartner, including but not limited to user profiles and wireless communications for receiving video information, in Horn for the benefits described above. EX1003, ¶137.

B. Claim 1

1. [1pre]

To the extent the preamble is limiting, Horn discloses it. For example, Horn discloses that "[t]he invention relates to computer data processing systems that include central processing units configured with novel software-based information management systems." EX1005, 1:18-30, Title, Abstract, 5:27-6:23, FIG. 1; EX1003, ¶138.

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movies, which is a form of Baumgartner's video information. EX1005, 1:34-43, 12:8-18; EX1003, ¶135. A POSITA would have had a reasonable expectation of success because the teachings of Horn and Baumgartner could have been predictably combined due to the predictability of the computer system art. EX1003, ¶136.

Horn-Baumgartner and Candelore

Moreover, it would have been obvious to a POSITA to further modify the Horn/Baumgartner combination by using encrypted content (e.g., received video information) as taught by Candelore, and a POSITA would have been motivated to do so. EX1003, ¶274.

Doing so would have provided security to the video information of the Horn-Baumgartner devices and methods. EX1003, ¶275. Combining Candelore with Horn-Baumgartner would simply involve applying a known technique (*i.e.*, encrypted content) to a known device ready for improvement (the Horn/ Baumgartner computer system receiving and storing video information) to yield predictable results (secured video information). *KSR*, 550 U.S. 398 at 416.

A POSITA would have had a reasonable expectation of success in the combination because Horn-Baumgartner had processors capable of performing the algorithms used by Candelore to implement the additional encryption and decryption schemes of Candelore. EX1003, ¶276.

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B. Claim 16[5]

1. [16pre]

To the extent the preamble is limiting, Horn discloses it. EX1003, ¶277. Horn discloses a system/method "to provide information management tools that facilitate communication to generate, transmit and receive, archive, search, order, retrieve and render objects, ***including information organization personalized for each individual user based on preferences selected by the user***." EX1005, 6:11-39; *see also* Abstract, 3:35-43.

> Horn discloses at 8:58-67:
>
> Collections: ... allow[] ***users*** to categorize objects in ways that most clearly reflect different approaches and ways of viewing the same information. ***Users*** can select predetermined collections provided in a basic menu, such as Family, Friends, Work, To Do, Activities, and Vacation when running the MFS program for the first time, and can create and set up user-defined collections as well.

EX1005, 9:46-52. Horn also discloses "[u]ser-defined categorization is enabled by a user directly specifying that a given object belongs to a given collection," 15:12-27, and "[w]hen a key phrase is found it lists all collections from ***all users*** that specify that phrase." EX1005, 38:16-24; *see also* 16:5-23, FIG. 10b:

[5] The claim language has been reproduced in the attached Claims Appendix.

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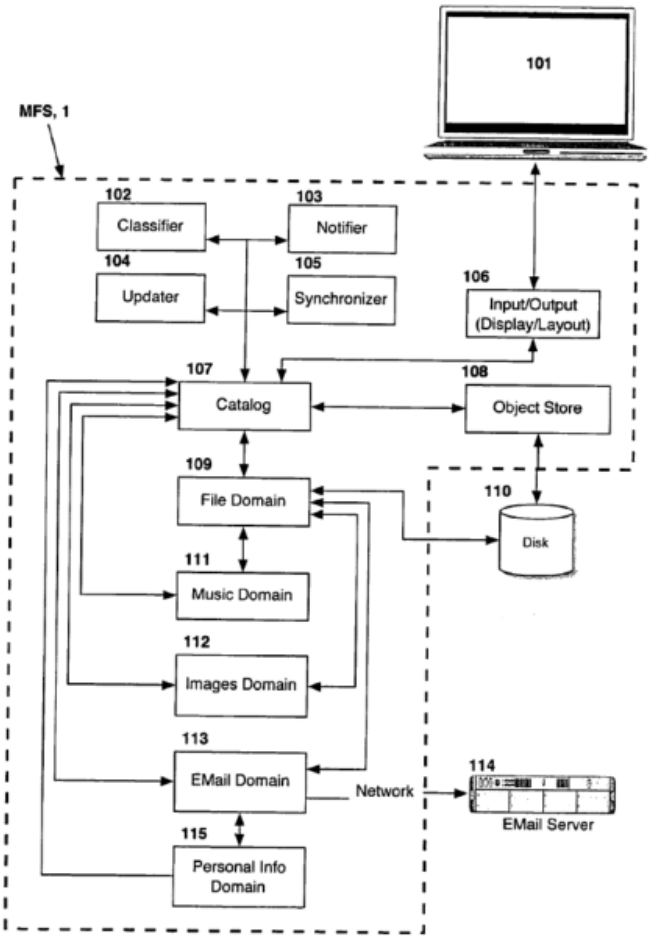
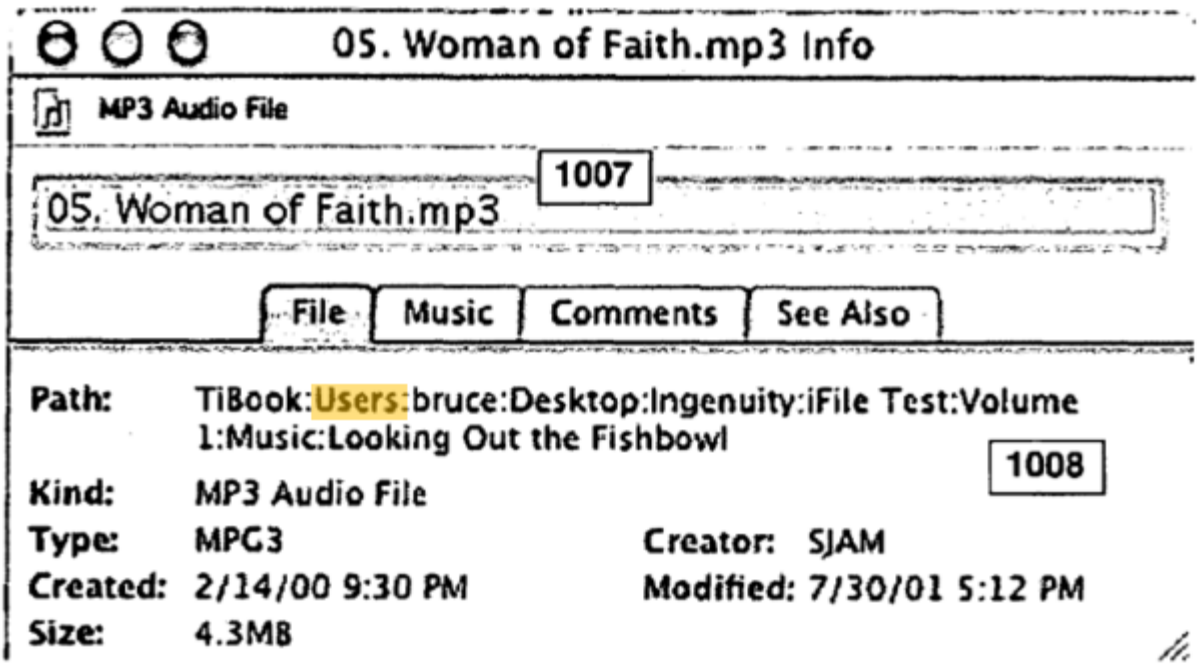


Figure 1

2. [~~1a~~]

Horn discloses a network interface: "said central processing unit reading from user, network or Internet server input devices data relating to objects received by, created by or selected by individual users," EX1005, 6:11-22, and "[a] network interface is coupled to the bus to provide an interface to the data communication network (LAN, WAN, and/or Internet)," 6:59-63, 5:57-60, 11:60-12:7, FIG. 1; EX1003, ¶~~139.~~

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EX1003, ¶278. Horn-Baumgartner renders obvious video information. §VI.A. EX1003, ¶279.

2. [16a]

Horn-Baumgartner in view of Candelore renders this limitation obvious. EX1003, ¶280. Horn discloses a network interface: "said central processing unit reading from user, network or Internet server input devices data relating to objects received by, created by or selected by individual users," EX1005, 6:11-22, and "[a] network interface is coupled to the bus to provide an interface to the data communication network (LAN, WAN, and/or Internet)," 6:59-63, 5:57-60, 11:60-12:7, FIG. 1; EX1003, ¶280.

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3. [1b]

The Horn-Baumgartner combination renders obvious this limitation.

EX1003, ¶¶140-145. For example, Horn discloses a memory unit (a "recording medium") receiving digital image information over a network, *e.g.*, the Internet, at 11:60-12:18:

> [A] computer system comprising a computer 101 with an output display screen, an input keyboard and ***a memory unit***, such as a hard drive, 110, and one or more network link(s) via an e-mail server 114. ... Representative domains viewable on the desktop include a file domain 109, a music domain 111, images domain 112 an e-mail domain 113 .... ***The e-mail domain is linked through a network for the communication of files, music and images to and from a network link, e.g. the Internet.***

See also EX1005, Abstract, 5:21-6:22, 6:50-58, FIG. 1 (disk 110).

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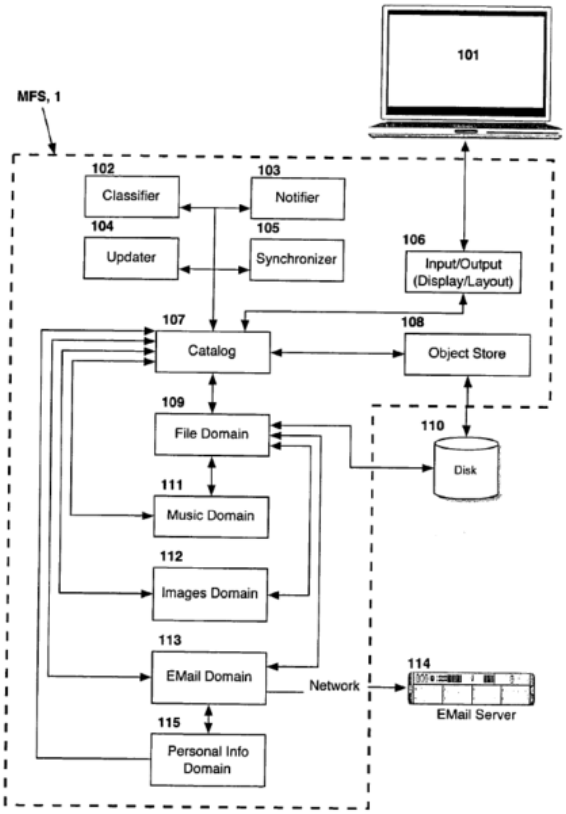


Figure 1

Horn discloses receiving digital image information over a network, e.g., the Internet, at 11:60-12:18:

> [A] computer system comprising … one or more network link(s) via an e-mail server 114. ... Representative domains viewable on the desktop include a file domain 109, a music domain 111, images domain 112 an e-mail domain 113 .... ***The e-mail domain is linked through a network for the communication of files, music and images to and from a network link, e.g. the Internet.***

See also EX1003, ¶281; EX1005, Abstract, 5:21-6:22, 6:50-58, FIG. 1:

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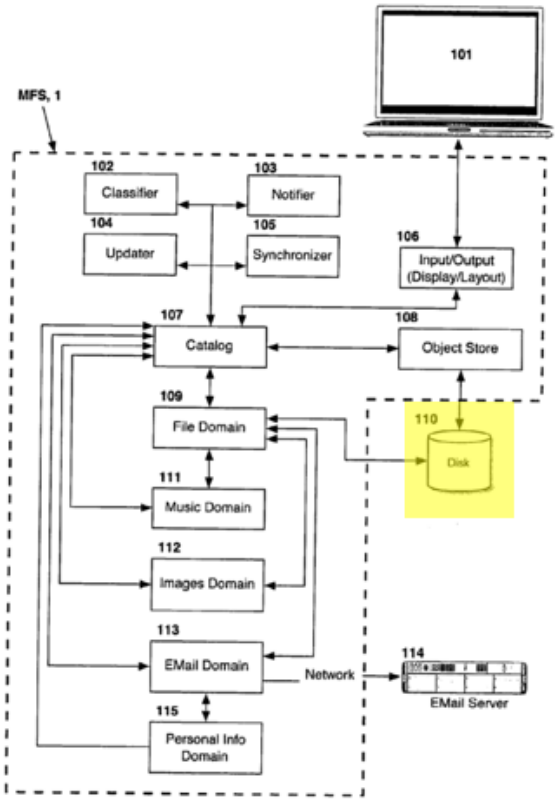


Figure 1

Horn discloses that this digital information is received by the network interface as ~~discussed above for limitation [1a].~~

Horn does not expressly disclose ~~that the~~ digital video information ~~is received by the network interface~~ wirelessly. ~~As discussed in limitation [1a],~~ Horn ~~discloses the~~ network interface ~~can be~~ connected to the Internet via a LAN. *E.g.*, EX1005, 6:59-63. A POSITA would have understood that a LAN is often implemented as a wireless LAN, and a POSITA would have found it obvious to implement Horn's LAN with a wireless LAN because they were often cheaper and easier to install than a wired LAN due to elimination of the need to run wires to all

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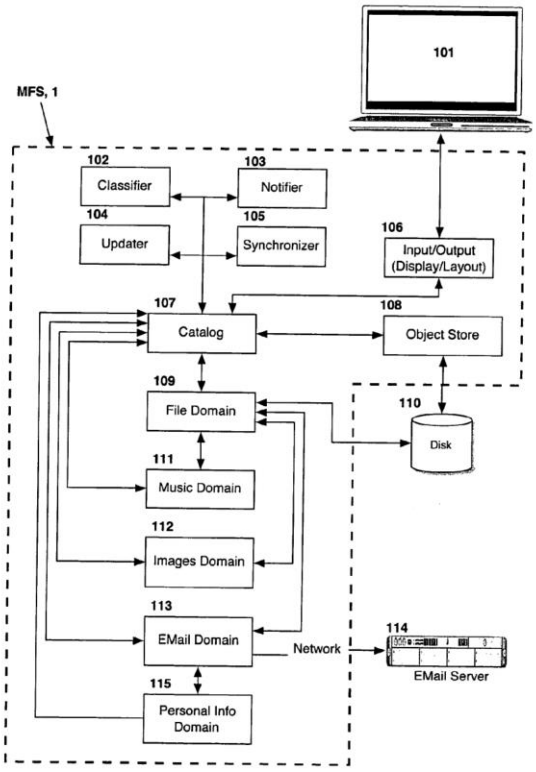


Figure 1

Horn discloses that this digital information is received by the network interface identified above. Horn further discloses that this digital image information includes video information, *i.e.*, "movies." EX1005, 12:8-18. A POSITA would have understood that digital information including video information/movies received via the Internet would be transmitted to Horn's computer from a server (referred to in Horn as a "site computer"), which is an information processing apparatus. EX1005, 6:59-63; EX1003, ¶282.

Horn does not expressly disclose receiving digital video information wirelessly. Horn does disclose its network interface connected to the Internet via a LAN. E.g., EX1005, 6:59-63. A POSITA would have understood that a LAN is

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of the endpoint computers in the network. Additionally, wireless LANs can be more convenient for users. EX1003, ¶143.

Baumgartner is directed toward an "interactive television system with custom video-on-demand menus based on personal profiles." EX1016, title. Baumgartner discloses a system 10 shown in Fig. 1 below in which "user equipment" such as a personal computer (*e.g.*, Horn's computer 101) receives and locally stores videos from a server 36 via a communications network 34 such as the Internet over a link 48 which is implemented wirelessly or over a wireless satellite link. EX1016, ¶55 (user computer equipment 22 accesses server 36 using communications path 48, which may be "any suitable paths, such as wired paths . . . **satellite paths, wireless paths**, a combination of such paths, etc."); ¶57 (video on demand content and video recorded using a network based video recorder are stored on server 36 and provided to user equipment including personal computers), ¶82 (user equipment 22 in Fig. 1 may be a personal computer 98 as shown in Fig. 5 that receives television programming, video on demand content, and other information receiving via communications path 48 using input/output 104); ¶85 (storage in personal computer unit 98 such as a hard drive or other suitable storage device may be used to stored video and other content); Figs. 1, 5:

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often implemented as a wireless LAN, and a POSITA would have found it obvious to implement Horn's LAN with a wireless LAN because they were often cheaper and easier to install than a wired LAN due to elimination of the need to run wires to all of the endpoint computers in the network. Additionally, wireless LANs can be more convenient for users. EX1003, ¶283.

Baumgartner is directed toward an "interactive television system with custom video-on-demand menus based on personal profiles." EX1016, title. Baumgartner discloses a system 10 shown below in which "user equipment" such as a PC (e.g., Horn's computer 101) receives and locally stores videos from a server 36 via a communications network 34 such as the Internet over a link 48 which is implemented wirelessly or over a wireless satellite path. EX1016, ¶55 (user computer equipment 22 accesses server 36 using communications path 48, which may be "any suitable paths, such as ...**satellite paths**, **wireless paths**"); ¶57, ¶82 (user equipment 22 in FIG. 1 may be a PC shown in FIG. 5 that receives television programming, video on demand content, and other information receiving via communications path 48 using input/output 104); ¶85; FIGS. 1, 5 (EX1003, ¶284):

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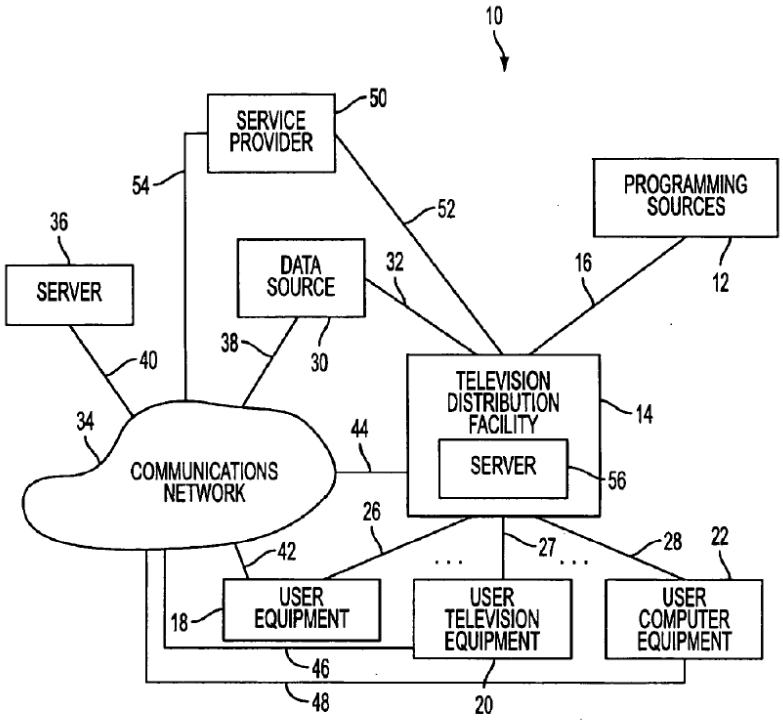


FIG. 1

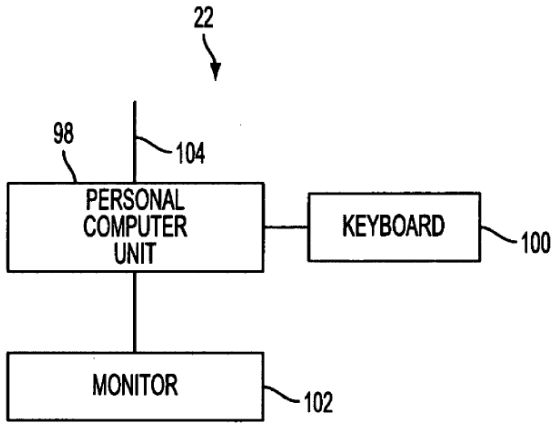


FIG. 5

Candelore renders obvious including second video information that is encrypted. Candelore discloses "[a]n encryption algorithm such as DES, M6, or DVB Common Scrambling Algorithm may be used" to encrypt received control

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words. EX1013, ¶72. "The encrypted control word 1643 is decrypted using the unique key 1631 (or derivative thereof) to recover the control word in a clear format for descrambling and/or decrypting the encrypted content 1620 loaded into the set-top box 1610." EX1013, ¶131; *see also* ¶72 ("[t]he decrypted CW is then used by descrambler logic 470 to descramble the scrambled program content 480 and output clear program content 490."). A POSITA would have understood that the "the encrypted content 1620 loaded into the set-top box 1610" is the encrypted second video. EX1003, ¶285.

3. [16b]

The Horn-Baumgartner combination renders obvious this limitation. EX1003, ¶286. Horn discloses "***computer 101 with an output display screen***." EX1005, 11:60-12:7.

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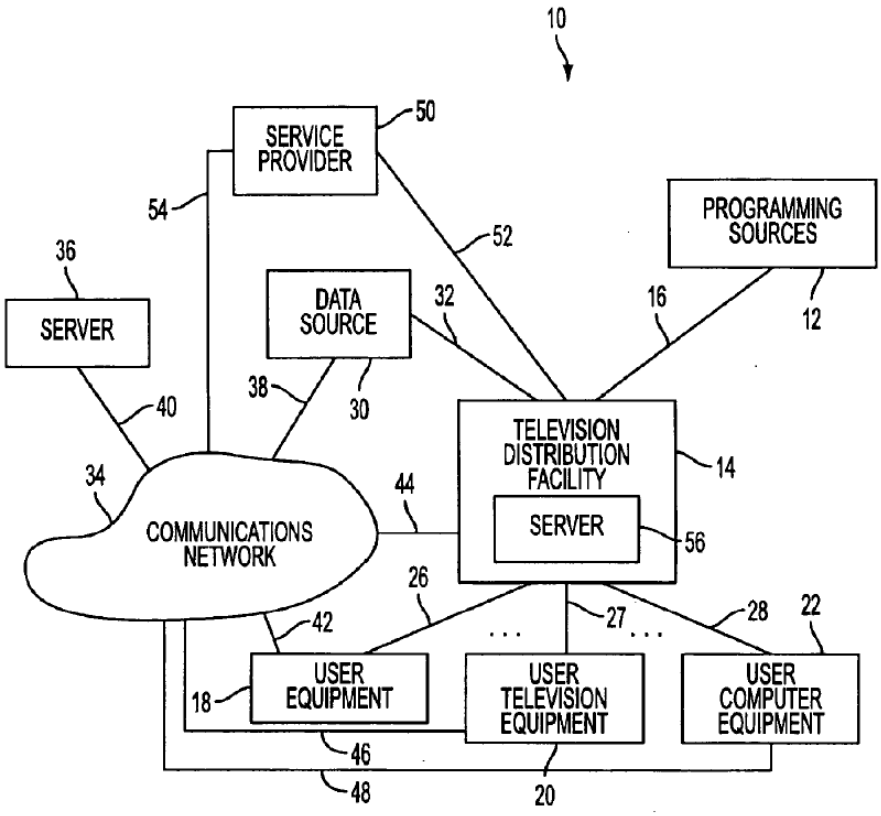


FIG. 1

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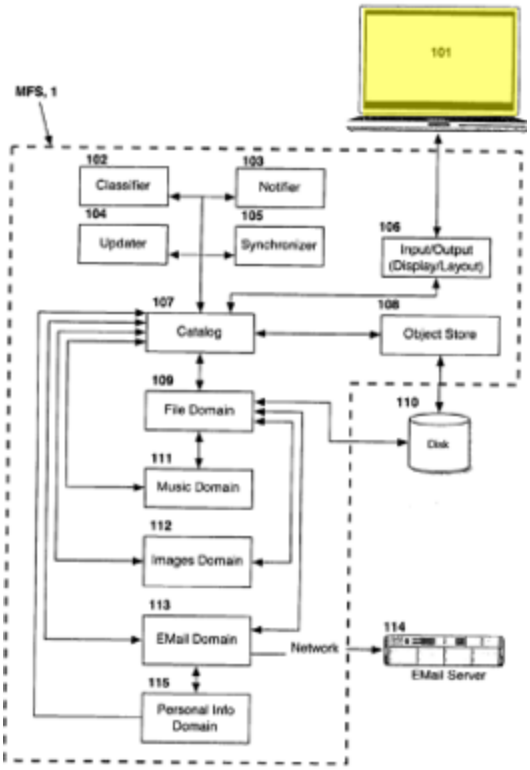


Figure 1

EX1003, ¶286. Baumgartner also discloses a display, the monitor of user PC. EX1016, ¶82 FIG. 5; EX1003, ¶287.

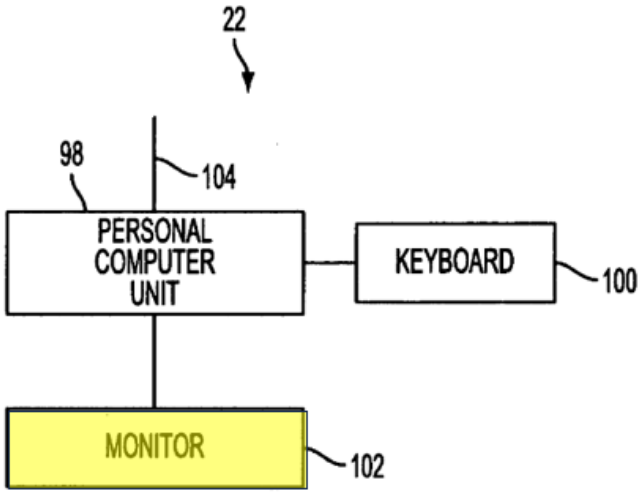


FIG. 5

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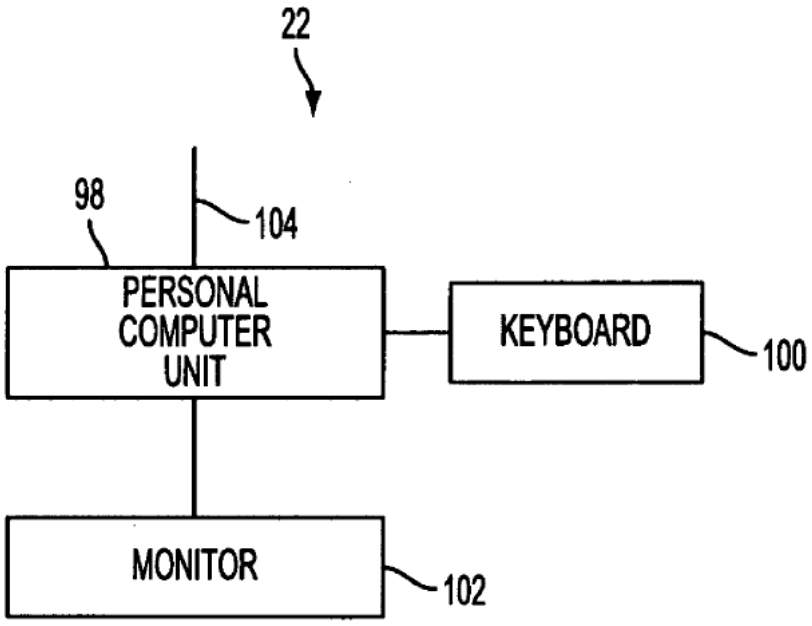


FIG. 5

144. Based on Baumgartner's modification to Horn, and Horn's disclosure that its digital image information also includes video information, *i.e.*, "movies," EX1005, 12:8-18, a POSITA would have understood that digital information including video information/movies received via the Internet would be transmitted wirelessly to Horn's computer from a server (referred to in Horn as a "site computer"), which is an information processing apparatus. EX1005, 6:59-63; EX1003, ¶¶143-145.

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As discussed above in §VI.A, it would have been obvious to combine Baumgartner's user-selectable user profiles with Horn's system. Baumgartner discloses an embodiment in which a user selects his or her profile from among a plurality of user profiles "by pressing a button assigned to them." EX1016, ¶165; see also ¶172. Baumgartner does not provide additional detail as to how to implement such user profile buttons, but a POSITA would have found it obvious to implement such buttons in a GUI screen as "soft" buttons labeled with the text of the user name associated with the user profile given Baumgartner's extensive disclosure of labeled GUI soft buttons such as the text-labeled GUI buttons 296-314, 336-350, 358-368, and 372-386 in Figs. 24-27. The text of the user name on the button for a particular user profile includes at least one character associated with that user profile. EX1003, ¶288. A POSITA would have found it obvious, for example, to implement Horn's Workspace view as shown in Fig. 26 to include soft buttons labeled with user names for selecting user profiles in the collections pane 2602 annotated in the red box labeled first area and/or the folder pane 2601, either of which constitutes a first user interface.

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4. [1c]

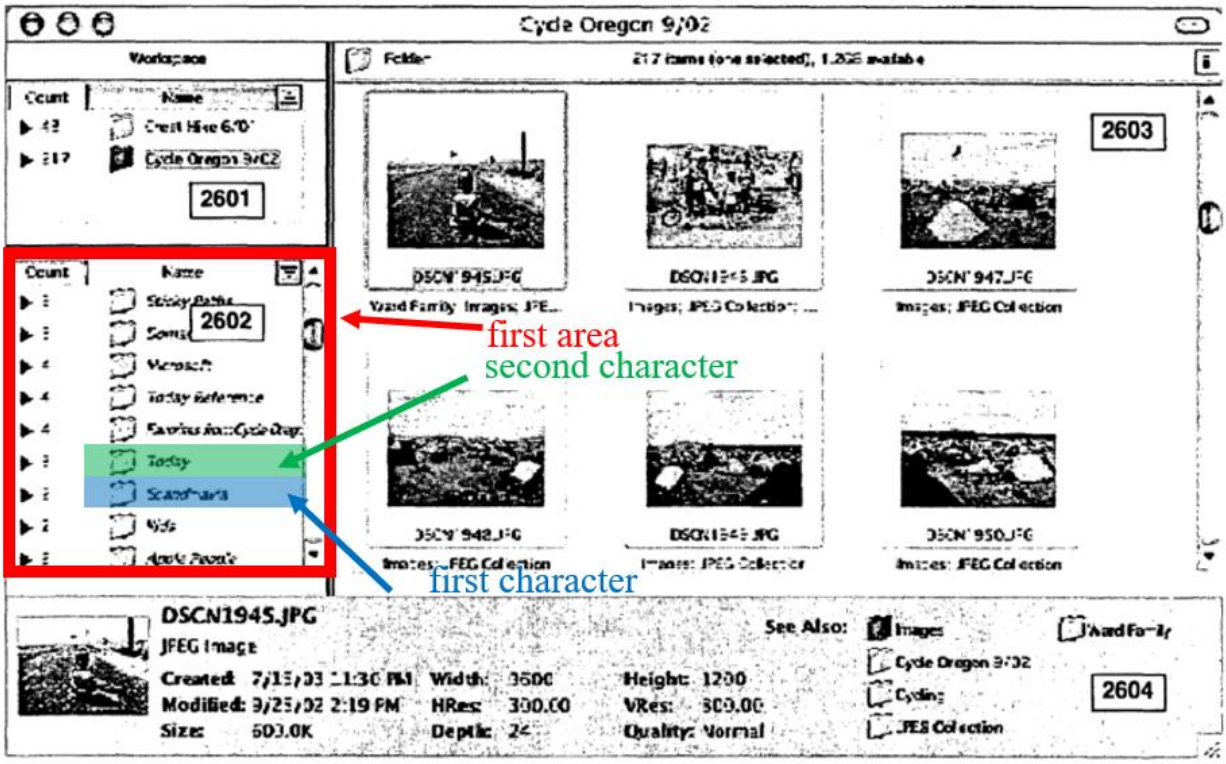
To the extent that the '815 patent discloses this limitation,[3] the Horn-Baumgartner combination renders this limitation obvious. EX1003, ¶146. Horn discloses that at least some of the plurality of information is associated with a user profile: "so as to provide information management tools that facilitate communication to generate, transmit and receive, archive, search, order, retrieve and render objects, ***including information organization personalized for each individual user based on preferences selected by the user***." EX1005, 6:11-22, 3:35-43.

> Horn discloses at 8:58-67:
>
> Collections: ... allow[] users to categorize objects in ways that most clearly reflect different approaches and ways of viewing the same information. Users can select predetermined collections provided in a basic menu, such as Family, Friends, Work, To Do, Activities, and Vacation when running the MFS program for the first time, and can create and set up user-defined collections as well.

EX1005, 15:12-27. Horn also discloses that "[u]ser-defined categorization is enabled by a user directly specifying that a given object belongs to a given

[3] The '815 patent does not include the word "profile" other than in the claims. Petitioners reserve the right to assert that this term is indefinite and/or lacks written description and enablement in the '815 patent and applications to which priority is claimed by the '815 patent.

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4. [16c]

The Horn-Baumgartner combination renders obvious this limitation. With respect to the "and the first user interface . . . selecting the first character" portion of this limitation, *see* §VI.B.3; *see also* EX1005, 19:25-40 and 32:32-44 (discussion selection/navigation of folders). EX1003, ¶289.

With respect to the portion of this limitation requiring the plurality of user profiles being associated with video information, Horn discloses that at least some of its information is associated with a user profile by providing tools "to generate, transmit and receive, archive, search, order, retrieve and render objects, ***including information organization personalized for each individual user based on preferences selected by the user***." EX1005, 6:11-22, 3:35-43. EX1003, ¶290.

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collection." EX1005, 6:5-23. When a user specifies that a given object belongs to a user-defined collection, that object becomes associated with a user profile. EX1003, ¶146.

Baumgartner also discloses videos associated with user profiles. Baumgartner discloses a user profile that may include information such as a user's demographic characteristics, likes and dislikes, information gathered by monitoring the user's interaction with the user's user equipment, and more broadly "any information that may be indicative of the user's interests." EX1016, ¶10. Baumgartner further discloses identifying video information that correlates to the user profile and presenting that video information for selection by the corresponding user. EX1016, ¶¶11-13. This creates an association of that video information with the corresponding user profile as broadly claimed in the '815 patent. EX1003, ¶147.

5. [1d]

Horn and Baumgartner each disclose, and their combination renders obvious, this limitation. EX1003, ¶148. Horn discloses a display: "FIG. 1 illustrates a computer system comprising ***a computer 101 with an output display screen***." EX1005, 11:60-12:7.

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Horn discloses at 8:58-67:

> Collections: ... allow[] users to categorize objects in ways that most clearly reflect different approaches and ways of viewing the same information. Users can select predetermined collections provided in a basic menu, such as Family, Friends, Work, To Do, Activities, and Vacation when running the MFS program for the first time, and can create and set up user-defined collections as well.

EX1005, 15:12-27. Horn also discloses that "[u]ser-defined categorization is enabled by a user directly specifying that a given object belongs to a given collection." EX1005, 6:5-23. When a user specifies that a given object belongs to a user-defined collection, that object becomes associated with a user profile. EX1003, ¶291.

Baumgartner also discloses videos associated with user profiles. Baumgartner discloses a user profile that may include information such as a user's demographic characteristics, likes and dislikes, information gathered by monitoring the user's interaction with the user's user equipment, and more broadly "any information that may be indicative of the user's interests." EX1016, ¶10. Baumgartner further discloses identifying video information that correlates to the user profile and presenting that video information for selection by the corresponding user. EX1016, ¶¶11-13. This creates an association of that video

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information with the corresponding user profile as broadly claimed in the '815 patent. EX1003, ¶292.

Horn discloses that at least some of its information is associated with a user profile by providing tools "to generate, transmit and receive, archive, search, order, retrieve and render objects, ***including information organization personalized for each individual user based on preferences selected by the user***." EX1005, 6:11-22, 3:35-43.

> Horn discloses at 8:58-67:
>
> Collections: ... allow[] users to categorize objects in ways that most clearly reflect different approaches and ways of viewing the same information. Users can select predetermined collections provided in a basic menu, such as Family, Friends, Work, To Do, Activities, and Vacation when running the MFS program for the first time, and can create and set up user-defined collections as well.

EX1005, 15:12-27. Horn also discloses that "[u]ser-defined categorization is enabled by a user directly specifying that a given object belongs to a given collection." EX1005, 6:5-23. When a user specifies that a give object belongs to a user-defined collection, that object becomes associated with a user profile. EX1003, ¶¶293-294.

Baumgartner also discloses videos associated with user profiles. Baumgartner discloses a user profile that may include information such as a user's demographic characteristics, likes and dislikes, information gathered by monitoring the user's interaction with the user's user equipment, and more broadly

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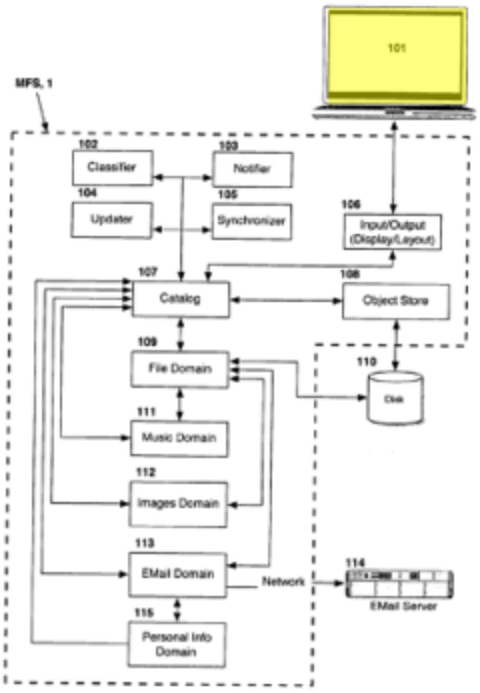


Figure 1

Baumgartner ~~also~~ discloses ~~a display,~~ the ~~monitor of~~ user ~~personal computer~~ ~~101.~~ EX1016, ¶~~82,~~ ~~Fig.~~ ~~5;~~ EX1003, ¶~~149.~~

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"any information that may be indicative of the user's interests." EX1016, ¶10. Baumgartner further discloses identifying video information that correlates to the user profile and presenting that video information for selection by the corresponding user. EX1016, ¶¶11-13. This creates an association of that video information with the corresponding user profile as broadly claimed in the '815 patent. EX1003, ¶295.

5. [16d]

See VI.B.3. EX1003, ¶296.

6. [16e]

The Horn-Baumgartner combination renders obvious this limitation. EX1003, ¶297. Baumgartner discloses that its system generates customized menus such as program guides listing content corresponding to the user profile in response to pressing a button to select a desired user profile. EX1016, ¶¶165-166. Baumgartner further discloses identifying video information that correlates to the user profile and presenting that video information for selection by the corresponding user. EX1016, ¶¶11-13. A POSITA would have found it obvious in light of this disclosure in Baumgartner to configure Horn's system to display to a user a second user interface such as Horn's Workspace view as shown in the annotated version of Fig. 26 shown below, with user-selectable content corresponding to the user profile that was selected by the user being displayed in

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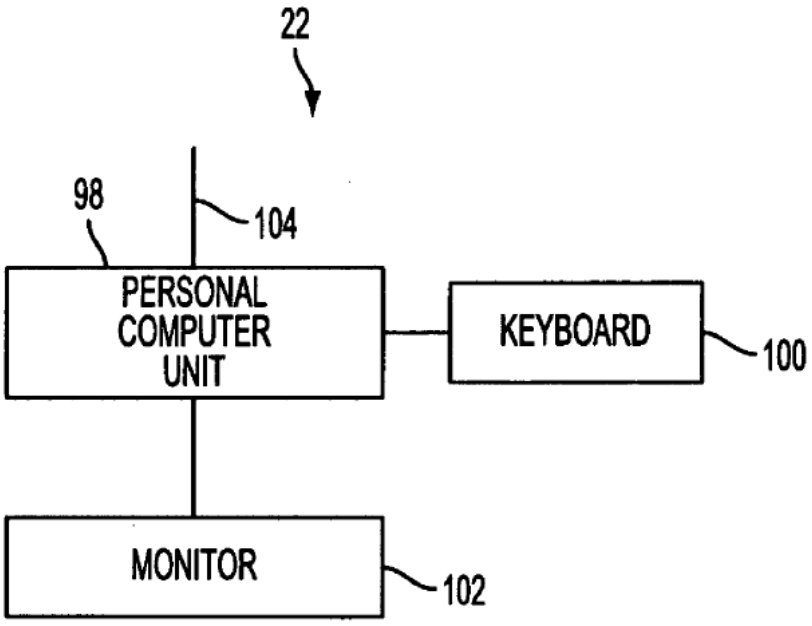


FIG. 5

6. [1e]

Horn and Baumgartner each disclose, and their combination renders obvious, this limitation. Horn discloses a processor for controlling the display to display the areas and information in limitations [1f]-[1m]. For example, Horn discloses "[a] computer used in the inventive system typically includes ***at least one processor*** and memory coupled to a bus." EX1005, 6:40-50. Baumgartner discloses that personal computer unit 98 of Fig. 5 includes one or more microprocessors used to run the interactive TV application that displays video to the user. EX1016, ¶84; EX1003, ¶150.

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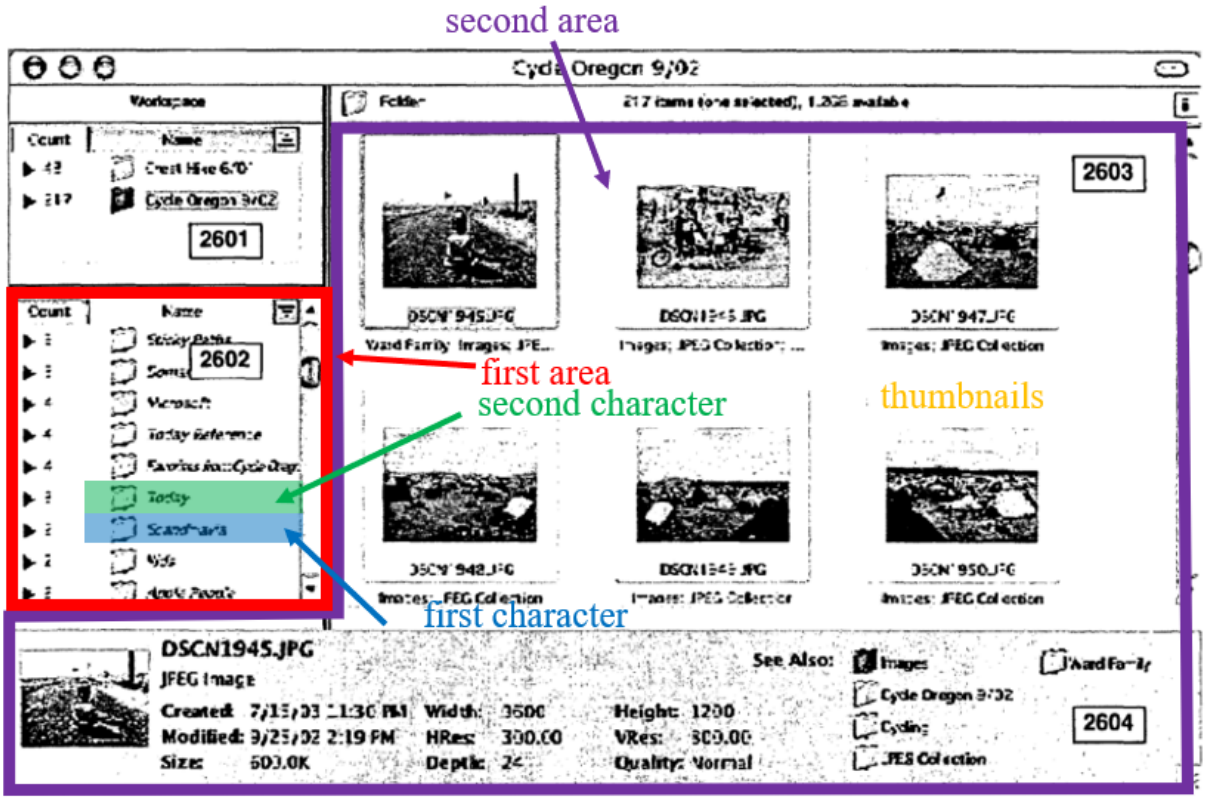
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7. [1f]

The Horn-Baumgartner combination renders this limitation obvious. EX1003, ¶151. Horn discloses Workspace view in Fig. 26 that includes a first area 2602 (outlined in red below) that includes a list of all collections (*i.e.*, groups of photos, which would be shown in the content pane 2603 for a selected collection). Each item in the list of collections in this first area 2602 includes a name that includes at least one character. In Fig. 26 below, one item in the list, *e.g.*, "Scandinavia" (highlighted in blue) includes a first character (i.e., the portion of an item that is clicked to select the item, which can include the "S" in "Scandinavia") associated with a first group of information (in this case, photos in the Scandinavia collection) for a first classification (photos classified by the user as being related to Scandinavia), and a second item in the list, *e.g.*, "Today" (highlighted in green) that includes a second character (i.e., the portion that is clicked, which can include the "T" in "Today") associated with a second group of information (in this case, the photos modified or created today that constitute a "Today" collection) for a second classification (items created or modified today) that is different from the first classification. EX1005, 19:25-47; *see also* 17:11-17 (explaining meaning of "Today" collection in the context of email). Although the Workspace view is illustrated using photos in Horn, a POSITA would have understood or at least

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the content pane 2603 and the metadata pane 2604 (the areas surrounded by the purple boxes, together the claimed second user interface). EX1003, ¶297.



7. [16f]

The Horn-Baumgartner combination renders obvious this limitation. *See* §VI.B.6; EX1003, ¶298. The second user interface is associated with the first user profile for the reasons discussed above in §VI.B.3 and §VI.B.6. The second user interface/second area of Horn's Workspace view in Fig. 26 above does not explicitly show the user name associated with the user profile to which the content in the content pane 2603 pertains, but doing so would have been obvious to a user. In particular, a POSITA would have found it obvious to include the user name in

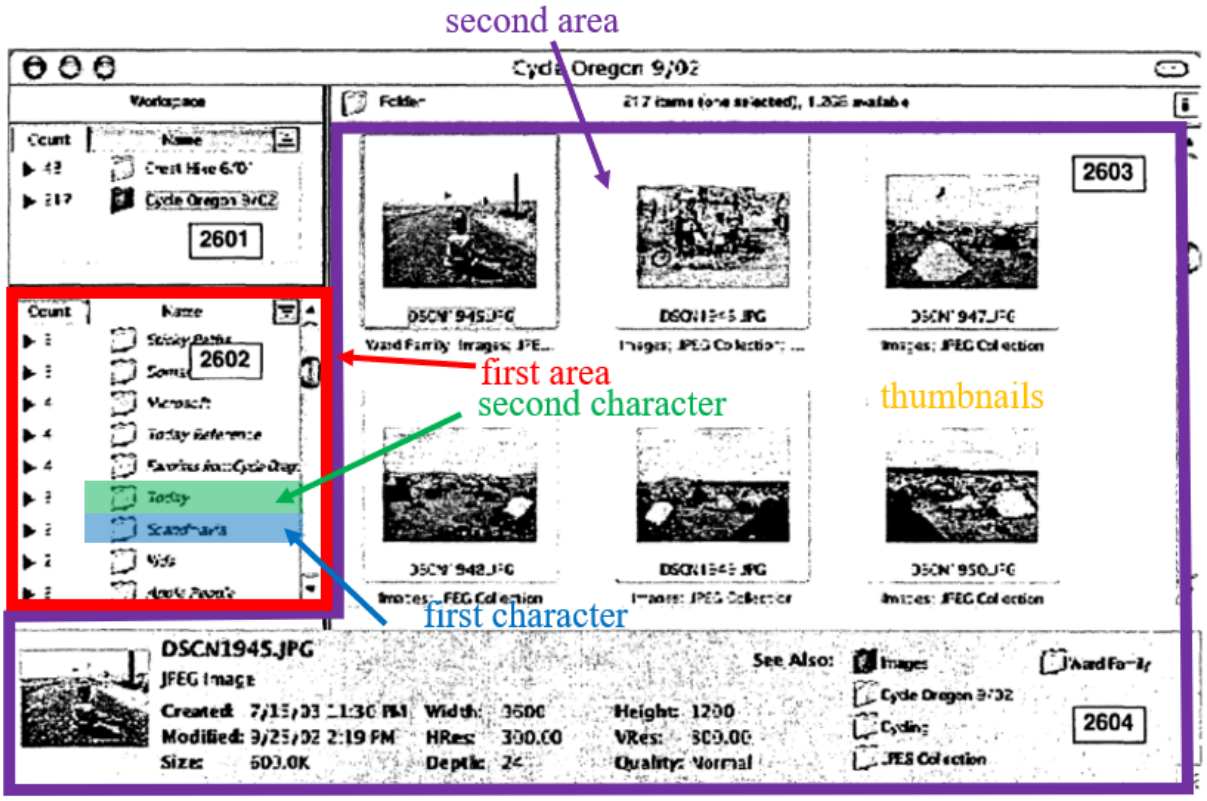
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the metadata pane 2604 as discussed in Horn at 19:55-57. The metadata pane 2604 constitutes part of the second user interface in this read. EX1003, ¶298. The user name and all characters thereof (a claimed first character) indicate the identity of the user of the first user profile and are associated with the video information in the content pane 2603 as demonstrated in §VI.B.4 and §VI.B.6.

8. [16g]

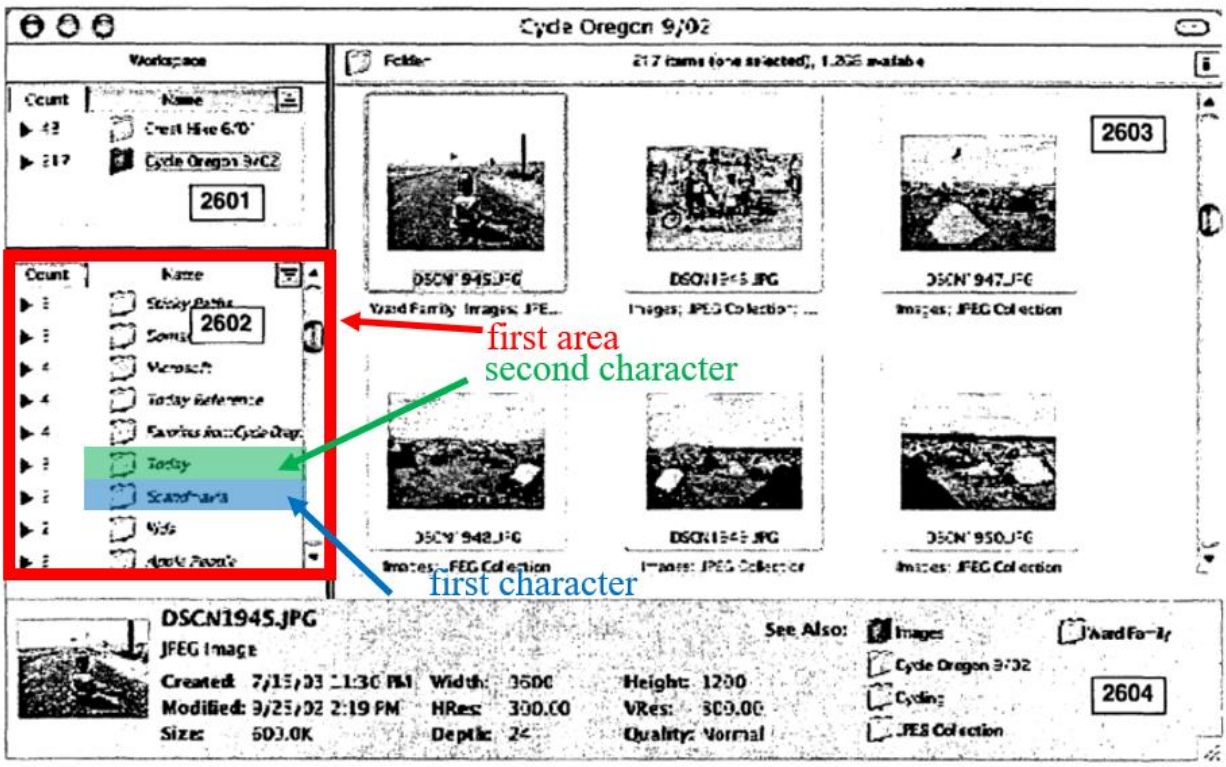
The Horn-Baumgartner combination renders obvious this limitation. §VI.B.6; EX1003, ¶300. Thumbnails are disclosed by Horn in FIG. 26 shown below.



EX1005, FIG. 26.

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found obvious to utilize Horn's Workspace view to allow a user to select and view video information such as movies as taught by both Horn and Baumgartner.



EX1003, ¶151.

8. [1g]

The Horn-Baumgartner combination renders this limitation obvious. EX1003, ¶152. Horn discloses the first group of information, *i.e.*, a collection, is configured to allow a user to edit membership in the collection by, *e.g.*, adding and removing objects (individual items, such as individual photos) to/from the collection. Horn discloses at 20:16-46:

> Manually Categorizing Objects into Collections. The user may now view images from any of the source folders, and by dragging their icon representations to either the collection window or the icon

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Horn discloses a second area (*e.g.*, content pane 2603, highlighted in purple) displaying thumbnails corresponding to at least a portion of the plurality of stored information, i.e., thumbnails for the objects corresponding to the user profile selected from the list in the pane 2602. EX1005, 19:48-54; *see also* 19:25-57; EX1003, ¶300.

9. [16h]

The Horn-Baumgartner combination renders obvious this limitation. For the same reasons that it would have been obvious to a POSITA to display Horn's Workspace view content represented by thumbnails corresponding to a first user and user profile and the user name in the second user interface (content pane 2603 and metadata pane 2604) as discussed above in §§VI.B.3, VI.B.6 and VI.B.7, a POSITA would have found it obvious to display a second group of thumbnails representing content corresponding to a second user profile when the second profile is selected. EX1003, ¶301.

10. [16i]

The Horn-Baumgartner combination renders obvious this limitation. EX1003, ¶302. Horn discloses that the collections that form the first and second groups of information are part of the plurality of stored information objects. EX1005, 4:1-5; 4:51-60; 19:42-45; 30:44-31:16.

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> representation in the Workspace, add those images to the collection. ... The user may also quickly create a collection of images by selecting the images and choosing the Collect command; this gathers together the images into a collection, which then may be renamed by the user. Items may be re-categorized into different collections by dragging them to the new collections directly. Also, items may be removed from a collection by choosing the Remove command ....

EX1005, FIG. 30. Horn also discloses "[b]ecause MFS remembers settings and views, the user can set up collections and preferred ways of viewing them and keep them available at all times, constantly updated." EX1005, 17:18-45, FIGS. 21-22. While Horn illustrates this concept using images/photos, a POSITA would have understood or at least found obvious to provide this same functionality for collections of video information such as movies as taught by both Horn and Baumgartner. EX1003, ¶152.

9. [1h]

The Horn-Baumgartner combination renders this limitation obvious. Horn discloses that the collections that form the first and second groups of information are part of the plurality of stored information objects. EX1005, 4:1-5; 4:51-60; 19:42-45; 30:44-31:16. Horn explains that the objects viewed by reference are from collections. *Id.*; *supra* [1g]; EX1003, ¶153.

10. [1i]

The Horn-Baumgartner combination renders this limitation obvious. EX1003, ¶154. Horn discloses a second area (*e.g.*, content pane 2603, highlighted

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Horn explains that the objects viewed by reference are from collections. *Id.* Horn discloses a first group of information, i.e., a collection, is configured to allow a user to edit membership in the collection by, e.g., adding and removing objects (individual items, such as individual photos) to/from the collection. Horn discloses at 20:16-46 (EX1003, ¶303):

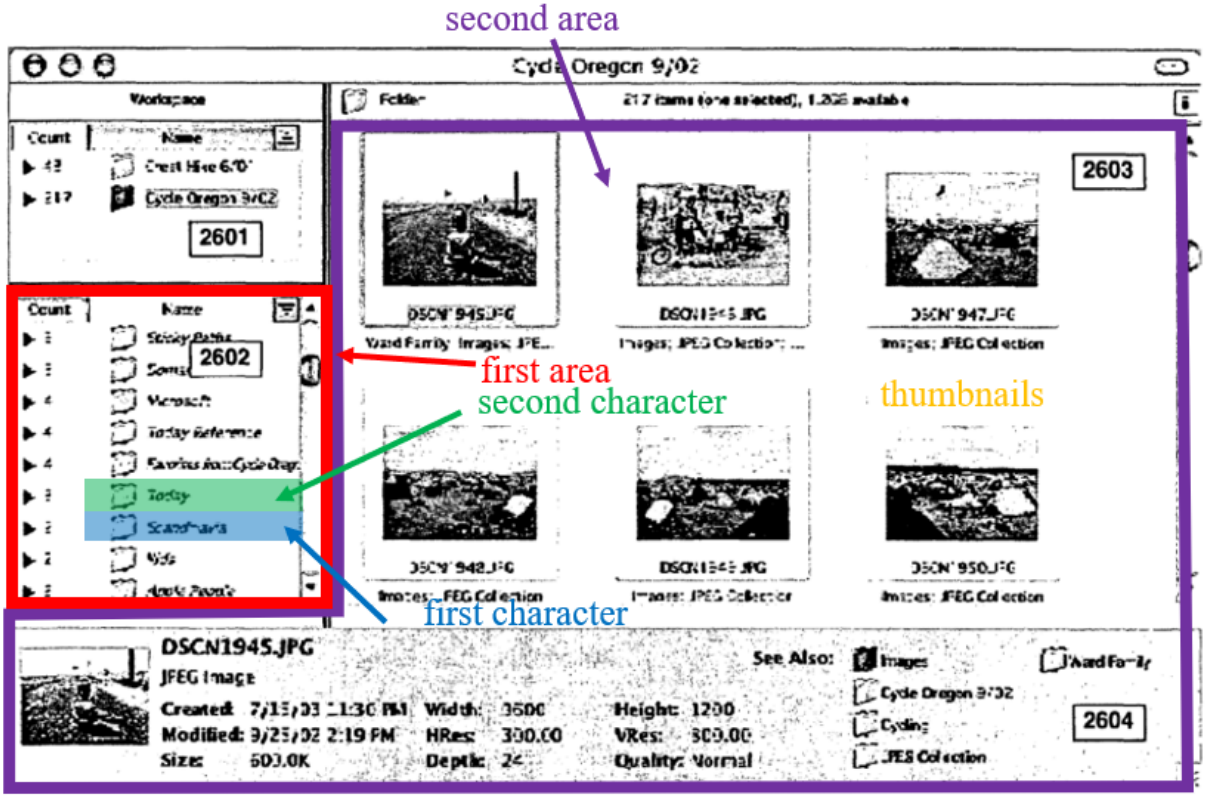
> Manually Categorizing Objects into Collections. The user may now view images from any of the source folders, and by dragging their icon representations to either the collection window or the icon representation in the Workspace, add those images to the collection. ... The user may also quickly create a collection of images by selecting the images and choosing the Collect command; this gathers together the images into a collection…. Items may be re-categorized into different collections by dragging them to the new collections directly. Also, items may be removed from a collection by choosing the Remove command ....

Horn also discloses "[b]ecause MFS remembers settings and views, the user can set up collections and preferred ways of viewing them and keep them available at all times, constantly updated." EX1005, 17:18-45, FIGS. 21-22. While Horn illustrates this concept using images/photos, a POSITA would have understood or at least found obvious to provide this same functionality for collections of video information such as movies as taught by Horn and Baumgartner. EX1003, ¶304.

Horn teaches that the same information can belong to multiple collections: "clicking on the icon or list reference to an object in one collection window and dragging it into another collect window establishes a new link; the object is now accessible from both collections." EX1005, 9:1-16; *see also* Abstract, 8:59-67,

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in purple below) displaying thumbnails corresponding to at least a portion of the plurality of stored information, *i.e.*, thumbnails for the objects in the collection selected from the list of collections in the collection pane 2602). EX1005, 19:48-54 and Fig. 26:



Horn also discloses at 19:25-57:

> The windows display the images in a variety of ways, including well-known icon and list views showing icons representing either the type of the file (such as a Photoshop JPEG file) or a miniature 'slide' view (***thumbnail***) of the image itself. ... a content pane, which dynamically displays the contents of whatever item is selected in the first two views (2603) ....

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For the reasons discussed above, a POSITA would have understood or at least found obvious to provide this same functionality for collections of video information such as movies as taught by both Horn and Baumgartner. EX1003, ¶155.

11. [1j]

The Horn-Baumgartner combination renders this limitation obvious. EX1003, ¶156. Horn discloses that the content pane 2603 "dynamically displays the contents of whatever item is selected in the first two views (2603). In the case of a folder or collection, the contents of the folder or collection is shown in an icon or list view." EX1005, 19:48-51; *see also* 19:25-34. A POSITA would have understood that "icon view" in this passage means the display of thumbnails in the content pane 2603 as shown in Fig. 26 above for the selected collection (*e.g.*, the objects in the Scandinavia collection when the Scandinavia collection is selected in 2602 by clicking on the blue highlighted area), and would have further understood or found obvious to provide this same functionality for collections of video information such as movies as taught by both Horn and Baumgartner. EX1003, ¶156.

12. [1k]

The Horn-Baumgartner combination renders this limitation obvious. EX1003, ¶157. For the same reasons discussed above for limitation [1j], a POSITA

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23:57-24:12. Similarly, a POSITA would have understood in view of Baumgartner's disclosures that a particular program corresponding to one user's profile could correspond to multiple profiles. EX1003, ¶305.

11. [16j] and [16k]

Horn-Baumgartner renders these limitations obvious. EX1003, ¶306. Horn discloses "storing *only one instance of each object while linking the object to multiple collections* and domains by unique metadata links for the grouping into and retrieval from any of the collections." EX1005, Abstract.

Horn also discloses at 20:16-46:

> …items may belong to more than one collection at a time. ... ***[I]tems may be removed from a collection*** by choosing the Remove command, ***which removes the items from the collection but does not otherwise delete the items from the source (e.g. the file system) or any other collections.***

Horn discloses removing the one information from the first group of information, wherein, upon the one information being removed from the first group of information, the one information continues to be included in the second group of information. According to Horn, "***items may be removed from a collection by choosing the Remove command, which removes the items from the collection but does not otherwise delete the item from the source (e.g., the file system) or any other collections***." EX1005, 20:41-46; *see also* 23:57-24:11. EX1003, ¶¶307-308.

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would have understood that selection of the second character for the Today collection in the collections pane 2602 would result in the display of thumbnails of the objects (which could be videos) in the Today collection in the content pane 2603, which would be different from the collection of objects displayed for the Scandinavia collection. *Id*.

13. [1l]

The Horn-Baumgartner combination renders this limitation obvious. EX1003, ¶158. For example, Horn discloses "storing only one instance of each object while linking the object to multiple collections and domains by unique metadata links for the grouping into and retrieval from any of the collections." EX1005, Abstract.

Horn also discloses at 20:16-46:

> Items from any source may be dragged in this way to any collection, and items may belong to more than one collection at a time. ... ***[I]tems may be removed from a collection*** by choosing the Remove command, ***which removes the items from the collection but does not otherwise delete the items from the source (e.g. the file system) or any other collections.***

Supra § V (Claim Construction); EX1003, ¶158.

14. [1m]

The Horn-Baumgartner combination renders this limitation obvious. In view of the disclosure in Horn in limitations [1k] and [1l] discussed above, a POSITA would have understood that selection of the second collection (*e.g.*, the Today

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collection) in the collection pane 2602 would result in the display of thumbnails for all objects in the second collection in the content pane 2603 even if one of those objects had been deleted from a different collection, and a POSITA would have found it obvious to provide this same functionality for video information such as movies as taught by both Horn and Baumgartner. EX1003, ¶159.

C. Claim 2.

The Horn-Baumgartner combination renders this limitation obvious. EX1003, ¶160. Horn and Baumgartner render obvious the apparatus of claim 1. *Supra* claim 1. PO alleges this claim includes the generation and display of a group of video information that includes only videos selected by a user for inclusion in a group. EX1017, 153-155. Horn discloses that the processor (*supra* [1e]) generates a group of information including only objects selected by a user. For example, Horn discloses "so as to provide information management tools that facilitate communication to generate, transmit and receive, archive, search, order, retrieve and render objects, ***including information organization personalized for each individual user based on preferences selected by the user***." EX1005, 6:11-22; *see also* 3:35-43.

Horn discloses at 8:58-67:

> Collections: ... allow[] users to categorize objects in ways that most clearly reflect different approaches and ways of viewing the same information. Users can select predetermined collections provided in a basic menu, such as Family, Friends, Work, To Do, Activities, and

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12. [16l]

Horn-Baumgartner renders this limitation obvious. EX1003, ¶309. Horn discloses that a user can select a thumbnail in the content pane 2603 of Fig. 26 for viewing in a new window. EX1005, 19:58-60. The content corresponding to one of the thumbnails can correspond to second information received in encrypted form as discussed in §VI.B.2.

13. [16m]

Horn-Baumgartner in combination with Candelore combination renders this limitation obvious. EX1003, ¶310; §VI.B.2; EX1013, ¶¶72, 131.

C. Claim 17.

Horn-Baumgartner-Candelore render obvious the method of claim 16. §VI.B. Baumgartner renders this limitation obvious. EX1003, ¶311. Baumgartner discloses that its "application may allow the user to establish parental control settings" where "the user may lock a particular program, a program rating, a channel, a type of content (e.g., violent or sexual content)." EX1014, ¶148. A POSITA would have understood that using Baumgartner's parental control would allow a first user to block content for a second user, which is substantially the same as deleting that content from the second user's video information. A POSITA would have understood that setting a parental control for other users would result in the deletion of stored video information (media content pointers) for prohibited content. EX1003, ¶311. Moreover, Baumgartner discloses its "interactive

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> Vacation when running the MFS program for the first time, and can create and set up user-defined collections as well.

Horn also discloses that "User-defined categorization is enabled by a user directly specifying that a given object belongs to a given collection ...." EX1005, 15:12-27, 16:5-23; EX1003, ¶161 (also citing Horn's disclosure of "Favorites").

Horn discloses that, upon user selection of the group, the processor controls the display to display thumbnails that correspond to the information and no other thumbnails associated with information of other users. *Supra* [1i]-[1j]. The Horn-Baumgartner combination renders obvious video information. *Supra* [1b]; EX1003, ¶162.

D. Claim 3.

The Horn-Baumgartner combination renders this limitation obvious. EX1003, ¶163. Horn and Baumgartner render obvious the apparatus of claim 1. *Supra* claim 1. As discussed above for limitation [1b], Horn discloses a connection to the Internet, and Baumgartner discloses that the connection can be wireless. EX1016, ¶55. A POSITA would have understood that for the Horn-Baumgartner apparatus to wirelessly receive the first video information from the Internet or via a satellite transmission, an antenna would be required and in any event would have found it obvious to include an antenna for such a wireless connection because the use of antennas for wireless and satellite connections was ubiquitous. EX1003,

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television program guide may also use a combination of profiles at the same time, for example, if multiple household members are viewing the television at the same time." EX1014, ¶165. In that case, one user could delete stored video information in a manner that satisfies this claim. EX1003, ¶311.

D. Claim 18.

Horn-Baumgartner-Candelore render obvious the method of claim 16. §VI.B. Horn renders this limitation obvious. EX1003, ¶312. Horn discloses a process providing "information management tools that facilitate communication to generate, transmit and receive, archive, search, order, retrieve and render objects, ***including information organization personalized for each individual user based on preferences selected by the user.***" EX1005, 6:11-22; *see also* 3:35-43.

Horn also discloses at 8:58-67:

> Collections: ... allow[] users to categorize objects in ways that most clearly reflect different approaches and ways of viewing the same information. Users can select predetermined collections provided in a basic menu, such as Family, Friends, Work, To Do, Activities, and Vacation when running the MFS program for the first time, and can create and set up user-defined collections as well.

Horn further discloses "[u]ser-defined categorization is enabled by a user directly specifying that a given object belongs to a given collection." EX1005, 15:12-27; *see also* 16:5-23; EX1003, ¶¶313-314.

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E. Claim 19

1. [19a]

Horn-Baumgartner-Candelore render obvious the method of claim 16. §VI.B. Horn-Baumgartner discloses third video information. EX1005, 18:52-58; 19:6-16; §VI.A. Horn-Baumgartner renders this limitation obvious. §VI.D; EX1003, ¶315.

2. [19b]

Horn-Baumgartner renders this limitation obvious. §VI.E.1, *see also* §§VI.B, VI.D; EX1003, ¶316; EX1007, FIG. 6.

F. Claim 21

1. [21pre]

To the extent the preamble is limiting, Horn discloses an information processing apparatus. Horn discloses that "[t]he invention relates to computer data processing systems that include central processing units configured with novel software-based information management systems." EX1005, 1:18-30, Title, Abstract, 5:27-6:23, FIG. 1; EX1003, ¶317.

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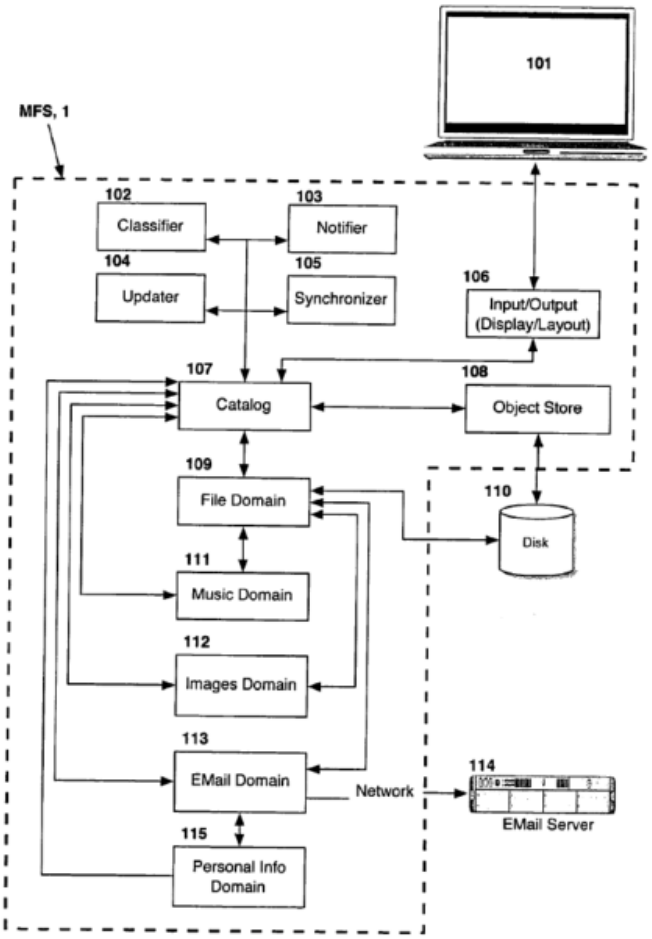


Figure 1

2. [21a]

§VI.B.2.

3. [21b]

§VI.B.3.

4. [21c]

§VI.B.4.

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5. [21d]

§VI.B.5. Baumgartner discloses selection of different user profiles at different times. *Id.*

6. [21e]

§§VI.B.5, VI.B.6.

7. [21f]

§VI.B.7.

8. [21g]

§VI.B.8.

9. [21h]

§VI.B.9.

10. [21i]

§VI.B.10.

11. [21j]

12. [21k]

§§VI.B.11, VI.B.12, VI.F.5.

13. [21l]

§§VI.B.13, VI.B.14.

14. [21m]

§VI.B.14.

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¶163 (citing EX1018, which discloses an antenna suitable for use in a standard PCMCIA personal computer card with an 802.11 wireless LAN).

E. Claim 4.

1. [4a]

The Horn-Baumgartner combination renders this limitation obvious. EX1003, ¶164. Horn and Baumgartner render obvious the apparatus of claim 1. *Supra* claim 1.

Horn discloses that the plurality of stored information includes third information (*e.g.*, a third image file), fourth information (*e.g.*, a fourth image file), and fifth information (*e.g.*, a fifth image file). EX1005, FIG. 26 (showing more than 5 thumbnails); EX1003, ¶165. For example, Horn discloses at 18:52-58 that "[t]he use described below is of organizing and retrieving images created with a digital camera and stored on the computer in individual image files," and at 19:6-16 that "a particular computer user has taken thousands of digital images with his/her digital camera, in various places, including images of various friends and family." The Horn-Baumgartner combination renders obvious video information. *Supra* [1b]. EX1003, ¶165.

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G. Claim 22.

Horn-Baumgartner-Candelore render obvious the information processing apparatus of claim 21. §VI.F. The Horn-Baumgartner combination renders this limitation obvious. EX1003, ¶330. Horn discloses a connection to the Internet, and Baumgartner discloses that the connection can be wireless. EX1016, ¶55. A POSITA would have understood that for the Horn-Baumgartner apparatus to wirelessly receive the first video information from the Internet, an antenna would be required and also would have found it obvious to include an antenna for such a wireless connection because the use of antennas for wireless and satellite connections was ubiquitous. EX1003, ¶330 (citing EX1018).

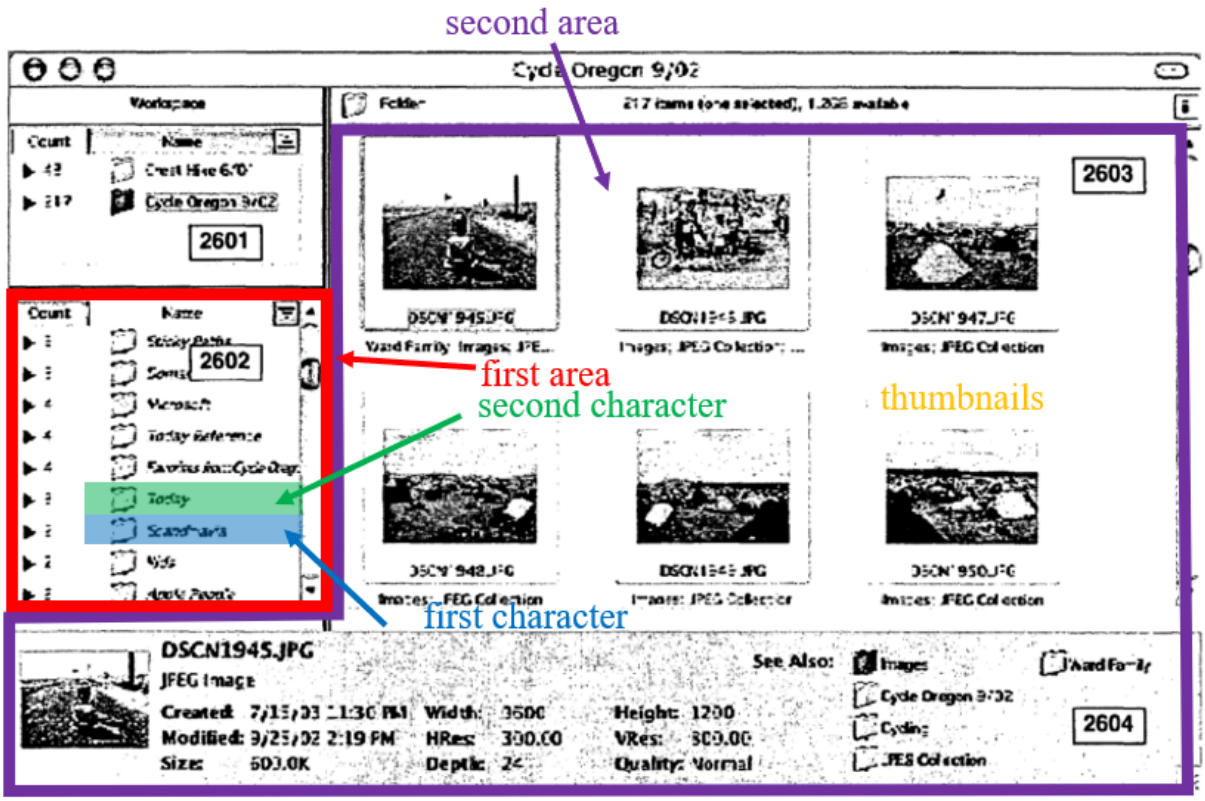
H. Claim 23.

Horn-Baumgartner-Candelore render obvious the information processing apparatus of claim 21. §VI.F. Baumgartner renders this limitation obvious. §VI.C; EX1003, ¶331.

I. Claim 24.

Horn-Baumgartner-Candelore render obvious the information processing apparatus of claim 21. §VI.F. Horn renders this limitation obvious. §VI.D; EX1003, ¶332.

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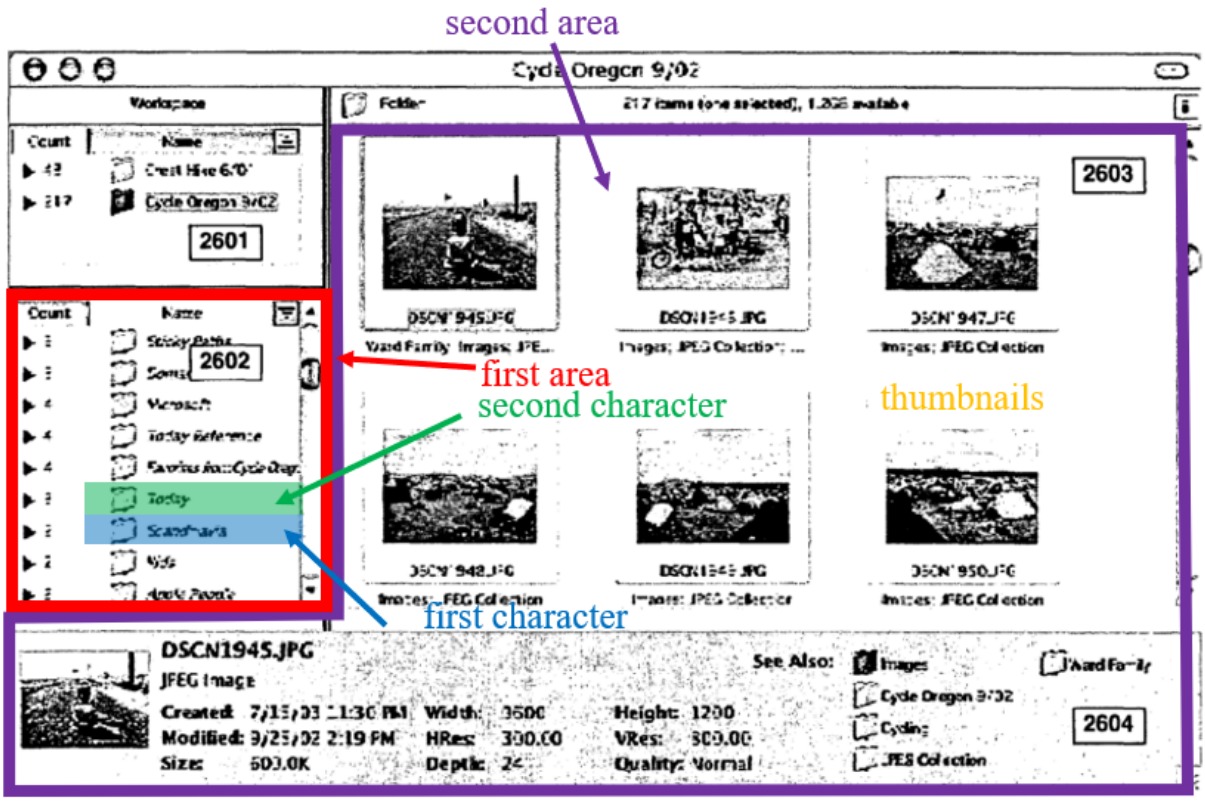


~~2.~~ ~~[4b]~~

~~The Horn-Baumgartner combination renders~~ this limitation obvious. EX1003, ¶~~166. Horn discloses that the display displays a user interface having thumbnails corresponding to each of the third, fourth, and fifth information. *Supra* [1i]-[1k]; *see also* EX1005, FIG. 26 (showing more than 5 thumbnails):~~

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~~The~~ Horn-~~Baumgartner~~ ~~combination~~ ~~renders~~ obvious ~~video~~ ~~information.~~

~~*Supra* [1b]; EX1003, ¶166.~~

F. ~~Claim~~ 5.

~~The~~ Horn-Baumgartner ~~combination~~ renders this limitation obvious. EX1003, ¶~~167.~~ Horn ~~and~~ ~~Baumgartner~~ ~~render~~ ~~obvious~~ ~~the~~ ~~apparatus~~ ~~of~~ ~~claim~~ ~~4.~~ ~~*Supra* claim 4.~~ ~~The~~ ~~Horn-Baumgartner~~ ~~combination~~ ~~renders~~ ~~obvious~~ ~~video~~ ~~information~~ ~~as~~ ~~discussed~~ ~~above.~~ ~~Horn~~ ~~also~~ discloses ~~that~~ ~~the~~ ~~display~~ ~~displays~~ ~~the~~ ~~third,~~ ~~fourth,~~ ~~and~~ ~~fifth~~ ~~information~~ ~~according~~ ~~to~~ ~~predetermined~~ ~~playback~~ ~~sequence~~ ~~because~~ ~~it~~ ~~discloses~~ ~~that~~ ~~the~~ ~~user~~ ~~can~~ ~~organize~~ ~~information,~~ ~~which~~ ~~a~~ ~~POSITA~~ ~~would~~ ~~have~~ ~~understood~~ ~~could~~ ~~be~~ ~~played~~ ~~back~~ ~~in~~ ~~the~~ ~~organized~~ ~~manner.~~ ~~For~~ ~~example,~~ ~~Horn~~

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J. Claim 25

1. [25a]

Horn-Baumgartner-Candelore render obvious the information processing apparatus of claim 21. §VI.F. Horn-Baumgartner renders this limitation obvious. §VI.E.1; EX1003, ¶333. Horn discloses fourth information. EX1005, 18:52-58; 19:6-16.;EX1003, ¶333.

2. [25b]

Horn-Baumgartner renders this limitation obvious. §VI.E.2, §VI.J.1; EX1003, ¶334.

VII. GROUND 7: HORN, BAUMGARTNER, CANDELORE & WINTV

A. Motivation to Combine WinTV with the Horn/Baumgartner/Candelore Combination

Baumgartner explicitly suggests including, in its PC (FIG. 5), a television tuner card for decoding analog and digital television channels. EX1016, ¶83. WinTV discloses a WinTV television tuner card and associated software configured for installation in a PC such as those disclosed in Horn and Baumgartner. §IV.B; EX1003, ¶335; see also figure in EX1010 at 1-2:

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discloses "[a]nother feature of the inventive MFS-configured computer system enables the user to ***organize all kinds of information***, not merely simple files, ***through a drag-and-drop windows-and-icons software functionality***, making it easy to organize objects and cross-reference them from place to place using a desktop-style interface." EX1005, 9:1-16; *see also* 17:62-18:27; 19:6-20:14; 23:25-32; EX1003, ¶167.

Horn does not explicitly disclose a playback sequence for objects in a collection. However, playback sequences, which are commonly referred to as playlists, were well-known in the art at the time of the '815 patent. The '815 patent admits that playlists for video were known in the art. EX1001, 1:54-59 (referring to exemplary playlists disclosed in prior art patent JP-A-2000-152180, EX1020, "AAPA", *see also* translation of same in EX1021). Other prior art also discloses playlists that are used to play back digital objects such as videos in a predetermined playback sequence, including, *e.g.*, Kaplan. EX1014, ¶¶6, 9, 56-57. It would have been obvious to a POSITA to incorporate playlist functionality such as disclosed in AAPA and Kaplan for displaying (playing back) objects such as videos/movies in one of Horn's collections in a predetermined order (*e.g.*, the order in which objects were added to the collection or a date order). A POSITA would have been motivated to improve the Horn-Baumgartner combination by implementing such playlist technology to provide a simple way for a user to view

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content in a collection without the burden of individually selecting thumbnails in a collection. A POSITA would have had a reasonable expectation of success in implementing such playlist technology because playlists were conventional and doing so required only ordinary skill in the art. EX1003, ¶168.

G. Claim 6.

1. [6a]

The Horn-Baumgartner combination renders this limitation obvious. EX1003, ¶169; *Supra* [4a].

2. [6b]

The Horn-Baumgartner combination renders this limitation obvious. EX1003, ¶170. For example, Horn discloses: "[e]xamples of metadata properties in the inventive application software system include ... names," 4:31-50, FIG. 3, "matching dates and times, including date and time ranges," 9:17-24, "Time Orientation," 9:46-52, 12:50-62, 13:53-14:38 (filenames), 15:28-49 (time-based collections), 18:28-33 (time-based collections), 36:50-67 (Time Domain). A POSITA would have understood that this information comprises "management information" in accordance with the '815 patent. EX1003, ¶170. The Horn-Baumgartner combination renders obvious video information. *Supra* [1b];

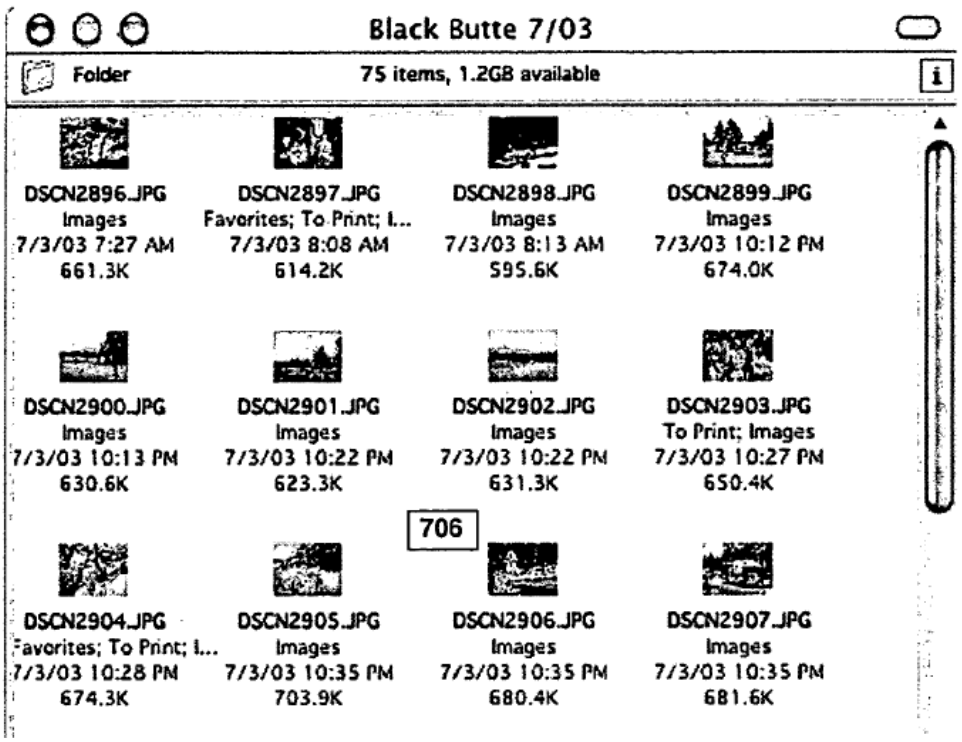
3. [6c]

The Horn-Baumgartner combination renders this limitation obvious. EX1003, ¶171. Horn and Baumgartner render obvious having management

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information that includes filename information and timing information for each of the third, fourth, and fifth information. *Supra* [6b]. Horn and Baumgartner render obvious that when the third, fourth, and fifth information is stored in the recording medium the filename information is updated according to a predetermined sequence, which can be understood to mean updating the sequence for renaming video information follows a predetermined pattern, ensuring filename consistency and organization. EX1003, ¶171. For example, in Fig. 7b, Horn shows photos with filenames that increment sequentially (e.g., DSCN2896.jpg, DSCN2897.jpg, etc.). In situations where new videos are imported without filenames, or if filenames needed to be updated, it would have been obvious to employ a similar sequential naming scheme. *Id.*



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Horn further discloses: "Link or link metadata: means metadata that is specifically defined, ***updated***, and accessed for the purpose of linking together and organizing reference objects logically in collections and other containers," 4:27-30, "Updates and changes to the reference objects also update the metadata in the catalog with the changes rippling throughout all the images in all collections instantly and simultaneously," 7:20-8:39, "The system architecture and methodology in providing dynamic collection functionality (such as time-based collections: Today, Yesterday, Last Year, and so on), combined with ***real-time updating and referencing*** (Viewing by Reference), provides a unique and valuable mechanism for examining a user's changing information environment," 18:28-33, 16:64-17:3 (Viewing by Reference), "The updater is the process by which invalid object properties are computed and new values set for future retrieval," 27:33-28:19, and "if a file's modification date changes, its corresponding file object is updated with the current filename, modification date, size, and so on in order to mirror exactly the file's property values," 34:1-12; 7:52-58. A POSITA would have understood that organizing objects locally would have included updating the filename information according to a predetermined sequence. EX1003, ¶171.

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H. Claim 9.

1. [9pre]

To the extent the preamble is limiting, Horn discloses it. *Supra* [1pre]; EX1003, ¶172.

2. [9a]

See supra [1b].

3. [9b]

See supra [1c].

4. [9c]

See supra [1d].

5. [9d]

See supra [1f].

6. [9e]

See supra [1g].

7. [9f]

See supra [1h].

8. [9g]

See supra [1i].

9. [9h]

See supra [1j].

10. [9i]

See supra [1k].

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11. [9j]

See supra [1l].

12. [9k]

See supra [1m].

13. [9l]

See supra claim 2.

14. [9m]

See supra claim 2.

I. Claim 10.

See supra claims 9, 3.

J. Claim 11.

1. [11a]

See supra claim 9, [4a].

2. [11b]

See supra [4b].

K. Claim 12.

See supra claims 11, 5.

L. Claim 13.

1. [13pre]

See supra claim 9.

2. [13a]

See supra [6a].

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~~3.~~ ~~[13b]~~

~~*See supra* [6b].~~

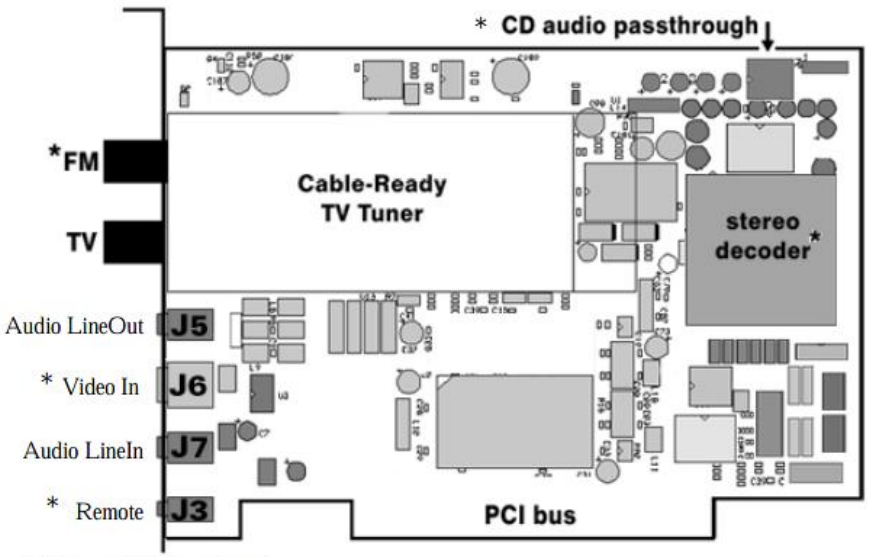
~~4.~~ ~~[13c]~~

~~*See supra* [6c].~~

VII. GROUND ~~2:~~ HORN, BAUMGARTNER, ~~AND~~ WINTV ~~RENDER OBVIOUS CLAIMS 7, 8, 14, AND 15~~

A. Motivation to Combine WinTV with the ~~Horn-Baumgartner~~ Combination

Baumgartner explicitly suggests ~~including~~ in ~~the~~ ~~personal~~ ~~computer~~ ~~98~~ ~~of~~ ~~Fig.~~ ~~5~~ a television tuner card for decoding analog and digital television channels. EX1016, ¶83. WinTV discloses a WinTV television tuner card and associated software configured for installation in a ~~personal~~ ~~computer~~ such as those disclosed in Horn and Baumgartner. ~~*See*~~ ~~Section~~ IV.B; *see also* figure in EX1010 at 1-2:



*Note: not available on all models.
Note: this outline may not reflect the current revision of your WinTV board. For the most up to date information, see the WinTV QuickInstall Guide provided with your WinTV board.

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Accordingly, a POSITA would have found it obvious to include WinTV's television tuner card in a Horn-Baumgartner PC as taught by Baumgartner and WinTV to improve the Horn-Baumgartner device with the additional capability of capturing videos from television signals such as NTSC television signals. A POSITA would have had a reasonable expectation of success in making this combination because such combinations were known in the art and involved no more than ordinary skill. EX1003, ¶~~194.~~

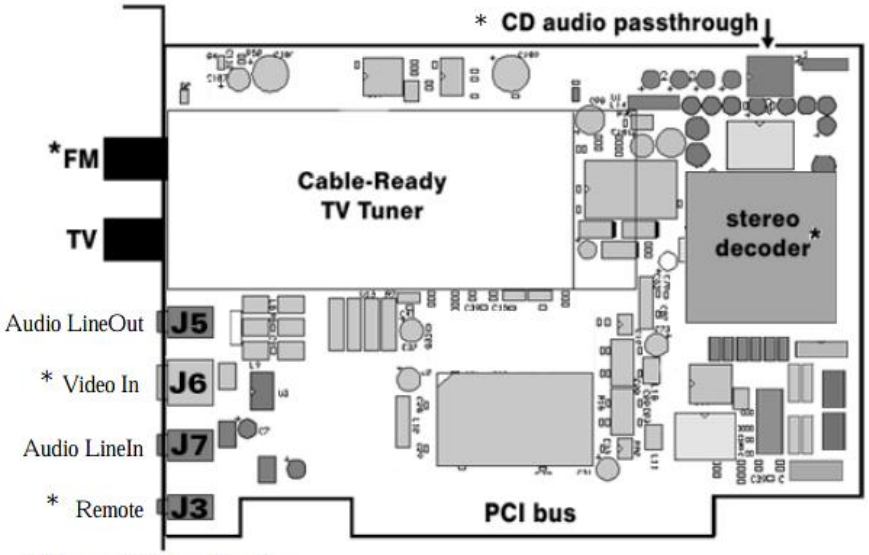
B. Claim ~~7~~

1. [~~7a~~]

The Horn-Baumgartner-WinTV combination renders this limitation obvious. EX1003, ¶~~195.~~ Horn-Baumgartner renders obvious the apparatus of claim ~~1.~~ ~~*Supra* claim 1.~~

WinTV discloses that "WinTV-Capture creates a file type called *AVI (Audio/Video Interleaved)* on your hard disk. This file contains *digitized* video and, optionally, *audio*." EX1010, 4-1. WinTV discloses that it demodulates a received analog television signal and outputs the analog audio portion of that demodulated television signal to a sound card installed in the PC. EX1010, 7-1; *see also* 1-~~13,~~ 1-14 (discussing connection of Audio LineOut audio output of WinTV card to sound card). A sound card includes an analog-to-digital converter for converting analog audio to digital form. EX1019, 3:20-43. A POSITA would have understood from

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*Note: not available on all models.
Note: this outline may not reflect the current revision of your WinTV board. For the most up to date information, see the WinTV QuickInstall Guide provided with your WinTV board.

Accordingly, a POSITA would have found it obvious to include WinTV's television tuner card in a Horn-Baumgartner PC as taught by Baumgartner and WinTV to improve the Horn-Baumgartner device with the additional capability of capturing videos from television signals such as NTSC television signals. A POSITA would have had a reasonable expectation of success in making this combination because such combinations were known in the art and involved no more than ordinary skill. EX1003, ¶336.

B. Claim 20

1. [20a]

Horn-Baumgartner-Candelore- render obvious the method of claim 16. §VI.B. WinTV renders this limitation obvious. EX1003, ¶337. WinTV discloses an

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on screen display generator generating on screen display information such as the title "Capture 1" for a captured video:



EX1010, p. 4-2; EX1003, ¶337.

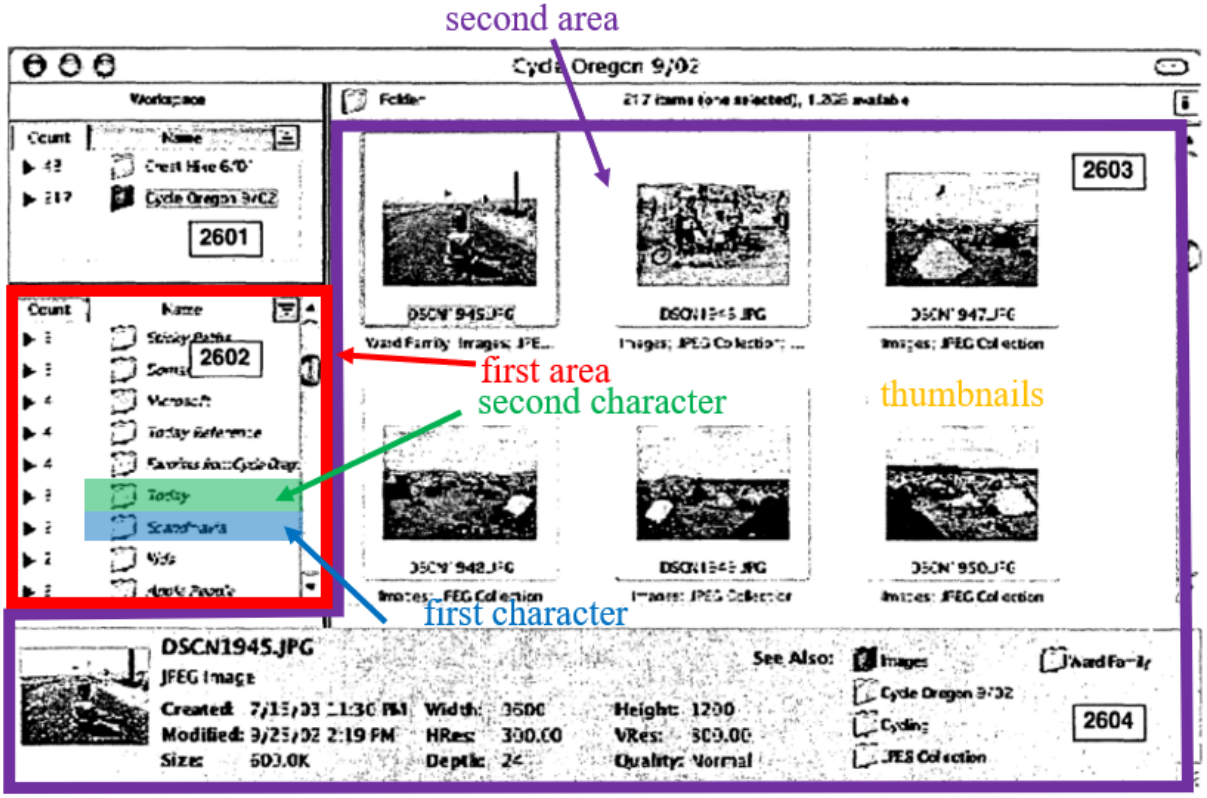
2. [20b]

The Horn-Baumgartner-WinTV combination renders this limitation obvious. EX1003, ¶XXX. Horn discloses that the plurality of stored information includes third information (*e.g.*, a third image file). EX1005, FIG. 26 (showing more than 5 thumbnails); EX1003, ¶338. Horn discloses at 18:52-58 "organizing and retrieving images created with a digital camera and stored on the computer in individual

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image files," and at 19:6-16 that "a particular computer user has taken thousands of digital images with his/her digital camera, in various places, including images of various friends and family." The Horn-Baumgartner combination renders obvious video information. §§VI.A, VI.B.2.



WinTV does as well. EX1010, p. 4-2 ("Capture 1"):

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EX1010, 4-2; EX1003, ¶339.

C. Claim 26

1. [26a]

Horn-Baumgartner-Candelore renders obvious the apparatus of claim 21. §VI.F. WinTV renders this limitation obvious. EX1003, ¶340.

WinTV discloses that "WinTV-Capture creates a file type called *AVI (Audio/Video Interleaved)* on your hard disk. This file contains *digitized* video and, optionally, *audio*." EX1010, 4-1. WinTV discloses that it demodulates a received

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these descriptions that the demodulated TV analog audio from the WinTV card is sent to the sound card, digitized, and then stored in the AVI file together with digitized video from the WinTV card. EX1003, ¶196.

2. [7b]

The Horn-Baumgartner WinTV combination renders this limitation obvious. EX1003, ¶197. WinTV discloses compressing the AVI file after it has been created, including the use of Indeo, Cinepak, and MPEG compression. EX1010, 4-1. A POSITA would have understood from this description in WinTV that the AVI file is compressed by the processor in the CPU configured with appropriate compression software, and MPEG (*e.g.*, MPEG-4) compression included both video and audio compression for a combined digital compressed file. EX1020, 1:52-59; 2:58-64 and Fig. 2; EX1003, ¶197.

3. [7c]

The Horn-Baumgartner WinTV combination renders this limitation obvious. EX1003, ¶198. For example, WinTV discloses allowing the user to "capture and playback video clips." EX1010, pp. 4-1-4-2. The captured information may include audio as well as the video. EX1010, p. 4-5. As noted above, WinTV discloses converting analog video and audio information into digital form and compressing the digitized analog and video information for storage. *Supra* [7a], [7b]. A POSITA would have understood that the playback of the stored information would

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analog television signal and outputs the analog audio portion of that demodulated television signal to a sound card installed in the PC. EX1010, 7-1; see also 1-13 and 1-14 (discussing connection of Audio LineOut audio output of WinTV card to sound card). A sound card includes an analog-to-digital converter for converting analog audio to digital form. EX1019, 3:20-43. A POSITA would have understood from these descriptions that the demodulated TV analog audio from the WinTV card is sent to the sound card, digitized, and then stored in the AVI file together with digitized video from the WinTV card. EX1003, ¶341.

2. [26b]

WinTV renders this limitation obvious. EX1003, ¶342. WinTV discloses compressing the AVI file after it has been created, including the use of Indeo, Cinepak and MPEG compression. EX1010, 4-1. A POSITA would have understood from this description in WinTV that the AVI file is compressed by the processor in the CPU configured with appropriate compression software, and MPEG (e.g., MPEG-4) compression included both video and audio compression for a combined digital compressed file. EX1020, 1:52-59; 2:58-64, FIG. 2; EX1003, ¶342.

3. [26c]

WinTV renders this limitation obvious. EX1003, ¶343. WinTV discloses allowing the user to "capture and playback video clips." EX1010, pp. 4-1-4-2. The

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have involved decoding the compressed and digitized analog and video information for the information to be played back as this was standard at the time. EX1003, ¶198.

4. [7d]

The Horn-Baumgartner WinTV combination renders this limitation obvious. EX1003, ¶199. WinTV discloses allowing the user to "capture and playback video clips." EX1010, pp. 4-1-4-2. The captured information may include audio as well as the video. EX1010, p. 4-5. As noted above, WinTV discloses converting analog video and audio information into digital form and compressing the digitized analog and video information for storage. *Supra* [7a], [7b]. A POSITA would have understood that the playback of the stored audio information would have involved decoding it and converting it to be played back through a sound card, speaker or other device connected to the computer. EX1003, ¶199. A sound card includes a digital-to-analog converter for converting digitized audio to analog audio suitable for input to a speaker. EX1019, 3:34-43. EX1003, ¶199.

C. Claim 8.

1. [8a]

The Horn-Baumgartner-WinTV combination renders this limitation obvious. EX1003, ¶200. Horn and Baumgartner render obvious the apparatus of claim 1. *Supra* claim 1.

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captured information may include audio as well as the video. EX1010, p. 4-5. As noted above, WinTV discloses converting analog video and audio information into digital form and compressing the digitized analog and video information for storage. §§VII.C.1, VII.C.2. A POSITA would have understood that the playback of the stored information would have involved decoding the compressed and digitized analog and video information for the information to be played back as this was standard at the time. EX1003, ¶343.

4. [26d]

WinTV renders this limitation obvious. EX1003, ¶344. WinTV discloses allowing the user to "capture and playback video clips." EX1010, pp. 4-1-4-2. The captured information may include audio as well as the video. EX1010, p. 4-5. As noted above, WinTV discloses converting analog video and audio information into digital form and compressing the digitized analog and video information for storage. §§VII.C.1, VII.C.2. A POSITA would have understood that the playback of the stored audio information would have involved decoding it and converting it to be played back through a sound card, speaker or other device connected to the computer. EX1003, ¶344. A sound card includes a digital-to-analog converter for converting digitized audio to analog audio suitable for input to a speaker. EX1019, 3:34-43; EX1003, ¶344.

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WinTV discloses an on screen display generator generating on screen display information such as the title "Capture 1" for a captured video:



EX1010, p. 4-2; EX1003, ¶201.

2. [8b]

The Horn-Baumgartner-WinTV combination renders this limitation obvious. EX1003, ¶202. Horn and WinTV render obvious that the plurality of stored video information includes third video information such that, upon selection for playback, the third video information is outputted with the on screen display

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D. Claim 27

1. [27a]

§§VI.F, VII.B.1.

2. [27b]

§VII.B.2.

VIII. GROUND 8: HORN, BAUMGARTNER, CANDELORE, WINTV, CHAO

A. Motivation to Combine Chao with Horn, Baumgartner, Candelore and WinTV

As discussed in §IV.A, "video information" can refer to a collection of videos such as a playlist or album, and a "group of video information" information would therefore refer to a group of such collections/ playlists/albums. At the time of the '815 patent, it would have been obvious to a POSITA to further modify the combinations of Horn-Baumgartner-Candelore in Ground 6 and Horn-Baumgartner-Candelore-WinTV in Ground 7 by adding thumbnails for albums/folders of content data as taught by Chao, and a POSITA would have been motivated to do so for the reasons discussed below. EX1003, ¶347. These combinations render claims 16-27 of the '815 patent obvious for the following reasons.

The example of the Workspace view in Horn FIG. 22 shows the content pane 2603 including only single .jpg image objects corresponding to a collection

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~~information for display of the third video information and the on screen display information. *Supra* [4a], [8a]; *see also* EX1003, ¶202; EX1010, p. 4-2 ("Capture 1"):~~



D. Claim ~~14~~

1. ~~[14a]~~

~~*See supra* claim 9, [7a].~~

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2. [14b]

See supra [7b].

3. [14c]

See supra [7c].

4. [14d]

See supra [7d].

E. Claim 15

1. [15a]

See supra claim 9, [8a].

2. [15b]

See supra [8b].

VIII. GROUND 3: HORN, BAUMGARTNER, WINTV, AND CHAO RENDER OBVIOUS CLAIMS 1-15

A. Motivation to Combine Chao with Horn, Baumgartner and WinTV

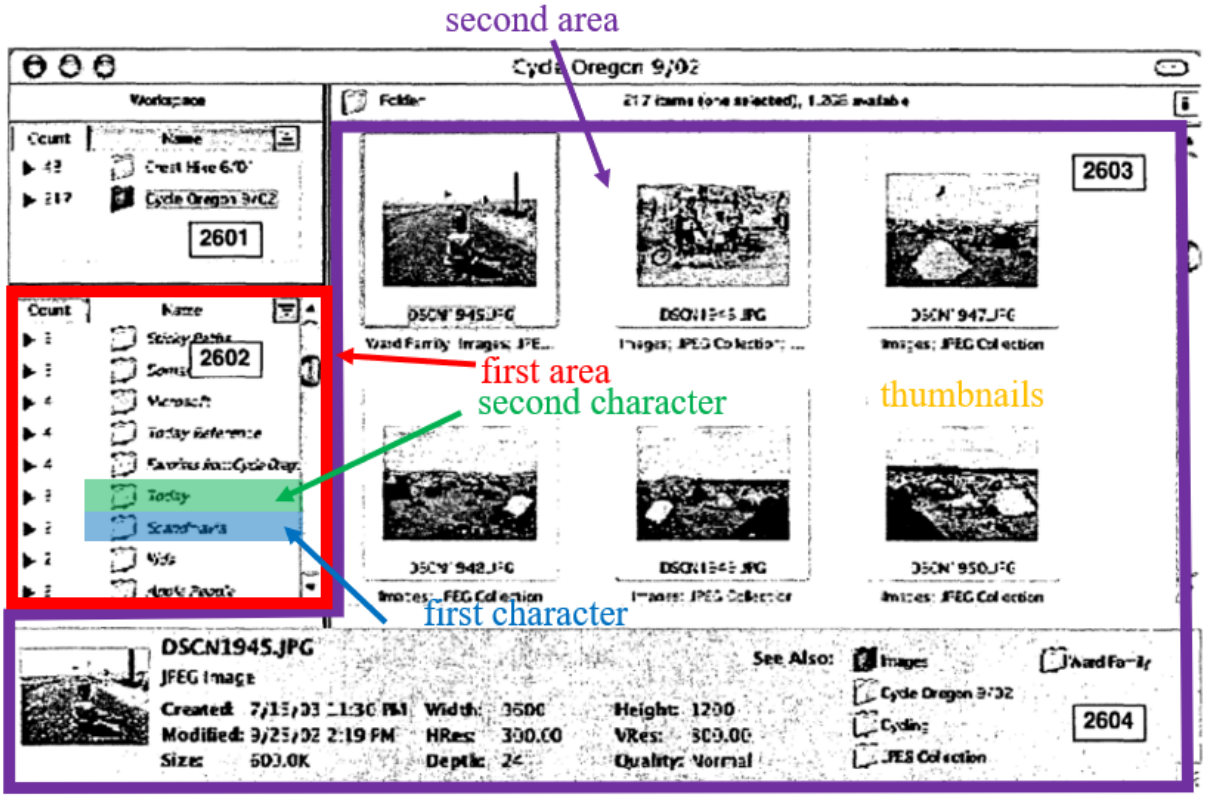
As discussed in Section V.A, "video information" may be construed as referring to a collection of videos such as a playlist or album, and thus a "group of video information" information would refer to a group of such collections/ playlists/albums. At the time of the '815 patent, it would have been obvious to a POSITA to further modify the combinations of Horn-Baumgartner in Ground 1 and Horn-Baumgartner-WinTV in Ground 2 by adding thumbnails for albums/folders of content data as taught by Chao, and a POSITA would have been

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motivated to do so for the reasons discussed below. EX1003, ¶~~210.~~ These combinations render claims ~~1-15~~ of the '815 patent obvious for the following reasons.

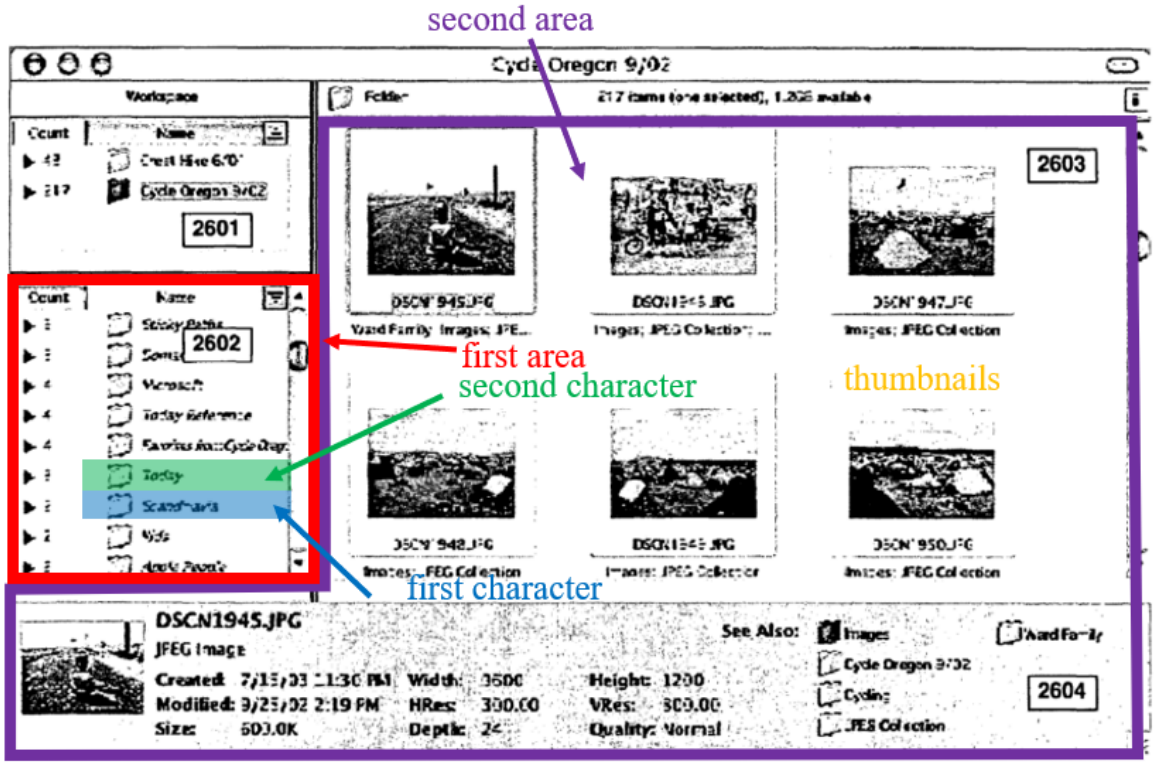
The example of the Workspace view in ~~Fig.~~ ~~26~~ shows the content pane 2603 including only single .jpg image objects corresponding to a collection selected in the collections pane ~~2602:~~



EX1003, ¶~~210.~~ ~~However,~~ Horn discloses that collections can include more than just individual image objects: collections can also include containers of groups of objects, including folders. Horn discloses that a collection is a grouping of objects that is a special type of container, and that containers may contain other containers.

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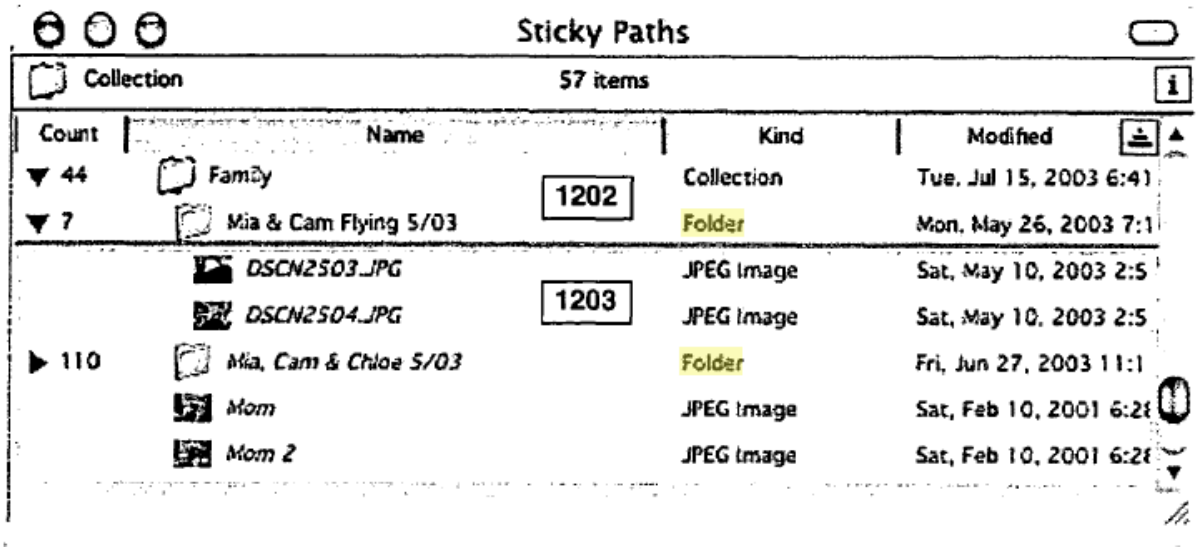
selected in the collections pane 2602 (when modified as discussed above, the pane 2602 includes a list of user profiles), EX1003, ¶348:



Horn discloses that collections can include more than just individual image objects: collections can also include containers of groups of objects, including folders. Horn discloses that a collection is a grouping of objects that is a special type of container, and that containers may contain other containers. EX1005, 4:1-9. A folder is one type of container that may appear in a collection. This can be seen in the excerpt of FIG. 12A below, which illustrates a "Sticky Paths" representation of a collection. This image shows that a "Family" collection includes folders such as

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EX1005, 4:1-9. A folder is one type of container that may appear in a collection. This can be seen in the excerpt of ~~Fig.~~ ~~12a~~ below, which illustrates a "Sticky Paths" representation of a collection. This image shows that a "Family" collection includes ~~yellow~~ ~~highlighted~~ folders such as "Mia and Cam Flying 5/03" and "Mia, Cam and Chloe 5/03:



~~EX1005,~~ ~~Figs.~~ ~~12a-b;~~ *see also* excerpt of ~~Fig.~~ 19 below, showing a Scandinavia collection including a ~~green~~ ~~highlighted~~ "Norway 7/02" folder in addition to single image .jpg objects.

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"Mia and Cam Flying 5/03" and "Mia, Cam and Chloe 5/03:

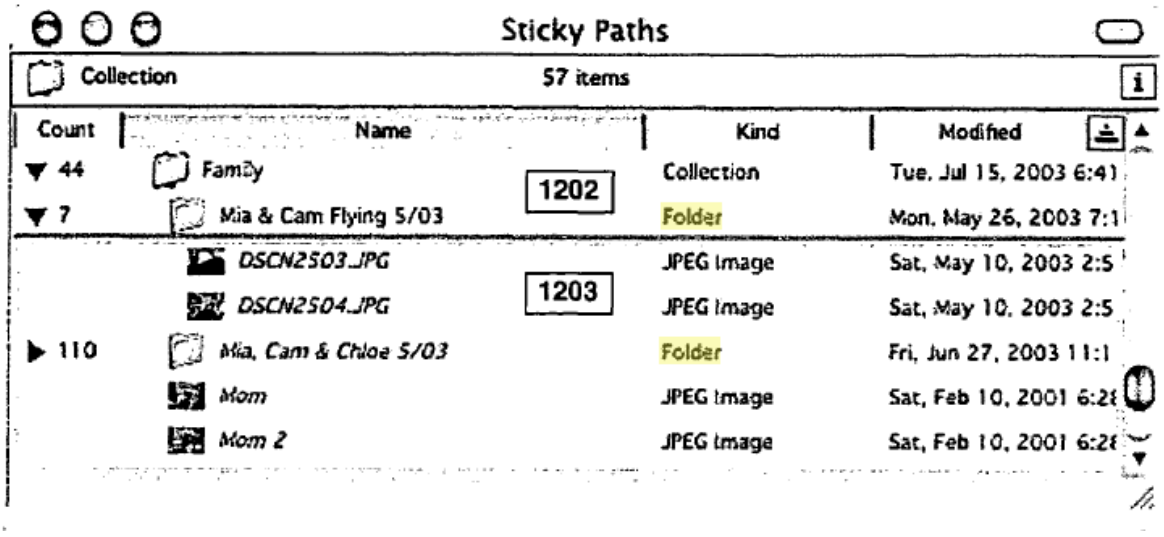
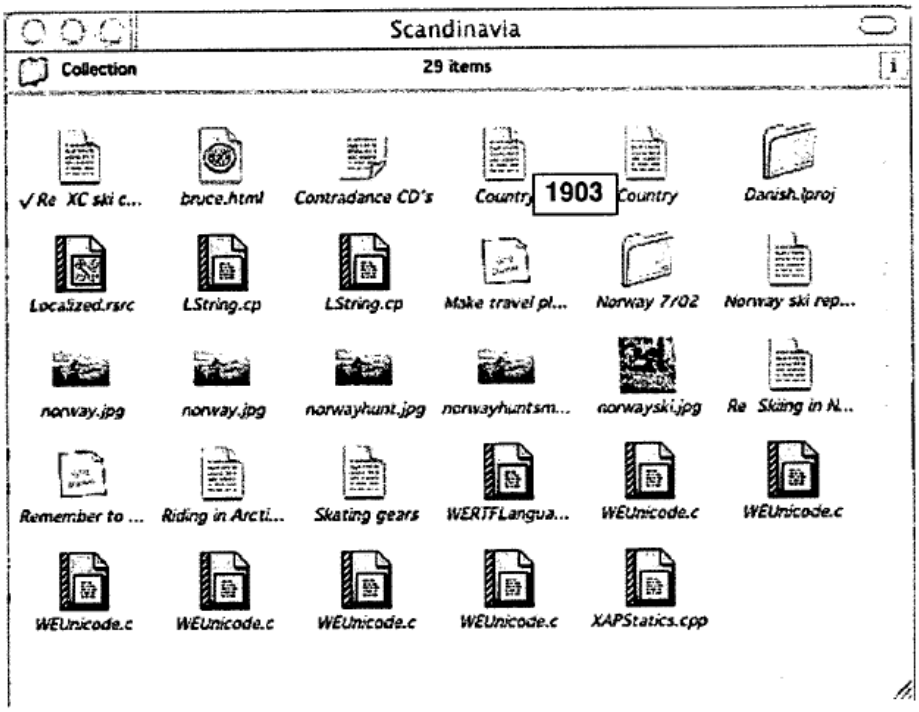
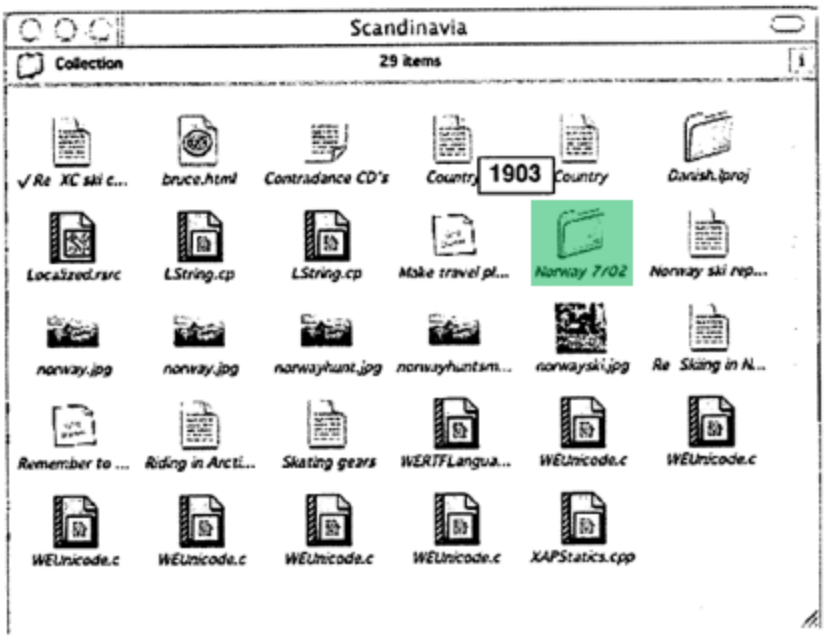


FIG. 12; *see also* the excerpt of FIG. 19 below, showing a Scandinavia collection including a "Norway 7/02" folder in addition to single image .jpg objects. EX1003, ¶349.



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Accordingly, a POSITA would have understood, or at least found obvious, that such folders would be included in the content pane 2603 of ~~Fig.~~ 26 when a ~~collection~~ including those folders is selected in the ~~collections~~ pane ~~2602.~~ EX1003, ~~¶¶211-212.~~

A POSITA would have further found it obvious to modify Horn's system to display a thumbnail, such as a thumbnail for an image in the folder as taught by Chao, rather than a folder icon, in the content pane 2603 of the Workspace view of ~~Fig.~~ ~~26.~~ Chao discloses the use of thumbnails to represent both individual objects as shown in the display area 811 below, and collections as shown in the display area 810 highlighted in yellow ~~below:~~

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Accordingly, a POSITA would have understood, or at least found obvious, that such folders would be included in the content pane 2603 of FIG. 26 when a user profile including those folders is selected in the pane 2602 (which, when modified as discussed in §VI.F, displays a list of user profiles). EX1003, ¶350.

A POSITA would have further found it obvious to modify Horn's system to display a thumbnail, such as a thumbnail for an image in the folder as taught by Chao, rather than a folder icon, in the content pane 2603 of the Workspace view of FIG. 19. Chao discloses the use of thumbnails to represent both individual objects as shown in the display area 811 below, and collections as shown in the display area 810 highlighted in yellow below (EX1003, ¶351):

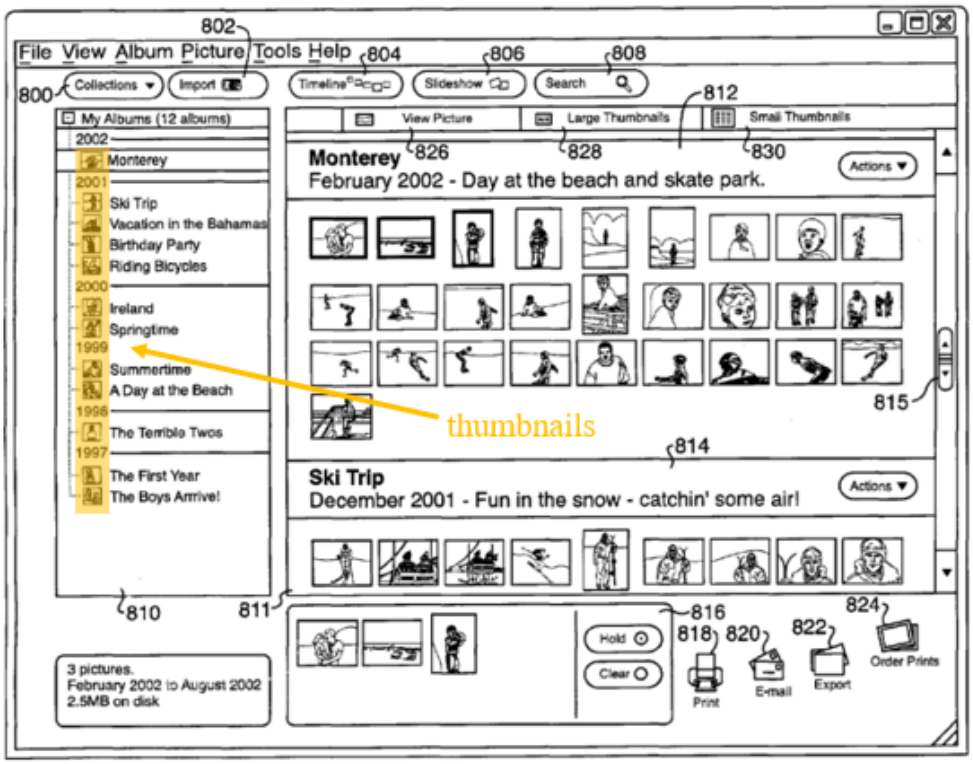


FIG. 8

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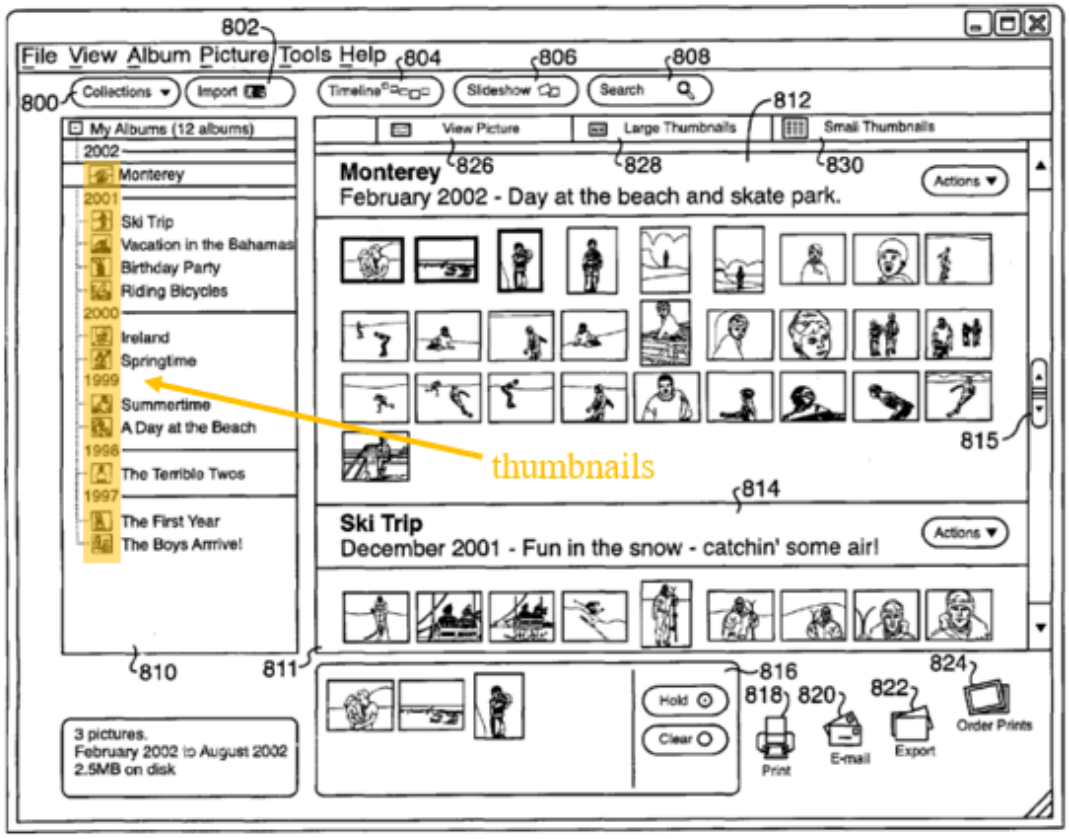


FIG. 8

~~EX1003,~~ ¶~~213.~~ A POSITA would have been motivated to use thumbnails to represent folders in Horn's content data organization system because Horn already teaches the use of thumbnails for individual objects. EX1005, FIG. 26, 19:25-57. A POSITA would have recognized the benefit of using thumbnails to represent folders of objects as disclosed by Chao to provide easy visual navigation for users through their collections, ~~folders,~~ and files, as is taught by Horn. EX1005, 30:44-31:16, FIG. 26, 19:25-~~57.~~ As disclosed in the references, thumbnails are commonly used in graphical user interfaces, such as file explorers and media management applications that host an extensive library of images or videos, to improve the user

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A POSITA would have been motivated to use thumbnails to represent folders in Horn's content data organization system because Horn already teaches the use of thumbnails for individual objects. EX1005, FIG. 26, 19:25-57. A POSITA would have recognized the benefit of using thumbnails to represent folders of objects as disclosed by Chao to provide easy visual navigation for users through their collections, folders and files, as is taught by Horn. EX1005, 30:44-31:16, FIG. 26, 19:25-57; EX1003, ¶352. As disclosed in the references, thumbnails are commonly used in graphical user interfaces, such as file explorers and media management applications that host an extensive library of images or videos, to improve the user experience by providing a faster and more efficient way to browse through media content. A POSITA would have understood a thumbnail could simply represent multiple objects rather than a single object—including multiple video objects. EX1003, ¶352.

Combining Chao with Horn-Baumgartner-Candelore or Horn-Baumgartner-Candelore-WinTV would simply involve applying a known technique (*i.e.*, providing thumbnails for folders of video objects) to a known device ready for improvement (the Horn-Baumgartner-Candelore or Horn-Baumgartner-Candelore-WinTV system for content management) to yield predictable results (providing thumbnails for folders of video objects, as was obvious in computing at the time). *KSR*, 550 U.S. 398 at 416; EX1003, ¶353.

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experience by providing a faster and more efficient way to browse through media content. A POSITA would have understood a thumbnail could simply represent multiple objects rather than a single object—including multiple video objects. EX1003, ¶214.

Combining Chao with Horn-Baumgartner or Horn-Baumgartner-WinTV would simply involve applying a known technique (*i.e.*, providing thumbnails for folders of video objects) to a known device ready for improvement (the Horn-Baumgartner or Horn-Baumgartner-WinTV system for content management) to yield predictable results (providing thumbnails for folders of video objects, as was obvious in computing at the time). *KSR*, 550 U.S. 398 at 416; EX1003, ¶215.

A POSITA would have had a reasonable expectation of success in the combination because Horn already discloses thumbnails for individual objects and characters that represent collections/folders. A POSITA thus would have had a reasonable expectation that the modification of Horn-Baumgartner and Horn-Baumgartner-WinTV combinations with Chao would be successful. EX1003, ¶216. A POSITA would have found that the teachings of Horn, Baumgartner, WinTV, and Chao could have been predictably combined at least because of the predictability of the art of computer systems and the known interchangeability of the various elements of content management systems and user interfaces for the same. Therefore, a POSITA would have considered it obvious to include the

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A POSITA would have had a reasonable expectation of success in the combination because Horn already discloses thumbnails for individual objects and characters that represent collections/folders. A POSITA thus would have had a reasonable expectation that the modification of Horn-Baumgartner-Candelore and Horn-Baumgartner-Candelore-WinTV combinations with Chao would be successful. EX1003, ¶354. A POSITA would have found that the teachings of Horn, Baumgartner, Candelore, and WinTV and Chao could have been predictably combined at least because of the predictability of the art of computer systems and the known interchangeability of the various elements of content management systems and user interfaces for the same. Therefore, a POSITA would have considered it obvious to include the album/folders thumbnails of Chao in Horn-Baumgartner-Candelore and Horn-Baumgartner-Candelore-WinTV for the benefits described above. EX1003, ¶354.

B. Claims 16-27

With the substitution of Chao's thumbnails instead of Horn's folder icons to represent folders in Horn's Workspace view as exemplified in FIG. 26, the Horn-Horn-Baumgartner-Candelore-Chao combination renders obvious claims 16-19, and 21-25 for the same reasons identified for Ground 6 above, and the Horn-Baumgartner-Candelore-WinTV-Chao combination renders claims 20, 26, and 27 obvious for the same reasons identified in Ground 7 above. EX1003, ¶355.

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album/folders thumbnails of Chao in Horn-~~Baumgartner~~ and Horn-Baumgartner-WinTV for the benefits described above. ~~*Id.*~~

B. Claims ~~1-15~~

With the substitution of Chao's thumbnails instead of Horn's folder icons to represent folders in Horn's Workspace view as exemplified in ~~Fig.~~ 26, the Horn-~~Baumgarnter-~~Chao combination renders obvious claims ~~1-6~~ and ~~9-13~~ for the same reasons identified for Ground ~~1~~ above, and the Horn-Baumgartner-WinTV-Chao combination renders claims ~~7,~~ ~~8,~~ ~~14~~ and ~~15~~ obvious for the same reasons identified in Ground ~~2~~ above. EX1003, ¶~~217.~~

IX. GROUND ~~4: KAPLAN~~ AND ~~BRYANT~~

A. Motivation to Combine Kaplan and Bryant

A POSITA would have been motivated to ~~combine Kaplan and Bryant for at least two reasons. First, a POSITA would have been motivated to~~ supplement the teachings of Kaplan by using Bryant's teachings regarding image capture and obtaining video information with a user's camera. For instance, Kaplan discloses a system ~~that:~~

> provides users with a simple and intuitive method and computer program for reviewing their multimedia ~~content, which can include digital video, digital audio and text, still images, animation, and MIDI. The various types of multimedia~~ content ~~are typically in the form of digital computer file formats. Today~~

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IX. GROUND 9: KAPLAN, BRYANT, WONG AND CANDELORE

A. Motivation to Combine

Kaplan and Bryant

A POSITA would have been motivated to supplement the teachings of Kaplan by using Bryant's teachings regarding image capture and obtaining video information with a user's camera. For instance, Kaplan discloses a system that provides users with a simple and intuitive method and computer program for reviewing their multimedia content including image content such as photos and video. EX1014, ¶38. Bryant's camera and upload system similarly provides "digital still images and digital motion images." EX1015, ¶¶29, 36. A benefit of using a digital camera, as disclosed in Bryant, is that it can include user controls for categorizing the images, including metadata that enables subsequent organization. *See, e.g.*, EX1015, ¶¶3-5, 29. Moreover, Bryant explains that by using multimedia according to its systems and methods, a particular user's "affective information" can be captured and stored with the still or video images. EX1015, ¶¶29-34. A POSITA would have recognized that inclusion of the richer metadata in Bryant would have improved the Kaplan system, allowing for more effective (e.g., more detailed or more personalized) organization and retrieval of multimedia information. *See, e.g.*, EX1015, ¶¶29, 30, 32-33; *see also* EX1014,

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there are dozens of multimedia file formats such as JPEG, GIF, TIFF, MOV, WAV, AVI, and MP3.

EX1014, ¶38. The camera and upload system of Bryant similarly provides "digital still images and digital motion images." EX1015, ¶¶29, 36. A benefit of using a digital camera, as disclosed in Bryant, is that it can include user controls for categorizing the images, including metadata that enables subsequent organization. *See, e.g.*, EX1015, ¶¶3-5, 29. Moreover, Bryant explains that by using multimedia according to its systems and methods, a particular user's "affective information" can be captured, which can be stored with the still or video images. EX1015, ¶¶29-34. A POSITA would have recognized that inclusion of the richer metadata in Bryant would have improved the Kaplan system, allowing for more effective (*e.g.*, more detailed or more personalized) organization and retrieval of multimedia information. *See, e.g.*, EX1015, ¶¶29 ("can later be used in retrieving"), 30 ("One very important type of affective information is the level of importance a user associates with an image, such as whether the image is a 'favorite.'"), 32-33 ("Different users…"); *see also* EX1014, ¶¶42-49, FIG. 7. In this respect, the teachings of Bryant itself motivate the combination. EX1003, ¶218-219.

Second, a POSITA would have been motivated to use Bryant's robust disclosure of user-customizable metadata, such as "groups"(*e.g.*, Animals, Sports) and corresponding areas of the interface menu. *See* discussion regarding Claim 1 in

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¶¶42-49, FIG. 7. In this respect, the teachings of Bryant itself motivate the combination. EX1003, ¶219.

Moreover, a POSITA would have been motivated to use Bryant's robust disclosure of user-customizable metadata, such as "groups" and corresponding areas of the interface menu. *See* §IX.B; *see also* EX1015, FIGS. 8, 9A-9C. For instance, a POSITA would have used the display arrangement and controls set forth in Bryant's FIGS. 9A-9C, which would allow for more effective (e.g., more detailed or more personalized) organization and retrieval of multimedia information. *See, e.g.*, EX1015, ¶100. For instance, the metadata of Bryant would be useful with respect to the search functions in Kaplan. *See* EX1014, ¶¶65-66. With its emphasis on user-customization and control, Bryant itself motivates the combination. EX1003, ¶220.

A POSITA would have recognized that this combination was one of familiar elements, performing their typical functions, and according to known methods. As such, it would have been straightforward and yielded predictable results. Given that Kaplan already included metadata, such as Favorites, adding additional metadata fields such as those taught by Bryant would have been a straight-forward application of known programming techniques. A POSITA would have known how to modify any data structures and user interfaces to include additional metadata because modifying data structures and user interfaces was well within

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Section IX.B; *see also* EX1015, FIGS. 8, 9A-9C. For instance, a POSITA would have used the display arrangement and controls set forth in Bryant's FIGS. 9A-9C, which would allow for more effective (*e.g.*, more detailed or more personalized) organization and retrieval of multimedia information. *See, e.g.*, EX1015, ¶100 ("In block 146 of FIG. 3, the user optionally resets images that are no longer considered favorites. This is accomplished using the favorites level selection area 860. The user first selects one of the thumbnail images (*e.g.*, thumbnail image 822B), and the favorites level selection area 860 then displays the current favorites level. If the user has not previously modified the level, the images are either 'Normal' or 'Favorite'. Using the selector 862, the user can change the level of the selected image to be an 'Extra Favorite', a 'Favorite', a 'Normal' image, or a 'Dislike' image."). For instance, the metadata of Bryant would be useful with respect to the search functions in Kaplan. *See* EX1014, ¶¶65-66. With its emphasis on user-customization and control, Bryant itself motivates the combination. EX1003, ¶220.

A POSITA would have recognized that this combination was one of familiar elements, performing their typical functions, and according to known methods. As such, it would have been straightforward and yielded predictable results. Both Kaplan and Bryant use conventional components and programming. *See* EX1014, ¶¶37-38 ("The present invention could be written in a number of computer languages including, but not limited to, C, C++, Basic, Visual Basic, Fortran,

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Cobol, Smalltalk, Java, and other conventional programming languages. It is to be understood that various computers and/or processors may be used to carry out the present invention without being limited to those described herein. The present invention can be implemented on an IBM or IBM-compatible personal computer, preferably utilizing a DOS, Windows 3.1, Windows 95, Windows 98, Windows NT, Unix, Linux or OS/2 operating system…."); 40 ("common features of the Windows operating system"), FIG. 3 ("Operating System Standard Functions"); EX1015, ¶¶37-40 ("The home computer 10 includes a CPU motherboard 12, having for example, an Intel Pentium IV processor as well as RAM memory (not shown). The CPU motherboard 12 executes software stored on a hard drive 20, for example, the well-known Windows XP operating system software and the Internet Explorer web browser software, both provided by Microsoft Corp. of Redmond, Wash. The hard drive 20 is also used to store application software that can be provided along with the digital camera 300 using any suitable software distribution media or method, such as a CD-ROM, floppy disc, or Internet download, as is well-known to those skilled in the art."); FIG. 1 ("Home Computer" with a camera and dock). Given that Kaplan already included metadata, such as Favorites, adding additional metadata fields such as those taught by Bryant would have been a straight forward application of known programming techniques. A POSITA would have known how to modify any data structures and user interfaces to include

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additional metadata because modifying data structures and user interfaces was well within their skill, and they had already created those data structures and user interfaces to create the system of Kaplan in the first place. EX1003, ¶221. Thus, adding the metadata of Bryant to Kaplan would have been no more than the use of a known technique to improve similar a device in the same way. EX1003, ¶222.

B. Claim 1

1. [1pre]

To the extent the preamble is limiting, Kaplan discloses it. For example, Kaplan discloses a "multimedia management system for storing, manipulating, and displaying multimedia content" that "comprises a user interface, a plurality of predefined functions, a multimedia acquisition interface, and system controls." EX1014, ¶4. Kaplan's system is implemented on a general-purpose computer such as a personal computer including software to implement the functionality disclosed in Kaplan. EX1014, ¶¶2-4, 34-37; EX1003, ¶223. Bryant similarly discloses a "home computer" 10, which a POSITA would recognize as a personal computer. EX1015, ¶37 and Fig. 1:

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their skill, and they had already created those data structures and user interfaces to create the system of Kaplan in the first place. EX1003, ¶¶221-222.

Kaplan/Bryant and Wong

A POSITA would have also found it obvious to incorporate multiple user profiles, as taught by Wong, in the Kaplan-Bryant computer system and a POSITA would have been capable of and motivated to do so. EX1003, ¶357.

A POSITA would have been motivated to add multiple user profiles to Kaplan-Bryant's system because Bryant discloses that "[d]ifferent users can have different emotional reactions to the same image. Therefore, *to be most useful*, affective information relating to images should be associated with a particular user." EX1015, ¶32. Bryant also discloses user identifiers and thus already teaches personalizing information organization for each individual user. *Id*.; EX1003, ¶358.

Further, Wong discloses an interface allowing a user to select a user profile from among a plurality of user profiles (*e.g.*, "ADMINISTRATOR," "HOWARD1"). EX1007, Abstract, 3:13-27, 4:1-5. "FIG. 3 shows an exemplary log-in access means …." EX1007, 8:14-43, FIG. 3. EX1003, ¶359.

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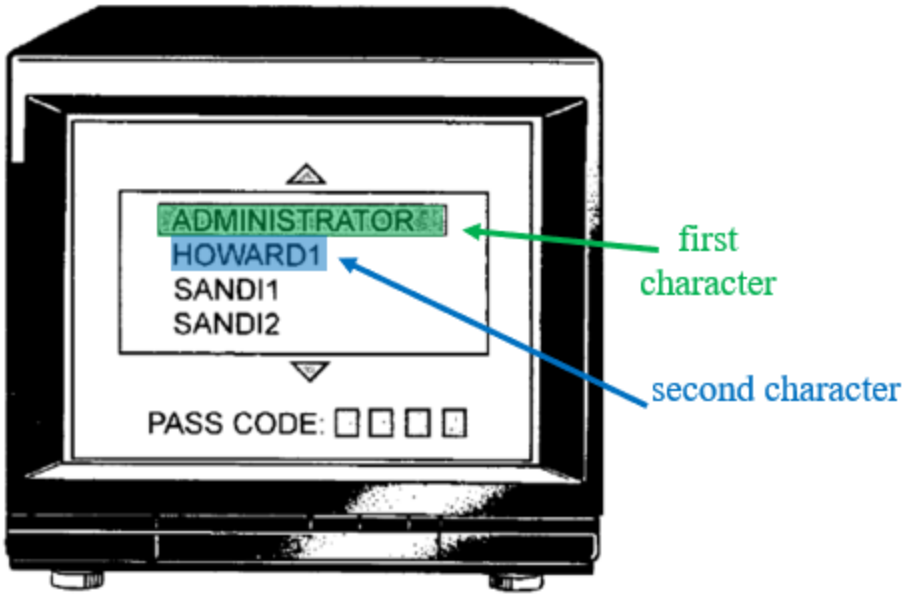


FIG. 3

Wong also discloses its use in PCs: "the components ... may also form an integral part of other components such as a ... ***personal computer***, or similar type device. Thus, the STB together with other associated video entertainment equipment such as televisions, PVRs, or ***personal computers*** comprise a type of customer premises equipment that may be utilized with the present invention.", EX1007, 6:53-7:25; and "[a]lternatively, ***the STB 13 may form an integral part of a conventional personal computer***," 7:43-58. *See also* EX1007, 12:30-43; EX1003, ¶360.

A POSITA would have recognized the benefit to having multiple different users use Kaplan-Bryant with unique user profiles as disclosed by Wong to provide customized user collections for multiple users on a single PC. EX1003, ¶361. This

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obvious application of Kaplan-Bryant's functionality would have motivated a POSITA to make the combination. EX1003, ¶361. As taught by Wong, a POSITA would have found it obvious that a multimedia content management system incorporating a multiple user account system could be configured to allow multiple individualized playlists, each customized to suit the tastes of different users. EX1003, ¶361.

Combining Kaplan-Bryant with Wong would simply involve applying a known technique (*i.e.*, multiple user profiles) to a known device ready for improvement (the Kaplan-Bryant computer system for user content management) to yield predictable results (multiple user profiles for the Kaplan-Bryant system). A POSITA would have had a reasonable expectation of success in the combination because Kaplan-Bryant already discloses and included the technology to implement customized content organization by user. EX1003, ¶362. A POSITA would have found that the teachings of Kaplan-Bryant and Wong could have been predictably combined at least because of the predictability of the art of computer systems and because of the known interchangeability of the various elements of content management systems and user interfaces for the same. EX1003, ¶362.

Candelore with Kaplan-Bryant-Wong

It would have been obvious to a POSITA to modify the combination of Kaplan/Bryant or Kaplan/Bryant/Wong by using encrypted content (e.g., received

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video information) as taught by Candelore, and a POSITA would have been motivated to do so to provide security to the video information of the Kaplan/Bryant and Kaplan/Bryant/Wong computer and methods. EX1003, ¶363. This would simply involve applying a known technique (*i.e.*, encrypted content) to a known device ready for improvement (the Kaplan-Bryant and Kaplan-Bryant-Wong computer systems) to yield predictable results. A POSITA would have had a reasonable expectation of success in this combination because it involved only ordinary skill and Kaplan-Bryant and Kaplan-Bryant-Wong had processors capable of performing the encryption/decryption algorithms used by Candelore. EX1003, ¶363.

B. Claim 16

1. [16pre]

To the extent the preamble is limiting, Kaplan discloses it. Kaplan discloses a "multimedia management system for storing, manipulating, and *displaying multimedia content*" that "comprises a user interface, a plurality of predefined functions, a multimedia acquisition interface, and system controls." EX1014, ¶4. Kaplan's system is implemented on a general-purpose computer such as a PC including software to implement Kaplan's functionality. EX1014, ¶¶2-4, 34-37; EX1003, ¶364.

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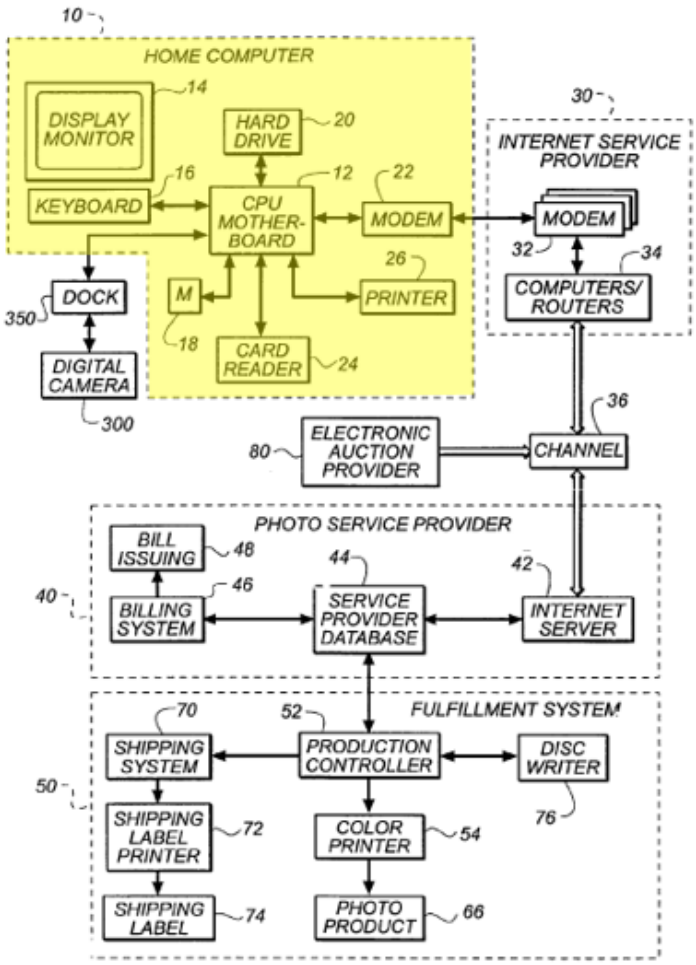


FIG. 1

~~EX1003, ¶223.~~

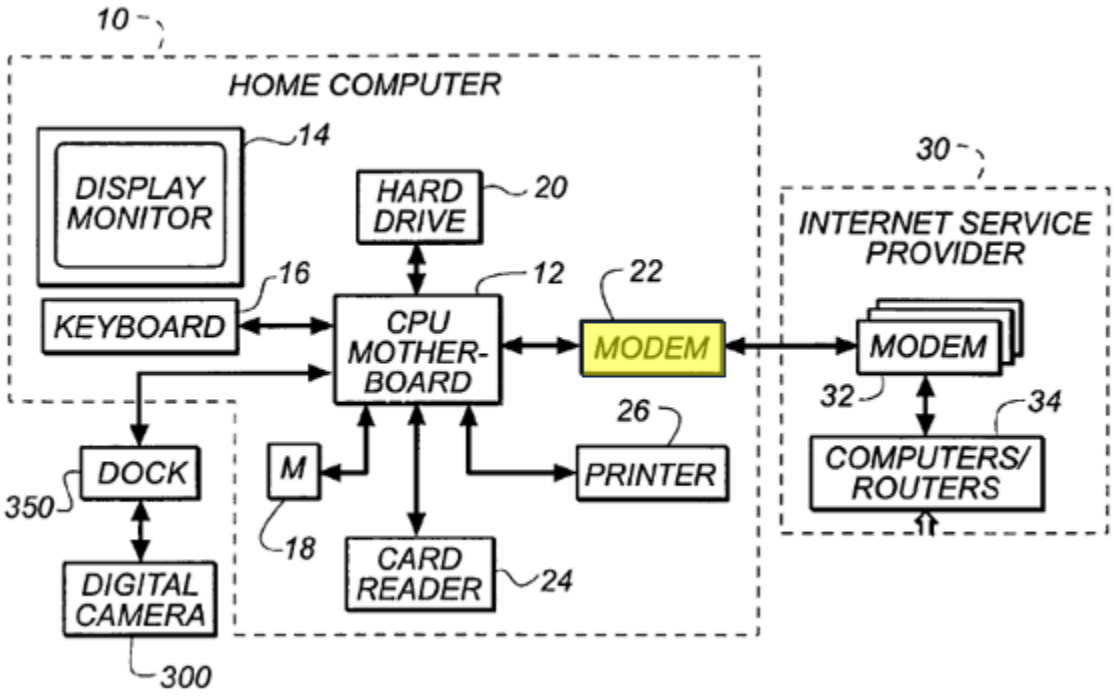
2. [~~1a~~]

This limitation ~~is obvious over Bryant.~~ Bryant discloses a network ~~interface in the form of a dial-up~~ modem ~~22 in the home computer 10 that is~~ suitable for connection to the Internet. EX1015, ¶~~38 and Fig~~ 1 (excerpted below):

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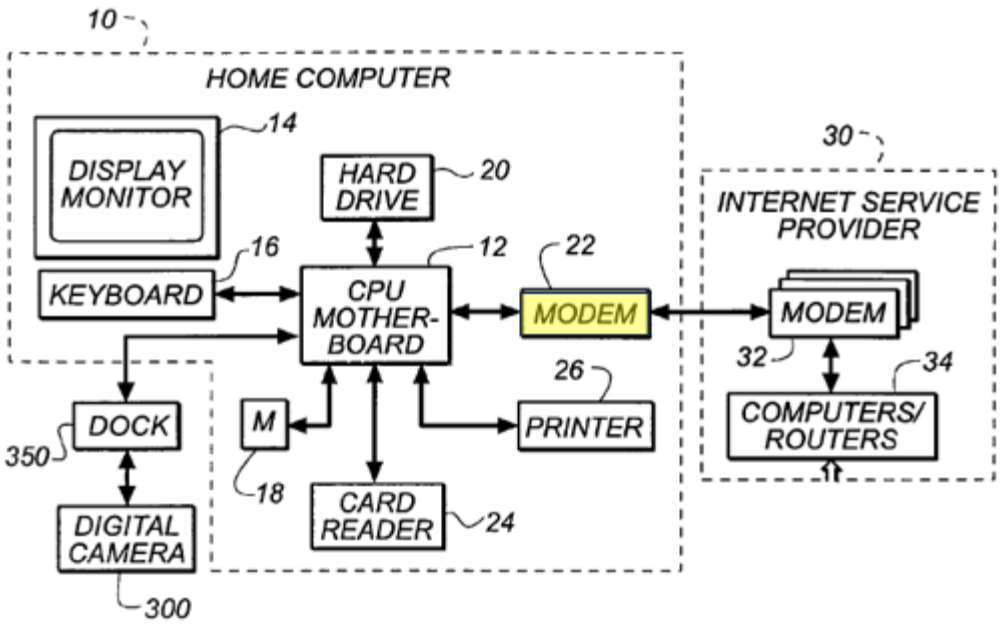
2. [16a]

This Kaplan-Bryant-Wong-Candelore combination renders this limitation obvious. EX1003, ¶365. Bryant discloses a network interface-- modem 22-- suitable for connection to the Internet. EX1015, ¶38, FIG. 1 (excerpted below):



Bryant also discloses, in connection with digital camera 300, a wireless modem such as cellular modem or an "802.11 type" modem. EX1015, ¶140. It would have been obvious to a POSITA to modify Bryant's home computer by incorporating a wireless modem in place of modem 22 for connection to the Internet service provider. Such connection was well known to a POSITA (as disclosed in Baumgartner. EX1016, ¶54, FIG. 1). A POSITA would have been motivated to use a wireless modem to implement a wireless connection to the Internet, such as using a cellular modem or an 802.11 modem as taught by Bryant

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Bryant also discloses, in connection with ~~a~~ digital camera 300, a wireless modem such as ~~a~~ cellular modem or an "802.11 type" modem. EX1015, ¶140. It would have been obvious to a POSITA to modify Bryant's home computer ~~10~~ by incorporating ~~such~~ a wireless modem in place of ~~the~~ modem 22 for connection to the Internet service ~~provider~~ ~~30.~~ Such ~~a~~ ~~wireless~~ connection ~~of~~ ~~a~~ ~~computer~~ to ~~the~~ ~~Internet~~ ~~is~~ disclosed in Baumgartner. EX1016, ¶~~54~~ ~~and~~ ~~Fig.~~ ~~1.~~ A POSITA would have been motivated to use a wireless modem to implement a wireless connection to the Internet, such as using a cellular modem or an 802.11 modem as taught by Bryant to allow the Bryant's home computer ~~10~~ to be placed ~~in~~ ~~a~~ ~~location~~ ~~in~~ ~~the~~ ~~home~~ where a wired connection was ~~unavailable~~ ~~or~~ ~~undesirable,~~ and a POSITA would have understood that the 802.11 modem could connect to a wireless router such as that used in an in-home LAN for the connection to the Internet. A POSITA

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to allow the Bryant's home computer to be placed where a wired connection was unavailable, and a POSITA would have understood that the 802.11 modem could connect to a wireless router such as that used in an in-home LAN for the connection to the Internet. A POSITA would have had a reasonable expectation of success in making this modification as the use of wireless modems was nothing more than the use of a known product for its intended purpose and involved minimal skill. EX1003, ¶366.

Kaplan discloses receiving video information via the Internet, e.g., EX1014, ¶¶3, 4, 71, as does Bryant, e.g., EX1015, ¶149. Kaplan discloses "multimedia content," EX1014, ¶¶38, 44, which is known to include digital video and audio. Ex1016, ¶38, Abstract. Bryant also discloses video information, including "motion video images." EX1015, ¶¶29, 36-38, 80-81, FIGS. 1, 3. Receiving this video information wireless via a wireless modem at the Kaplan-Bryant PC would have been obvious to a POSITA for the reasons discussed above. EX1003, ¶367.

Moreover, Candelore renders obvious including second video information that is encrypted. Candelore discloses "[a]n encryption algorithm such as DES, M6, or DVB Common Scrambling Algorithm may be used" to encrypt received control words. EX1013, ¶72. "The encrypted control word 1643 is decrypted using the unique key 1631 (or derivative thereof) to recover the control word in a clear format for descrambling and/or decrypting the encrypted content 1620 loaded into

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would have had a reasonable expectation of success in making this modification as the use of wireless modems was nothing more than the use of a known product for its intended purpose and involved minimal skill. EX1003, ¶224.

3. [1b]

The Kaplan-Bryant combination renders this limitation obvious. Kaplan's computer includes a computer-readable storage medium that can take the form of "hard disks, flash memory cards, CD-ROMs, optical storage devices, or magnetic storage devices." EX1014, ¶¶34, 37-38, 68-69. Kaplan further discloses storing multimedia files on the data storage system. EX1014, ¶¶38, 44 ("multimedia content, whether on the PC . . ."), claim 7. Multimedia content includes digital video and audio. Ex1016, ¶38 and Abstract. Bryant's computer also stores video information including "motion video images" on a local recording medium, *i.e.*, the hard drive 20. EX1015, ¶¶29 ("grouping and classifying digital still images and digital motion images"), 36 ("still and motion video images"), 37-38, 80-81, Figs. 1, 3. EX1003, ¶225. Kaplan further discloses receiving the video information via the Internet, *e.g.*, EX1014, ¶¶3, 4, 71, as does Bryant, *e.g.*, EX1015, ¶149. Finally, receiving this information wireless via a wireless modem at the Kaplan-Bryant PC would have been obvious to a POSITA for the reasons discussed above in [1a].

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4. [1c]

Bryant discloses this limitation. As discussed above, Bryant discloses associating "affective information" with digital motion images, which is "information that relates to the feelings or emotions of a person toward images." EX1015, ¶30. Bryant further discloses:

> Different users can have different emotional reactions to the same image. Therefore, to be most useful, affective information relating to images should be associated with a particular user, if the images are to be shared with various users. In some embodiments, this is accomplished by associating a user identifier with the affective information. The user identifier can be any type of information that helps enable a particular user to be identified. For example, the user identifier can be a personal identification code such as a globally unique ID (GUID), a user number, a Social Security number, a camera serial number, or the like. The user identifier can also be a complete legal name, a nick name, a computer user name, or the like.

EX1015, ¶32. To the extent that the '815 patent discloses this limitation, this passage in Bryant constitutes disclosure of at least some video information with a user profile. EX1003, ¶226.

5. [1d]

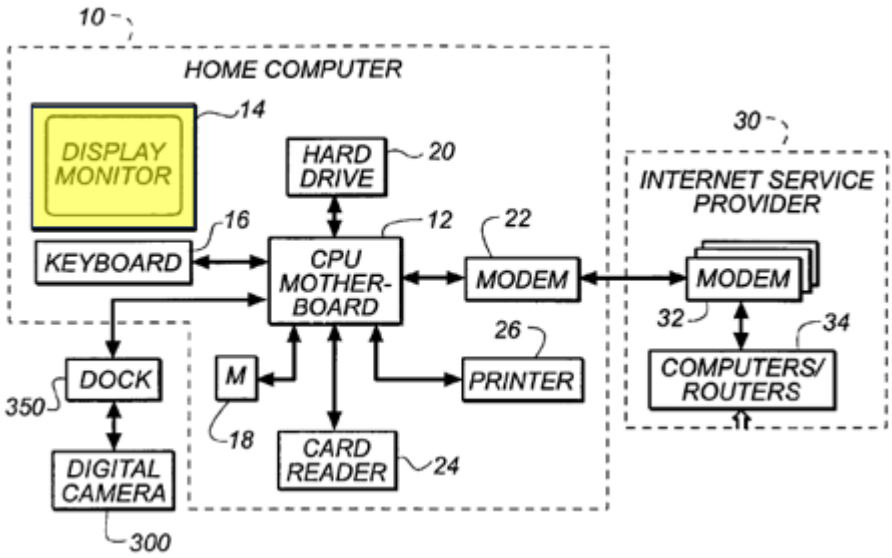
The Kaplan-Bryant combination discloses and renders obvious this limitation. The Kaplan computer system includes a display. *E.g.*, EX1014, ¶5. Similarly, Bryant's home computer includes a display monitor 14 as shown in the excerpt of Fig. 1 below. EX1015, ¶38 and Fig. 1; EX1003, ¶227.

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the set-top box 1610." EX1013, ¶131; *see also* ¶72 ("[t]he decrypted CW is then used by descrambler logic 470 to descramble the scrambled program content 480 and output clear program content 490."). A POSITA would have understood that the "the encrypted content 1620 loaded into the set-top box 1610" is the encrypted second video. EX1003, ¶368.

3. [16b]

Kaplan-Bryant in combination with Wong renders obvious this limitation. EX1003, ¶369. Kaplan's computer system includes a display. E.g., EX1014, ¶5. Similarly, Bryant's home computer includes a display monitor14 as shown in the excerpt of FIG. 1 below. EX1015, ¶38.



Bryant discloses that at least some of its information is associated with a user profile. Bryant discloses associating "affective information" with digital motion

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images, which is information that relates to the feelings or emotions of a person toward images." EX1015, ¶30. Bryant further discloses:

> Different users can have different emotional reactions to the same image. Therefore, to be most useful, affective information relating to images should be associated with a particular user, if the images are to be shared with various users. In some embodiments, this is accomplished by associating a user identifier with the affective information. The user identifier can be any type of information that helps enable a particular user to be identified…. The user identifier can also be a complete legal name, a nick name, a computer user name, or the like.

EX1015, ¶32. To the extent that the '815 patent discloses this limitation, this passage in Bryant constitutes disclosure of at least some video information associated with a user profile. EX1003, ¶370.

To the extent not disclosed by Kaplan-Bryant, Wong discloses displaying a first user interface for a user to select a user profile from among a plurality of user profiles including a first user profile associated with a first character (*i.e.*, "ADMINISTRATOR," including at least one character) and a second user profile associated with a second character (*i.e.*, "HOWARD1," including at least one character). EX1007, Abstract, 3:13-27, 4:1-5. "FIG. 3 shows an exemplary log-in access means …." EX1007, 8:14-43, FIG. 3; EX1003, ¶371.

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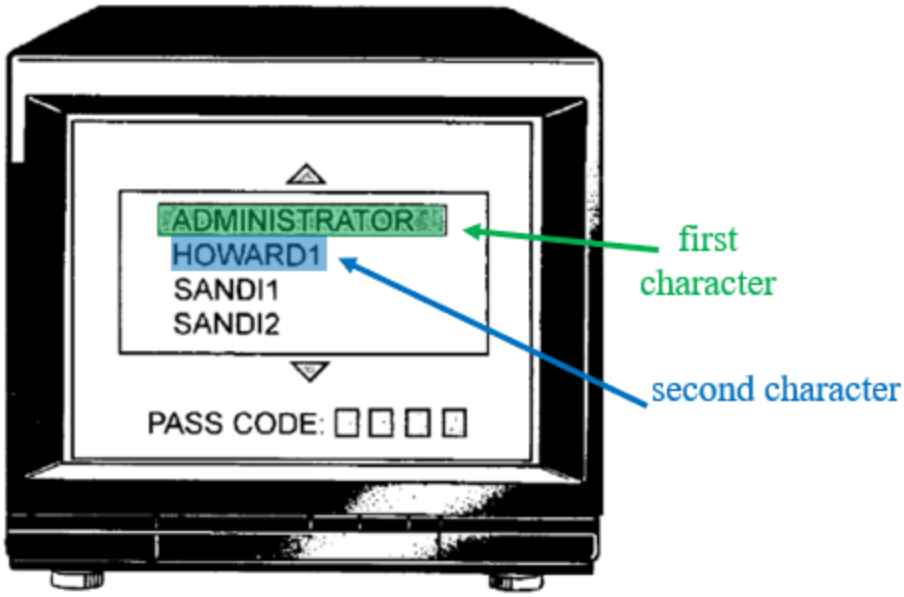
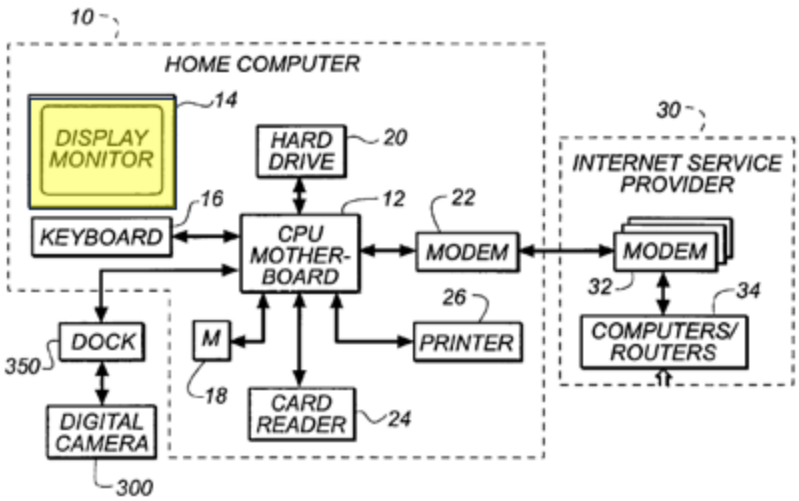


FIG. 3

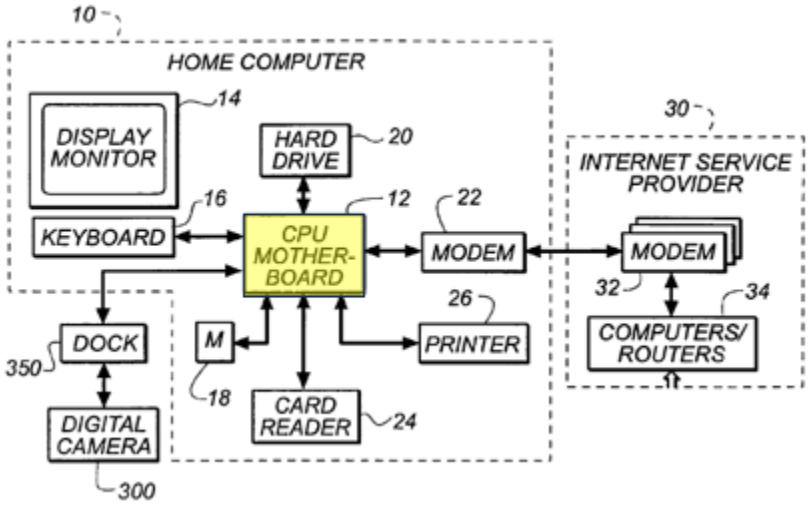
Wong also discloses "FIGS. 7-9 are exemplary screen illustrations showing the interactive features of the user account portion of the present invention." EX1007, 4:58-60, 9:49-10:19, FIG. 7; EX1003, ¶372.

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~~6.~~ ~~[1c]~~

~~The~~ Kaplan-Bryant combination discloses and renders ~~obvious~~ this ~~limitation.~~ ~~Bryant's home computer 10 includes~~ a ~~CPU motherboard 12 that includes,~~ for ~~example,~~ a ~~Pentium IV processor.~~ ~~EX1015,~~ ¶~~37 and Fig. 1;~~ EX1003, ¶~~228.~~



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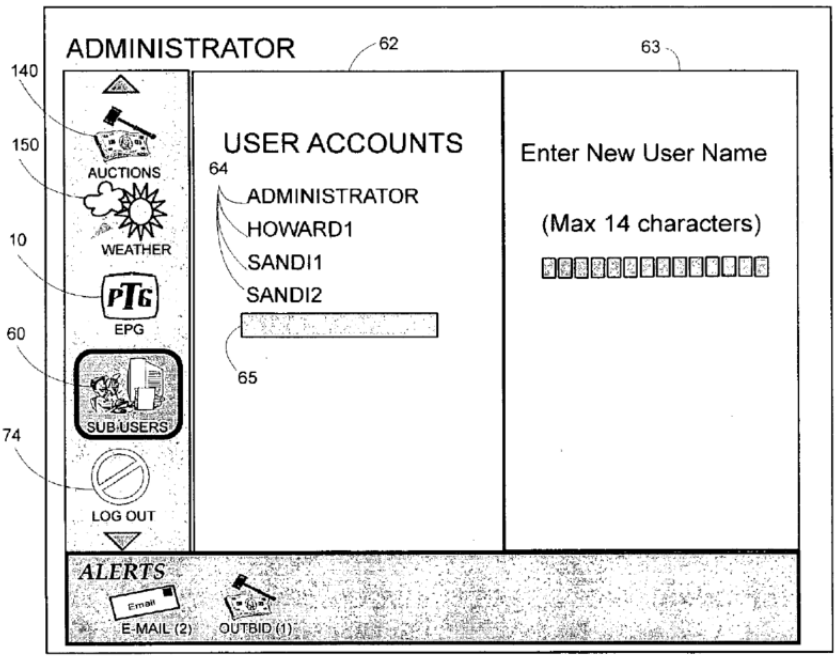


FIG. 7

See also EX1007, 10:20-52, 18:8-16, FIG. 8:

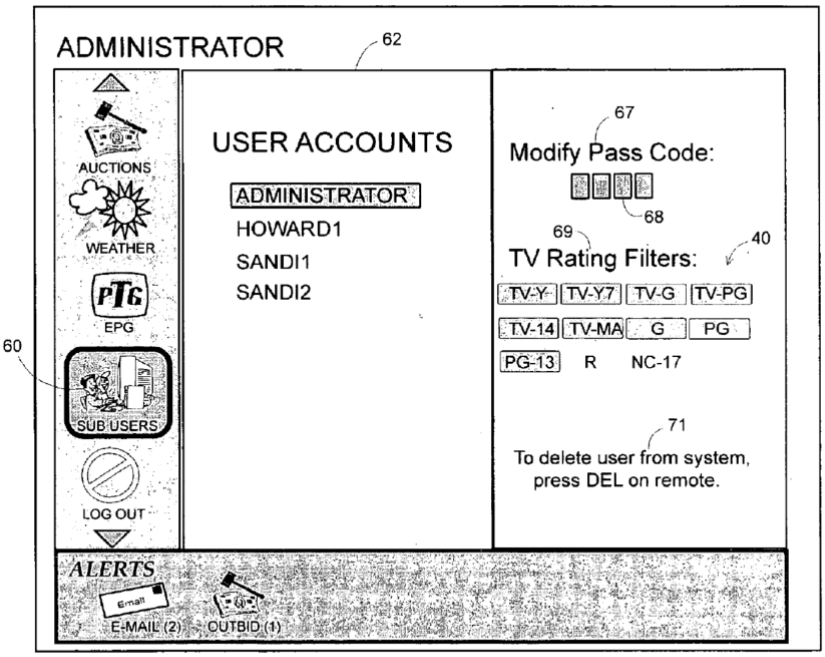


FIG. 8

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EX1007, FIG. 9:

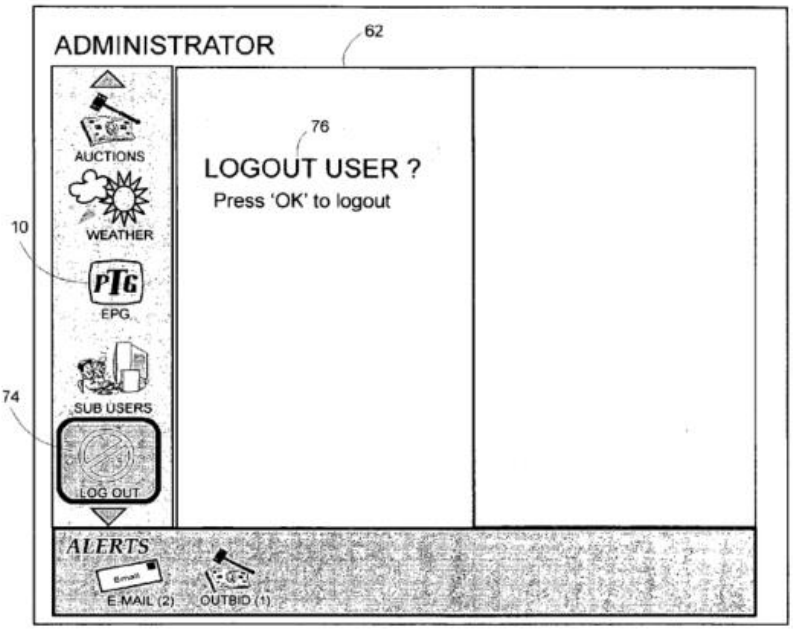


FIG. 9

4. [16c]

Kaplan-Bryant in combination with Wong renders this limitation obvious. §IX.B.3[16b]; EX1003, ¶374. Wong discloses "one username may be alternatively highlighted by alternatively pressing the 'up', or 'down' button on the remote control device 20", 8:18-43, and "allowing each user to populate a playlist specific to each account with media content that are suited to the instant user's tastes," 9:49-10:19; EX1003, ¶374.

5. [16d]

Kaplan-Bryant in combination with Wong renders this limitation obvious. EX1003, ¶375. Wong discloses "[o]nce a proper username and associated

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authentication scheme is entered by a prospective user, a screen is generated by the controller on the display." EX1007, 8:18-43; *see also* 6:30-38, FIG. 3:

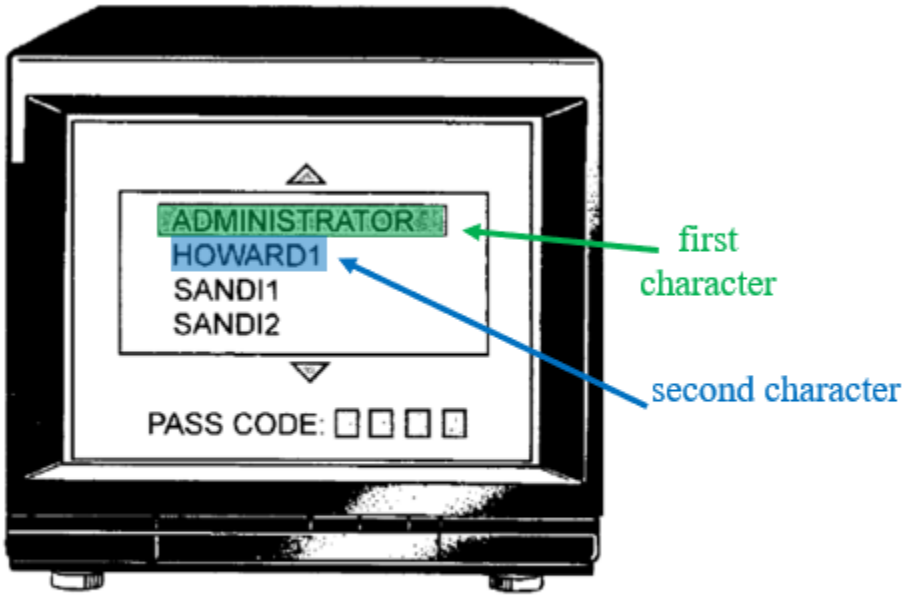


FIG. 3

Wong discloses "[t]he user may respond by selecting a username from the available list of active usernames followed by entry of an authentication scheme…." EX1007, 8:44-9:6, FIG. 5; EX1003, ¶376.

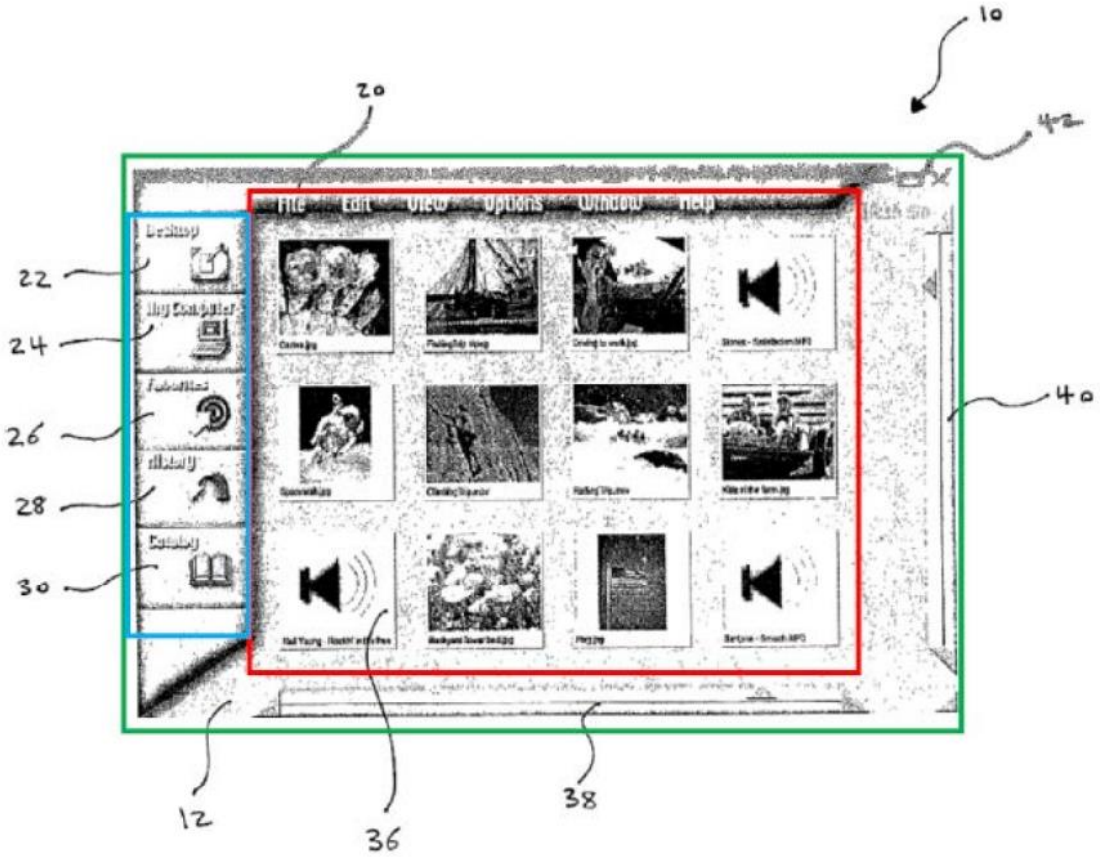
6. [16e]

Kaplan-Bryant in combination with Wong renders this limitation obvious. EX1003, ¶377. Wong discloses "if the entered username and authentication scheme match the stored values, a user session is begun wherein the user may access and modify various provisions of the media content modification and access system…," EX1007, 8:44-9:6, 2:52-67, and "[f]ollowing initial log-in into the user

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7. [~~1f~~]

~~The~~ Kaplan-Bryant combination renders this limitation obvious. As discussed in the ~~01432FWD,~~ Kaplan discloses in ~~Fig.~~ 4 a menu display outlined in green below that includes a first area in blue. EX1014, ~~Fig.~~ 4; EX1009, 26; EX1003, ¶~~229.~~



The first area includes a first character in the form of Favorites button 26 that includes the characters in the word "Favorites" and a bullseye icon. EX1014, ¶40; EX1009, 27-~~28.~~ Favorites is a classification for a first group of objects such as videos that are represented by thumbnails because they were marked as a favorite

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account, the 'PLAYLIST' service icon 45 is automatically actuated … providing a directory view of all media content contained in the playlist…." 9:17-38, FIG. 6:

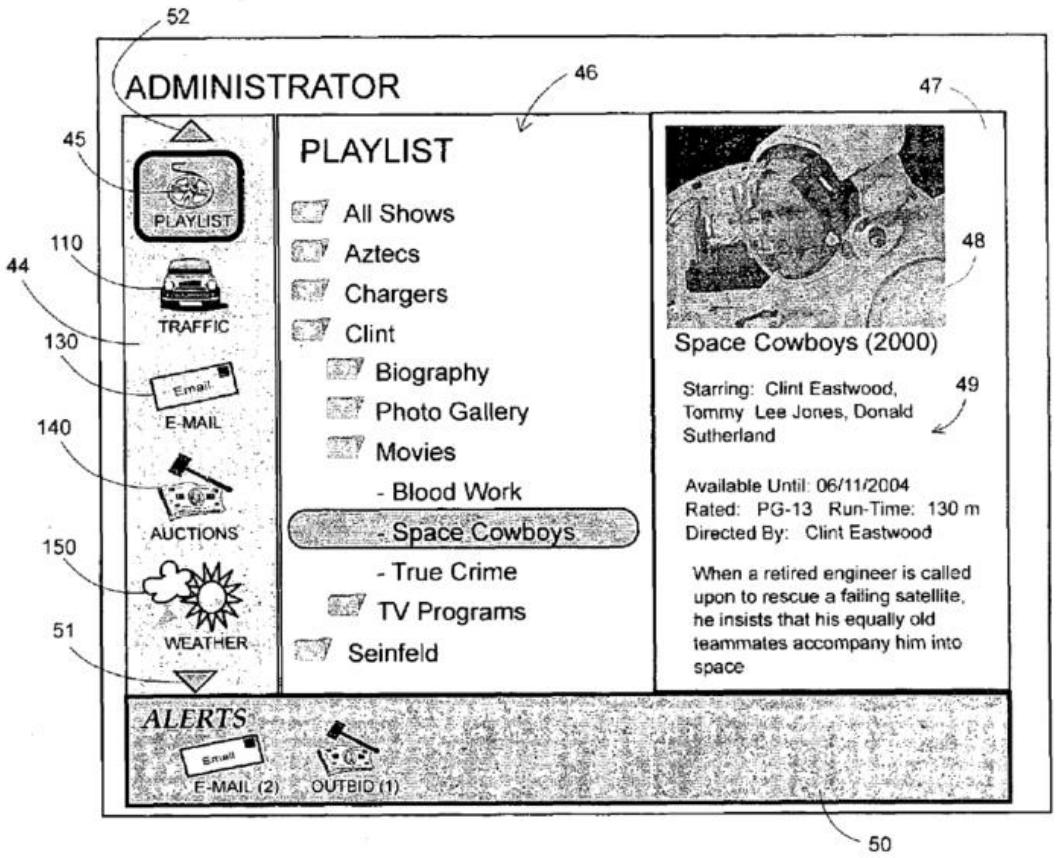
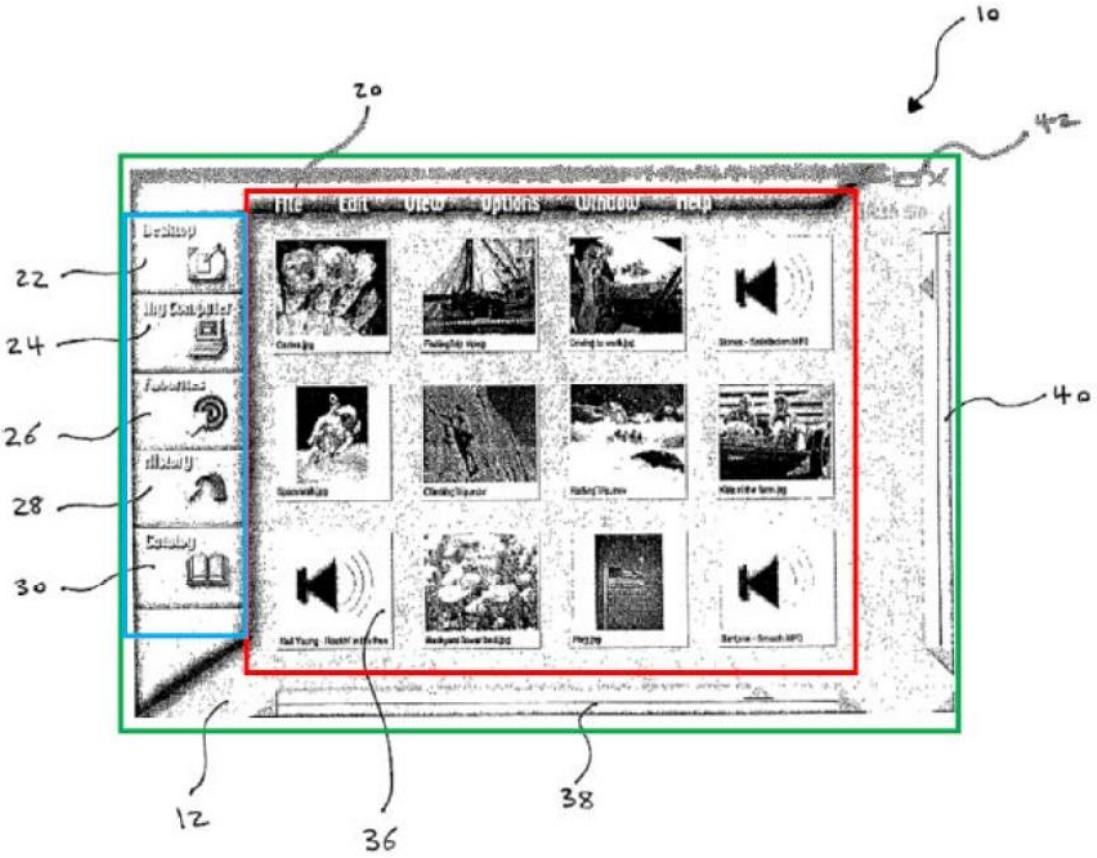


FIG. 6

This is consistent with Kaplan's menu display (outlined in green below) and discussed in more detail with respect to element [16f]:

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EX1014, FIG. 4. While photos are shown in the red area 54 of FIG. 4, Kaplan discloses that they can be multimedia files including videos. EX1014, ¶44; EX1003, ¶378.

7. [16f]

Kaplan-Bryant in combination with Wong renders this limitation obvious. EX1003, ¶379. The combination renders obvious the second user interface being associated with the first user profile. §IX.B.6[16e]. Moreover, Kaplan-Bryant discloses the first user profile and displaying the first character, the first character associated with a first group of video information and indicating an identity of the

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of the user. EX1014, ¶42; EX1009, 27-28. The first area in blue in Fig. 4 also includes a second character in the form of History button 28 that includes the characters in the word "History" and a different icon. EX1014, ¶40; EX1009, 27-28. History is a classification for a second group of objects such as videos (again represented by thumbnails) that are different from the first group, based on access of those objects by the user. EX1014, ¶¶42, 45; EX1009, 27-28. While photos are shown in the red area of Fig. 4, Kaplan discloses that they can be multimedia files including videos. EX1014, ¶44; EX1003, ¶229.

8. [1g]

The Kaplan-Bryant combination renders this limitation obvious. The buttons 26, 28 represent containers that are configured to allow a user to edit, such as by adding a video to a container using standard operating system window functions 20, such as FILE which can include marking a video as a favorite. EX1014, ¶44; EX1003, ¶230.

9. [1h]

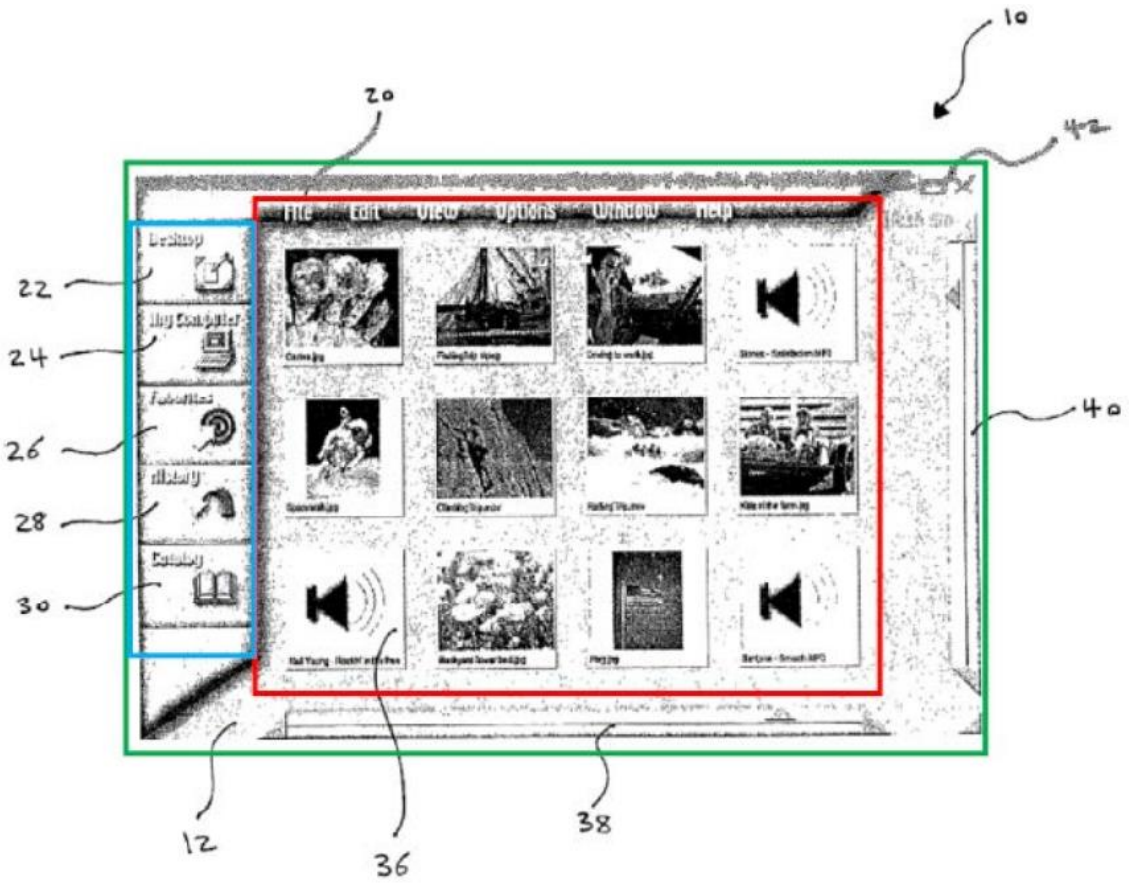
The Kaplan-Bryant combination renders this limitation obvious. The objects in the Favorites and History groups are part of the information stored in Kaplan's system, such as the hard drive. EX1014, ¶44; EX1003, ¶231.

10. [1i]

The Kaplan-Bryant combination renders this limitation obvious. Kaplan discloses a second area shown in red in the annotated version of Fig. 4 below:

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user of the first user profile. As discussed in the IPR2018-0143 FWD, Kaplan discloses in FIG. 4 a menu display outlined in green below that includes a first area in blue. EX1014, FIG. 4; EX1009, 26; EX1003, ¶379.



The first area includes a first character in the form of Favorites button 26 that includes the characters in the word "Favorites" and a bullseye icon. EX1014, ¶40; EX1009, 27-28; EX1003, ¶380. Favorites is a classification for a first group of objects such as videos that are represented by thumbnails because they were marked as a favorite of the user. EX1014, ¶42; EX1009, 27-28; EX1003, ¶380. The first area in blue in FIG. 4 also includes a second character in the form of

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History button 28 that includes the characters in the word "History" and a different icon. EX1014, ¶40; EX1009, 27-28; EX1003, ¶380. History is a classification for a second group of objects such as videos (again represented by thumbnails) that different from the first group, based on access of those objects by the user. EX1014, ¶¶42, 45; EX1009, 27-28; EX1003, ¶380. While photos are shown in the red area 54 of FIG. 4, Kaplan discloses that they can be multimedia files including videos. EX1014, ¶44; EX1003, ¶380.

Wong further discloses a first character associated with a first group of video information and indicating an identity of the user of the first user profile. EX1007, FIG. 6; EX1003, ¶381.

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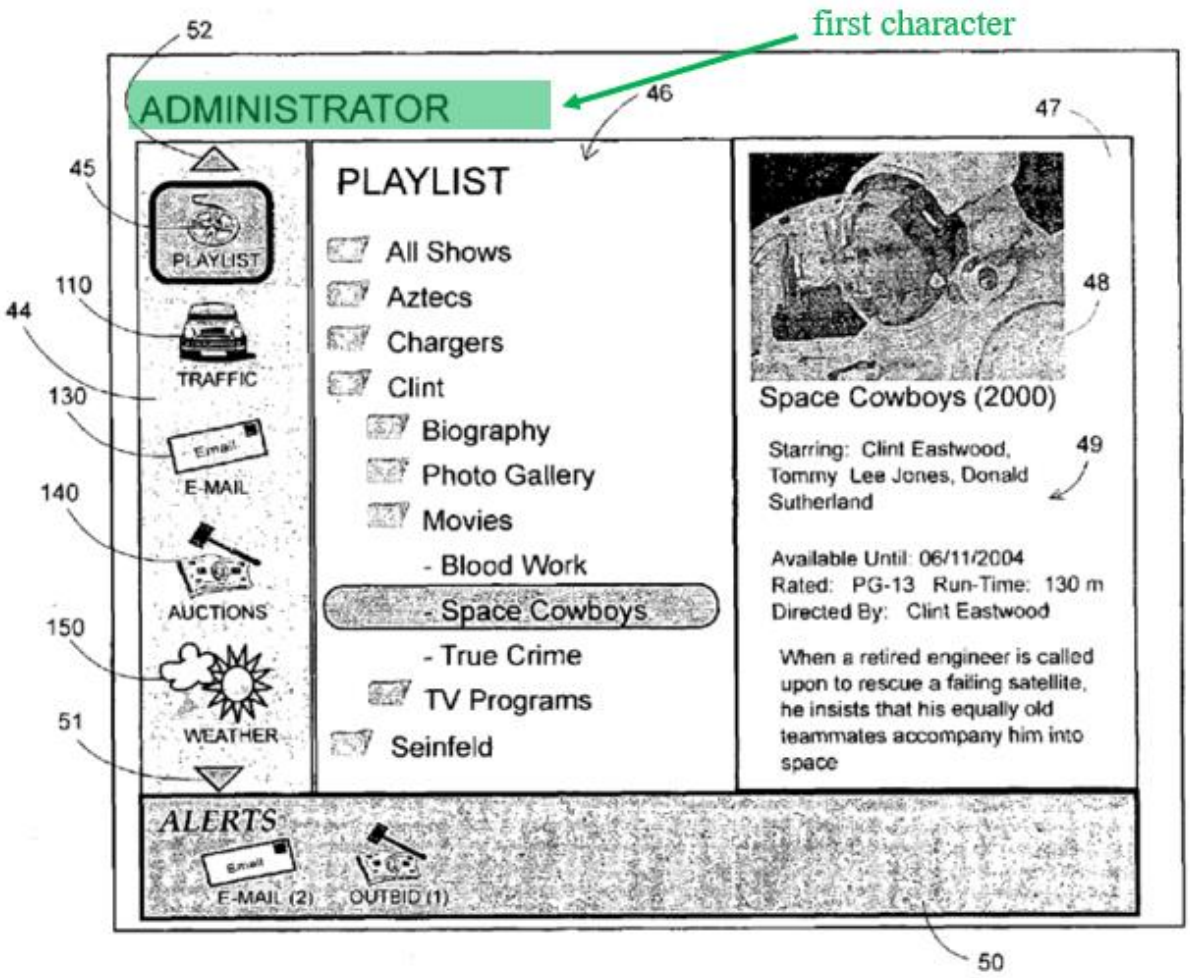


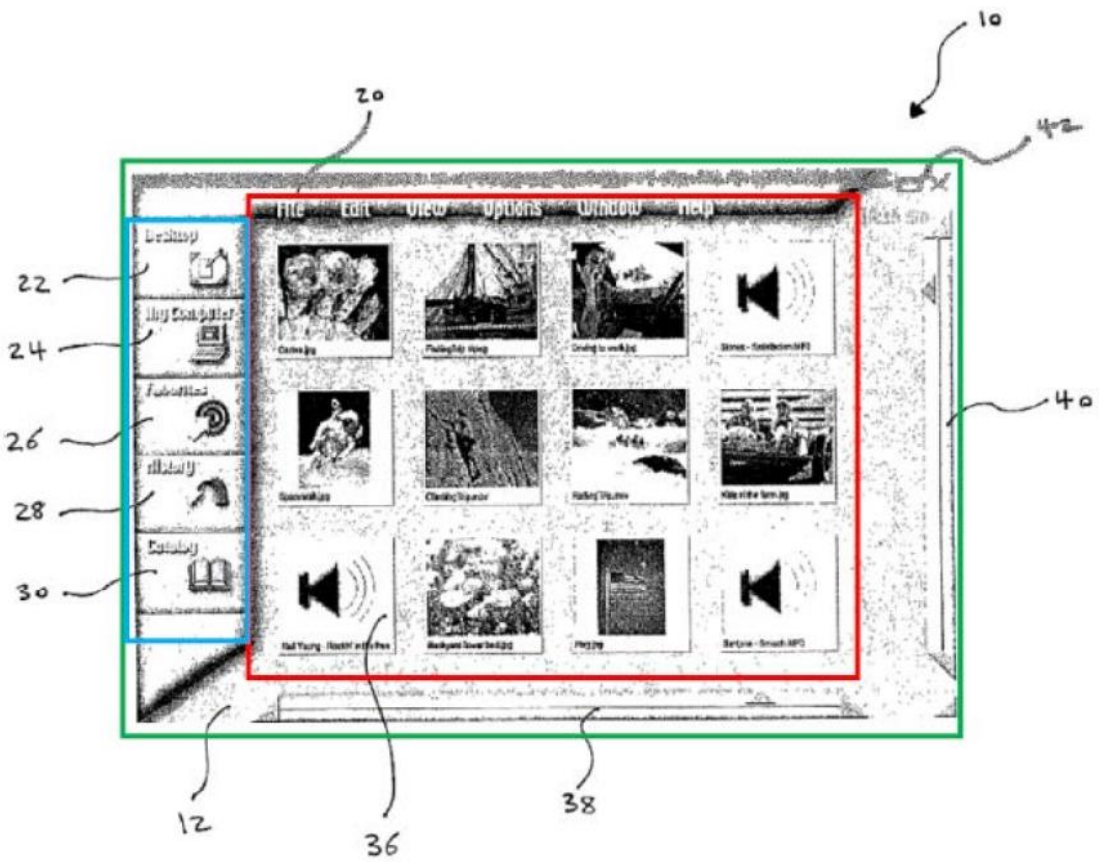
FIG. 6

8. [16g]

Kaplan-Bryant renders this limitation obvious. §IX.B.6[16e]; EX1003, ¶382.

Kaplan discloses a second area shown in red in the annotated version of FIG. 4 below:

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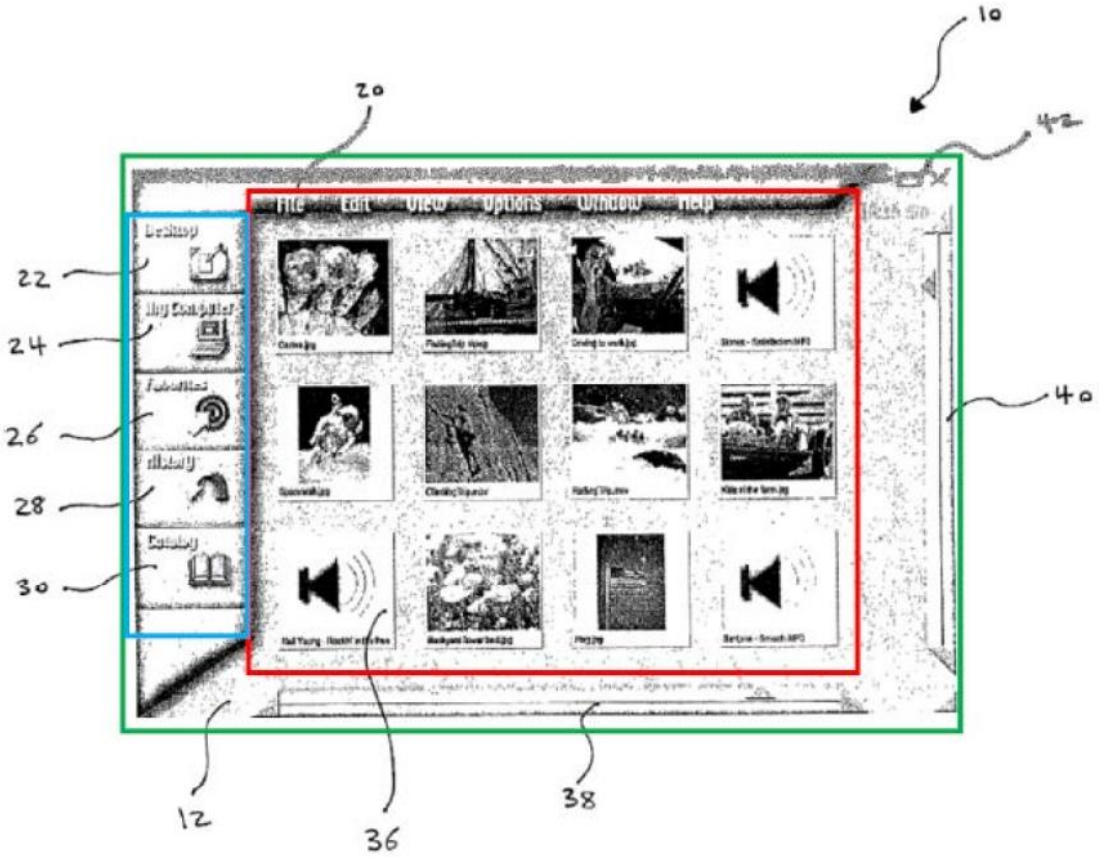


EX1014, ¶40, ~~Fig. 7;~~ EX1009, ~~29.~~ This second area displays thumbnails corresponding to a button selected in the first area in blue. *Id.*, *see also* EX1014, ¶42, ~~Fig. 7. EX1003, ¶232.~~

~~11. [1j]~~

~~Bryant and Kaplan each disclose and/or render obvious this limitation, and their combination renders it obvious. Kaplan discloses that selection of the Favorites button results in the display of a first group of thumbnails 50-58 corresponding to the first group of "Favorites" objects as shown in Fig. 7. EX1014, ¶42 and Fig. 4; EX1009, 30; EX1003, ¶233. These objects in Fig. 7 are folders,~~

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EX1014, ¶40, FIG. 4; EX1009, 29; EX1003, ¶382. This second area displays thumbnails corresponding to a button selected in the first area in blue. *Id.*, *see also* EX1014, ¶42, FIG. 7; see also EX1007, FIG. 6:

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including a folder 56 that corresponds to videos in the form of movies. EX1014, ¶42. The choice of an icon such as the film icon on folder 56 or a thumbnail such as on folder 54 was a design choice and would have been obvious to a POSITA. As shown in Fig. 4, the objects could also be individual multimedia items including movies as discussed in limitation [1k]. *Id.*

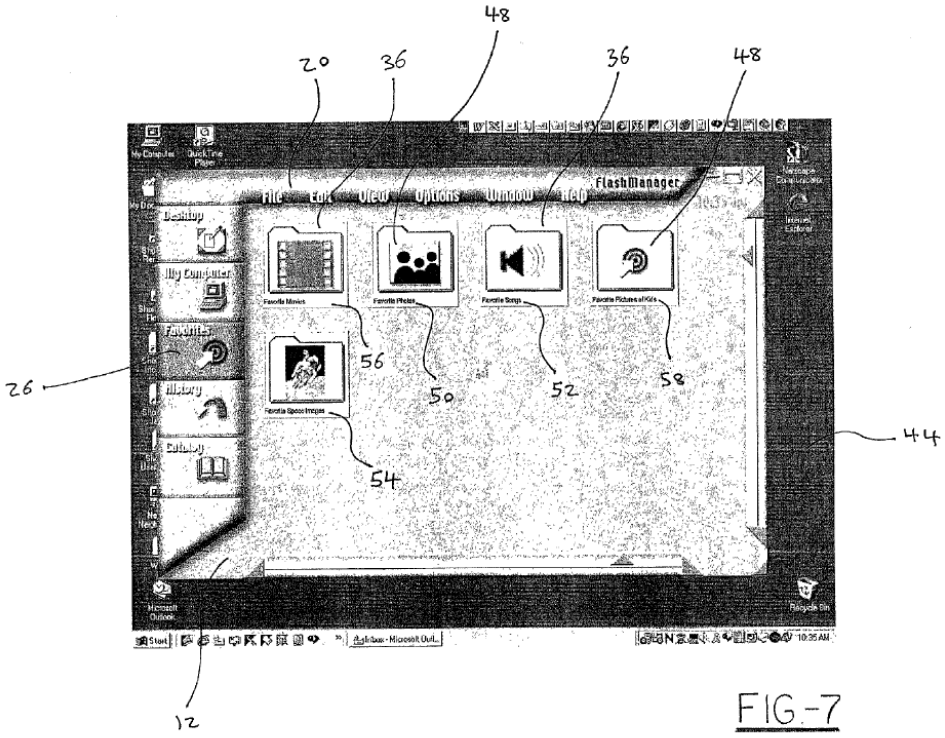


FIG-7

EX1003, ¶233.

12. [1k]

The Kaplan-Bryant combination renders this limitation obvious. Kaplan discloses that selection of the History button results in the display of a second group of objects 36-62 corresponding to the second group of "History" objects as shown in Fig. 8. EX1014, ¶45, Fig. 8; EX1009, 30; EX1003, ¶234. These objects

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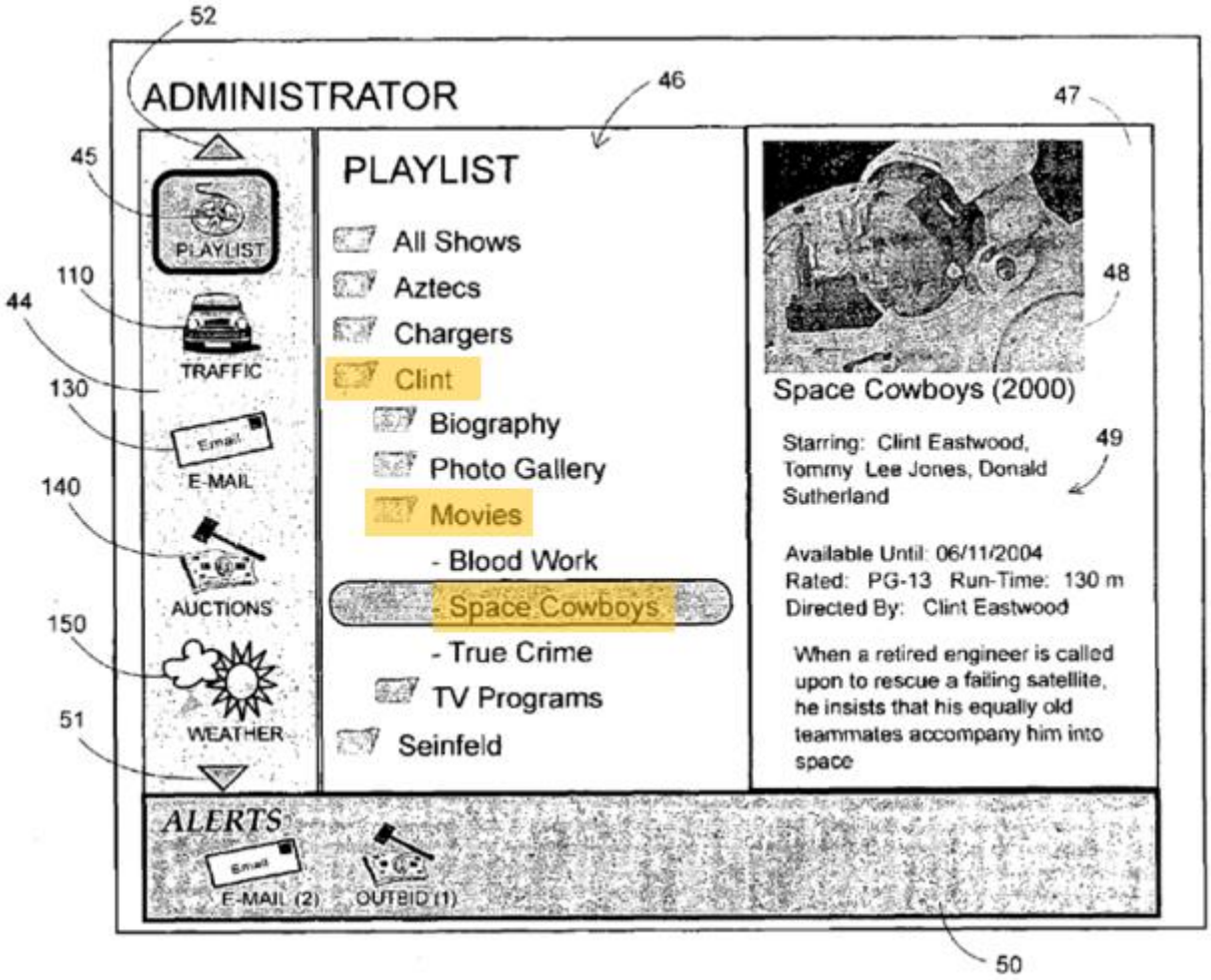


FIG. 6

While Wong uses text instead of a graphical thumbnail, it would have been obvious to a POSITA to substitute graphical thumbnails such as those disclosed by Kaplan discussed/illustrated above for the textual titles such as those highlighted in orange above. EX1003, ¶383.

9. [16h]

Kaplan-Bryant renders this limitation obvious. §IX.B.3[16b], IX.B.7[16f]; EX1003, ¶384. Kaplan discloses that selection of the Favorites button results in the

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in ~~Fig.~~ 8 are a mix of folders and individual items including a video 36 ("FishingTrip.mpeg") represented by a thumbnail. EX1014, ¶45. The choice of an icon such as the film icon on folder 56 or a thumbnail such as on folder 36 was a design choice and would have been obvious to a POSITA.

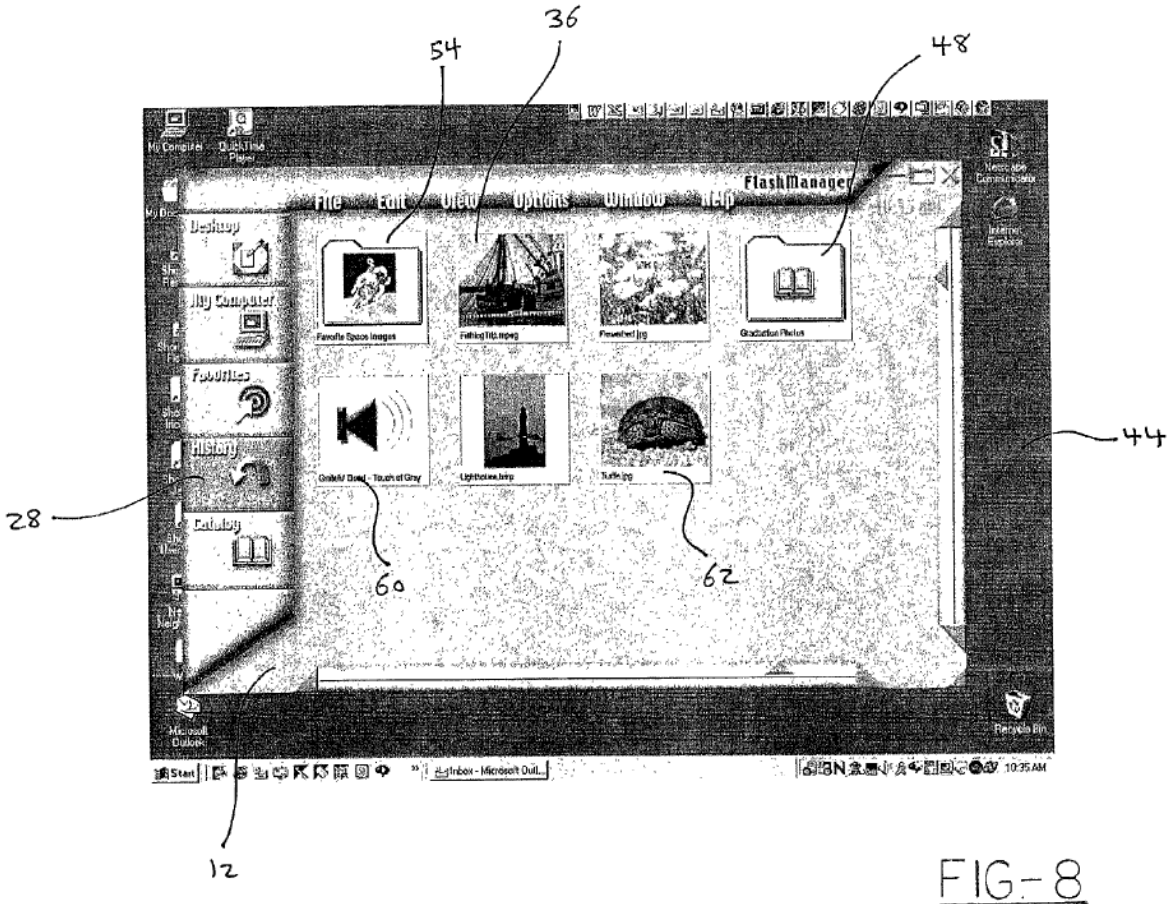


FIG-8

EX1003, ¶~~234.~~

~~13.~~ [~~1l~~]

~~The Kaplan-Bryant combination~~ renders this limitation ~~obvious as each~~ of Kaplan and ~~Bryan~~ disclose or render ~~obvious this limitation.~~ EX1009, 31-36; EX1003, ¶~~235.~~ As an initial matter, the doctrines of issue preclusion and collateral

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display of a second group of objects 36-62 corresponding to the second group of "History" objects as shown in FIG. 8. EX1014, ¶45, FIG. 8; EX1009, 30; EX1003, ¶384. These objects in FIG. 8 are a mix of folders and individual items including a video 36 ("FishingTrip.mpeg") represented by a thumbnail. EX1014, ¶45. The choice of an icon such as the film icon on folder 56 or a thumbnail such as on folder 36 was a design choice and would have been obvious to a POSITA. EX1003, ¶384.

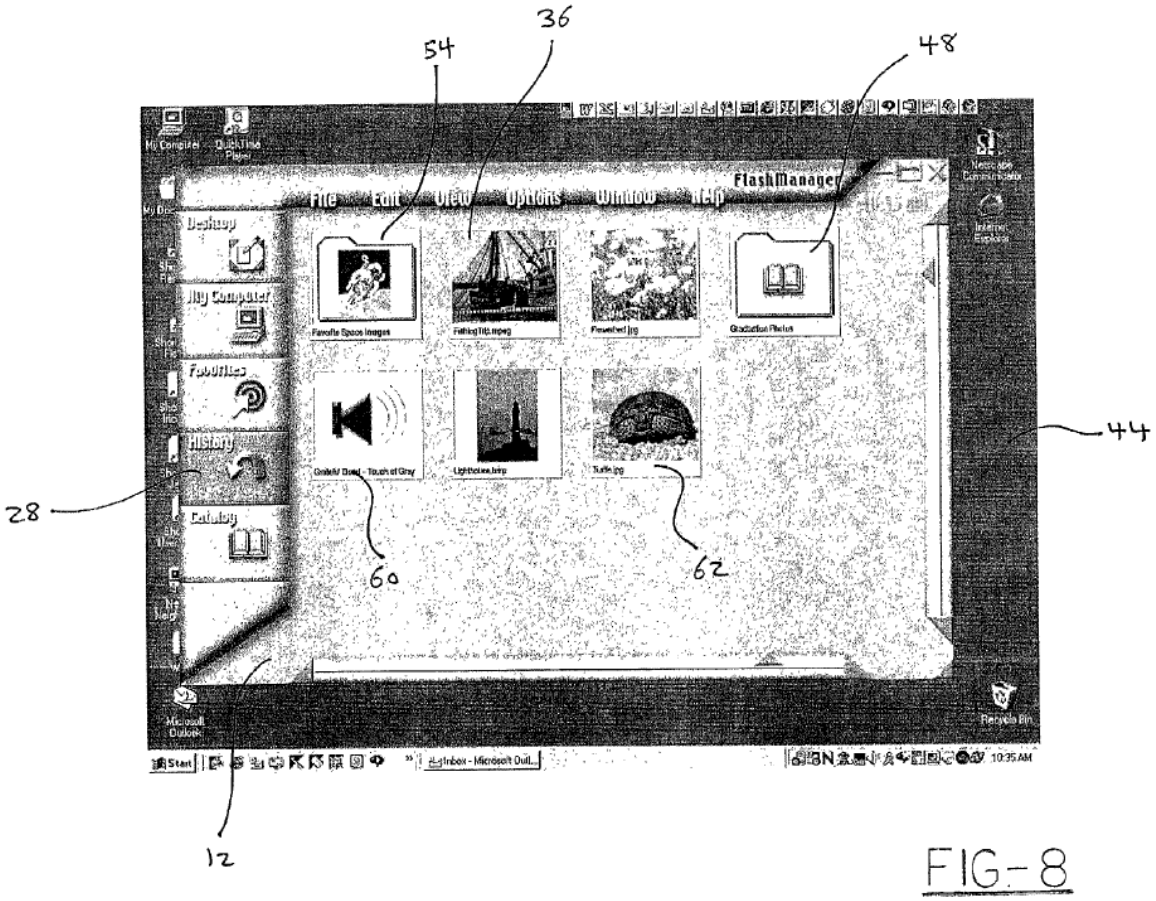


FIG-8

Wong further discloses "[a]lthough the foregoing description has disclosed several configuration options available to the 'Administrator' user account, it is to

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be understood that similar configuration options are available to other sub-users existing within the system." EX1007, 10:65-11:8; *see also* 9:17-38, 11:66-12:43, FIG. 6; EX1003, ¶385.

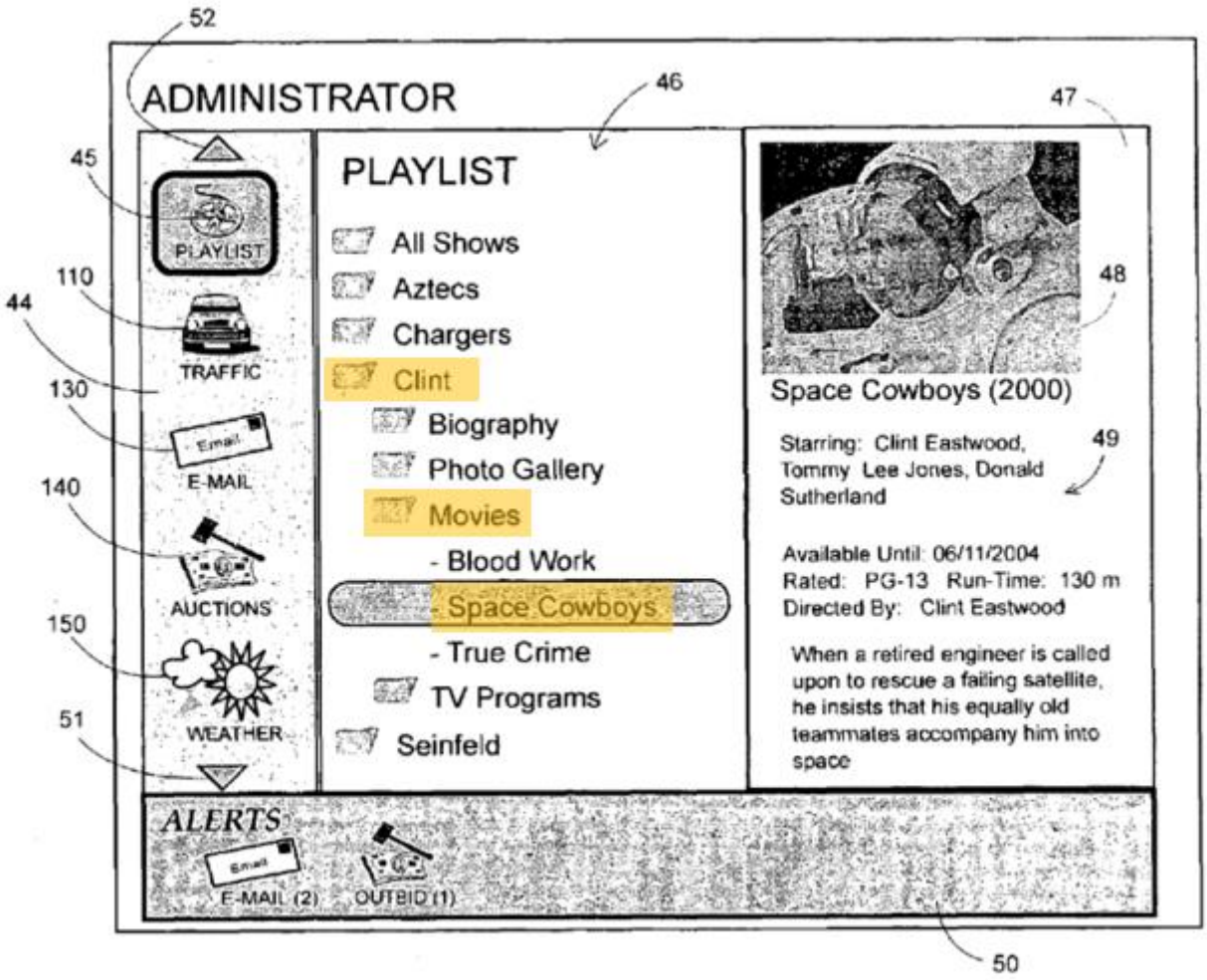


FIG. 6

While Wong uses text instead of a graphical thumbnail, it would have been obvious to a POSITA to replace that text with graphical thumbnails such as those disclosed by Horn FIG. 26 for the reasons set forth in limitation [16h]. EX1003, ¶386.

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estoppel ~~preclude~~ PO from contesting that Bryant does not disclose, and the combination of Kaplan and Bryant do not render obvious. This is because the language of ~~this~~ ~~limitation~~ is nearly identical, and is substantively identical, to limitation 2.9 of the '783 patent, which was held by the Board in the 01432FWD to be taught by Bryant alone and by the combination of Kaplan and Bryant. EX1009, 31-~~36; EX1003, ¶235; see~~ *Google LLC v. Hammond Development Int'l, Inc.*, 54 F.4th 1377, 1382 (Fed. Cir. 2022) (finding in IPR context that collateral estoppel applies even if slightly different ~~claim~~ language is used so long as the differences do not materially alter the question of invalidity). Here, in addition to the unpatentability issue being identical as a result of the substantively identical claim language and the same Kaplan and Bryant references being applied, all other requirements for the application of collateral estoppel are satisfied: this issue was actually litigated in the 2018-01432 IPR, the resolution of this issue was essential to the 01432FWD, and PO had a full and fair opportunity to litigate this issue in the 2018-01432 IPR.

In any event, Kaplan discloses the use of an indexed database file and pointers to a physical file location for an object such as a video. EX1014, ¶44. These pointers allow for a single object at a physical file location to be represented as thumbnails in multiple user interface groups such as "Favorites" and "History." *Id*. As explained in Kaplan:

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10. [16i]

Kaplan renders this limitation obvious. The objects in the Favorites and History groups are the same and are part of the information stored in Kaplan's system, such as the hard drive. EX1014, ¶44; EX1003, ¶387.

11. [16j] and [16k]

Kaplan and Bryant disclose and/or render these limitations obvious. EX1009, 31-36; EX1003, ¶388.

As an initial matter, the doctrines of issue preclusion and collateral estoppel precludes PO from contesting that Bryant does not disclose, and the combination of Kaplan and Bryant do not render obvious. This is because the language of these limitations is nearly identical, and is substantively identical, to limitation 2.9 of the '783 patent, which was held by the Board in the 01432FWD to be taught by Bryant alone and by the combination of Kaplan and Bryant. EX1009, 31-36. See *Google LLC v. Hammond Development Int'l, Inc.*, 54 F.4th 1377, 1382 (Fed. Cir. 2022) (finding in IPR context that collateral estoppel applies even if slightly different language is used so long as the differences do not materially alter the question of invalidity). Here, in addition to the unpatentability issue being identical as a result of the substantively identical claim language and the same Kaplan and Bryant references being applied, all other requirements for the application of collateral estoppel are satisfied: this issue was actually litigated in the 2018-01432 IPR, the

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> To facilitate the storage and subsequent retrieval of the multimedia data files, the multimedia management system user interface provides a plurality of predefined functions to ***uniquely index multimedia files, create an index database file, and create visual representations of the files for later retrieval.*** This function relates to a media library function of the media management system resident on a PC. ***The indexed file stores a pointer in the management system database to the physical file location, while providing a thumbnail image that can be used to represent the file in the management system user interface.*** This allows ***multiple pointers in the media management database, which relate to a single physical file stored on computer media.*** Thus, there is no need to store multiple physical files of the multimedia data, thereby saving storage space. Additionally, the media management system ***allows organization of the multimedia files into virtual albums of favorite multimedia files for easy access,*** while archiving the source material. The indexing system will automatically drop the indexing information into the library files for access.

EX1014, ¶~~44.~~ This ~~concept~~ is also reflected in Kaplan's claim 20, which recites ~~a~~ "~~"~~system for managing multimedia data files comprising a database of multimedia data files" and "a user interface having representations of the data files, wherein ***multiple representations of a data file can be presented in the user interface,*** with any representation of a data file having a pointer to a single data file stored on computer readable memory." EX1014, claim 20; EX1003, ¶~~236.~~

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resolution of this issue was essential to the 01432FWD, and PO had a full and fair opportunity to litigate this issue in the 2018-01432 IPR.

In any event, Kaplan discloses the use of an indexed database file and pointers to a physical file location for an object such as a video. EX1014, ¶44. These pointers allow for a single object at a physical file location to be represented as thumbnails in multiple user interface groups such as "Favorites" and "History." *Id*. As explained in Kaplan:

> To facilitate the storage and subsequent retrieval of the multimedia data files, the multimedia management system user interface provides a plurality of predefined functions to ***uniquely index multimedia files, create an index database file, and create visual representations of the files for later retrieval.*** This function relates to a media library function of the media management system resident on a PC. ***The indexed file stores a pointer in the management system database to the physical file location, while providing a thumbnail image that can be used to represent the file in the management system user interface.*** This allows ***multiple pointers in the media management database, which relate to a single physical file stored on computer media.*** Thus, there is no need to store multiple physical files of the multimedia data, thereby saving storage space. Additionally, the media management system ***allows organization of the multimedia files into virtual albums of favorite multimedia files for easy access,*** while archiving the

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A POSITA would have understood from these descriptions in Kaplan that with the use of multiple pointers to a single stored file: (1) video information recorded on a recording medium can be included in multiple groups (*e.g.*, first and second groups); and (2), if video information is deleted from a first group (*e.g.*, classified as "Favorites"), it will continue to be included in a second group (*e.g.*, classified as "Desktop," "My Computer," "History," and/or "Catalog"). A POSITA would also have understood that a user would have expected to be able to modify groups independently by deleting the video from one group (such as its inclusion in Favorite), without removing its membership in a second group (such as Catalog). Without such a feature (which was standard), the user would not be able to control their favorites without disrupting other groups of videos. EX1003, ¶~~237.~~

To the extent that ~~this limitation is~~ not disclosed or obvious over Kaplan, ~~it is~~ disclosed or at least obvious over Bryant. EX1009, 31-35. ~~Similar to Kaplan,~~ Bryant discloses multiple collections of image objects represented by thumbnails, including "All Images," "All Favorites," and "Group" as shown in ~~Figs.~~ 9A-9C:

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> source material. The indexing system will automatically drop the indexing information into the library files for access.

EX1014, ¶44; EX1003, ¶389. This is also reflected in Kaplan's claim 20, which recites a"system for managing multimedia data files comprising a database of multimedia data files" and "a user interface having representations of the data files, wherein ***multiple representations of a data file can be presented in the user interface,*** with any representation of a data file having a pointer to a single data file stored on computer readable memory." EX1014, claim 20; EX1003, ¶389.

A POSITA would have understood from these descriptions in Kaplan that with the use of multiple pointers to a single stored file: (1) video information recorded on a recording medium can be included in multiple groups (e.g., first and second groups); and (2), if video information is deleted from a first group (*e.g.*, classified as "Favorites"), it will continue to be included in a second group (*e.g.*, classified as "Desktop," "My Computer," "History," and/or "Catalog"). A POSITA would also have understood that a user would have expected to be able to modify groups independently by deleting the video from one group (such as its inclusion in Favorite), without removing its membership in a second group (such as Catalog). Without such a feature (which was standard), the user would not be able to control their favorites without disrupting other groups of videos. EX1003, ¶390.

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To the extent that these limitations are not disclosed or obvious over Kaplan, they are disclosed or at least obvious over Bryant. EX1009, 31-35. Bryant discloses multiple collections of image objects represented by thumbnails, including "All Images," "All Favorites," and "Group" as shown in FIGS. 9A-9C:

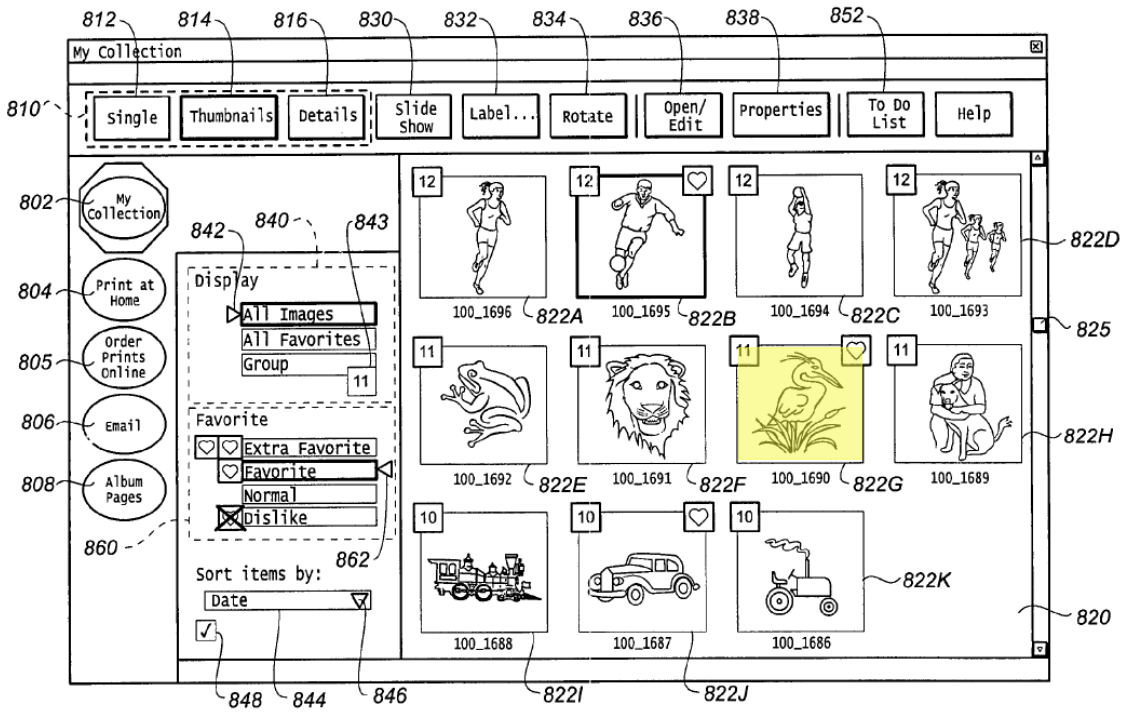


FIG. 9A

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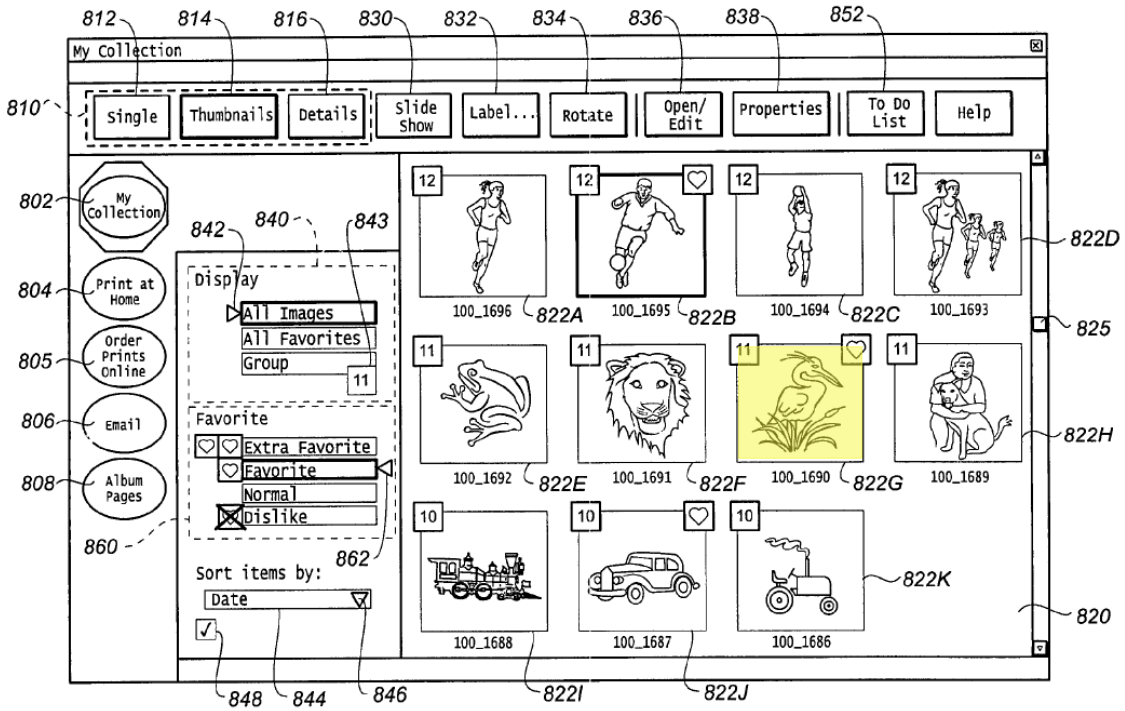


FIG. 9A

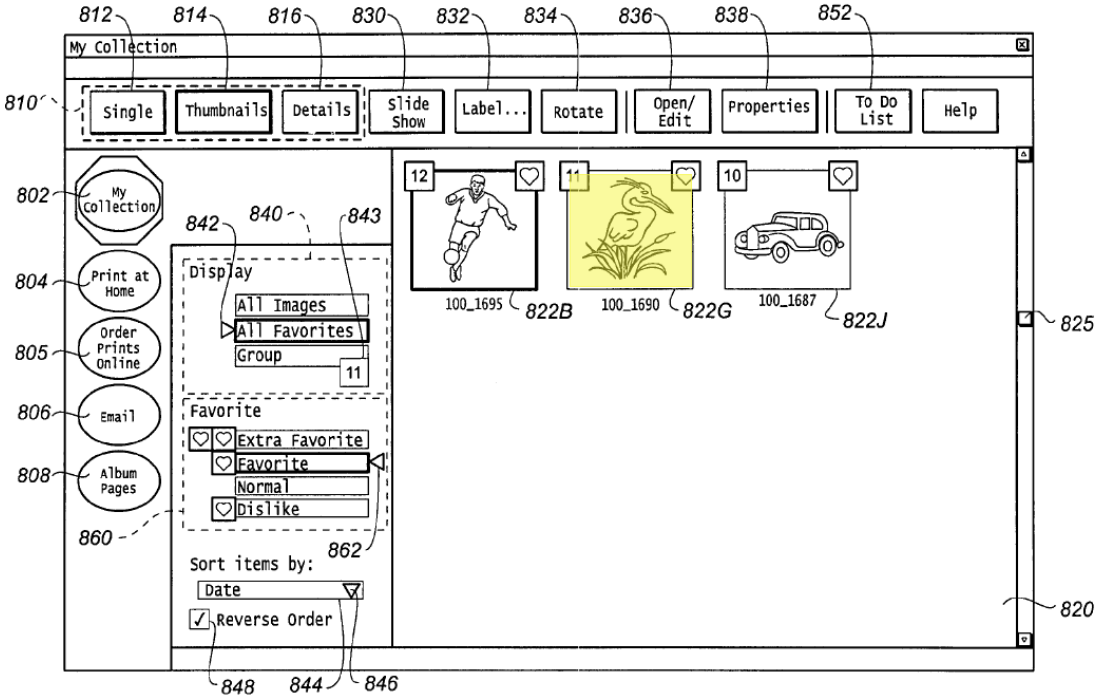


FIG. 9B

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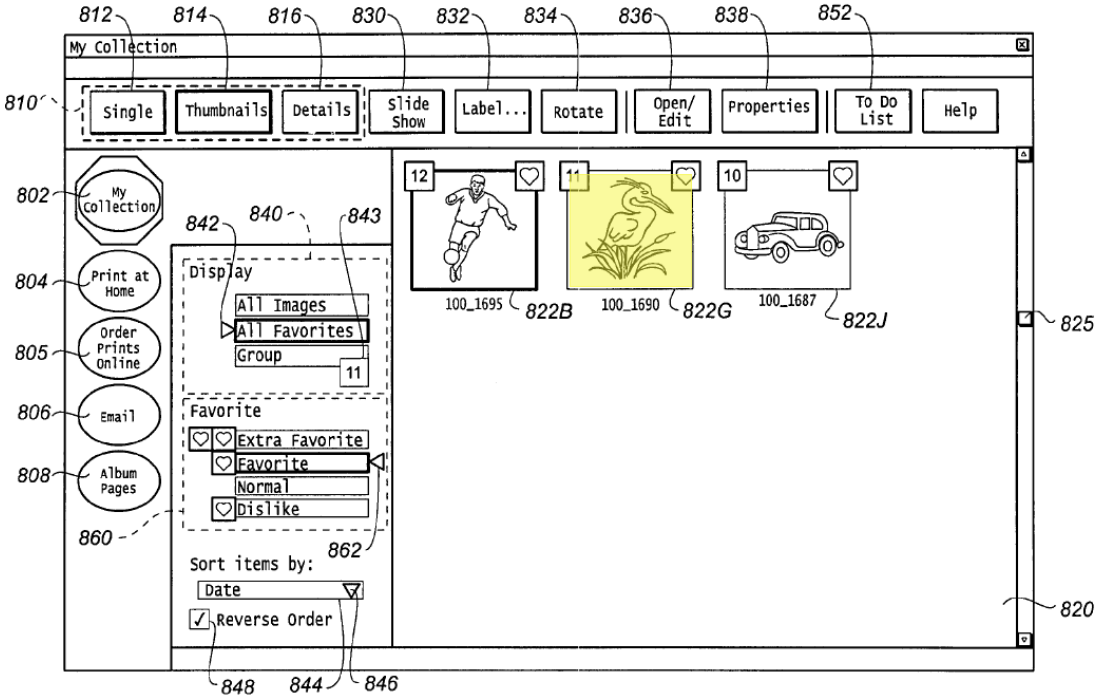


FIG. 9B

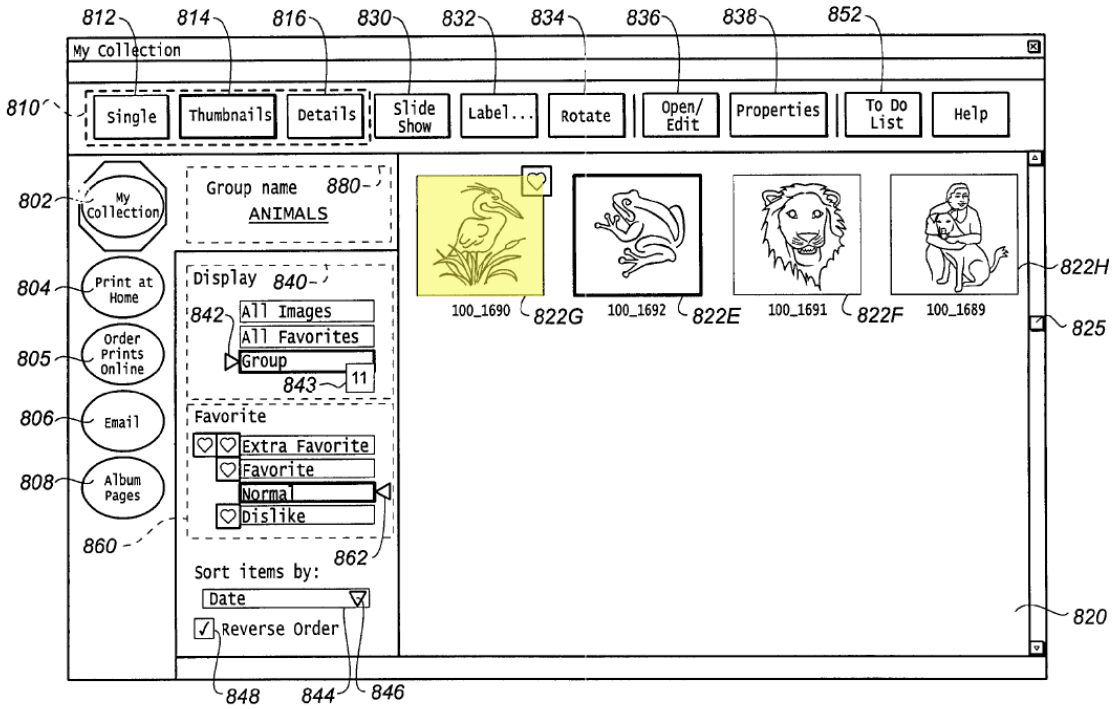


FIG. 9C

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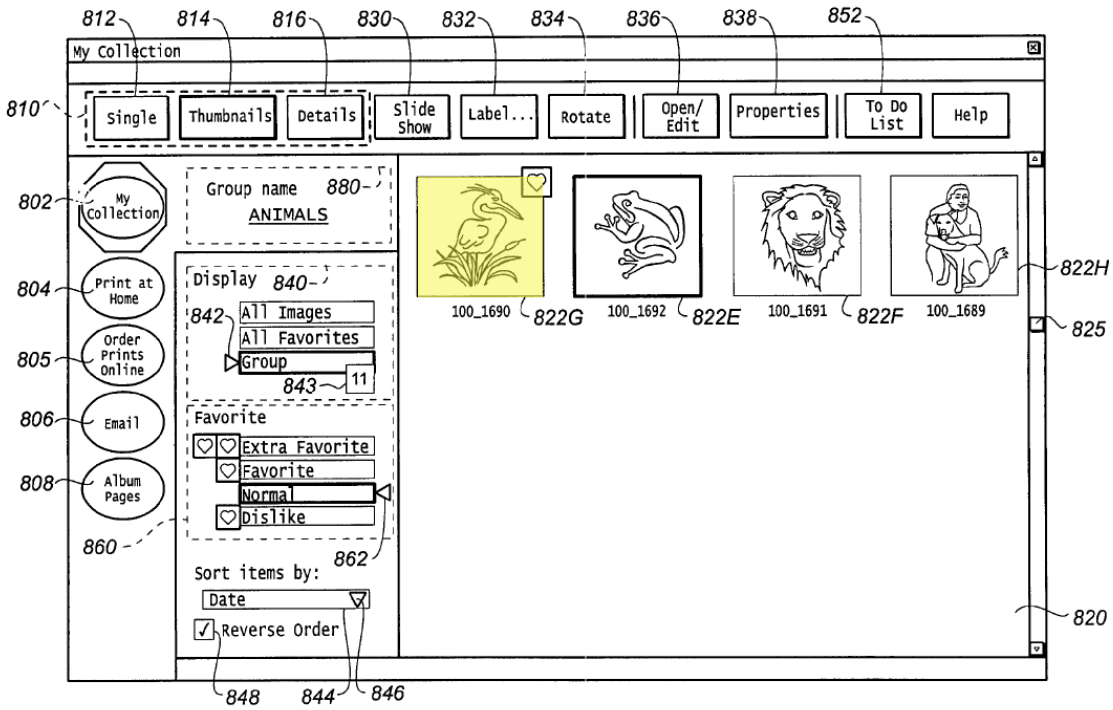


FIG. 9C

EX1015, ¶¶89-106; EX1003, ¶~~238.~~

Bryant also discloses a local database with a general assets table 600 and a table of fields that correspond to each media object as shown in ~~Fig.~~ 8 below and described in Bryant at ¶¶82-~~87:~~

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EX1015, ¶¶89-106; EX1003, ¶391. Bryant also discloses a local database with a general assets table 600 and a table of fields that correspond to each media object as shown in FIG. 8 below and described in Bryant at ¶¶82-87; EX1003, ¶392.

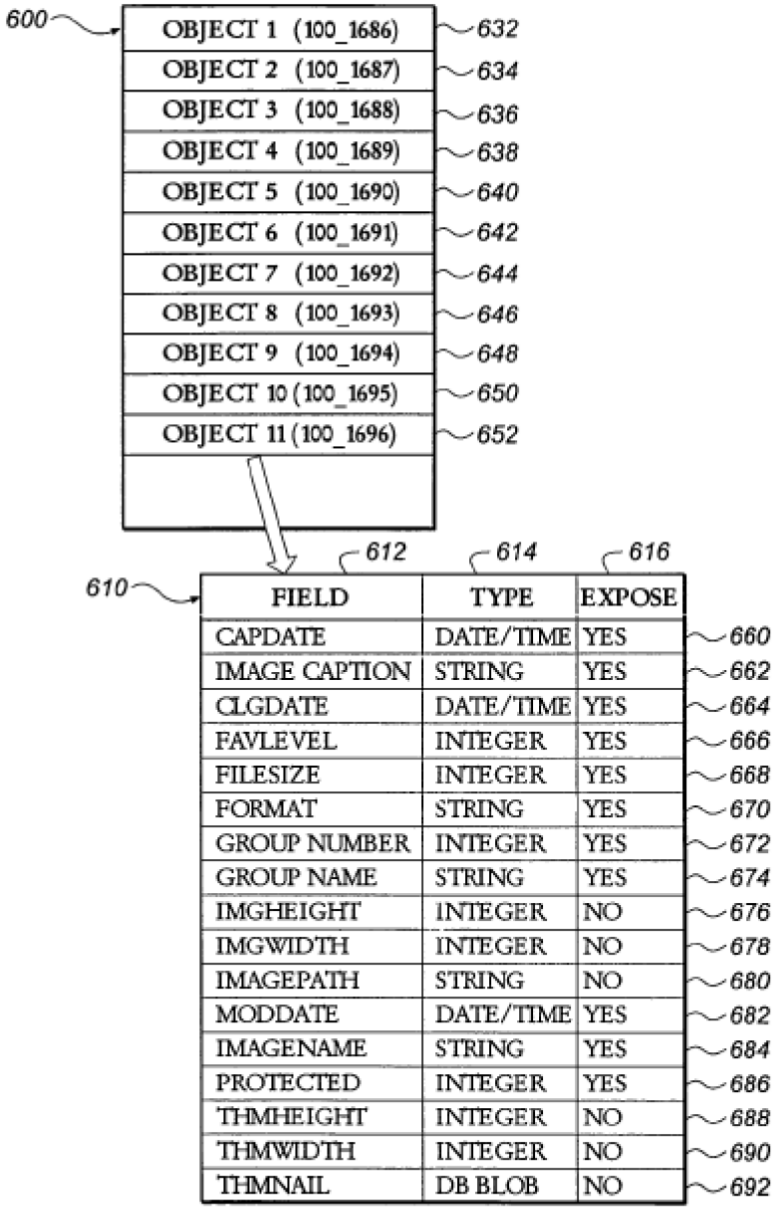


FIG. 8

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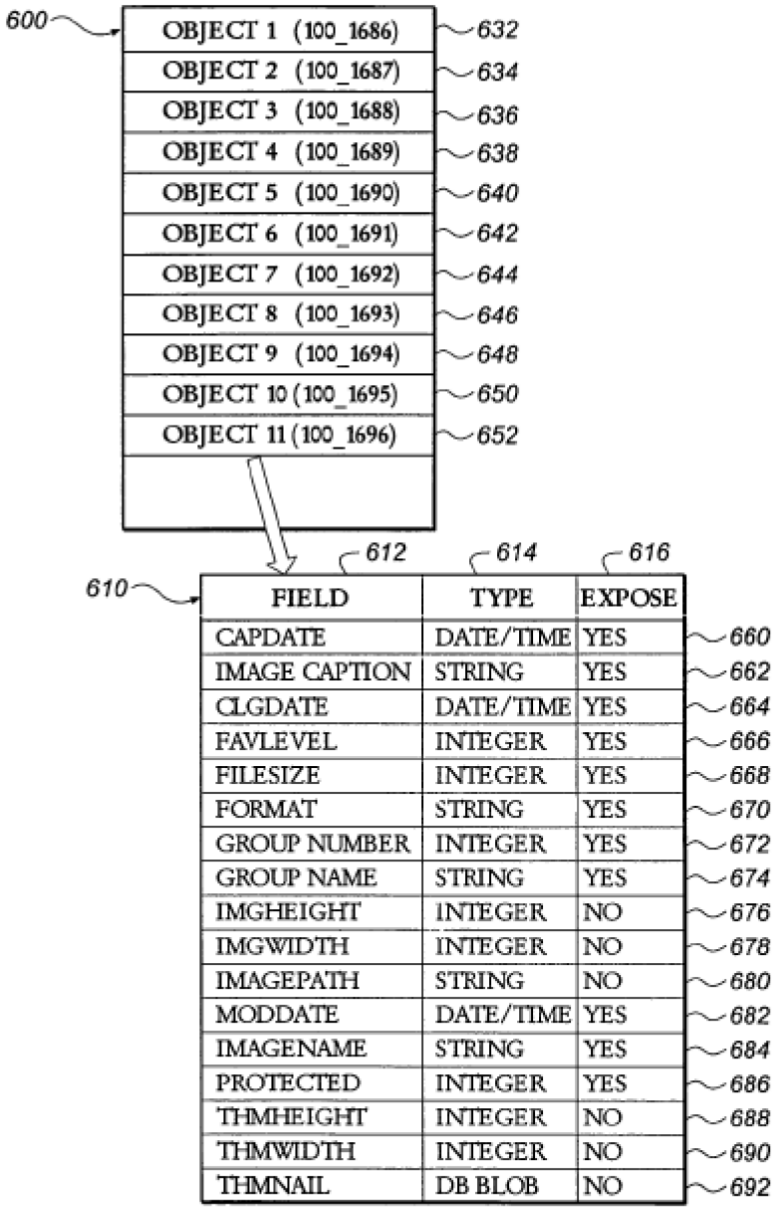


FIG. 8

This structure allows a media file to be simultaneously classified in multiple groups. EX1003, ¶¶239-240. For example, the highlighted crane image 822G is included in each of the collections in Figs. 9A-9C. A POSITA would have recognized that Bryant discloses that if the crane media object were removed as a

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This structure allows a media file to be simultaneously classified in multiple groups. EX1003, ¶393. For example, the highlighted crane image 822G is included in each of the collections in FIGS. 9A-9C. A POSITA would have recognized that Bryant discloses that if the crane media object were removed as a favorite by changing the favorites level to "Normal" or "Dislike" as described in ¶105 of Bryant, the media object would continue to be included in the "All images" and "Group/" collections of video information. EX1003, ¶393 (citing EX1015, ¶101). This is because a POSITA would have understood that a user would have expected to be able to modify groups independently by deleting the video from one group (such as its inclusion in All Favorites), without removing its membership in a second group (such as All Images or Group/11). If un-favoriting a video image somehow removed it from its Group (e.g., sports) or from the full catalog of images (e.g., "All Images"), that would have limited the utility of the system and caused confusion for the user. To the extent the foregoing is not implicit in Bryant, it is at least obvious over Bryant. EX1003, ¶393; *see also* EX1009, 31-35.

12. [16l]

Kaplan-Bryant renders this limitation obvious. §IX.B.3[16b], IX.B.7[16f]; EX1003, ¶394. Kaplan discloses a second area (red) in FIG. 4:

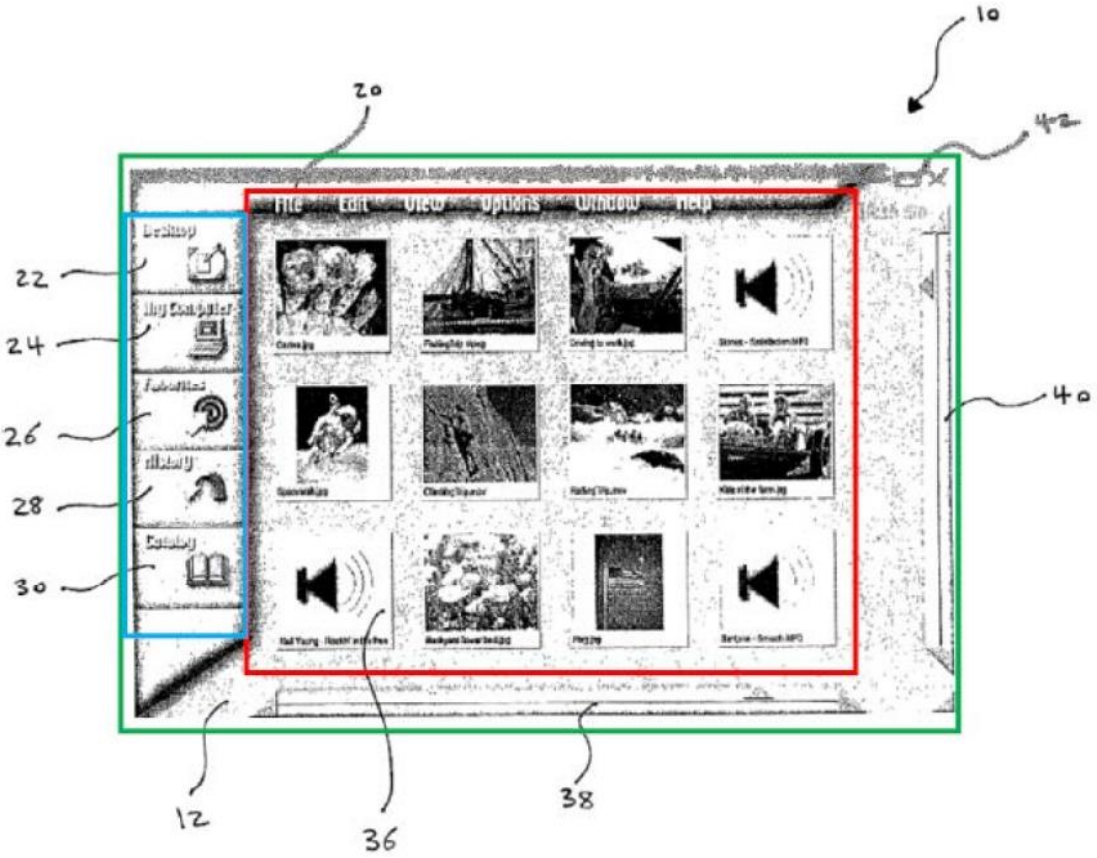
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favorite by changing the favorites level to "Normal" or "Dislike" as described in ¶105 of Bryant, the media object would continue to be included in the "All images" and "Group/" collections of video information. EX1003, ¶240 (citing EX1015, ¶101). This is because a POSITA would have understood that a user would have expected to be able to modify groups independently by removing the video from one group (such as its inclusion in All Favorites), without removing its membership in a second group (such as All Images or Group/11). If un-favoriting a video image somehow removed it from its Group (*e.g.*, sports) or from the full catalog of images (*e.g.*, "All Images"), that would have limited the utility of the system and caused confusion for the user. To the extent the foregoing is not implicit in Bryant, it is at least obvious over Bryant. *Id.*; *see also* EX1009, 31-35.

14. [1m]

The Kaplan-Bryant combination renders this limitation obvious. In view of Kaplan's and Bryant's disclosures discussed above for limitation [1k], a POSITA would have understood that selection of a second collection (*e.g.*, the History or All Images collection) would result in the display of thumbnails for all objects in the second collection even if one of those objects had been removed from a favorites collection, and a POSITA would have found it obvious to provide this same functionality for video information such as movies as taught by both Kaplan and Bryant. EX1003, ¶241.

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EX1014, ¶40, FIG. 4; EX1009, 29; EX1003, ¶394. This second area displays thumbnails corresponding to a button selected in the first area (blue). *Id.*, *see also* EX1014, ¶42, FIG. 7.

Kaplan discloses "multimedia content," EX1014, ¶¶38, 44, known to include digital video and audio. EX1016, ¶38, Abstract. Bryant also discloses video information, including "motion video images." EX1015, ¶¶29, 36-38, 80-81, FIGS. 1, 3. A POSITA would have understood that user selection of desired video information from either Kaplan-Bryant would occur based on a selection of a

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~~C.~~ Claim ~~2.~~

~~The~~ Kaplan-Bryant ~~combination~~ renders this limitation obvious. ~~The Kaplan-Bryant combination renders claim 1 obvious as discussed above.~~ Kaplan discloses a "History" group, which is ~~a~~ second group of objects such as videos based on prior access of those objects by the user. When a user selects this group by pressing the History button 28, thumbnails for only those objects that have been previously accessed by the user are displayed ~~as shown in Fig. 8 below.~~ EX1014, ¶¶42, 45; ~~EX1009, 27-28; EX1003, ¶242.~~

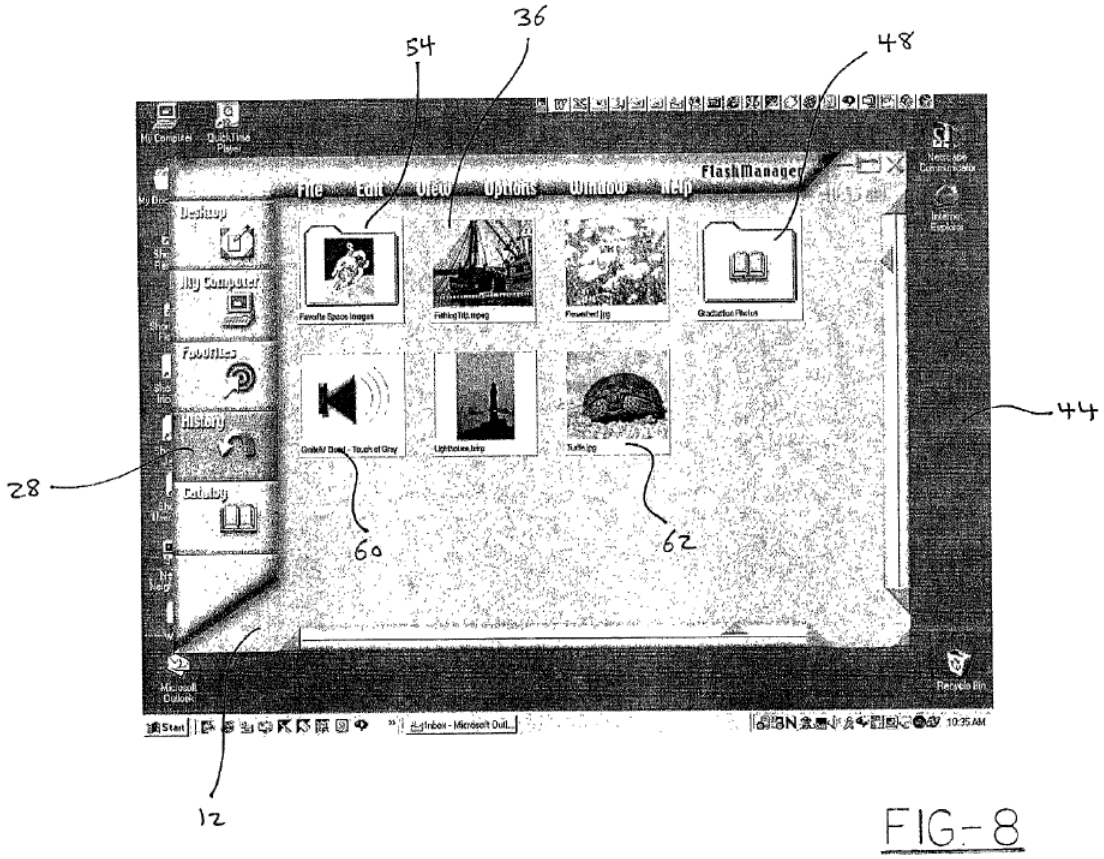


FIG-8

~~1608190654~~

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thumbnail. EX1003, ¶395. Moreover, the selection would also result in the playback of the video. *Id.*

13. [16m]

Kaplan-Bryant-Wong in combination with Candelore renders this limitation obvious. EX1003, ¶396; §IX.B.2; EX1013, ¶¶72, 131.

C. Claim 17.

Kaplan-Bryant-Wong-Candelore render obvious the method of claim 16. §IX.B. Wong renders this limitation obvious. EX1003, ¶397. Wong discloses configuration options available to the administrator and sub-user accounts, including parental control mechanisms that "'lock out' certain forms of questionable or controversial media content" and prohibit users from viewing such content. EX1007, 9:49-11:8, 3:13-27, FIG. 8. A POSITA would understand that setting a parental control for other users would result in the deletion of stored video information (media content pointers) for prohibited content. EX1003, ¶397.

D. Claim 18.

Kaplan-Bryant-Wong-Candelore renders obvious the method of claim 16. §IX.B. Kaplan-Bryant renders this limitation obvious. EX1003, ¶398. Kaplan discloses a "History" group, which is second group of objects such as videos based on prior access of those objects by the user. When a user selects this group by pressing the History button 28, thumbnails for only those objects that have been previously accessed by the user are displayed (FIG. 8). EX1014, ¶¶42, 45;

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D. Claim 3.

The Kaplan-Bryant combination renders this limitation obvious. The Kaplan-Bryant combination renders obvious claim 1, including the use of a wireless modem as discussed for limitations [1a] and [1b]. A POSITA would have understood or at least found it obvious to use an antenna for such a wireless modem for the same reasons discussed above for claim 3 in Ground 1. EX1003, ¶243.

E. Claim 4.

The Kaplan-Bryant combination renders this limitation obvious. The Kaplan-Bryant combination renders claim 1 obvious as discussed above. Kaplan discloses that multiple instances of video information, including both individual videos as well as collections of videos, can be recorded (*e.g.*, stored on a hard disk of the computer) in Kaplan's system as shown below in Figs. 7 and 8 below. These instances are the claimed third, fourth, and fifth video information, and they are displayed using thumbnail representations in the user interfaces shown in Figs. 7 and 8. EX1003, ¶244.

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EX1009, 27-28; EX1003, ¶398.

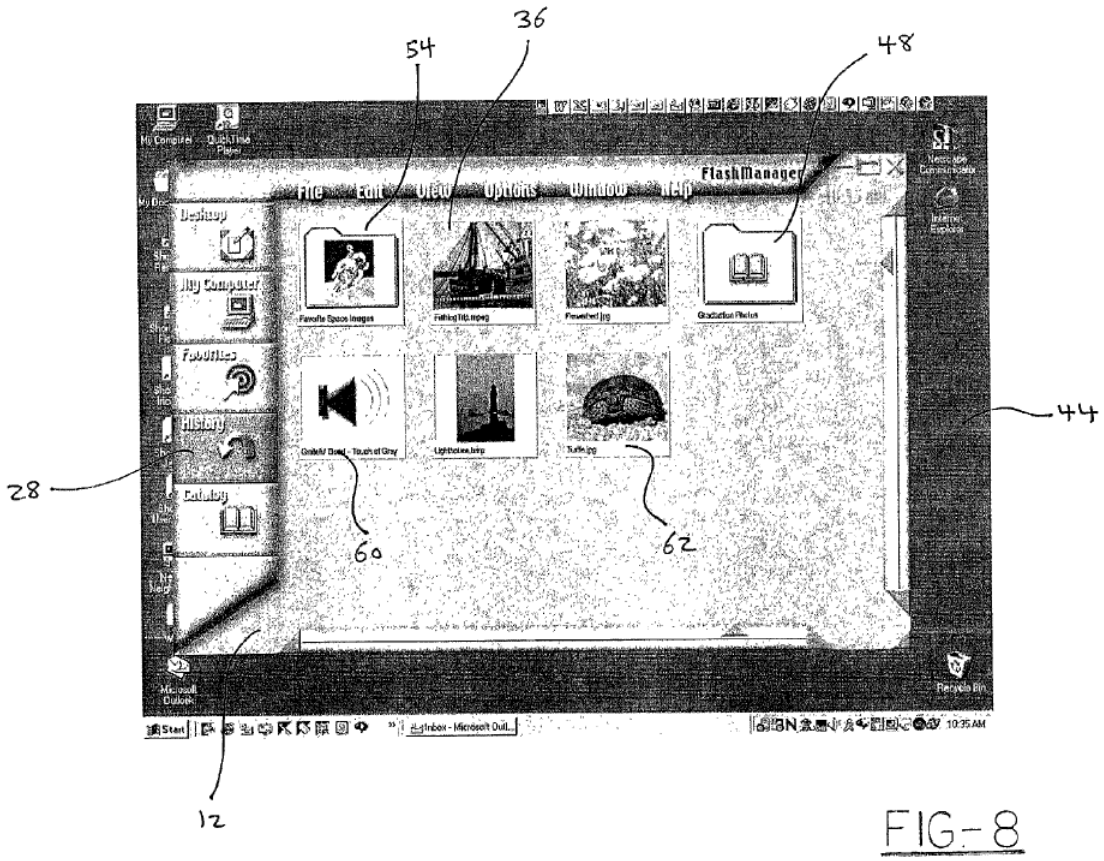


FIG-8

E. Claim 19

1. [19a]

Kaplan-Bryant-Wong-Candelore render obvious the method of claim 16. §IX.B. Kaplan-Bryant discloses third video information. EX1005, 18:52-58; 19:6-16; §IX.A. Kaplan-Bryant renders this limitation obvious. §IX.D; EX1003, ¶399.

2. [19b]

Kaplan-Bryant renders this limitation obvious. §IX.D; EX1003, ¶400.

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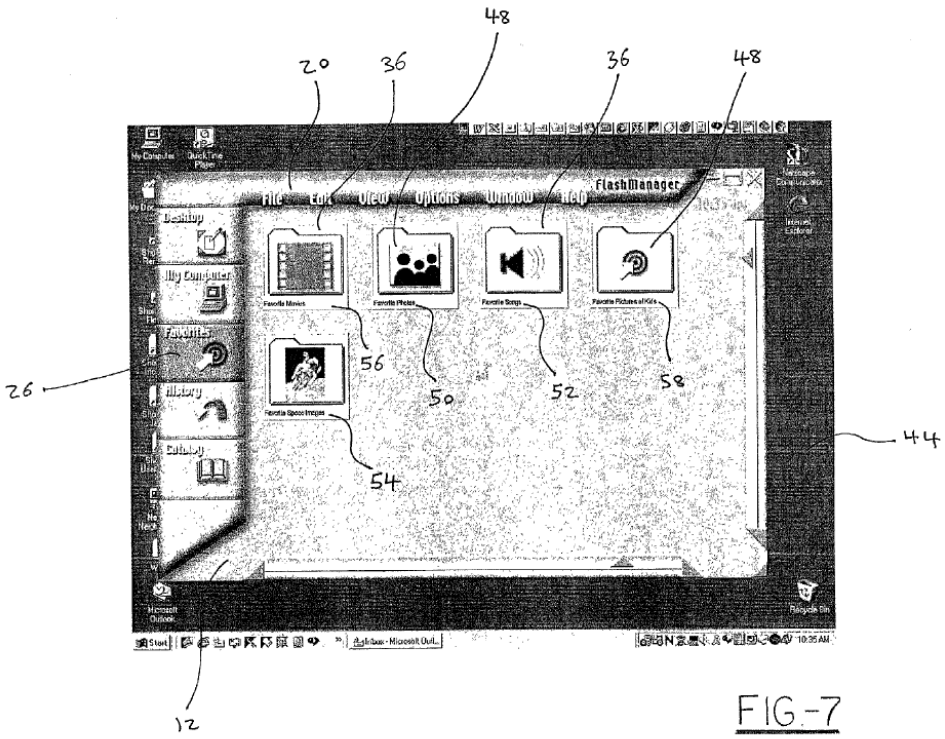


FIG-7

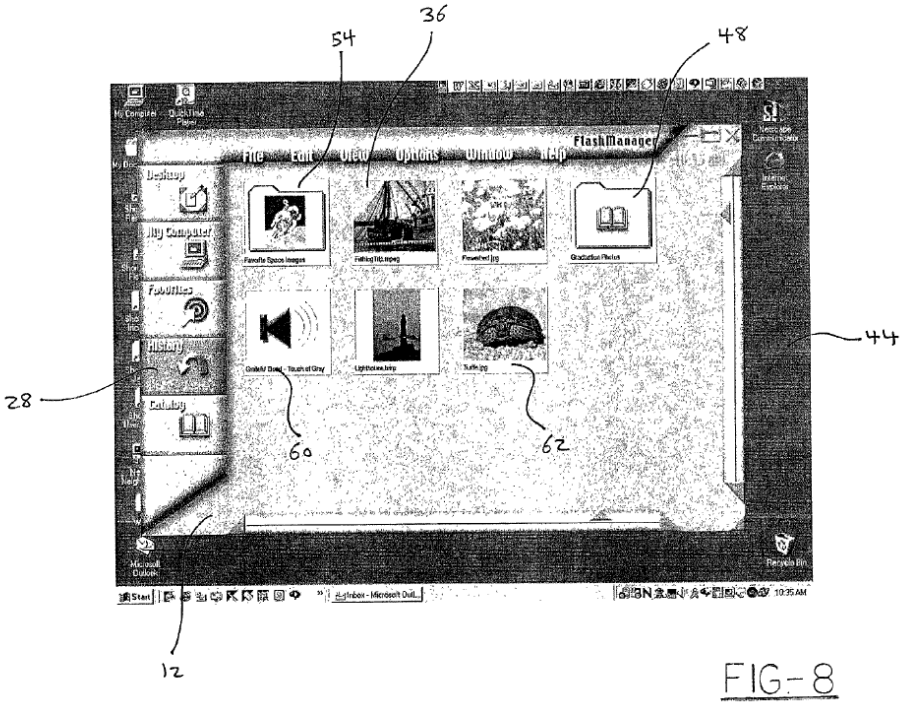


FIG-8

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F. Claim 21

1. [21pre]

To the extent the preamble is limiting, Kaplan discloses an information processing apparatus. §IX.B.1. Kaplan's system is implemented on a general-purpose computer such as a PC including software to implement the functionality disclosed in Kaplan. EX1014, ¶¶2-4, 34-37; EX1003, ¶401. Bryant similarly discloses a "home computer" 10, which a POSITA would recognize as a PC. EX1015, ¶37, FIG. 1:

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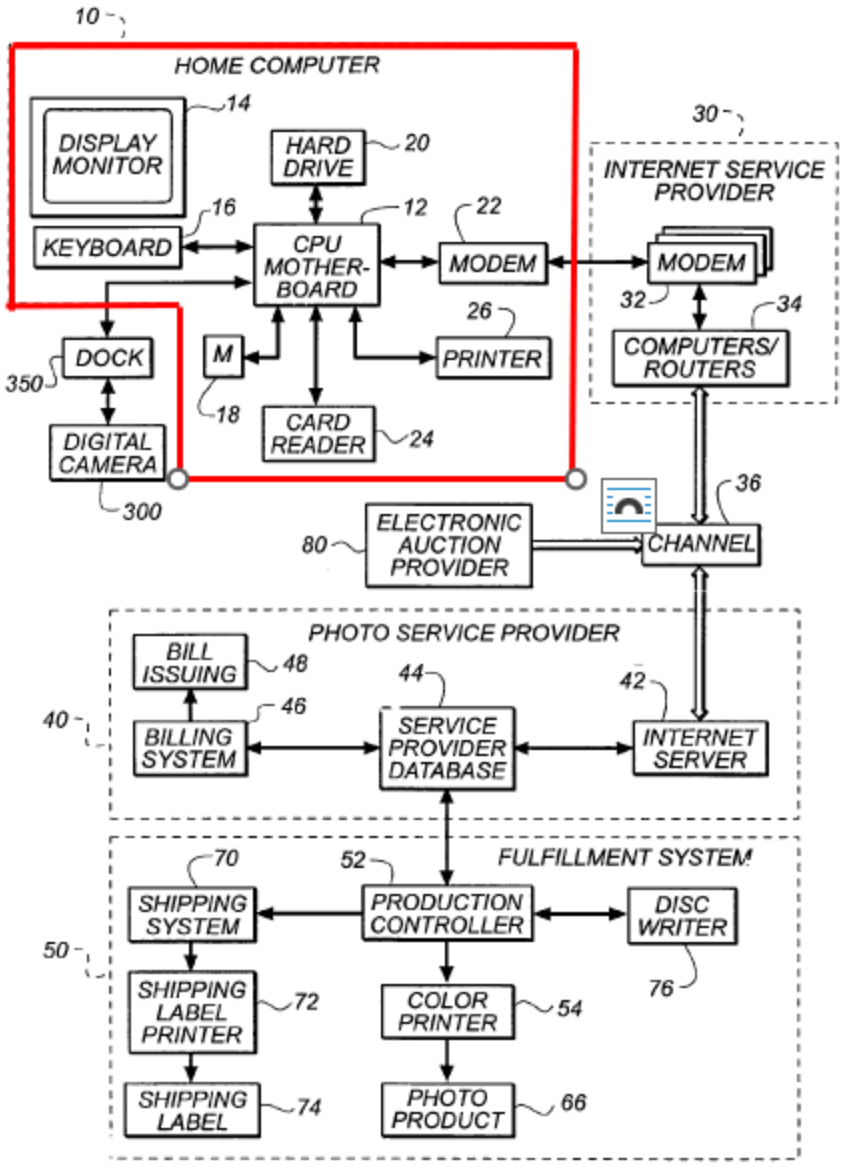


FIG. 1

2. [21a]

§IX.B.2.

3. [21b]

§IX.B.3.

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4. [21c]

§IX.B.4.

5. [21d]

§IX.B.5.

6. [21e]

§§IX.B.5, IX.B.6.

7. [21f]

§IX.B.7.

8. [21g]

§IX.B.8.

9. [21h]

§IX.B.9.

10. [21i]

§IX.B.10.

11. [21j]

12. [21k]

§§IX.B.11, IX.B.12, IX.F.5.

13. [21l]

§§IX.B.13, IX.B.14.

14. [21m]

§IX.B.14.

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G. Claim 22.

Kaplan-Bryant-Wong-Candelore renders obvious claim 21, including the use of a wireless modem as discussed for limitation [16a]. §§IX.B, IX.F. A POSITA would have understood or found it obvious to use an antenna for such a wireless modem because the use of antennas for wireless connections was ubiquitous. EX1003, ¶414 (citing EX1018).

H. Claim 23.

Kaplan-Bryant-Wong-Candelore renders obvious the information processing apparatus of claim 21. §IX.F. Wong renders this limitation obvious. §IX.C; EX1003, ¶415.

I. Claim 24.

Kaplan-Bryant-Wong-Candelore renders obvious the information processing apparatus of claim 21. §IX.F. Wong renders this limitation obvious. §IX.D; EX1003, ¶416.

J. Claim 25

1. [25a]

Kaplan-Bryant-Wong-Candelore renders obvious the information processing apparatus of claim 21. §IX.F. Kaplan-Bryant renders this limitation obvious. §IX.E.1; EX1003, ¶417. Kaplan discloses that multiple instances of video information, including individual videos and collections of videos, can be recorded (e.g., stored on a hard disk of the computer) in Kaplan's system as shown in FIGS.

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F. Claim 5.

The Kaplan-Bryant combination renders this limitation obvious. The Kaplan-Bryant combination renders claim 1 obvious as discussed above. Kaplan further discloses a "Playlist, which records the order that a user selects video and/or audio files and allows them to be played back in sequence." EX1014, ¶6; *see also* ¶56. Claim 5 is therefore obvious over these disclosures. EX1003, ¶245.

G. Claim 6.

The Kaplan-Bryant combination renders this limitation obvious. The Kaplan-Bryant combination renders claim 1 obvious as discussed above. Kaplan discloses third, fourth and fifth video information as discussed above for claim 4 (see Figs. 7 and 8). Bryant also discloses third, fourth and fifth video information, *i.e.*, the thumbnails in Figs. 9A-9C discussed above for limitation [1k]. Bryant further discloses management information including a general assets table 600 and a table of fields for each media object as shown in Fig. 8 below and described in Bryant at ¶¶82-87:

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7 and 8. These instances are the claimed third and fourth video information, and they are displayed using thumbnail representations in the user interfaces shown in FIGS. 7 and 8. EX1003, ¶417.

2. [25b]

Kaplan-Bryant renders this limitation obvious. §IX.E.2, §IX.J.1; EX1003, ¶418.

X. GROUND 10: KAPLAN, BRYANT, WONG, CANDELORE AND WINTV

A. Motivation to Combine WinTV with the Kaplan-Bryant-Wong-Candelore Combination

Kaplan's system is implemented on a general-purpose computer such as a PC including software to implement the functionality disclosed in Kaplan. EX1014, ¶¶2-4, 34-37; EX1003, ¶419. Bryant similarly discloses a "home computer" 10, which a POSITA would recognize as a PC. EX1015, ¶37. WinTV discloses a WinTV television tuner card and associated software configured for installation in a PC such as those disclosed in Kaplan and Bryant. §IV.B; EX1010 at 1-2:

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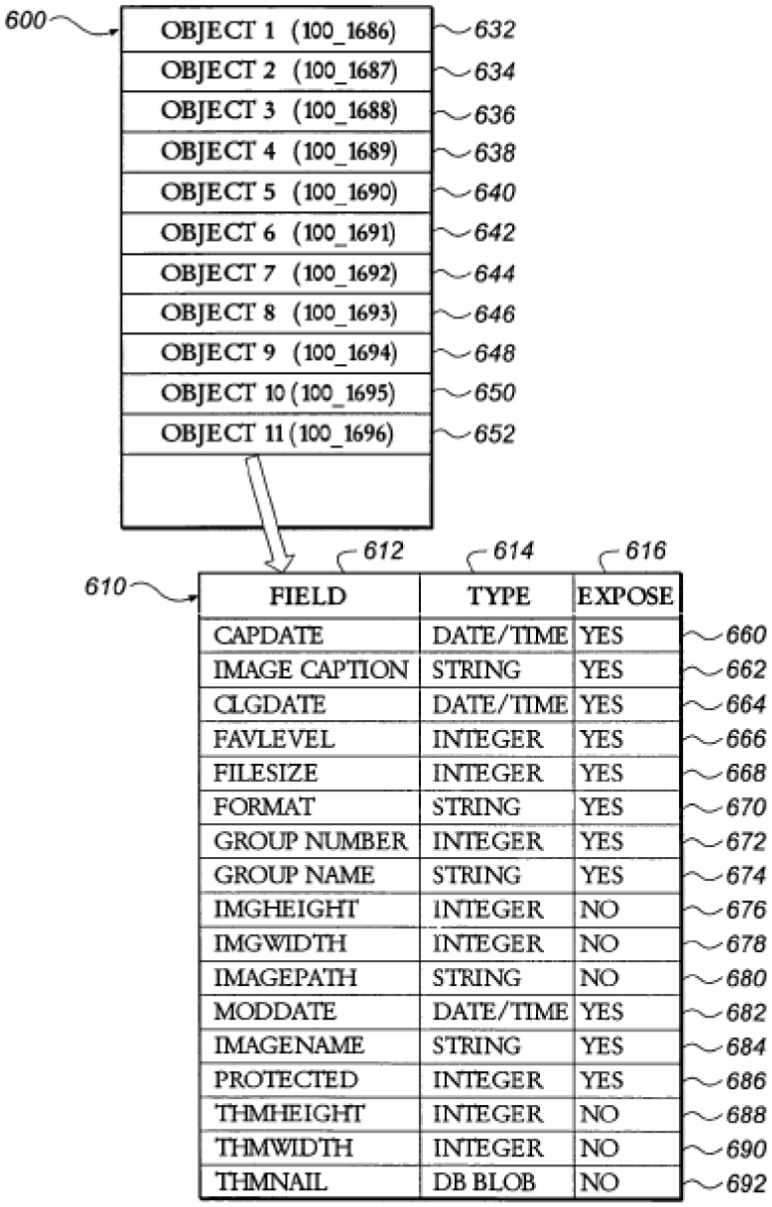


FIG. 8

EX1003, ¶246. This management information includes filename information for each object, *i.e.*, the designations inside the parentheticals in table 600. EX1015, ¶83. The management information also includes timing information, *i.e.*, the CLGDATE (catalog date and time). *Id.* Thus, when a field such as "FAVLEVEL"

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is updated, the update is performed according to the predetermined sequence reflected in Fig. 8. EX1015, ¶77; EX1003, ¶247.

H. Claim 9.

1. [9pre]

To the extent the preamble is limiting, Kaplan and Bryant render it obvious. *Supra* [1pre]; EX1003, ¶248.

2. [9a]

See supra [1b].

3. [9b]

See supra [1c].

4. [9c]

See supra [1d].

5. [9d]

See supra [1f].

6. [9e]

See supra [1g].

7. [9f]

See supra [1h].

8. [9g]

See supra [1i].

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9. [9h]

See supra [1j].

10. [9i]

See supra [1k].

11. [9j]

See supra [1l].

12. [9k]

See supra [1m].

13. [9l]

See supra claim 2.

14. [9m]

See supra claim 2

I. Claim 10.

See supra claims 9, 3.

J. Claim 11

1. [11a]

See supra claim 9, [4a].

2. [11b]

See supra [4b].

K. Claim 12.

See supra claims 11, 5.

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L. Claim 13

1. [13pre]

See supra claim 9.

2. [13a]

See supra [6a].

3. [13b]

See supra [6b].

4. [13c]

See supra [6c].

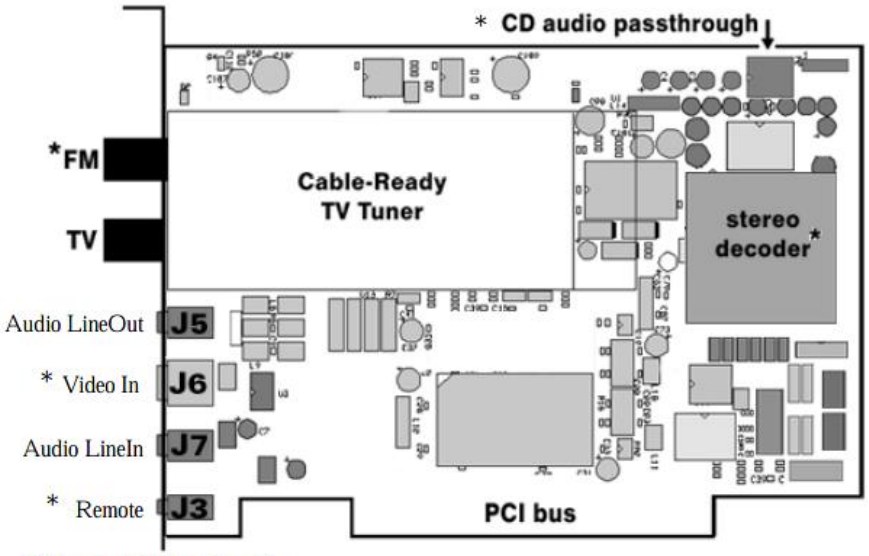
X. GROUND 5: KAPLAN, BRYANT AND WINTV

A. Motivation to Combine WinTV with the Kaplan-Bryant Combination

Both Kaplan and Bryant disclose connecting their personal computers to a source of video, such as a motion-only video camera. EX1015, ¶36; EX1014, ¶58. Kaplan discusses television content. EX1014, ¶3. WinTV discloses a WinTV television tuner card and associated software configured for installation in a personal computer such as those disclosed in Bryant and Kaplan. *See* Section IV.B; *see also* figure in EX1010 at 1-2:

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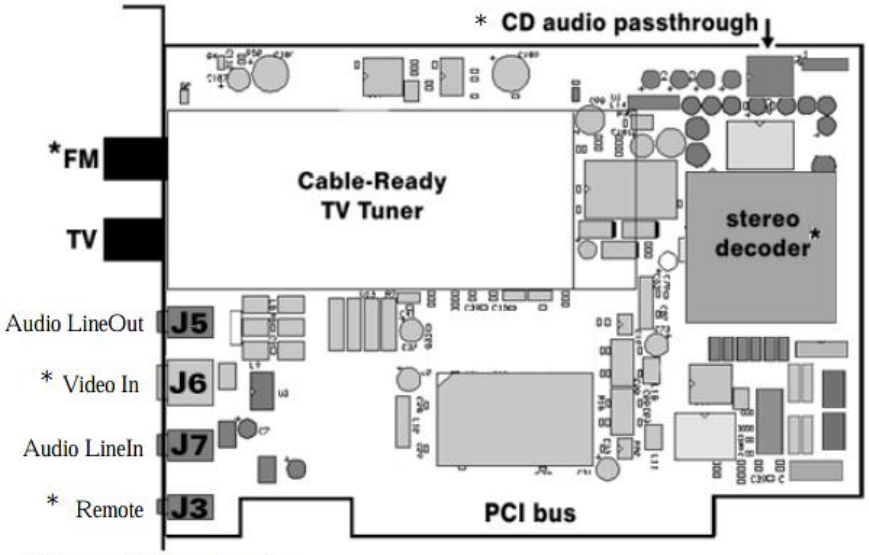
*Note: not available on all models.
Note: this outline may not reflect the current revision of your WinTV board. For the most up to date information, see the WinTV QuickInstall Guide provided with your WinTV board.

Accordingly, a POSITA would have found it obvious to include WinTV's television tuner card in a Kaplan-Bryant PC as taught by WinTV to improve the Kaplan-Bryant device with the additional capability of capturing videos from television signals such as NTSC television signals. A POSITA would have had a reasonable expectation of success in making this combination because such combinations were known in the art and involved no more than ordinary skill. EX1003, ¶¶~~270-271.~~

B. Claims ~~7, 8, 14, and 15~~

A Kaplan-~~Bryant personal computer~~ including a WinTV card renders obvious claims ~~7,~~ ~~8,~~ ~~14,~~ and ~~15~~ for the same reasons the Horn-Baumgartner-

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*Note: not available on all models.
Note: this outline may not reflect the current revision of your WinTV board. For the most up to date information, see the WinTV QuickInstall Guide provided with your WinTV board.

Accordingly, a POSITA would have found it obvious to include WinTV's television tuner card in a Kaplan-Bryant or Kaplan-Bryant-Wong-Candelore PC as taught by WinTV to improve the Kaplan-Bryant or Kaplan-Bryant-Wong-Candelore device with the additional capability of capturing videos from television signals such as NTSC television signals. A POSITA would have had a reasonable expectation of success in making this combination because such combinations were known in the art and involved no more than ordinary skill. EX1003, ¶420.

B. Claims 20, 26, 27

A Kaplan-Bryant-Wong-Candelore PC including a WinTV card renders obvious claims 20, 26 and 27 for the same reasons the Horn-Baumgartner-Candelore-WinTV combination renders those claims obvious as discussed above in Ground 7. EX1003, ¶421.

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WinTV combination renders those claims obvious as discussed above in Ground ~~2.~~ EX1003, ¶~~272.~~

XI. DISCRETIONARY DENIAL IS NOT WARRANTED

A. 35 U.S.C. § 314(a) Analysis

Discretionary denial is not warranted because this Petition satisfies the "compelling merits" standard set forth in the June 21, 2022, *Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation* at 4.

B. 35 U.S.C. § 325(b) Analysis

Applying the two-part framework discussed in ~~*Advanced Bionics,*~~ the Board should not exercise its § 325(d) discretion to deny institution.

The first ~~challenge~~ herein ~~is~~ based on references including Horn that have not been considered by the Office in connection with the '815 patent. With respect to the challenges based on Kaplan and ~~Bryant,~~ the examiner made a clear material error when allowing the claims. ~~As discussed in Section III.B,~~ the examiner identified the subject matter of limitation [~~1l~~] as not being disclosed or suggested in the prior art. However, the Board has found that nearly identical subject matter is rendered obvious by the combination of Bryant and Kaplan. ~~EX1009,~~ 31-36. That the examiner still found this subject matter was not disclosed in the prior art and did not apply this Board decision despite having knowledge of it further highlights the examiner's material error here. Moreover, Horn expressly discloses

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XI. DISCRETIONARY DENIAL IS NOT WARRANTED

A. 35 U.S.C. § 314(a) Analysis

Discretionary denial is not warranted because this Petition satisfies the "compelling merits" standard set forth in the June 21, 2022, *Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation* at 4.

B. 35 U.S.C. § 325(b) Analysis

Applying the two-part framework discussed in *Advanced,* the Board should not exercise its § 325(d) discretion to deny institution.

The first challenges herein are based on references including Horn that have not been considered by the Office in connection with the '815 patent. With respect to the challenges based on Kaplan and Bryan, the examiner made a clear material error when allowing the claims. Specifically, the PTO examiner identified the subject matter of limitation [1l], similar to [16j], [16k], [21j], [21k] as not being disclosed or suggested in the prior art. However, the Board has found that nearly identical subject matter is rendered obvious by the combination of Bryant and Kaplan. EX1009 at 31-36. That the examiner still found this subject matter was not disclosed in the prior art and did not apply this Board decision despite having knowledge of it further highlights the examiner's material error here. Moreover, Horn expressly discloses this subject matter as discussed above in §§VI.B.11,

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~~this subject matter as discussed above in Section~~ VI.B.~~13.~~ In any event, the challenges in this Petition satisfy the compelling merits standard, and allowing the claims over such prior art is ~~therefore clear~~ error.

XII. COMPLIANCE WITH FORMAL REQUIREMENTS

A. Mandatory Notices Under 37 C.F.R. §§ 42.8(b)(1)-(4)

1. Real Party-In-Interest

Samsung Electronics Co. Ltd. and Samsung Electronics America, Inc. are the Petitioners and real parties-in-interest.

2. Related Matters

The '815 patent is subject to the following action: *Maxell, Ltd. v. Samsung Electronics Co., Ltd., et al.*, Case No. 5:23-cv-92 (EDTX) ("District Court Litigation").

3. Lead and Backup Counsel

Lead Counsel	Backup Counsel
James Heintz Reg. No. 41,828 **DLA Piper LLP** One Fountain Square 11911 Freedom Drive, Suite 300 Reston, VA 20190-5602 Phone: + 1 703 773 4000 Fax: + 1 703 773 5000 Jim.Heintz@us.dlapiper.com	Gianni Minutoli Reg. No. 41,198 **DLA Piper LLP** One Fountain Square 11911 Freedom Drive, Suite 300 Reston, VA 20190-5602 Phone: + 1 703 773 4000 Fax: + 1 703 773 5000 Gianni.Minutoli@us.dlapiper.com

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VI.B.12. In any event, the challenges in this Petition satisfy the compelling merits standard, and allowing the claims over such prior art is material error.

XII. COMPLIANCE WITH FORMAL REQUIREMENTS

A. Mandatory Notices Under 37 C.F.R. §§ 42.8(b)(1)-(4)

1. Real Party-In-Interest

Samsung Electronics Co. Ltd. and Samsung Electronics America, Inc. are the Petitioners and real parties-in-interest.

2. Related Matters

The ’815 patent is subject to the following action: *Maxell, Ltd. v. Samsung Electronics Co., Ltd., et al.*, Case No. 5:23-cv-92 (EDTX) (“District Court Litigation”).

3. Lead and Backup Counsel

Lead Counsel	Backup Counsel
James Heintz Reg. No. 41,828 **DLA Piper LLP** One Fountain Square 11911 Freedom Drive, Suite 300 Reston, VA 20190-5602 Phone: + 1 703 773 4000 Fax: + 1 703 773 5000 Jim.Heintz@us.dlapiper.com	Gianni Minutoli Reg. No. 41,198 **DLA Piper LLP** One Fountain Square 11911 Freedom Drive, Suite 300 Reston, VA 20190-5602 Phone: + 1 703 773 4000 Fax: + 1 703 773 5000 Gianni.Minutoli@us.dlapiper.com

4. Service Information

Service information for lead and backup counsel is provided in the designation of lead and backup counsel above.

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4. Service Information

Service information for lead and backup counsel is provided in the designation of lead and backup counsel above.

B. Standing

~~In accordance with 37 C.F.R. §~~ 42.104(a)~~,~~ Petitioners certify that the '815 patent is available for *inter partes* review and that Petitioners are not barred or estopped from requesting an *inter partes* ~~review challenging the patent claims on the grounds identified in this Petition.~~

XIII. CONCLUSION

All Challenged Claims ~~of the~~ '815 ~~patent~~ should be found unpatentable ~~for the reasons~~ discussed above.

Date: April 19, 2024

Respectfully submitted,

/s/ James Heintz

James Heintz
Reg. No. 41,828
DLA Piper LLP
One Fountain Square
11911 Freedom Drive, Suite 300
Reston, VA 20190-5602
Phone: + 1 703 773 4000
Fax: + 1 703 773 5000
Jim.Heintz@us.dlapiper.com

Attorney for Petitioners

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B. Standing

Petitioners certify that the '815 patent is available for *inter partes* review and that Petitioners are not barred or estopped from requesting an *inter partes* review.

XIII. CONCLUSION

All Challenged Claims should be found unpatentable as discussed above.

Date: April 19, 2024

Respectfully submitted,

/s/ James Heintz

James Heintz
Reg. No. 41,828
DLA Piper LLP
One Fountain Square
11911 Freedom Drive, Suite 300
Reston, VA 20190-5602
Phone: + 1 703 773 4000
Fax: + 1 703 773 5000
Jim.Heintz@us.dlapiper.com

Attorney for Petitioners

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CERTIFICATE OF WORD COUNT

Pursuant to 37 C.F.R. § 42.24(d), Petitioners certify that this petition includes ~~13,911~~ words, as measured by Microsoft Word, exclusive of the table of contents, mandatory notices under § 42.8, certificates of service, word count, claim listing, and exhibits.

Date: April 19, 2024

/s/ James Heintz

James Heintz
Reg. No. 41,828
DLA Piper LLP
One Fountain Square
11911 Freedom Drive, Suite 300
Reston, VA 20190-5602
Phone: + 1 703 773 4000
Fax: + 1 703 773 5000
Jim.Heintz@us.dlapiper.com

Attorney for Petitioners

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CERTIFICATE OF WORD COUNT

Pursuant to 37 C.F.R. § 42.24(d), Petitioners certify that this petition includes 13,866 words, as measured by Microsoft Word, exclusive of the table of contents, mandatory notices under § 42.8, certificates of service, word count, claim listing, and exhibits.

Date: April 19, 2024

/s/ James Heintz

James Heintz
Reg. No. 41,828
DLA Piper LLP
One Fountain Square
11911 Freedom Drive, Suite 300
Reston, VA 20190-5602
Phone: + 1 703 773 4000
Fax: + 1 703 773 5000
Jim.Heintz@us.dlapiper.com

Attorney for Petitioners

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CERTIFICATE OF SERVICE

The undersigned certifies pursuant to 37 C.F.R. §§ 42.6(e) and 42.105 that on April 19, 2024, a true and correct copy of the Petition for *Inter Partes* Review of U.S. Patent No. 11,017,815 challenging claims ~~1-15~~ was served by emailing a copy of same (by agreement) to the following attorneys for the Patent Owner:

maxell-samsung-service@mayerbrown.com

A courtesy copy was sent electronically to counsel for Patent Owner in the District Court Litigation:

Saqib J. Siddiqui (ssiddiqui@mayerbrown.com)

Robert G. Pluta (rpluta@mayerbrown.com)

Tiffany A. Miller (tmiller @mayerbrown.com)

Date: April 19, 2024

/s/ James Heintz
James Heintz
Reg. No. 41,828
DLA Piper LLP
One Fountain Square
11911 Freedom Drive, Suite 300
Reston, VA 20190-5602
Phone: + 1 703 773 4000
Fax: + 1 703 773 5000
Jim.Heintz@us.dlapiper.com

Attorney for ~~Petitioner~~

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CERTIFICATE OF SERVICE

The undersigned certifies pursuant to 37 C.F.R. §§ 42.6(e) and 42.105 that on April 19, 2024, a true and correct copy of the Petition for *Inter Partes* Review of U.S. Patent No. 11,017,815 challenging claims 16-27 was served by emailing a copy of same (by agreement) to the following attorneys for the Patent Owner:

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Saqib J. Siddiqui (ssiddiqui@mayerbrown.com)

Robert G. Pluta (rpluta@mayerbrown.com)

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Date: April 19, 2024

/s/ James Heintz
James Heintz
Reg. No. 41,828
DLA Piper LLP
One Fountain Square
11911 Freedom Drive, Suite 300
Reston, VA 20190-5602
Phone: + 1 703 773 4000
Fax: + 1 703 773 5000
Jim.Heintz@us.dlapiper.com

Attorney for Petitioners