US008756348C1

(12) EX PARTE REEXAMINATION CERTIFICATE (11519th)

United States Patent

Beel et al.

(10) Number: US 8,756,348 C1

(45) Certificate Issued: May 24, 2019

(54) **ELECTRONIC TOOL AND METHODS FOR MEETINGS**

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(73) Assignee: **BARCO N.V.**, Belgie (BE)

Reexamination Request:
No. 90/014,087, Feb. 9, 2018

Reexamination Certificate for:

Patent No.:	**8,756,348**
Issued:	**Jun. 17, 2014**
Appl. No.:	**13/270,659**
Filed:	**Oct. 11, 2011**

Related U.S. Application Data

(60) Provisional application No. 61/534,592, filed on Sep. 14, 2011.

(51) **Int. Cl.**

G06F 13/38	(2006.01)
G06F 3/00	(2006.01)
G06F 13/10	(2006.01)
H04L 12/18	(2006.01)
H04L 29/06	(2006.01)
G06F 9/445	(2018.01)
G06F 3/16	(2006.01)
H04M 3/56	(2006.01)

(52) **U.S. Cl.**
CPC ***G06F 13/102*** (2013.01); ***G06F 3/16*** (2013.01); ***G06F 9/44505*** (2013.01); ***H04L 12/1813*** (2013.01); ***H04L 65/4023*** (2013.01); ***H04L 65/4038*** (2013.01); ***H04M 3/567*** (2013.01)

(58) **Field of Classification Search**
CPC G06F 13/38; H04L 29/06; H04L 29/08
USPC 710/20; 709/206, 221
See application file for complete search history.

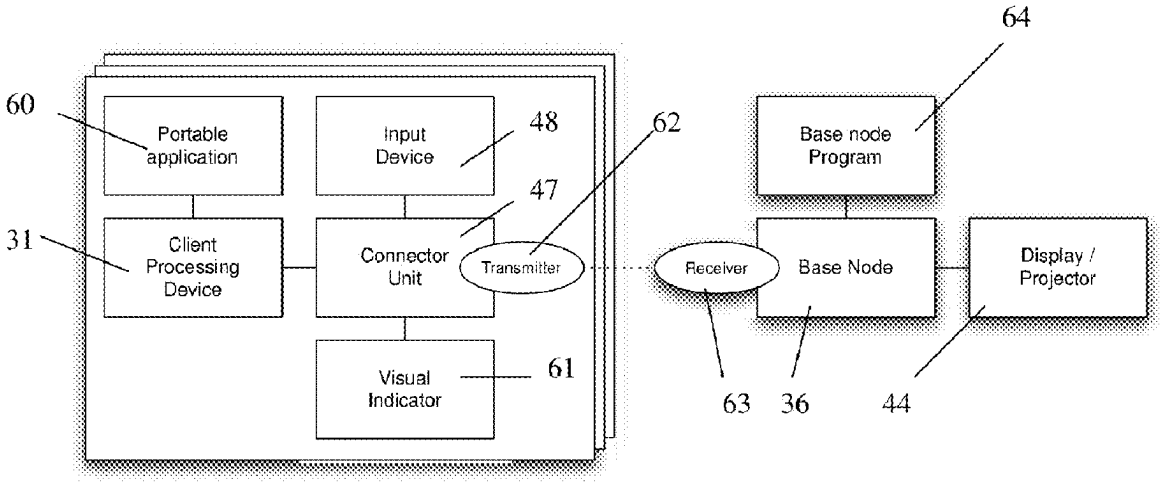
(56) **References Cited**

To view the complete listing of prior art documents cited during the proceeding for Reexamination Control Number 90/014,087, please refer to the USPTO's public Patent Application Information Retrieval (PAIR) system under the Display References tab.

Primary Examiner — Christopher E. Lee

(57) **ABSTRACT**

An electronic meeting tool for communicating arbitrary media content from users at a meeting includes a node configuration operating a display node of a communications network that is coupled to a display. The node configuration receives user selected arbitrary media content and controls display of the user selected arbitrary media content on the display. At least one peripheral device communicates the user selected arbitrary media content via the communications network. The peripheral device is a connection unit including a connector that couples to a port of a processing device having a second display, a memory and an operating system; and a transmitter communicating with the communications network. A program is provided to run on the operating system of the processing device and obtains user selected arbitrary media content, while leaving a zero footprint on termination.



EX PARTE REEXAMINATION CERTIFICATE

THE PATENT IS HEREBY AMENDED AS INDICATED BELOW.

Matter enclosed in heavy brackets [ ] appeared in the patent, but has been deleted and is no longer a part of the patent; matter printed in italics indicates additions made to the patent.

AS A RESULT OF REEXAMINATION, IT HAS BEEN DETERMINED THAT:

Claims **3** and **6-9** are cancelled.

Claims **1** and **12** are determined to be patentable as amended.

Claims **2**, **4**, **5**, **10**, **11** and **13-20**, dependent on an amended claim, are determined to be patentable.

New claims **21-26** are added and determined to be patentable.

1. An electronic meeting tool for communicating arbitrary media content from users at a meeting comprising:

a node configuration arranged to operate a display node of a communications network, the display node being coupled to a first display, the node configuration further being arranged to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display;

at least one peripheral device configured to communicate the user selected arbitrary media content via the communications network, wherein the peripheral device is a connection unit comprising:

(a) a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system; **[**and**]**

(b) a *wireless* transmitter arranged to communicate with the communications network*;*

(c) an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the node configuration via the communications network; and

a program configured to be loaded onto the processing device and to run on the operating system of the processing device, said program being arranged to obtain user selected arbitrary media content, said program leaving a zero footprint on termination**[**, and

an input device enabling the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port**]**.

12. A method for communicating arbitrary media content from users at a meeting comprising:

operating a display node of a communications network, the display node being coupled to a first display, to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display; and

connecting a peripheral device to a port of a processing device and communicating the user selected arbitrary media content via the communications network, *wherein the peripheral device comprises a connector arranged to couple to the port of the processing device, a wireless transmitter arranged to communicate with the communications network, and an actuator on the peripheral device,*

loading a program onto the processing device and running the program on the operating system of the processing device to obtain user selected arbitrary media content, said program leaving a zero footprint on termination, and

triggering transfer of said user selected arbitrary media content to said *wireless* transmitter *of the peripheral device* through said port after a user action on **[**an input device**]** *the actuator of the peripheral device,*

wherein the triggering comprises actuating the actuator on the peripheral device to send a signal to the processing device to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network.

21. The electronic meeting tool of claim 5, wherein the connector of the peripheral device further comprises a flexible data and power connector, wherein the flexible data and power connector is configured in a way such that, when the peripheral device is connected to the processing device in an operating position, the peripheral device is in a region between an outside edge of the processing device and an ergonomic boundary of 4000 square cm, and wherein the actuator has a surface area between 100 and 14,400 square mm.

22. The electronic meeting tool of claim 21, wherein the electronic meeting tool is configured in a way such that the communications network is set up between the at least one peripheral device coupled to the processing device and the node configuration without altering or affecting networking capabilities of the processing device.

23. The electronic meeting tool of claim 22, wherein the actuator is a single button on the at least one peripheral device.

24. The electronic meeting tool of claim 1, wherein said transfer of said user selected arbitrary media content to said wireless transmitter through said port to the node configuration via the communications network comprising automatically transferring said user selected arbitrary media content to the node configuration to force the displaying of the user selected arbitrary media content on the first display.

25. The electronic meeting tool of claim 1, further comprising

a second external peripheral device configured to communicate a second user selected arbitrary media content via the communications network, wherein the second external peripheral device is a second connection unit comprising:

(a) a second connector configured to couple to a second port of a second processing device having a second display, a second memory, and a second operating system;

(b) a second wireless transmitter configured to communicate with the communications network;

(c) a second actuator on the second external peripheral device, wherein said second actuator is configured to enable the second user to carry out a second user action by actuating the second actuator to trigger a second transfer of said second user selected arbitrary media content to said second wireless transmitter through said second port to transmit said second user selected arbitrary media content to the node configuration via the communications network,

wherein the second actuator is a second single button on the second external peripheral device; and

a second software code configured to be loaded from the second external peripheral device onto the second processing device and to run on the second operating system of the second processing device, said second software code being configured to obtain the second user selected arbitrary media content, said second software code configured to display said second user selected arbitrary media content when the second single button is pushed, and said second software code leaving a zero footprint on termination.

26. The electronic meeting tool of claim 25, wherein said operating system is different from said second operating system.

* * * * *

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/014,087	02/09/2018	8756348	BEEL3001REX/TJM/TL	8024

23364 7590 04/18/2019

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625 SLATERS LANE
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ALEXANDRIA, VA 22314-1176

EXAMINER	
LEE, CHRISTOPHER E	

ART UNIT	PAPER NUMBER
3992	

MAIL DATE	DELIVERY MODE
04/18/2019	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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LIANG, FRANK & KING LLP
520 WHITE PLAINS RD, SUITE 500
TARRYTOWN, NY 10591

EX PARTE REEXAMINATION COMMUNICATION TRANSMITTAL FORM

REEXAMINATION CONTROL NO. *90/014,087* .

PATENT UNDER REEXAMINATION *8756348* .

ART UNIT *3992* .

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified *ex parte* reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the *ex parte* reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

Notice of Intent to Issue Ex Parte Reexamination Certificate	**Control No.** 90/014,087	**Patent Under Reexamination** 8756348	
	Examiner Christopher E Lee	**Art Unit** 3992	**AIA Status** No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

1. ☑ Prosecution on the merits is (or remains) closed in this *ex parte* reexamination proceeding. This proceeding is subject to reopening at the initiative of the Office or upon petition. *Cf.* 37 CFR 1.313(a). A Certificate will be issued in view of
   (a) ☑ Patent owner's communication(s) filed: 15 March 2019.
   (b) ☐ Patent owner's failure to file an appropriate timely response to the Office action mailed: _____.
   (c) ☐ Patent owner's failure to timely file an Appeal Brief (37 CFR 41.31).
   (d) ☐ The decision on appeal by the ☐ Board of Patent Appeals and Interferences ☐ Court dated _____
   (e) ☐ Other: _____.
2. The Reexamination Certificate will indicate the following:
   (a) Change in the Specification: ☐ Yes ☑ No
   (b) Change in the Drawing(s): ☐ Yes ☑ No
   (c) Status of the Claim(s):
      (1) Patent claim(s) confirmed: _____.
      (2) Patent claim(s) amended (including dependent on amended claim(s)): 1-2,4-5 and 10-20
      (3) Patent claim(s) canceled: 3 and 6-9.
      (4) Newly presented claim(s) patentable: 21-26.
      (5) Newly presented canceled claims: 27-28.
      (6) Patent claim(s) ☐ previously ☐ currently disclaimed: _____
      (7) Patent claim(s) not subject to reexamination: _____.
3. ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.
4. ☑ Note the attached statement of reasons for patentability and/or confirmation. Any comments considered necessary by patent owner regarding reasons for patentability and/or confirmation must be submitted promptly to avoid processing delays. Such submission(s) should be labeled: "Comments On Statement of Reasons for Patentability and/or Confirmation."
5. ☐ Note attached NOTICE OF REFERENCES CITED (PTO-892).
6. ☑ Note attached LIST OF REFERENCES CITED (PTO/SB/08 or PTO/SB/08 substitute).
7. ☐ The drawing correction request filed on _____ is: ☐approved ☐disapproved.
8. ☐ Acknowledgment is made of the priority claim under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐None of the certified copies have
   ☐been received.
   ☐not been received.
   ☐been filed in Application No. _____.
   ☐been filed in reexamination Control No. _____.
   ☐been received by the International Bureau in PCT Application No. _____.

   * Certified copies not received: _____.
9. ☐ Note attached Examiner's Amendment.
10. ☐ Note attached Interview Summary (PTO-474).
11. ☐ Other: _____.

All correspondence relating to this reexamination proceeding should be directed to the **Central Reexamination Unit** at the mail, FAX, or hand-carry addresses given at the end of this Office action.

/Christopher E. Lee/ Primary Examiner, Art Unit 3992	

cc: Requester (if third party requester)

DETAILED ACTION

Ex Parte Reexamination

1. This is an *ex parte* reexamination of United States Patent Number US 8,756,348 B2, which issued to Beel et al. (hereinafter "the '348 Patent"), and it is being reexamined under the pre-AIA first to invent provisions.

2. Receipt is acknowledged of the Response filed on March 15, 2019. Original claims 1 and 12 have been amended; original claims 3 and 6-9 have been canceled; and new claims 21-28 were added, but the new claims 27 and 28 have been canceled since the instant *ex parte* reexamination request was filed.

The amendment is entered and will be considered. Currently, the original claims 1, 2, 4, 5, and 10-26 are subject to *ex parte* reexamination.

Response to Arguments

3. Patent Owner's arguments with respect to claims 1, 2, 4, 5, and 10-28 have been considered but are moot because the arguments are based on the amended claims, which have never been objected and/or rejected over any of references used in the instant *ex parte* reexamination proceedings.

STATEMENT OF REASONS FOR PATENTABILITY AND/OR CONFIRMATION

4. The original claims 1, 2, 4, 5, and 10-20 are amended.

5. The new claims 21-26 are patentable.

6. The following is an Examiner's statement of reasons for patentability and/or confirmation of the claims found patentable in this reexamination proceeding:

With respect to claims 1, 2, 4, 5, 10, 11, and 21-26, the claim limitations recited in the claim 1 are deemed patentable over the prior art of record having raised the substantial new question of patentability as the prior art fails to teach or suggest that actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the node configuration via the communications network.

The claims 2, 4, 5, 10, 11, and 21-26 are dependent claims of the claim 1.

With respect to claims 12-20, the claim limitations recited in the claim 12 are deemed patentable over the prior art of record having raised the substantial new question of patentability as the prior art fails to teach or suggest that the triggering comprises actuating the actuator on

the peripheral device to send a signal to the processing device to trigger the processing device to wirelessly transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network.

The claims 13-20 are dependent claims of the claim 12.

Any comments considered necessary by PATENT OWNER regarding the above statement must be submitted promptly to avoid processing delays. Such submission by the patent owner should be labeled: "Comments on Statement of Reasons for Patentability and/or Confirmation" and will be placed in the reexamination file.

Conclusion

7. As such, prosecution of the instant proceeding is hereby **terminated**.

Since provisions of 37 CFR § 1.312 do **not** apply in reexamination proceedings, any amendment, IDS or other paper related to the merits of the instant proceeding filed after the mailing date of this Office Action must be accompanied by a petition under 37 CFR § 1.182 to be considered.

All correspondence relating to this ex parte reexamination proceeding should be directed:

By EFS: Registered users may submit via the electronic filing system EFS-Web, at http://sportal.uspto.gov/authenticate/authenticateuserlocalepf.html

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By FAX to: (571) 273-9900
Central Reexamination Unit

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filing system in accordance with 37 CFR § 1.6(a)(4), and (b) includes a certificate of transmission for each piece of correspondence stating the date of transmission, which is prior to the expiration of the set period of time in the Office action.

Any inquiry concerning this communication or earlier communications from the Reexamination Legal Advisor or Examiner, or as to the status of this proceeding, should be directed to the Central Reexamination Unit at telephone number (571) 272-7705.

Signed:

/Christopher E. Lee/
Primary Examiner, Art Unit 3992
Central Reexamination Unit

Conferees:

/MY TRANG TON/
Primary Examiner, Art Unit 3992

/ANDREW J FISCHER/
Supervisory Patent Examiner, Art Unit 3992

Paper No. 20190321
Barco Exhibit 2001

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	90/014,087	8756348
	Examiner	**Art Unit**
	Christopher E Lee	3992

CPC						
Symbol					**Type**	**Version**
G06F	/	13	/	102	F	2013-01-01
H04L	/	12	/	1813	I	2013-01-01
H04L	/	65	/	4038	I	2013-01-01
G06F	/	9	/	44505	I	2013-01-01
G06F	/	3	/	16	I	2013-01-01
H04M	/	3	/	567	I	2013-01-01
H04L	/	65	/	4023	I	2013-01-01

CPC Combination Sets							
Symbol					**Type**	**Set**	**Ranking**	**Version**
	/		/					

NONE		**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	21	
/Christopher E. Lee/ Primary Examiner, Art Unit 3992	21 March 2019	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	1b

U.S. Patent and Trademark Office — Part of Paper No.: 20190321

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	90/014,087	8756348
	Examiner	**Art Unit**
	Christopher E Lee	3992

INTERNATIONAL CLASSIFICATION					
CLAIMED					
G06F	/	13	/	38	
G06F	/	3	/	00	

NON-CLAIMED				
	/		/	

US ORIGINAL CLASSIFICATION	
CLASS	**SUBCLASS**
710	20

CROSS REFERENCES(S)						
CLASS	**SUBCLASS (ONE SUBCLASS PER BLOCK)**					
710	2	15	5	11	8	

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	21	
/Christopher E. Lee/ Primary Examiner, Art Unit 3992	21 March 2019	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	1b

U.S. Patent and Trademark Office — Part of Paper No.: 20190321

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	90/014,087	8756348
	Examiner	**Art Unit**
	Christopher E Lee	3992

☑ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIMS

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	1	10	10	19	19	-	28								
2	2	11	11	20	20										
-	3	12	12	21	21										
4	4	13	13	22	22										
5	5	14	14	23	23										
-	6	15	15	24	24										
-	7	16	16	25	25										
-	8	17	17	26	26										
-	9	18	18	-	27										

NONE		**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	21	
/Christopher E. Lee/ Primary Examiner, Art Unit 3992	21 March 2019	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	1b

Reexamination	Application/Control No.	Applicant(s)/Patent Under Reexamination
	90/014,087	8756348
	Certificate Date	Certificate Number
		C1

Requester Correspondence Address: ☐ Patent Owner ☑ Third Party
LIANG, FRANK & KING LLP 520 WHITE PLAINS RD, SUITE 500 TARRYTOWN, NY 10591

LITIGATION REVIEW ☑	/CEL/ (examiner initials)	20 March 2019 (date)
Case Name		Director Initials
No litigation		

COPENDING OFFICE PROCEEDINGS	
TYPE OF PROCEEDING	NUMBER
no copending office proceeding	n/a

	/Christopher E. Lee/ Primary Examiner, Art Unit 3992

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	90/014,087	8756348
	Examiner	Art Unit
	Christopher E Lee	3992

CPC - Searched*		
Symbol	**Date**	**Examiner**
G06F 13/38; H04L 29/06, 29/08;	08/09/2018	/CEL/
Search Updated	03/20/2019	/CEL?

CPC Combination Sets - Searched*		
Symbol	**Date**	**Examiner**

US Classification - Searched*			
Class	**Subclass**	**Date**	**Examiner**
710	20	08/09/2018	/CEL/
709	206, 221	08/09/2018	/CEL/
Search	Updated	03/20/2019	/CEL/

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	**Date**	**Examiner**
Litigation Search performed	2/13/18	/CEL/
Search prosecution history of US patent application 13/270,659 and provisional application 61/534,592	3/8/18	/CEL/
G06F 13/38; H04L 29/06, 29/08;	08/09/2018	/CEL/
710/20	08/09/2018	/CEL/
709/206, 221	08/09/2018	/CEL/
Search Updated	03/20/2019	/CEL?

/Christopher E. Lee/ Primary Examiner, Art Unit 3992	

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	90/014,087	8756348
	Examiner	Art Unit
	Christopher E Lee	3992

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

/Christopher E. Lee/ Primary Examiner, Art Unit 3992	

Patent Assignment Abstract of Title

Total Assignments: 1

Application #: 13270859 **Filing Dt:** 10/11/2011 **Patent #:** 8756348 **Issue Dt:** 06/17/2014

PCT #: NONE **Intl Reg #:** **Publication #:** US20130097121 **Pub Dt:** 03/14/2013

Inventors: Koen Simon Herman Beel, Yoav Nir, Guy Coen, Filip Josephine Johan Louwet

Title: ELECTRONIC TOOL AND METHODS FOR MEETINGS

Assignment: 1

Reel/ Frame: 027439 / 0644 **Received:** 12/23/2011 **Recorded:** 12/23/2011 **Mailed:** 12/28/2011 **Pages:** 3

Conveyance: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

Assignors:

BEEL, KOEN SIMON HERMAN	**Exec Dt:** 12/21/2011
NIR, YOAV	**Exec Dt:** 12/22/2011
LOUWET, FILIP JOSEPHINE JOHAN	**Exec Dt:** 12/21/2011
COEN, GUY	**Exec Dt:** 12/21/2011

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Search Results as of: 03/20/2019 11:50 PM

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Web interface last modified: Jun 26, 2017 v.2.6

Bibliographic Data

Application No: 90/014,087

Foreign Priority claimed: ○ Yes ◉ No

35 USC 119 (a-d) conditions met: ☐ Yes ☑ No ☐ Met After Allowance

Verified and Acknowledged: /Christopher E. Lee/ Examiner's Signature | Initials

Title: Electronic Tool and Methods for Meetings

FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
02/09/2018	710	3992	BEEL3001REX/TJM/TL
RULE			

APPLICANTS

INVENTORS

8756348

BARCO NV BELGIE, BELGIUM

STANLEY LIANG (3RD PTY REQ.) TARRYTOWN, NY, UNITED STATES

CONTINUING DATA

This application is a REX of 13270659 10/11/2011 PAT 8756348 /CEL/

13270659 has PRO of 61534592 09/14/2011

FOREIGN APPLICATIONS /CEL/ None

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ALEXANDRIA, VA 22314-1176
UNITED STATES

FILING FEE RECEIVED

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Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (03-15)
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	90014087
Filing Date	2018-02-09
First Named Inventor	Koen Simon Herman BEEL
Art Unit	3992
Examiner Name	Christopher Lee
Attorney Docket Number	BEEL3001REX/TJM/TL

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	90014087
Filing Date	2018-02-09
First Named Inventor	Koen Simon Herman BEEL
Art Unit	3992
Examiner Name	Christopher Lee
Attorney Docket Number	BEEL3001REX/TJM/TL

/CEL/	1	Chinese Office Action in related Chinese Application No. 201280001542.X, dated January 2, 2019.
	2	Office Action in continuation app 15/449,048 dated October 12, 2018.
	3	SIPO Office Action in corresponding app. CN 201280074077.2 dated August 23, 2018.
	4	Office Action in corresponding reexamination application 90/014,088 dated September 25, 2018.
	5	Office Action in corresponding app. 14/725,401 dated September 10, 2018.
	6	EPO Office Action in corresponding app. EP 12759440.6-1204 dated August 9, 2018.
	7	EPO Office Action in corresponding app. EP 12775162.6-1204 dated August 9, 2018.
	8	SIPO Office Action in corresponding app. CN 201280001542.X dated July 30, 2018.
	9	Intervention according to Art. 105 EPC in corresponding European Patent 2756668, dated May 3, 2018.
	10	Final Office Action in related U.S. Application No. 14/278,442, dated June 8, 2018.
/CEL/	11	Chinese Office Action in related Chinese Application No. 201280055744.2, dated March 30, 2018.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	90014087
Filing Date	2018-02-09
First Named Inventor	Koen Simon Herman BEEL
Art Unit	3992
Examiner Name	Christopher Lee
Attorney Docket Number	BEEL3001REX/TJM/TL

/CEL/	12	U.S. Office Action in related U.S. Application No. 14/344,836, dated February 28, 2018.	
	13	U.S. app. in continuation app 15/449,048 dated February 16, 2018.	
	14	Chinese Office Action in Chinese Application Number 201280074077.2, dated January 4, 2018.	
	15	U.S. Office Action dated October 20, 2017, for U.S. Application No. 14/344,836.	
	16	Chinese Office Action dated October 31, 2017, for CN 201280001542.X, and English translation thereof.	
	17	Chinese Office Action dated September 26, 2017, for CN 201280055744.2, and English translation thereof.	
	18	Chinese Office Action dated April 5, 2017, for CN 201280055744.2, and English translation thereof.	
	19	U.S. Office Action dated May 3, 2017, for U.S. Application No. 14/344,836.	
	20	U.S. Office Action dated September 28, 2017, for U.S. Application No. 14/344,830	
	21	U.S. Office Action dated September 28, 2017, for U.S. Application No. 14/278,442.	
/CEL/	22	Chinese Office Action dated June 28, 2017, for CN 201280074077.2, and English translation thereof.	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	90014087
	Filing Date	2018-02-09
	First Named Inventor	Koen Simon Herman BEEL
	Art Unit	3992
	Examiner Name	Christopher Lee
	Attorney Docket Number	BEEL3001REX/TJM/TL

/CEL/	23	Chinese Office Action dated July 4, 2017, for CN 201280055667.0, and English translation thereof.
	24	Chinese Office Action dated July 21, 2017, for CN 20128001542.X, and English translation thereof.
	25	European Search Report dated August 1, 2017, for EP 16207123.
	26	Office Action in U.S. app 14/278,442 dated January 26, 2017.
	27	Search Report in GB1206841.7, August 28, 2012.
	28	Examination Report of German Patent and Trademark Office regarding related German Patent Application 10 2011 055 443.2, May 30, 2012.
	29	European Office Communication dated June 15, 2015, for EP 12762258.7.
	30	European Office Communication dated December 21, 2015, for EP 12762258.7.
	31	European Office Action dated August 1, 2016, for EP 12762258.7.
	32	European Extended Search Report dated November 3, 2016, for EP 16170760.9.
/CEL/	33	Chinese Office Action dated October 14, 2016, for CN 201280055744.2.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	90014087
Filing Date	2018-02-09
First Named Inventor	Koen Simon Herman BEEL
Art Unit	3992
Examiner Name	Christopher Lee
Attorney Docket Number	BEEL3001REX/TJM/TL

/CEL/	34	Chinese Office Action dated October 10, 2016, for CN 201280055667.0.	
	35	Office Action in corresponding U.S. app. 14/344,830 dated October 6, 2016.	
	36	Final Office Action in corresponding U.S. app. 14/395,364 dated November 2, 2016.	
	37	Chinese Office Action dated November 4, 2016, for CN 201280001542.X, and English translation thereof.	
	38	Chinese Office Action dated December 27, 2016, for CN 201280074077.2, and English translation thereof.	
	39	Final Office Action in corresponding U.S. App. 14/725,401 dated January 26, 2017.	
	40	European Office Communication (Intention to Grant) dated November 23, 2016, for EP 12762258.7.	
	41	Office Action in corresponding U.S. App. 14/278,442 dated June 17, 2016.	
	42	Office Action in corresponding U.S. App. 14/725,401 dated June 17, 2016.	
	43	Office Action in corresponding U.S. App. 14/395,364 dated March 29, 2016.	
/CEL/	44	International Preliminary Report on Patentability (IPRP) dated March 27, 2014, for PCT/EP2012/068166.	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	90014087
Filing Date	2018-02-09
First Named Inventor	Koen Simon Herman BEEL
Art Unit	3992
Examiner Name	Christopher Lee
Attorney Docket Number	BEEL3001REX/TJM/TL

/CEL/	45	International Preliminary Report on Patentability (IPRP) dated March 27, 2014, for PCT/EP2012/068167.
/CEL/	46	International Preliminary Report on Patentability (IPRP) dated March 27, 2014, for PCT/EP2012/068168.

If you wish to add additional non-patent literature document citation information please click the Add button [Add]

EXAMINER SIGNATURE

Examiner Signature	/Christopher E. Lee/	Date Considered	03/19/2019

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

PTO/SB/08a (03-15)
Approved for use through 07/31/2016. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	90014087
Filing Date	2018-02-09
First Named Inventor	Koen Simon Herman BEEL
Art Unit	3992
Examiner Name	Christopher Lee
Attorney Docket Number	BEEL3001REX/TJM/TL

U.S.PATENTS Remove

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Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20110188391	A1	2011-08-04	Sella et al.	

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Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
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NON-PATENT LITERATURE DOCUMENTS Remove

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	90014087
	Filing Date	2018-02-09
	First Named Inventor	Koen Simon Herman BEEL
	Art Unit	3992
	Examiner Name	Christopher Lee
	Attorney Docket Number	BEEL3001REX/TJM/TL

	1	U.S. Final Office Action in corresponding U.S. Application No. 15/449,048, dated April 8, 2019.	
	2	Chinese Office Action in corresponding Chinese Application No. 201280074077.2, dated March 5, 2019.	X
	3	European Office Action in corresponding European Application No. 16170760.9-1216, dated April 2, 2019.	☐

If you wish to add additional non-patent literature document citation information please click the Add button Add

EXAMINER SIGNATURE

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	90014087
	Filing Date	2018-02-09
	First Named Inventor	Koen Simon Herman BEEL
	Art Unit	3992
	Examiner Name	Christopher Lee
	Attorney Docket Number	BEEL3001REX/TJM/TL

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☒ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Thomas Lee/	Date (YYYY-MM-DD)	2019-04-17
Name/Print	THOMAS LEE	Registration Number	66396

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Acknowledgement Receipt

EFS ID:	35747857
Application Number:	90014087
International Application Number:	
Confirmation Number:	8024
Title of Invention:	Electronic Tool and Methods for Meetings
First Named Inventor/Applicant Name:	8756348
Customer Number:	23364
Filer:	Thomas Lee/Shelly Darrenkamp
Filer Authorized By:	Thomas Lee
Attorney Docket Number:	BEEL3001REX/TJM/TL
Receipt Date:	17-APR-2019
Filing Date:	09-FEB-2018
Time Stamp:	10:57:35
Application Type:	Reexam (Patent Owner)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	BEEL3001REX_IDS.pdf	1035088 2d22adb471a827f007758a576d83bf04f39b5860	no	4

Warnings:

Barco Exhibit 2001

Information:					
2	Non Patent Literature	BEEL3001C2_Final_OA_08APR19.pdf	1142039 9a3a0263ab73d92d451a95fca7348a04150619ee	no	26
Warnings:					
Information:					
3	Non Patent Literature	CN_OA_English_translation05MAR19.pdf	2129383 9065d187a612727dcbd2163f61e824e4e3657b00	no	13
Warnings:					
Information:					
4	Non Patent Literature	EP_OA1_2Apr2019.pdf	198872 6b6c624b74c6e65439d11c9fd19a273dbe0f952e	no	6
Warnings:					
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Information:					
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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Litigation Search Report OCRU

Application Number: 90/014,087

U.S. Patent Number: 8,756,348 Date: 03/20/2019	From: MANUEL SALDANA Location: OCRU, REM 4C71 Phone: (571) 272-7740 MANUEL.SALDANA@USPTO.GOV

Search Notes

No Litigation Found

1) I performed a KeyCite Search in Westlaw, which retrieves all history on the patent including any litigation.

2) I performed a search on the patent in Lexis CourtLink for any open dockets or closed cases.

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Patent Search 8756348 3/ 20/ 2019

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(Charges for search still apply)

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Citing References (20)

Treatment	Title	Date	Type	Depth	Headnote(s)
—	**1.** ELECTRONIC CONFERENCING TOOL FOR COMMUNICATING ARBITRARY MEDIA CONTENT FROM USERS DURING E.G. AUDIO CONFERENCING, HAS PROCESSING DEVICE WITH OPERATING SYSTEM THAT IS INSTALLED WITH PROGRAM TO OBTAIN USER ARBITRARY MEDIA CONTENT Out Of Plan DWPI 2013-D44996+	Sep. 14, 2011	DWPI	—	—
—	**2.** METHOD FOR DISPLAYING IMAGES TO E.G. PROJECTOR SCREENS, BY USER FOR COMMUNICATING ARBITRARY MEDIA CONTENT IN MEETING ROOM VIA E.G. LOCAL AREA NETWORK, INVOLVES PROVIDING APPROPRIATE SCALING SIDE BY SIDE Out Of Plan DWPI 2013-E09642+	Sep. 14, 2011	DWPI	—	—
—	**3.** METHOD OF CONNECTING PROCESSING DEVICE E.G. LAPTOP TO COMMUNICATIONS NETWORK E.G. WIRELESS LOCAL AREA NETWORK, INVOLVES TRANSFERRING AUDIO DATA BETWEEN PROCESSING DEVICE AND PERIPHERAL DEVICE Out Of Plan DWPI 2013-E10260+	Sep. 14, 2011	DWPI	—	—
—	**4.** METHOD FOR CONNECTING PROCESSING DEVICE TO COMMUNICATION NETWORK FOR COMMUNICATING ARBITRARY MEDIA CONTENT FROM USERS AT MEETING, INVOLVES TRANSFERRING SCREEN SCRAPED DATA BETWEEN PROCESSING AND PERIPHERAL DEVICES BY GENERIC PROTOCOL Out Of Plan DWPI 2014-N50178+	Sep. 14, 2011	DWPI	—	—
—	**5.** RF 027439/0644 Out Of Plan	Dec. 23, 2011	Assignments	—	—
—	**6.** PatStat 8756348	Apr. 17, 2018	Patent Status Files	—	—
—	**7.** SPACE GUIDANCE AND MANAGEMENT SYSTEM AND METHOD Out Of Plan US PAT 10225707 , U.S. PTO Utility	Mar. 05, 2019	Patents	—	—
—	**8.** USING WIRELESS DISPLAY DOCKING TECHNOLOGY OVER INFRASTRUCTURE NETWORKS Out Of Plan US PAT 10206083 , U.S. PTO Utility	Feb. 12, 2019	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**9.** METHOD AND SYSTEM FOR LOCATING RESOURCES AND COMMUNICATING WITHIN AN ENTERPRISE Out Of Plan US PAT 10161752 , U.S. PTO Utility	Dec. 25, 2018	Patents	—	—
—	**10.** METHOD AND SYSTEM FOR LOCATING RESOURCES AND COMMUNICATING WITHIN AN ENTERPRISE Out Of Plan US PAT 10121113 , U.S. PTO Utility	Nov. 06, 2018	Patents	—	—
—	**11.** AD HOC ONE-TIME PAIRING OF REMOTE DEVICES USING ONLINE AUDIO FINGERPRINTING Out Of Plan US PAT 10074374 , U.S. PTO Utility	Sep. 11, 2018	Patents	—	—
—	**12.** ENVIRONMENT OPTIMIZATION FOR SPACE BASED ON PRESENCE AND ACTIVITIES Out Of Plan US PAT 10057963 , U.S. PTO Utility	Aug. 21, 2018	Patents	—	—
—	**13.** ELECTRONIC TOOL AND METHODS FOR MEETINGS FOR PROVIDING CONNECTION TO A COMMUNICATIONS NETWORK Out Of Plan US PAT 10050800+ , U.S. PTO Utility	Aug. 14, 2018	Patents	—	—
—	**14.** SPACE GUIDANCE AND MANAGEMENT SYSTEM AND METHOD Out Of Plan US PAT 9955318 , U.S. PTO Utility	Apr. 24, 2018	Patents	—	—
—	**15.** SMART WORKSTATION METHOD AND SYSTEM Out Of Plan US PAT 9921726 , U.S. PTO Utility	Mar. 20, 2018	Patents	—	—
—	**16.** METHOD AND SYSTEM FOR LOCATING RESOURCES AND COMMUNICATING WITHIN AN ENTERPRISE Out Of Plan US PAT 9852388 , U.S. PTO Utility	Dec. 26, 2017	Patents	—	—
—	**17.** METHOD AND SYSTEM FOR LOCATING RESOURCES AND COMMUNICATING WITHIN AN ENTERPRISE Out Of Plan US PAT 9766079 , U.S. PTO Utility	Sep. 19, 2017	Patents	—	—
—	**18.** METHOD AND SYSTEM FOR FACILITATING COLLABORATION SESSIONS Out Of Plan US PAT 9716861 , U.S. PTO Utility	July 25, 2017	Patents	—	—
—	**19.** ENVIRONMENT OPTIMIZATION FOR SPACE BASED ON PRESENCE AND ACTIVITIES Out Of Plan US PAT 9642219 , U.S. PTO Utility	May 02, 2017	Patents	—	—

Treatment	Title	Date	Type	Depth	Headnote(s)
—	**20.** ELECTRONIC TOOL AND METHODS FOR MEETINGS Out Of Pass US PAT 9083769+ , U.S. PTO Utility	July 14, 2015	Patents	—	—

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PTO/SB/06 (09-11)
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 90/014,087	Filing Date 02/09/2018	☐ To be Mailed

ENTITY: ☑ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $100 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $460 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	03/15/2019	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 21	Minus	** 23	= 0		x $100 =	0
	Independent (37 CFR 1.16(h))	* 2	Minus	*** 4	= 0		x $460 =	0
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	0

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	LIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/RHONDA BELL/
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reexamination of:

Patent Owner:	BARCO N.V.	**Inventors:**	BEEL et al.
Serial No.:	90/014,087	**Confirm. No.:**	8024
Filing Date:	February 9, 2018	**Art Unit:**	3992
Patent No.:	8,756,348	**Customer No.:**	23364
Attorney No.:	BEEL3001REX/TJM/TL	**Examiner:**	Christopher E. Lee
For:	**ELECTRONIC TOOL AND METHODS FOR MEETINGS**		

REPLY UNDER 37 C.F.R. § 1.116 TO OFFICE ACTION OF JANUARY 22, 2019

Mail Stop
Ex Parte Reexam
Central Reexamination Unit
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

INTRODUCTORY COMMENTS

This is responsive to the Office Action dated January 22, 2019 in the above application, finally rejecting previously presented claims 1, 2, 4, 5, and 10-28.

In view of the following amendments and remarks, reconsideration of the ex parte reexamination of this patent is respectfully requested.

Barco Exhibit 2001

AMENDMENT TO THE CLAIMS

Pursuant to 37 C.F.R. § 1.530(d)(2) and (f), the claims are amended below:

1. (Thrice Amended) An electronic meeting tool for communicating arbitrary media content from users at a meeting comprising:

a node configuration arranged to operate a display node of a communications network, the display node being coupled to a first display, the node configuration further being arranged to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display;

at least one peripheral device configured to communicate the user selected arbitrary media content via the communications network, wherein the peripheral device is a connection unit comprising:

(a) a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system; [and]

(b) a wireless transmitter arranged to communicate with the communications network;

(c) an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the node configuration via the communications network; and

a program configured to be loaded onto the processing device and to run on the operating system of the processing device, said program being arranged to obtain user selected arbitrary media content, said program leaving a zero footprint on termination[, and

an input device enabling the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port].

2. (Original) The electronic meeting tool of claim 1, wherein the program is stored on the peripheral device.

3. (Cancelled)

4. (Original) The electronic meeting tool of claim 1, wherein the peripheral device is a plug-and-play device.

5. (Original) The electronic meeting tool of claim 1, wherein the program is arranged to screen scrape content of the second display.

6. (Cancelled)

7. (Cancelled)

8. (Cancelled)

9. (Cancelled)

10. (Original) The electronic meeting tool of claim 1, wherein the peripheral device comprises a memory in which executable software code is stored for execution on the processing device, said executable software code comprising:

a first software code portion for setting up, by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device and the processing device;

a second software code portion for connecting the processing device to the communications network via the peripheral device, the peripheral device having a transceiver;

a third software code portion for screen scraping data from the processing device; and

a fourth software code for routing screen scraped data between the processing device and the communications network over the means for communication; wherein the first software code portion is adapted to use a generic communication protocol for transferring the screen scraped data between the processing device and the peripheral device.

11. (Original) A non-transitory storage medium storing the first to fourth software code portion of claim 10.

12. (Thrice Amended) A method for communicating arbitrary media content from users at a meeting comprising:

operating a display node of a communications network, the display node being coupled to a first display, to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display; and

connecting a peripheral device to a port of a processing device and communicating the user selected arbitrary media content via the communications network, wherein the peripheral device comprises a connector arranged to couple to the port of the processing device, a wireless transmitter arranged to communicate with the communications network, and an actuator on the peripheral device,

loading a program onto the processing device and running the program on the operating system of the processing device to obtain user selected arbitrary media content, said program leaving a zero footprint on termination, and

triggering transfer of said user selected arbitrary media content to said wireless transmitter of the peripheral device through said port after a user action on [an] the actuator [input device] of the peripheral device,

wherein the triggering comprises actuating the actuator on the peripheral device to send a signal to the processing device to trigger the processing device to transfer said user

selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network.

13. (Original) The method of claim 12, further comprising configuring the peripheral device to connect to the communications network by pairing the peripheral device with the display node.

14. (Original) The method of claim 13, wherein the pairing is performed by plugging the peripheral device into the display node.

15. (Original) The method of claim 12, further comprising setting up by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device and the processing device.

16. (Original) The method of claim 12, wherein a pre-installed generic driver is selected from a human interface device driver and a mass storage device driver.

17. (Original) The method of claim 12, further comprising one of:
presenting the peripheral device to the processing device as a human interface device,
presenting the peripheral device to the processing device as a mass storage device; and
presenting the peripheral device to the processing device as a composite device.

18. (Original) The method of claim 12, wherein the program is stored on the peripheral device, and which obtains screen scraped data when run on the processing device.

19. (Original) The method of claim 17, wherein a generic communication protocol is used for transferring screen scraped data between the processing device and the peripheral device.

20. (Original) The method of claim 12 further comprising displaying the user selected arbitrary media content on the first display in accordance with a set of rules.

21. (New) The electronic meeting tool of claim 5, wherein the connector of the peripheral device further comprises a flexible data and power connector, wherein the flexible data and power connector is configured in a way such that, when the peripheral device is connected to the processing device in an operating position, the peripheral device is in a region between an outside edge of the processing device and an ergonomic boundary of 4000 square cm, and wherein the actuator has a surface area between 100 and 14,400 square mm.

22. (New) The electronic meeting tool of claim 21, wherein the electronic meeting tool is configured in a way such that the communications network is set up between the at least one peripheral device coupled to the processing device and the node configuration without altering or affecting networking capabilities of the processing device.

23. (New) The electronic meeting tool of claim 22, wherein the actuator is a single button on the at least one peripheral device.

24. (New) The electronic meeting tool of claim 1, wherein said transfer of said user selected arbitrary media content to said wireless transmitter through said port to the node configuration via the communications network comprising automatically transferring said user selected arbitrary media content to the node configuration to force the displaying of the user selected arbitrary media content on the first display.

25. (New) The electronic meeting tool of claim 1, further comprising

a second external peripheral device configured to communicate a second user selected arbitrary media content via the communications network, wherein the second external peripheral device is a second connection unit comprising:

(a) a second connector configured to couple to a second port of a second processing device having a second display, a second memory, and a second operating system;

(b) a second wireless transmitter configured to communicate with the communications network;

(c) a second actuator on the second external peripheral device, wherein said second actuator is configured to enable the second user to carry out a second user action by actuating the second actuator to trigger a second transfer of said second user selected arbitrary media content to said second wireless transmitter through said second port to transmit said second user selected arbitrary media content to the node configuration via the communications network, wherein the second actuator is a second single button on the second external peripheral device; and

a second software code configured to be loaded from the second external peripheral device onto the second processing device and to run on the second operating system of the second processing device, said second software code being configured to obtain the second user selected arbitrary media content, said second software code configured to display said second user selected arbitrary media content when the second single button is pushed, and said second software code leaving a zero footprint on termination.

26. (New) The electronic meeting tool of claim 25, wherein said operating system is different from said second operating system.

REMARKS

Reconsideration of the rejection of the claims is respectfully requested on the basis of the following particulars.

1. Patent Owner's Summary of Interview with Examiners

Patent Owner is gratefully appreciative of the opportunity for Patent Owner's counsel, Mr. Thomas Lee, to discuss the pending application with Examiner Lee and Supervisory Examiners Corsaro and Ton on February 13, 2019.

During the interview, Patent Owner through counsel presented proposed amendments to the claims and arguments against the Examiner's reasons for rejection and objections to the claims. Specifically, Patent Owner submitted amendments to claims 1, 12, and previously presented claim 25 to overcome the Examiner's rejections under 35 U.S.C. § 305 and 35 U.S.C. § 112 (pre-AIA), first and second paragraphs.

The Examiners indicated that such amendments would likely overcome the rejections and objections, but indicated that the scope of previously presented claim 25 appears to be the same as claim 1.

In view of the Examiners' suggestions, Patent Owner submits amendments to the claims and arguments for formal consideration.

2. Claim Amendments

Claim 1 has been amended to overcome the Examiner's rejections under 35 U.S.C. § 305 and 35 U.S.C. § 112 (pre-AIA), first paragraph by reciting a "node configuration" and deleting a "display" node.

Claims 22 and 24 are amended to recite similar features as recited in amended claim 1 to recite a "node configuration."

It is respectfully submitted that no new matter is added and the claims have not been broadened, since support for the amendments may be found, for example, at least in

previously presented claim 1, and, for example, the abstract and at least in col. 4, lines 60-67 of the accompanying description in the '348 Patent.

Claim 12 is amended to overcome the Examiner's rejection under 35 U.S.C. § 112 (pre-AIA), second paragraph. Claim 12 is also amended to clarify the previously presented features by reciting "wherein the triggering comprises actuating the actuator on the peripheral device to send a signal to the processing device to trigger the processing device to ~~wirelessly~~ transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network" to clarify that the wireless transfer is occurring between the peripheral device and the display node via the communications network.

It is respectfully submitted that no new matter is added, since support for the amendment may be found, for example, at least in Figs. 4 and 10 of the '348 Patent and, for example, at least in col. 15, lines 17-21, e.g., "the peripheral device comprises a connector arranged to couple to the port of the processing device" as recited in lines 7-8 of claim 12; col. 16, lines 61-64; col. 17, lines 26-30, 59-63; col. 20, lines 28-35; and col. 25, lines 16-22 of the '348 Patent.

Previously presented claims 25 and 28 have been cancelled without prejudice or disclaimer.

Previously presented claims 26-27 are amended to be consistent with the amendments to claims 1 and 25, and re-numbered to appear as currently presented claims 25 and 26, respectively.

Claims 2, 4-5, 10-11, 13-21, and 23 are left unchanged from the Reply filed on December 4, 2018.

3. Certification under 37 C.F.R. § 116

Applicant submits that consideration of the amendments to the claims are proper under 37 C.F.R. 116 since the amendments to the claims are being made to better comply with the Examiner's suggestions and Patent Office requirements and being made at this

time in view of the Examiner's comments in the Final Office Action dated January 22, 2019 and could not have been presented earlier. As discussed during the interview, since the amendments to the claims should confirm the patentability of the claims, entry of the amendments is requested.

4. Objection to claims 1, 25, and 26

Reconsideration of this objection is requested in view of amendments to the claims, on the basis that the claims have been amended as suggested by the Examiner in compliance with 37 CFR § 1.530(f)(1) and previously presented claim 25 cancelled.

Accordingly, withdrawal of this objection is requested.

5. Rejection of claims 1, 2, 4, 5, 10, 11, and 21-28 under 35 U.S.C. § 305

Reconsideration of this rejection is respectfully requested on the basis that the claims have been amended as suggested by the Examiner.

Specifically, claim 1 has been amended to recite a "node configuration," while previously presented claims 25 and 28 have been cancelled.

Accordingly, withdrawal of this rejection is requested.

6. Rejection of claim 1, 2, 4, 5, 10, 11, and 21-28 under 35 U.S.C. § 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement

Reconsideration of this rejection is respectfully requested on the basis that the claims have been amended as suggested by the Examiner.

Specifically, without acquiescing to the Examiner's reasons for rejection, claim 1 has been amended to recite a "node configuration," while previously presented claims 25 and 28 have been cancelled, in order to expedite prosecution of the ex parte reexamination.

In so doing, Applicant submits that the skilled person would have understood that the claims clearly contain subject matter described in the specification, as indicated by the Examiner on page 5 of the Final Office Action.

Accordingly, withdrawal of this rejection is requested.

7. Rejection of claims 12-20 and 25-27 under 35 U.S.C. § 112 (pre-AIA), second paragraph, as being indefinite

Reconsideration of this rejection is respectfully requested on the basis that the claims have been amended as suggested by the Examiner and previously presented claim 25 has been cancelled.

Specifically, claim 12 and current claim 25 (previously presented as claim 26) have been amended as suggested by the Examiner on page 6 of the Final Office Action. In so doing, Applicant submits that the skilled person would have clearly and unambiguously understood the features recited in the amended claims.

Accordingly, withdrawal of this rejection is requested.

8. Statement of Reasons for Patentability and/or Confirmation

Applicant is gratefully appreciative of the indication that claims 12-20 would be allowable if rewritten or amended to overcome the rejections under 35 U.S.C. § 112 (pre-AIA), second paragraph, and that claims 1 and 12, and the claims dependent thereon, are deemed patentable over the prior art of record. In view of the amendments to the claims and remarks presented herein, Applicant requests the issuance of a Notice to Issue an Ex Parte Reexamination Certificate confirming the patentability of the claims.

9. Conclusion

As a result of the amendments to the claims and further in view of the foregoing remarks, it is respectfully submitted that the amended claims of the '348 patent are clearly patentable.

Please charge any additional fees required or credit any overpayments in connection with this paper to Deposit Account No. 02-0200.

If any issues remain that may be resolved by a telephone or facsimile communication with the Patent Owner's attorney, the examiner is invited to contact the undersigned at the numbers shown below.

BACON & THOMAS, PLLC
625 Slaters Lane, Fourth Floor
Alexandria, Virginia 22314-1176
Phone: (703) 683-0500
Facsimile: (703) 683-1080

Date: March 15, 2019

Respectfully submitted,

/Thomas Lee/

THOMAS LEE
Attorney for Patent Owner
Registration No. 66,396

CERTIFICATE OF SERVICE

The undersigned hereby certify that on March 15, 2019, the attached Reply to the Final Office Action was sent via United States Postal Service, first class mail to the Third Party Requester at the address listed below pursuant to 37 C.F.R. § 1.550(f) and 1.248(a)(4).

Stanley Liang
Liang, Frank & King LLP
520 White Plains Road, Suite 500
Tarrytown, NY 10591

BACON & THOMAS, PLLC

By: /Thomas Lee/

THOMAS LEE
Attorney for Patent Owner
Registration No. 66,396

Electronic Acknowledgement Receipt

EFS ID:	35437325
Application Number:	90014087
International Application Number:	
Confirmation Number:	8024
Title of Invention:	Electronic Tool and Methods for Meetings
First Named Inventor/Applicant Name:	8756348
Customer Number:	23364
Filer:	Thomas Lee/Shelly Darrenkamp
Filer Authorized By:	Thomas Lee
Attorney Docket Number:	BEEL3001REX/TJM/TL
Receipt Date:	15-MAR-2019
Filing Date:	09-FEB-2018
Time Stamp:	14:23:53
Application Type:	Reexam (Patent Owner)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		BEEL3001REX_foa_116_amnd_15MAR19.pdf	58448 1469eb021eac85cc6692fd57b63fc357d28d88c0	yes	13

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Response After Final Action	1	1
	Claims	2	7
	Applicant Arguments/Remarks Made in an Amendment	8	12
	Reexam Certificate of Service	13	13
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(Not for submission under 37 CFR 1.99)

Application Number	90014087
Filing Date	2018-02-09
First Named Inventor	Koen Simon Herman BEEL
Art Unit	3992
Examiner Name	Christopher Lee
Attorney Docket Number	BEEL3001REX/TJM/TL

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	Examiner Name	Christopher Lee
	Attorney Docket Number	BEEL3001REX/TJM/TL

	1	Chinese Office Action in related Chinese Application No. 201280001542.X, dated January 2, 2019.	
	2	Office Action in continuation app 15/449,048 dated October 12, 2018.	
	3	SIPO Office Action in corresponding app. CN 201280074077.2 dated August 23, 2018.	
	4	Office Action in corresponding reexamination application 90/014,088 dated September 25, 2018.	
	5	Office Action in corresponding app. 14/725,401 dated September 10, 2018.	
	6	EPO Office Action in corresponding app. EP 12759440.6-1204 dated August 9, 2018.	
	7	EPO Office Action in corresponding app. EP 12775162.6-1204 dated August 9, 2018.	
	8	SIPO Office Action in corresponding app. CN 201280001542.X dated July 30, 2018.	
	9	Intervention according to Art. 105 EPC in corresponding European Patent 2756668, dated May 3, 2018.	
	10	Final Office Action in related U.S. Application No. 14/278,442, dated June 8, 2018.	
	11	Chinese Office Action in related Chinese Application No. 201280055744.2, dated March 30, 2018.	

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	Art Unit	3992
	Examiner Name	Christopher Lee
	Attorney Docket Number	BEEL3001REX/TJM/TL

	12	U.S. Office Action in related U.S. Application No. 14/344,836, dated February 28, 2018.	
	13	U.S. app. in continuation app 15/449,048 dated February 16, 2018.	
	14	Chinese Office Action in Chinese Application Number 201280074077.2, dated January 4, 2018.	
	15	U.S. Office Action dated October 20, 2017, for U.S. Application No. 14/344,836.	
	16	Chinese Office Action dated October 31, 2017, for CN 201280001542.X, and English translation thereof.	
	17	Chinese Office Action dated September 26, 2017, for CN 201280055744.2, and English translation thereof.	
	18	Chinese Office Action dated April 5, 2017, for CN 201280055744.2, and English translation thereof.	
	19	U.S. Office Action dated May 3, 2017, for U.S. Application No. 14/344,836.	
	20	U.S. Office Action dated September 28, 2017, for U.S. Application No. 14/344,830	
	21	U.S. Office Action dated September 28, 2017, for U.S. Application No. 14/278,442.	
	22	Chinese Office Action dated June 28, 2017, for CN 201280074077.2, and English translation thereof.	

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	Art Unit	3992
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	Attorney Docket Number	BEEL3001REX/TJM/TL

	23	Chinese Office Action dated July 4, 2017, for CN 201280055667.0, and English translation thereof.	
	24	Chinese Office Action dated July 21, 2017, for CN 20128001542.X, and English translation thereof.	
	25	European Search Report dated August 1, 2017, for EP 16207123.	
	26	Office Action in U.S. app 14/278,442 dated January 26, 2017.	
	27	Search Report in GB1206841.7, August 28, 2012.	
	28	Examination Report of German Patent and Trademark Office regarding related German Patent Application 10 2011 055 443.2, May 30, 2012.	
	29	European Office Communication dated June 15, 2015, for EP 12762258.7.	
	30	European Office Communication dated December 21, 2015, for EP 12762258.7.	
	31	European Office Action dated August 1, 2016, for EP 12762258.7.	
	32	European Extended Search Report dated November 3, 2016, for EP 16170760.9.	
	33	Chinese Office Action dated October 14, 2016, for CN 201280055744.2.	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	34	Chinese Office Action dated October 10, 2016, for CN 201280055667.0.	
	35	Office Action in corresponding U.S. app. 14/344,830 dated October 6, 2016.	
	36	Final Office Action in corresponding U.S. app. 14/395,364 dated November 2, 2016.	
	37	Chinese Office Action dated November 4, 2016, for CN 201280001542.X, and English translation thereof.	
	38	Chinese Office Action dated December 27, 2016, for CN 201280074077.2, and English translation thereof.	
	39	Final Office Action in corresponding U.S. App. 14/725,401 dated January 26, 2017.	
	40	European Office Communication (Intention to Grant) dated November 23, 2016, for EP 12762258.7.	
	41	Office Action in corresponding U.S. App. 14/278,442 dated June 17, 2016.	
	42	Office Action in corresponding U.S. App. 14/725,401 dated June 17, 2016.	
	43	Office Action in corresponding U.S. App. 14/395,364 dated March 29, 2016.	
	44	International Preliminary Report on Patentability (IPRP) dated March 27, 2014, for PCT/EP2012/068166.	

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	Art Unit	3992
	Examiner Name	Christopher Lee
	Attorney Docket Number	BEEL3001REX/TJM/TL

	45	International Preliminary Report on Patentability (IPRP) dated March 27, 2014, for PCT/EP2012/068167.
	46	International Preliminary Report on Patentability (IPRP) dated March 27, 2014, for PCT/EP2012/068168.

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EXAMINER SIGNATURE

Examiner Signature		Date Considered	

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	First Named Inventor	Koen Simon Herman BEEL
	Art Unit	3992
	Examiner Name	Christopher Lee
	Attorney Docket Number	BEEL3001REX/TJM/TL

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Thomas Lee/	Date (YYYY-MM-DD)	2019-02-22
Name/Print	THOMAS LEE	Registration Number	66396

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

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9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reexamination of:

Patent Owner:	BARCO N.V.	**Inventors:**	BEEL et al.
Serial No.:	90/014,087	**Confirm. No.:**	8024
Filing Date:	February 9, 2018	**Art Unit:**	3992
Patent No.:	8,756,348	**Customer No.:**	23364
Attorney No.:	BEEL3001REX/TJM/TL	**Examiner:**	Christopher E. Lee
For:	**ELECTRONIC TOOL AND METHODS FOR MEETINGS**		

CERTIFICATE OF SERVICE OF IDS

The undersigned hereby certify that on February 22, 2019, IDS was sent via United States Postal Service, first class mail to the Third Party Requester at the address listed below pursuant to 37 C.F.R. § 1.550(f) and 1.248(a)(4).

Stanley Liang
Liang, Frank & King LLP
520 White Plains Road, Suite 500
Tarrytown, NY 10591

BACON & THOMAS, PLLC

By: /Thomas Lee/

THOMAS LEE
Attorney for Patent Owner
Registration No. 66,396

Electronic Acknowledgement Receipt

EFS ID:	35200524
Application Number:	90014087
International Application Number:	
Confirmation Number:	8024
Title of Invention:	Electronic Tool and Methods for Meetings
First Named Inventor/Applicant Name:	8756348
Customer Number:	23364
Filer:	Thomas Lee/Shelly Darrenkamp
Filer Authorized By:	Thomas Lee
Attorney Docket Number:	BEEL3001REX/TJM/TL
Receipt Date:	22-FEB-2019
Filing Date:	09-FEB-2018
Time Stamp:	08:37:58
Application Type:	Reexam (Patent Owner)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	BEEL3001REX_IDS_SB08_22FEB19.pdf	1036267 2d87ff5bfbe90742cbd5d7c6ec406f5676996d50	no	8

Warnings:

Information:					
A U.S. Patent Number Citation or a U.S. Publication Number Citation is required in the Information Disclosure Statement (IDS) form for autoloading of data into USPTO systems. You may remove the form to add the required data in order to correct the Informational Message if you are citing U.S. References. If you chose not to include U.S. References, the image of the form will be processed and be made available within the Image File Wrapper (IFW) system. However, no data will be extracted from this form. Any additional data such as Foreign Patent Documents or Non Patent Literature will be manually reviewed and keyed into USPTO systems.					
2	Reexam Certificate of Service	BEEL3001REX_IDS_CoS_20FEB19.pdf	102080 50e4782c3435c9189c4c067dbf6a7a04910072f8	no	1
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3	Non Patent Literature	NPL1_CN_OA_02JAN19.pdf	1915779 d26fcec34dbf5e642924dbf32beb2dcb6de776c1	no	11
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4	Non Patent Literature	NPL2_BEEL3001C2_OA_12OCT18.pdf	3146035 b09c5d450fad2319ebcf8824465787a9b469726b	no	36
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6	Non Patent Literature	NPL4_BEEL3002CIPREX_OA_25SEPT18.pdf	1680052 0deb4f939e73cf6d91f3d6ef54d905b9669c5696	no	44
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7	Non Patent Literature	NPL5_BEEL3002CIPC_OA_10SEPT18.pdf	2284511 cfc8b684a23fefee1a00ab3f7c58070b34cdcec5	no	48
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8	Non Patent Literature	NPL6_EP_OA1.pdf	673802 87b96e7bab626e6da41964154705d62a1c4bae4d	no	6
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9	Non Patent Literature	NPL7_EP_OA2.pdf	673692 a25a26dd0611bc56160cac9d0df2e77e4bb165d2	no	6
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10	Non Patent Literature	NPL8_CN_OA_with_English_translation.pdf	2523823 d6934a3535359b417924504dda87c774382a8b62	no	20
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11	Non Patent Literature	NPL9_BAR1427EPIntervention3May2018.pdf	2528942 2487677bf436196f5cea57a5dc20f4c6e8f7737e	no	20
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12	Non Patent Literature	NPL10_14278442_Final_OA_08JUNE18.pdf	493316 7f855b88b8d5a36c850183e5a137bcef0e6b301c	no	15
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13	Non Patent Literature	NPL11_CN_OA_Transl_30MAR18.pdf	476601 21b93d6afa39db5f135500bb0d7e4d9ccbefcb84	no	7
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14	Non Patent Literature	NPL12_BEEL3004_NFOA_28FEB18.pdf	1325542 40ae5e47a52bfe8967e67d15b8d64bb18d69af87	no	30
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15	Non Patent Literature	NPL13_BEEL3001C2_nfoa_mailed_16FEB18.pdf	2052561 f49d42568b1716e442c62cf208c4d14f7dc64d6b	no	40
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16	Non Patent Literature	NPL14_CN_3rd_OA_with_Translation_04JAN18.pdf	2040585 ea8d1156cfa194ee9715909797a7cd48967d6978	no	15
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17	Non Patent Literature	NPL15_BEEL3004_FOA_20OCT17.pdf	934145 39d171d61f36a7bb3f82a5eb7d22e25a1da8fed1	no	21
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18	Non Patent Literature	NPL16_CN_OA_31OCT17_filing.pdf	3957376 622a02ac263282d18c75a0111515b2b701c26345	no	14
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20	Non Patent Literature	NPL18_CN_OA_05APR17_filing.pdf	2717614 e9a3a32427cae55a650e6d928600376080fab4d2	no	10
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23	Non Patent Literature	NPL21_BEEL3001C_NFOA_28SEP17.pdf	476130 6ac2d76bf4f8b7dd7d70b0f2dc0429ea7553d53b	no	14
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27	Non Patent Literature	NPL25_EP_SrchRpt_01AUG17.pdf	516082 7a7e1b465a72151f7908fe03f4914093a46888e9	no	7
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29	Non Patent Literature	NPL27_GB2501471_Search_Rep.pdf	98668 fee92140b0239abfc91e59481d4ab8107f252e5e	no	2
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31	Non Patent Literature	NPL29_EP_OA_15JUN15.pdf	155793 e44a3a43fa8017a32c89d97cd176d9652ad8c2ea	no	5
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32	Non Patent Literature	NPL30_EP_OA_21DEC15.pdf	206825 a1c8ce21cc42699ae5d7946221b2f4b08e23e26e	no	7
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33	Non Patent Literature	NPL31_EP_OA_01AUG16.pdf	89864 cc1c05c2358d7ba614f7394488ed41c3a1ed88ea	no	4
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34	Non Patent Literature	NPL32_EP_SR_03NOV16.pdf	700384 7b0cb4f3cb3989702dbdab0d8528a984d3059d22	no	9
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35	Non Patent Literature	NPL33_CN_1stOA_14OCT16_filing.pdf	3154598 5386cace1d2a88a56e5cd9f0ebf1acb35857554e	no	14
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37	Non Patent Literature	NPL35_BEEL3003_NFOA_06OCT16.pdf	707921 fd3b531becf4ad6d36bd008b6b09433fd9f6d928	no	17
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39	Non Patent Literature	NPL37_CN_OA_04NOV16_filing.pdf	3764483 191a797fb85be6fbddd8e61c6baf484773da8883	no	16
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40	Non Patent Literature	NPL38_CN_OA_27DEC16_filing.pdf	7838598 c6c2143b94d71a4a8de149d14f34f61db7408a8c	no	23
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41	Non Patent Literature	NPL39_BEEL3002CIPC_FOA_26JAN17.pdf	963170 3ebdf3504deaffbd5656a1130b759c9283c7e979	no	24
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42	Non Patent Literature	NPL40_EP_INTENT_GRANT_23NOV16.pdf	4592783 956fb20aed9131258066075eb7820c081abfc4dd	no	65
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43	Non Patent Literature	NPL41_BEEL3001C_NFOA_17JUN16.pdf	1387715 474b37c54b00dc0217f5ab507bade67fe6f0723d	no	33
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44	Non Patent Literature	NPL42_BEEL3002CIPC_nfoa_mailed_17JUN16.pdf	1265510 8d74212f7612be277b2ed2e6b3b1aa68dee13a9a	no	30
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45	Non Patent Literature	NPL43_BRAN3005_NFOA_29MAR16.pdf	899434 c2921b693aeaee1f5012de64c572ad51790575ec	no	26
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46	Non Patent Literature	NPL44_BAR0210PCT_IPRP.pdf	536789 00e43d44c3f7f6a3ee7f70b59811d5c434dd198b	no	6
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47	Non Patent Literature	NPL45_BAR0448PCT_IPRP.pdf	556942 3e88b7f50acbd56f02c84b10705cfd3cf616dde0	no	7
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48	Non Patent Literature	NPL46_BAR0443PCT_IPRP.pdf	503427 d6e4e5735694fe76a73bda1ec63eb0c8c5ac6f38	no	6
Warnings:					
Information:					
		Total Files Size (in bytes):	79101346		

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/014,087	02/09/2018	8756348	BEEL3001REX/TJM/TL	8024

23364 7590 02/20/2019

BACON & THOMAS, PLLC
625 SLATERS LANE
FOURTH FLOOR
ALEXANDRIA, VA 22314-1176

EXAMINER	
LEE, CHRISTOPHER E	

ART UNIT	PAPER NUMBER
3992	

MAIL DATE	DELIVERY MODE
02/20/2019	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Liang, Frank & King LLP
520 White Plains Road, Suite 500
Tarrytown, NY 10591

EX PARTE REEXAMINATION COMMUNICATION TRANSMITTAL FORM

REEXAMINATION CONTROL NO. *90/014,087* .

PATENT UNDER REEXAMINATION *8756348* .

ART UNIT *3992* .

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified *ex parte* reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the *ex parte* reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

/CEL/

Ex Parte Reexamination Interview Summary	Control No.	Patent Under Reexamination	
	90/014,087	8756348	
	Examiner	Art Unit	AIA Status
	Christopher E Lee	3992	No

All participants (USPTO personnel, patent owner, patent owner's representative):

(1) Christopher Lee (USPTO)	(3) Nick Corsaro (USPTO)
(2) Ton My Trang (USPTO)	(4) Thomas Lee (Reg. No. 66,396), William Bird

Date of Interview: 13 February 2019

Type: a) ☑ Telephonic b) ☐ Video Conference
c) ☐ Personal (copy given to: 1) ☐ patent owner 2) ☐ patent owners representative)

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☑ No.
If Yes, brief description: _____

Agreement with respect to the claims f) ☐ was reached. g) ☑ was not reached. h) ☐ N/A.
Any other agreement(s) are set forth below under "Description of the general nature of what was agreed to..."

Claim(s) discussed: 1,25-26 and 28 .

Identification of prior art discussed: n/a .

Description of the general nature of what was agreed to if an agreement was reached, or any other comments:
See Continuation Sheet .

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims patentable, if available, must be attached. Also, where no copy of the amendments that would render the claims patentable is available, a summary thereof must be attached.)

A FORMAL WRITTEN RESPONSE TO THE LAST OFFICE ACTION MUST INCLUDE PATENT OWNER'S STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. (See MPEP § 2281). IF A RESPONSE TO THE LAST OFFICE ACTION HAS ALREADY BEEN FILED, THEN PATENT OWNER IS GIVEN **ONE MONTH** FROM THIS INTERVIEW DATE TO PROVIDE THE MANDATORY STATEMENT OF THE SUBSTANCE OF THE INTERVIEW (37 CFR 1.560(b)). THE REQUIREMENT FOR PATENT OWNERS STATEMENT CAN NOT BE WAIVED. **EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.550(c).**

/Christopher E. Lee/ Primary Examiner, Art Unit 3992		/Nick Corsaro/ Acting SPE, AU 3992

cc: Requester (if third party requester)

Continuation of Description of the general nature of what was agreed to if an agreement was reached, or any other comments:

The representative of the Patent Owner (hareinafter "the representative") explained that the claims 1 and 25 will be amended for ovecoming the claims rejected under 35 U.S.C. 305 and 112(1), and the claims 12, 25, and 26 will be appropriately amended for overcoming 35 U.S.C. 112(2). The Examiner will reconsider those claims to be proposed in the next communication so long as the scope of the invention claimed by the newly amended claims does not require any further search. The next action will be after final action.

The Examiner brought a question about the scope of the new claim 25 proposed in the interview aganda, which appears to be the same as the claimed invention in the claim 1. The Examiner suggested that the dependency of the claim 26 might need to be changed from the claim 25 to the claim 1 because the claim 25 could be regarded as a duplicate claim of the claim 1. And, the new claim 25 should be canceled for obviating any duplicate claim objection regarding the claims 1 and 25. The representative expressed that this issue will be further considered in the next communication.

BACON &THOMAS PLLC
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February 8, 2019

To: Examiner Christopher E. Lee

Email: christopher.lee@uspto.gov

Re: U.S. Reexamination No. 90/014,087, proposed interview agenda

From: Thomas Lee

UNOFFICIAL COMMUNICATION – NOT FOR ENTRY

Dear Examiner Lee:

Thank you for agreeing to discuss the rejections of the Office Action dated January 22, 2019. In advance of our telephone interview scheduled for February 13, 2019 at 2:30 PM, please find below an agenda for the interview.

Applicant notes the following additional attendee: 1) Mr. William Bird, European Patent Attorney.

The Applicant's representative intends to discuss the following points:

- Rejection of claims 1, 2, 4, 5, 10, 11, and 21-28 under 35 U.S.C. § 305
    - Applicant submits the attached proposed claim amendments, where the alleged enlargement of the scope of the claims has been amended.
- Rejection of claims 1, 2, 4, 5, 10, 11, and 21-28 under 35 U.S.C. § 112 (pre-AIA), first paragraph
    - Applicant submits the attached proposed claim amendments, where the claims have been clarified as requested by the Examiner to better comply with the written description requirement.
- Rejection of claims 1, 2, 4, 5, 10, 11, and 21-28 under 35 U.S.C. § 112 (pre-AIA), second paragraph
    - Applicant submits the attached proposed claim amendments, where the claims have been clarified as requested by the Examiner.

- The Examiners' comments on the above points will be requested to assist Applicant in the expeditious continued prosecution of the application.

I look forward with speaking with you.

Sincerely,
BACON & THOMAS, PLLC



THOMAS LEE
Reg. No.: 66,396

UNOFFICIAL COMMUNICATION – NOT FOR ENTRY

Barco Exhibit 2001

Do Not Enter ! /CEL/
(This is for interview purpose only.)

PROPOSED AMENDMENT TO THE CLAIMS

Pursuant to 37 C.F.R. § 1.530(d)(2) and (f), the claims are amended below:

1. (Thrice Amended) An electronic meeting tool for communicating arbitrary media content from users at a meeting comprising:

a node configuration arranged to operate a display node of a communications network, the display node being coupled to a first display, the node configuration further being arranged to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display;

at least one peripheral device configured to communicate the user selected arbitrary media content via the communications network, wherein the peripheral device is a connection unit comprising:

(a) a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system; [and]

(b) a wireless transmitter arranged to communicate with the communications network;

(c) an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the node configuration via the communications network; and

a program configured to be loaded onto the processing device and to run on the operating system of the processing device, said program being arranged to obtain user selected arbitrary media content, said program leaving a zero footprint on termination[, and

an input device enabling the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port].

2. (Original) The electronic meeting tool of claim 1, wherein the program is stored on the peripheral device.

3. (Cancelled)

4. (Original) The electronic meeting tool of claim 1, wherein the peripheral device is a plug-and-play device.

5. (Original) The electronic meeting tool of claim 1, wherein the program is arranged to screen scrape content of the second display.

6. (Cancelled)

7. (Cancelled)

8. (Cancelled)

9. (Cancelled)

10. (Original) The electronic meeting tool of claim 1, wherein the peripheral device comprises a memory in which executable software code is stored for execution on the processing device, said executable software code comprising:

a first software code portion for setting up, by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device and the processing device;

a second software code portion for connecting the processing device to the communications network via the peripheral device, the peripheral device having a transceiver;

a third software code portion for screen scraping data from the processing device; and

a fourth software code for routing screen scraped data between the processing device and the communications network over the means for communication; wherein the first software code portion is adapted to use a generic communication protocol for transferring the screen scraped data between the processing device and the peripheral device.

11. (Original) A non-transitory storage medium storing the first to fourth software code portion of claim 10.

12. (Thrice Amended) A method for communicating arbitrary media content from users at a meeting comprising:

operating a display node of a communications network, the display node being coupled to a first display, to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display; and

connecting a peripheral device to a port of a processing device and communicating the user selected arbitrary media content via the communications network, wherein the peripheral device comprises a connector arranged to couple to the port of the processing device, a wireless transmitter arranged to communicate with the communications network, and an actuator on the peripheral device,

loading a program onto the processing device and running the program on the operating system of the processing device to obtain user selected arbitrary media content, said program leaving a zero footprint on termination, and

triggering transfer of said user selected arbitrary media content to said wireless transmitter of the peripheral device through said port after a user action on [an] the actuator [input device] of the peripheral device,

wherein the triggering comprises actuating the actuator on the peripheral device to send a signal to the processing device to trigger the processing device to wirelessly transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network.

13. (Original) The method of claim 12, further comprising configuring the peripheral device to connect to the communications network by pairing the peripheral device with the display node.

14. (Original) The method of claim 13, wherein the pairing is performed by plugging the peripheral device into the display node.

15. (Original) The method of claim 12, further comprising setting up by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device and the processing device.

16. (Original) The method of claim 12, wherein a pre-installed generic driver is selected from a human interface device driver and a mass storage device driver.

17. (Original) The method of claim 12, further comprising one of:
presenting the peripheral device to the processing device as a human interface device,
presenting the peripheral device to the processing device as a mass storage device; and
presenting the peripheral device to the processing device as a composite device.

18. (Original) The method of claim 12, wherein the program is stored on the peripheral device, and which obtains screen scraped data when run on the processing device.

19. (Original) The method of claim 17, wherein a generic communication protocol is used for transferring screen scraped data between the processing device and the peripheral device.

20. (Original) The method of claim 12 further comprising displaying the user selected arbitrary media content on the first display in accordance with a set of rules.

21. (New) The electronic meeting tool of claim 5, wherein the connector of the peripheral device further comprises a flexible data and power connector, wherein the flexible data and power connector is configured in a way such that, when the peripheral device is connected to the processing device in an operating position, the peripheral device is in a region between an outside edge of the processing device and an ergonomic boundary of 4000 square cm, and wherein the actuator has a surface area between 100 and 14,400 square mm.

22. (New) The electronic meeting tool of claim 21, wherein the electronic meeting tool is configured in a way such that the communications network is set up between the at least one peripheral device coupled to the processing device and the node configuration without altering or affecting networking capabilities of the processing device.

23. (New) The electronic meeting tool of claim 22, wherein the actuator is a single button on the at least one peripheral device.

24. (New) The electronic meeting tool of claim 1, wherein said transfer of said user selected arbitrary media content to said wireless transmitter through said port to the node configuration via the communications network comprising automatically transferring said user selected arbitrary media content to the node configuration to force the displaying of the user selected arbitrary media content on the first display.

25. (New) An electronic meeting tool comprising:

a node configuration of a communications network arranged to operate a display node, the display node being coupled to a first meeting display, the node configuration further being arranged to receive a first user selected arbitrary media content and to control display of the first user selected arbitrary media content on the first meeting display;

a first external peripheral device configured to communicate the first user selected arbitrary media content via the communications network, wherein the first external peripheral device is a first connection unit comprising:

(a) a first connector configured to couple to a first port of a first processing device having a first display, a first memory and a first operating system;

(b) a first wireless transmitter configured to communicate with the communications network;

(c) a first actuator on the first external peripheral device, wherein said first actuator is configured to enable the first user to carry out a first user action by actuating the first actuator to trigger a first transfer of said first user selected arbitrary media content to said first wireless transmitter through said first port to transmit said first user selected arbitrary media content to the node configuration via the communications network, wherein the first actuator is a first single button on the first external peripheral device; and

a first software code configured to be loaded from the first external peripheral device onto the first processing device and to run on the first operating system of the first processing device, said first software code being configured to obtain the first user selected arbitrary media content, said first software code configured to display said first user selected arbitrary media

content when the first single button is pushed, and said first software code leaving a zero footprint on termination.

26. (New) The electronic meeting tool of claim 25, further comprising

a second external peripheral device configured to communicate a second user selected arbitrary media content via the communications network, wherein the second external peripheral device is a second connection unit comprising:

(a) a second connector configured to couple to a second port of a second processing device having a second display, a second memory, and a second operating system;

(b) a second wireless transmitter configured to communicate with the communications network;

(c) a second actuator on the second external peripheral device, wherein said second actuator is configured to enable the second user to carry out a second user action by actuating the second actuator to trigger a second transfer of said second user selected arbitrary media content to said second wireless transmitter through said second port to transmit said second user selected arbitrary media content to the node configuration via the communications network, wherein the second actuator is a second single button on the second external peripheral device; and

a second software code configured to be loaded from the second external peripheral device onto the second processing device and to run on the second operating system of the second processing device, said second software code being configured to obtain the second user selected arbitrary media content, said second software code configured to display said second user selected arbitrary media content when the second single button is pushed, and said second software code leaving a zero footprint on termination.

27. (New) The electronic meeting tool of claim 26, wherein said first operating system is different from said second operating system.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/014,087	02/09/2018	8756348	BEEL3001REX/TJM/TL	8024

23364 7590 01/22/2019

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EXAMINER	
LEE, CHRISTOPHER E	

ART UNIT	PAPER NUMBER
3992	

MAIL DATE	DELIVERY MODE
01/22/2019	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Stanley Liang
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EX PARTE REEXAMINATION COMMUNICATION TRANSMITTAL FORM

REEXAMINATION CONTROL NO. *90/014,087* .

PATENT UNDER REEXAMINATION *8756348* .

ART UNIT *3992* .

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified *ex parte* reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the *ex parte* reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

DETAILED ACTION

Ex Parte Reexamination

1. This is an *ex parte* reexamination of United States Patent Number US 8,756,348 B2, which issued to Beel et al. (hereinafter "the '348 Patent"), and it is being reexamined under the pre-AIA first to invent provisions.

Receipt Acknowledgement

2. Receipt is acknowledged of the Response filed on December 4, 2018 (hereinafter "the Response").

Original claims 1 and 12 have been amended; original claims 3 and 6-9 have been canceled; and new claims 21-28 have been added since the instant reexamination request was filed. The amendment is entered and considered.

Currently, the original claims 1, 2, 4, 5, and 10-28 are subject to reexamination.

Declarations

3. The declaration of Filip Louwet under 37 CFR § 1.132 filed on December 4, 2018 is insufficient to overcome the rejection of claim 1 based upon Kita, Banerjee, and Epstein as set forth in the last Office action because:

The declaration submitted under 37 CFR § 1.132[1] for the purpose of traversing ground of rejection is not responsive to the rejection of claim 1 as set forth in the last Office action, but it includes statements which amount to an affirmation that the declarant has never seen the claimed subject matter "an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network" in the claim 1 rejected or objected to in the last Office action.

Therefore, this declaration is not relevant to the issue of nonobviousness of the newly claimed subject matter and provides no objective evidence thereof. See MPEP § 716.

4. The declaration of Hanne Page under 37 CFR § 1.132 filed on December 4, 2018 is

[1] *37 C.F.R. § 1.132 Affidavits or declarations traversing rejections or objections.* When any claim of an application or a patent under reexamination is rejected or objected to, any evidence submitted to traverse the rejection or objection on a basis not otherwise provided for must be by way of an oath or declaration under this section.

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insufficient to overcome the rejection of claim 1 based upon Kita, Banerjee, and Epstein as set forth in the last Office action because:

The declarant asserts commercial success of the patented product "ClickShare" (See paragraph 2). Essentially, the declarant states that (i) the Patent Owner was already a leader in the visualization and sharing market (See paragraph 3); (ii) the vendors, the customers and the end users at Integrated Systems Europe in 2012 in Amsterdam knew the product "ClickShare" and were so amazed with the simplicity and usability of the product "ClickShare" (See paragraph 5); (iii) the media "AV Technology" issued on November 2012 allegedly states "the most ingenious product to date designed for the enterprise collaboration" because of the features "easy of learning" and "easy of use" in the product "ClickShare" (See paragraph 7); (iv) the product "ClickShare" has received numerous awards and recognition due to its simple design and intuitiveness in a meeting to present data (See paragraph 8); and (v) the Patent Owner's market-share in the wireless presentation market holds about a 37% in 2017.

However, the declarant does not show any hard evidence supporting said commercial success. Although the declarant merely states that the "one-click" nature's simplicity and usability of the product "ClickShare" contributes to said commercial success, the declarant fails to show any nexus between the claimed invention of the '348 Patent and said commercial success. In particular, the declarant fails to show any evidence that there is some nexus between the claimed invention and the alleged commercial success from the features "easy of learning" and "easy of use" in the product "ClickShare".

Therefore, this declaration is not relevant to the issue of nonobviousness of the claimed subject matter and provides no objective evidence thereof. See MPEP § 716.

Claim Warnings

5. Patent Owner is advised that should claim 1 be found allowable, claim 28 will be objected to under 37 CFR § 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Objections

6. Claims 1, 25, and 26 are objected to because of the following informality:

The amendment proposes amendment to the claim 1 that does not comply with 37 CFR § 1.530(f)(1), which sets forth the manner of making amendments in reexamination

proceedings, because the matters to be omitted, i.e., "a node configuration arranged to operate" in line 4 and "configuration" in line 4, are not enclosed by bracket, but shown by strikethrough (See MPEP § 2250).

Appropriate correction is required.

Claim Rejections - 35 USC § 305

7. The following is a quotation of pre-AIA 35 U.S.C. § 305 which forms the basis for the rejections of claims enlarging scope of patent set forth in this Office action:

> After the times for filing the statement and reply provided for by section 304 have expired, reexamination will be conducted according to the procedures established for initial examination under the provisions of sections 132 and 133. In any reexamination proceeding under this chapter, the patent owner will be permitted to propose any amendment to his patent and a new claim or claims thereto, in order to distinguish the invention as claimed from the prior art cited under the provisions of section 301, or in response to a decision adverse to the patentability of a claim of a patent. No proposed amended or new claim enlarging the scope of a claim of the patent will be permitted in a reexamination proceeding under this chapter. All reexamination proceedings under this section, including any appeal to the Board of Patent Appeals and Interferences, will be conducted with special dispatch within the Office.

8. Claims 1, 2, 4, 5, 10, 11, and 21-28 are rejected under 35 U.S.C. § 305 (pre-AIA) as enlarging the scope of the claim(s) of the patent being reexamined. In 35 U.S.C. § 305, it is stated that "[n]o proposed amended or new claim enlarging the scope of a claim of the patent will be permitted in a reexamination proceeding...." A claim presented in a reexamination "enlarges the scope" of the patent claim(s) where the claim is broader than each and every claim of the patent. A claim is broader in scope than the original claims if it contains within its scope any conceivable product or process which would not have infringed the original patent. A claim is broadened if it is broader in any one respect, even though it may be narrower in other respects.

The original claim 1 of the '348 Patent recites, *inter alia*, the limitations "a node configuration arranged to operate a display node of a communications network" and "the node configuration further being arranged to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display". However, the amended claim 1 and the newly added claims 25 and 28 do not claim the subject matter "node configuration," and furthermore, they do not recite those limitations "a node configuration arranged to operate a display node ..." and "the node configuration further being arranged to receive user selected arbitrary media content ..." *foregoing*.

Accordingly, the amended claim 1 and the newly added claims 25 and 28 are broader than the original claims because they and their respective dependent claims contain within their

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scopes some conceivable product, e.g., a display node manually operated by a user to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display, which would not have infringed the original patent. Even though the amended claim 1 and the newly added claims 25 and 28 are narrower in respect of "the wireless transmitter" and "the actuator on peripheral device," they are broadened in the other respect of operating "the display node".

Claim Rejections - 35 USC § 112

9. The following is a quotation of the first paragraph of pre-AIA 35 U.S.C. § 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10. Claims 1, 2, 4, 5, 10, 11, and 21-28 are rejected under 35 U.S.C. § 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor or a joint inventor, or for pre-AIA the inventor(s), at the time the application was filed, had possession of the claimed invention.

The respective claims 1, 25, and 28 recite the limitation "the display node further being arranged to receive (a first) user selected arbitrary media content and to control display of the (first) user selected arbitrary media content on the first (meeting) display".

However, the specification of the '348 Patent only discloses that *a node configuration means* is adapted *to receive* user selected arbitrary media content and *to control display* of the user selected arbitrary media content on the display at col. 4, lines 65-57 (*emphasis added*).

Therefore, the disclosure of the '348 Patent never states and/or suggests that the display node is arranged to receive user selected arbitrary media content and/or is arranged to control display of the user selected arbitrary media content on the display. Instead, the specification of the '348 Patent discloses that the node configuration means, which is different from the display node, is adapted to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the display.

The claims 2, 4, 5, 10, 11, and 21-23 are dependent claims of the claim 1.

The claims 26 and 27 are dependent claims of the claim 25.

11. The following is a quotation of the second paragraph of pre-AIA 35 U.S.C. § 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly

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claiming the subject matter which the applicant regards as his invention.

12. Claims 12-20 and 25-27 are rejected under 35 U.S.C. § 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention.

Claim 12 recites the limitation "said transmitter" in line 19. There is insufficient antecedent basis for this limitation in the claim. The Examiner presumes that the term "said transmitter" could be considered as --said wireless transmitter-- for the purpose of continuing the examination of the claim 25.

Claim 25 recites the limitation "the perianal device" in line 13. There is insufficient antecedent basis for this limitation in the claim. The Examiner presumes that the term "the perianal device" could be considered as --the first external peripheral device-- for the purpose of continuing the examination of the claim 25.

And, the claim 25 recites the limitation "the actuator" in lines 14-15. There is insufficient antecedent basis for this limitation in the claim. The Examiner presumes that the term "the actuator" could be considered as --the first actuator-- for the purpose of rejecting the claim 25.

In lines 24-25, the claim 25 recites the limitation "said program". There is insufficient antecedent basis for this limitation in the claim. The Examiner presumes that the term "said program" could be considered as --said first software code-- for the purpose of rejecting the claim 25.

Claim 26 recites the limitation "the peripheral device" in line 10. There is insufficient antecedent basis for this limitation in the claim. The Examiner presumes that the term "the peripheral device" could be considered as --the second external peripheral device-- for the purpose of rejecting the claim 26.

And, the claim 26 recites the limitation "said wireless transmitter" in line 13. There is insufficient antecedent basis for this limitation in the claim. The Examiner presumes that the term "said wireless transmitter" could be considered as --said second wireless transmitter-- for the purpose of rejecting the claim 26.

In line 22, the claim 26 recites the limitation "said program". There is insufficient antecedent basis for this limitation in the claim. The Examiner presumes that the term "said program" could be considered as --said second software code-- for the purpose of rejecting the claim 26.

The claims 26 and 27 are dependent claims of the claim 25.

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The claims 13-20 are dependent claims of the claim 12.

Response to Arguments/Remarks

13. Patent Owner's arguments, see pages 12-27, filed on December 4, 2018, with respect to the rejections of claims 1-20 in the prior Office action mailed on September 4, 2018 under Kita [WO 01/89156 A2] in view of Banerjee [WO 2010/105335 A1] and Epstein [US 2010/0302454 A1] have been fully considered and are persuasive. Therefore, the rejections over Kita in view of Banerjee and Epstein have been withdrawn. However, upon further consideration[2], a new grounds of rejection are made in view of the provisions 35 U.S.C. § 305 and § 112, 1st and 2nd paragraphs.

STATEMENT OF REASONS FOR PATENTABILITY AND/OR CONFIRMATION

14. Claims 12-20 would be allowable if rewritten or amended to overcome the rejections under 35 U.S.C. § 112 (pre-AIA), 2nd paragraph, set forth in this Office action.

15. The following is an Examiner's statement of reasons for patentability and/or confirmation of the claims found patentable in this reexamination proceeding:

With respect to claims 1, 2, 4, 5, 10, 11, 21-24, and 28[3] the claim limitations recited in the respective claims 1 and 28 are deemed patentable over the prior art of record having raised the substantial new question of patentability as the prior art fails to teach or suggest that actuating the actuator on the peripheral device to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network.

The claims 2, 4, 5, 10, 11, and 21-24 are dependent claims of the claim 1.

With respect to claims 12-20, the claim limitations recited in the claim 12 are deemed patentable over the prior art of record having raised the substantial new question of patentability as the prior art fails to teach or suggest that the triggering comprises actuating the actuator on the peripheral device to send a signal to the processing device to trigger the processing device to wirelessly transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network.

---

[2] See MPEP § 2254 Conduct of *Ex Parte* Reexamination Proceedings [R-07.2015], wherein it states "[a] full search will not routinely be made by the examiner".

[3] The claims 1, 2, 4, 5, 10, 11, 21-24, and 28 have been rejected under the provisions 35 U.S.C. § 305 and § 112, 1st paragraph.

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The claims 13-20 are dependent claims of the claim 12.

With respect to claims 25-27[4], the claim limitations recited in the claim 25 are deemed patentable over the prior art of record having raised the substantial new question of patentability as the prior art fails to teach or suggest that actuating the first actuator on the first external peripheral device to trigger the first processing device to transfer said first user selected arbitrary media content to said first wireless transmitter through said first port to transmit said first user selected arbitrary media content to the display node via the communications network.

The claims 26 and 27 are dependent claims of the claim 25.

Any comments considered necessary by PATENT OWNER regarding the above statement must be submitted promptly to avoid processing delays. Such submission by the patent owner should be labeled: "Comments on Statement of Reasons for Patentability and/or Confirmation" and will be placed in the reexamination file.

Conclusion

16. Patent Owner's amendment filed on December 4, 2018 necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

A shortened statutory period for response to this action is set to expire **TWO (2)** months from the mailing date of this action

Extensions of time under 37 CFR § 1.136(a) do not apply in reexamination proceedings. The provisions of 37 CFR § 1.136 apply only to "an applicant" and not to parties in a reexamination proceeding. Further, in 35 U.S.C. § 305 and in 37 CFR § 1.550(a), it is required that reexamination proceedings "will be conducted with special dispatch within the Office."

Extensions of time in reexamination proceedings are provided for in 37 CFR § 1.550(c). A request for extension of time must specify the requested period of extension and it must be accompanied by the petition fee set forth in 37 CFR § 1.17(g). Any request for an extension in a Third Party requested *ex parte* reexamination must be filed on or before the day on which action by the Patent Owner is due, and the mere filing of a request will not effect any extension of time. A request for an extension of time in a Third Party requested *ex parte* reexamination will be granted only for sufficient cause, and for a reasonable time specified. Any request for extension in a Patent Owner requested *ex parte* reexamination (including

[4] The claims 25-27 have been rejected under the provisions 35 U.S.C. § 305 and § 112, 1st paragraph.

reexamination ordered under 35 U.S.C. § 257) for up to two months from the time period set in the Office action must be filed no later than two months from the expiration of the time period set in the Office action. A request for an extension in a Patent Owner requested *ex parte* reexamination for more than two months from the time period set in the Office action must be filed on or before the day on which action by the Patent Owner is due, and the mere filing of a request for an extension for more than two months will not effect the extension. The time for taking action in a Patent Owner requested *ex parte* reexamination will not be extended for more than two months from the time period set in the Office action in the absence of sufficient cause or for more than a reasonable time.

The filing of a timely first response to this final rejection will be construed as including a request to extend the shortened statutory period for an additional two months. In no event, however, will the statutory period for response expire later than SIX MONTHS from the mailing date of the final action. See MPEP § 2265.

All correspondence relating to this ex parte reexamination proceeding should be directed:

By EFS: Registered users may submit via the electronic filing system EFS-Web, at https://efs.uspto.gov/efile/myportal/efs-resigtered

By Mail to: Mail Stop *Ex Parte* Reexam
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For EFS-Web transmissions, 37 CFR § 1.8(a)(1)(i) (C) and (ii) states that correspondence (except for a request for reexamination and a corrected or replacement request for reexamination) will be considered timely filed if (a) it is transmitted via the Office's electronic filing system in accordance with 37 CFR § 1.6(a)(4), and (b) includes a certificate of transmission for each piece of correspondence stating the date of transmission, which is prior to the expiration of the set period of time in the Office action.

Any inquiry concerning this communication or earlier communications from the

Reexamination Legal Advisor or Examiner, or as to the status of this proceeding, should be directed to the Central Reexamination Unit at telephone number (571) 272-7705.

Signed:

/Christopher E. Lee/
Primary Examiner, Art Unit 3992
Central Reexamination Unit

Conferees:
/My Trang Ton/
Primary Examiner
CRU, AU 3992

/NICK CORSARO/
Acting Supervisory Patent Examiner of Art Unit 3992

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Office Action in Ex Parte Reexamination	Control No. 90/014,087	Patent Under Reexamination 8756348	
	Examiner Christopher E Lee	Art Unit 3992	AIA Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

a. ☑ Responsive to the communication(s) filed on 04 December 2018.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

b. ☑ This action is made FINAL.

c. ☐ A statement under 37 CFR 1.530 has not been received from the patent owner.

A shortened statutory period for response to this action is set to expire 2 month(s) from the mailing date of this letter. Failure to respond within the period for response will result in termination of the proceeding and issuance of an *ex parte* reexamination certificate in accordance with this action. 37 CFR 1.550(d). **EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.550(c).** If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. ☐ Notice of References Cited by Examiner, PTO-892.
2. ☑ Information Disclosure Statement, PTO/SB/08.
3. ☐ Interview Summary, PTO-474.
4. ☐ _____.

Part II SUMMARY OF ACTION

1a. ☑ Claims 1-28 are subject to reexamination.
1b. ☐ Claims _____ are not subject to reexamination.
2. ☑ Claims 3 and 6-9 have been canceled in the present reexamination proceeding.
3. ☐ Claims _____ are patentable and/or confirmed.
4. ☑ Claims 1-2,4-5 and 10-28 are rejected.
5. ☐ Claims _____ are objected to.
6. ☐ The drawings, filed on _____ are acceptable.
7. ☐ The proposed drawing correction, filed on _____ has been (7a) ☐ approved (7b) ☐ disapproved.
8. ☐ Acknowledgment is made of the priority claim under 35 U.S.C. 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the certified copies have
   1 ☐ been received.
   2 ☐ not been received.
   3 ☐ been filed in Application No. _____.
   4 ☐ been filed in reexamination Control No. _____.
   5 ☐ been received by the International Bureau in PCT application No. _____.
   * See the attached detailed Office action for a list of the certified copies not received.
9. ☐ Since the proceeding appears to be in condition for issuance of an *ex parte* reexamination certificate except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte* Quayle, 1935 C.D. 11, 453 O.G. 213.
10. ☐ Other: _____

cc: Requester (if third party requester)

Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	90014087
Filing Date	2018-02-09
First Named Inventor	Koen Simon Herman BEEL
Art Unit	3992
Examiner Name	Christopher Lee
Attorney Docket Number	BEEL3001REX/TJM/TL

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Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	8346753	B1	2013-01-01	Hayes	
	2	6966035		2005-11-15	Suess et al.	
	3	8316138		2012-11-20	Chang	

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Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20100064063	A1	2010-03-11	Deforche et al.	
	2	20110179182	A1	2011-07-21	VADLA RAVNAS	
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	90014087
	Filing Date	2018-02-09
	First Named Inventor	Koen Simon Herman BEEL
	Art Unit	3992
	Examiner Name	Christopher Lee
	Attorney Docket Number	BEEL3001REX/TJM/TL

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Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
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EXAMINER SIGNATURE

Examiner Signature	/Christopher E. Lee/	Date Considered	12/18/2018

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Barco Exhibit 2001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reexamination of:

Patent Owner:	BARCO N.V.	**Inventors:**	BEEL et al.
Serial No.:	90/014,087	**Confirm. No.:**	8024
Filing Date:	February 9, 2018	**Art Unit:**	3992
Patent No.:	8,756,348	**Customer No.:**	23364
Attorney No.:	BEEL3001REX/TJM/TL	**Examiner:**	Christopher E. Lee
For:	**ELECTRONIC TOOL AND METHODS FOR MEETINGS**		

REPLY UNDER 37 C.F.R. § 1.111 TO OFFICE ACTION OF SEPTEMBER 4, 2018

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

INTRODUCTORY COMMENTS

This is responsive to the Office Action dated September 4, 2018 in the above application, where a request for extension of time was granted on October 17, 2018, to reply to the Office Action until December 4, 2018. A fee for one additional independent claim accompanies this reply. Additionally, an Information Disclosure Statement (IDS) is being submitted to submit references cited in related applications.

In view of the following amendments and remarks, reconsideration of the ex parte reexamination of this patent is respectfully requested.

AMENDMENT TO THE CLAIMS

Pursuant to 37 C.F.R. § 1.530(d)(2) and (f), the claims are amended below:

1. (Twice Amended) An electronic meeting tool for communicating arbitrary media content from users at a meeting comprising:

~~a node configuration arranged to operate~~ a display node of a communications network, the display node being coupled to a first display, the display node ~~configuration~~ further being arranged to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display;

at least one peripheral device configured to communicate the user selected arbitrary media content via the communications network, wherein the peripheral device is a connection unit comprising:

(a) a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system; [and]

(b) a wireless transmitter arranged to communicate with the communications network;

(c) an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network; and

a program configured to be loaded onto the processing device and to run on the operating system of the processing device, said program being arranged to obtain user selected arbitrary media content, said program leaving a zero footprint on termination[, and

an input device enabling the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port].

2. (Original) The electronic meeting tool of claim 1, wherein the program is stored on the peripheral device.

3. (Cancelled)

4. (Original) The electronic meeting tool of claim 1, wherein the peripheral device is a plug-and-play device.

5. (Original) The electronic meeting tool of claim 1, wherein the program is arranged to screen scrape content of the second display.

6. (Cancelled)

7. (Cancelled)

8. (Cancelled)

9. (Cancelled)

10. (Original) The electronic meeting tool of claim 1, wherein the peripheral device comprises a memory in which executable software code is stored for execution on the processing device, said executable software code comprising:

a first software code portion for setting up, by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device and the processing device;

a second software code portion for connecting the processing device to the communications network via the peripheral device, the peripheral device having a transceiver;

a third software code portion for screen scraping data from the processing device; and

a fourth software code for routing screen scraped data between the processing device and the communications network over the means for communication; wherein the first software code portion is adapted to use a generic communication protocol for transferring the screen scraped data between the processing device and the peripheral device.

11. (Original) A non-transitory storage medium storing the first to fourth software code portion of claim 10.

12. (Twice Amended) A method for communicating arbitrary media content from users at a meeting comprising:

operating a display node of a communications network, the display node being coupled to a first display, to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display; and

connecting a peripheral device to a port of a processing device and communicating the user selected arbitrary media content via the communications network, wherein the peripheral device comprises a connector arranged to couple to the port of the processing device, a wireless transmitter arranged to communicate with the communications network, and an actuator on the peripheral device,

loading a program onto the processing device and running the program on the operating system of the processing device to obtain user selected arbitrary media content, said program leaving a zero footprint on termination, and

triggering transfer of said user selected arbitrary media content to said wireless transmitter of the peripheral device through said port after a user action on [an] the actuator [input device] of the peripheral device,

wherein the triggering comprises actuating the actuator on the peripheral device to send a signal to the processing device to trigger the processing device to wirelessly

transfer said user selected arbitrary media content to said transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network.

13. (Original) The method of claim 12, further comprising configuring the peripheral device to connect to the communications network by pairing the peripheral device with the display node.

14. (Original) The method of claim 13, wherein the pairing is performed by plugging the peripheral device into the display node.

15. (Original) The method of claim 12, further comprising setting up by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device and the processing device.

16. (Original) The method of claim 12, wherein a pre-installed generic driver is selected from a human interface device driver and a mass storage device driver.

17. (Original) The method of claim 12, further comprising one of:
presenting the peripheral device to the processing device as a human interface device,
presenting the peripheral device to the processing device as a mass storage device; and
presenting the peripheral device to the processing device as a composite device.

18. (Original) The method of claim 12, wherein the program is stored on the peripheral device, and which obtains screen scraped data when run on the processing device.

19. (Original) The method of claim 17, wherein a generic communication protocol is used for transferring screen scraped data between the processing device and the peripheral device.

20. (Original) The method of claim 12 further comprising displaying the user selected arbitrary media content on the first display in accordance with a set of rules.

21. (New) The electronic meeting tool of claim 5, wherein the connector of the peripheral device further comprises a flexible data and power connector, wherein the flexible data and power connector is configured in a way such that, when the peripheral device is connected to the processing device in an operating position, the peripheral device is in a region between an outside edge of the processing device and an ergonomic boundary of 4000 square cm, and wherein the actuator has a surface area between 100 and 14,400 square mm.

22. (New) The electronic meeting tool of claim 21, wherein the electronic meeting tool is configured in a way such that the communications network is set up between the at least one peripheral device coupled to the processing device and the display node without altering or affecting networking capabilities of the processing device.

23. (New) The electronic meeting tool of claim 22, wherein the actuator is a single button on the at least one peripheral device.

24. (New) The electronic meeting tool of claim 1, wherein said transfer of said user selected arbitrary media content to said wireless transmitter through said port to the display node via the communications network comprising automatically transferring said user selected arbitrary media content to the display node to force the displaying of the user selected arbitrary media content on the first display.

25. (New) An electronic meeting tool comprising:

a display node of a communications network, the display node being coupled to a first meeting display, the display node further being arranged to receive a first user

selected arbitrary media content and to control display of the first user selected arbitrary media content on the first meeting display;

a first external peripheral device configured to communicate the first user selected arbitrary media content via the communications network, wherein the first external peripheral device is a first connection unit comprising:

(a) a first connector configured to couple to a first port of a first processing device having a first display, a first memory and a first operating system;

(b) a first wireless transmitter configured to communicate with the communications network;

(c) a first actuator on the perianal device, wherein said first actuator is configured to enable the first user to carry out a first user action by actuating the actuator to trigger a first transfer of said first user selected arbitrary media content to said first wireless transmitter through said first port to transmit said first user selected arbitrary media content to the display node via the communications network, wherein the first actuator is a first single button on the first external peripheral device; and

a first software code configured to be loaded from the first external peripheral device onto the first processing device and to run on the first operating system of the first processing device, said first software code being configured to obtain the first user selected arbitrary media content, said first software code configured to display said first user selected arbitrary media content when the first single button is pushed, and said program leaving a zero footprint on termination.

26. (New) The electronic meeting tool of claim 25, further comprising

a second external peripheral device configured to communicate a second user selected arbitrary media content via the communications network, wherein the second external peripheral device is a second connection unit comprising:

(a) a second connector configured to couple to a second port of a second processing device having a second display, a second memory, and a second operating system;

(b) a second wireless transmitter configured to communicate with the communications network;

(c) a second actuator on the peripheral device, wherein said second actuator is configured to enable the second user to carry out a second user action by actuating the second actuator to trigger a second transfer of said second user selected arbitrary media content to said wireless transmitter through said second port to transmit said second user selected arbitrary media content to the display node via the communications network, wherein the second actuator is a second single button on the second external peripheral device; and

a second software code configured to be loaded from the second external peripheral device onto the second processing device and to run on the second operating system of the second processing device, said second software code being configured to obtain the second user selected arbitrary media content, said second software code configured to display said second user selected arbitrary media content when the second single button is pushed, and said program leaving a zero footprint on termination.

27. (New) The electronic meeting tool of claim 26, wherein said first operating system is different from said second operating system.

28. (New) An electronic meeting tool for communicating arbitrary media content from users at a meeting comprising:

a display node of a communications network, the display node configured in a way to be able to be coupled to a first display, the display node further being arranged to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display, when coupled to the first display;

at least one peripheral device configured to communicate the user selected arbitrary media content via the communications network, wherein the peripheral device is a connection unit comprising:

(a) a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system;

(b) a wireless transmitter arranged to communicate with the communications network;

(c) an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network; and

a program configured to be loaded onto the processing device and to run on the operating system of the processing device, said program being arranged to obtain user selected arbitrary media content, said program leaving a zero footprint on termination.

REMARKS

Reconsideration of the rejection of the claims is respectfully requested on the basis of the following particulars.

1. Patent Owner's Summary of Interview with Examiners

Patent Owner is gratefully appreciative of the opportunity for Patent Owner's counsel, Mr. Thomas Moore and Thomas Lee, to discuss the pending application with Examiner Lee and Supervisory Examiners Corsaro and Ton on November 20, 2018.

During the interview, Patent Owner through counsel presented proposed amendments to the claims and arguments against the Examiner's prior art rejections. Specifically, Patent Owner performed a demonstration of a specific embodiment of the invention to demonstrate one embodiment of some of the claimed features. Then Patent Owner argued that none of *Kita*, *Banerjee*, and *Epstein* taught of the specific combination of claimed features including the peripheral device comprising a wireless transmitter, an actuator on the peripheral device, and the actuator being arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer the user selected arbitrary media content to the wireless transmitter through the port to transmit the user selected arbitrary media content to the node configuration via the communications network. Instead, *Kita* is directed to a PCMCIA card that uses a host and polling mechanism where the presentation application software is automatically activated, while *Banerjee* is directed to a dongle used for peer-to-peer and remote desktop connection and *Epstein* is directed to a puck or software and a switch to control which input to display. Patent Owner then argued that new dependent claims 21-24 were additionally patentable in view of their respective differences with the prior art.

The Examiners indicated that such amendments would likely overcome the prior art of record, but further search and consideration would be required. The Examiners also suggested to clarify the node configuration and the method step of claim 12. No agreement was reached as to the patentability of the claims.

In view of the Examiners' suggestions, Patent Owner submits amendments to the claims and arguments for formal consideration.

2. Claim Amendments

Claim 1 is amended to clarify the display node and to include the subject matter previously presented in claim 3. Additionally, claim 1 is amended to recite "an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network."

Claim 12 is amended to recite similar features as recited in amended claim 1 and to clarify the previously presented features.

It is respectfully submitted that no new matter is added and the claims have not been broadened, since support for the amendments may be found, for example, at least in Figs. 1-1b, 4, and 10 of the '348 Patent and, for example, at least in col. 13, line 67 to col. 14, line 15; col. 16, lines 3-8; col. 22, lines 5-8; and col. 25, lines 16-22 of the accompanying description in the '348 Patent.

Claims 3 and 6-9 have been cancelled without prejudice or disclaimer.

Claims 2, 4-5, 10-11, and 13-20 are left unchanged.

Claim 21 has been added, but does not broaden the scope of the claims. It is respectfully submitted that support for the claim may be found, for example, at least in Figs. 10 and, for example, at least in col. 13, lines 35-62 and col. 25, lines 23-24 of the accompanying description in the '348 Patent.

Claim 22 has been added, but does not broaden the scope of the claims. It is respectfully submitted that support for the claim may be found, for example, at least in col. 17, lines 4-16 and col. 21, line 60 to col. 22, line 1 of the accompanying description in the '348 Patent.

Claim 23 has been added, but does not broaden the scope of the claims. It is respectfully submitted that support for the claim may be found, for example, at least in Fig. 10 and, for example, at least in col. 25, lines 16-23 of the accompanying description in the '348 Patent.

Claim 24 has been added, but does not broaden the scope of the claims. It is respectfully submitted that support for the claim may be found, for example, at least in col. 14, lines 40-60 of the accompanying description in the '348 Patent.

Claims 25-27 have been added. It is respectfully submitted that support for these claims may be found, for example, at least in col. 14, lines 37-42 and col. 19, lines 54-56 of the accompanying description in the '348 Patent, and claim 1.

Claim 28 has been added, but does not broaden the scope of the claims. It is respectfully submitted that support for the claim may be found, for example, at least in claim 1 and, for example, at least in col. 13, line 67 to col. 14, line 25 and col. 20, lines 20-26 of the accompanying description in the '348 Patent.

3. Rejection of claims 8-9 under 35 U.S.C. § 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement

This rejection is moot in view of the cancellation of claims 8-9.

Accordingly, withdrawal of this rejection is requested.

4. Rejection of claims 1-6 and 10-20 under 35 U.S.C. § 103(a) as being unpatentable over WIPO publication WO 01/8915 (*Kita*) in view of WIPO publication WO 2010/105335 (*Banerjee*) and U.S. publication 2010/0302454 (*Epstein*)

Reconsideration of this rejection is respectfully requested on the basis that the cited prior art fails to establish obviousness with respect to amended claims 1 and 12, from which the remaining claims depend.

Specifically, Patent Owner submits that any proposed combination of the card type network interface of *Kita* with the teachings of *Banerjee* and *Epstein* fails to at least result

in "an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network," as recited in amended claim 1 and "wherein the triggering comprises actuating the actuator on the peripheral device to send a signal to the processing device to trigger the processing device to wirelessly transfer said user selected arbitrary media content to said transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network," as recited in amended claim 12.

As the Examiner admits, "Kita does not expressly teach that the peripheral device is a connection unit comprising (c) an input device arranged to enable the user to carry out a user action" (see page 5 of the Office Action dated September 4, 2018), and "Kita, as modified by Banerjee, does not expressly teach that the user action triggers transfer of said user selected arbitrary media content to said transmitter through said port" (see page 6 of the Office Action dated September 4, 2018). The Examiner then attempts to resolve the missing elements of the card type network interface of *Kita* using the disclosure of *Epstein*. *Epstein*, however, fails to cure the deficiencies of *Kita* with respect to amended claims 1 and 12. Rather, *Epstein* only teaches a switching device 16, a user interface assembly 19 and a power source 55 (para. [0049]). Switching device 16, as the label implies, can be used to switch different input video/audio sources at different input ports to change which input is feeding video/audio output ports (para. [0049]). Exemplary puck assembly 20 includes a puck 48 and first and second video/audio cables 50 and 52 (para. [0051]). Cable 50 is used to link puck 48 to a computer/laptop audio/video output port or other video source while cable 52 links puck 48 through a circuitous path to one of the six input ports 17 (para. [0051]). Exemplary puck 48 includes a disc or puck shaped housing 49 that supports a plurality of components including a processor 71, an on/off button 48, first through fourth selectable controls or control buttons 60a-60d, four illumination devise 73a through 73d and an illumination ring 56 (para. [0052]). When a puck user wants to present

information from her laptop 69 display via display screen 22a, the user presses button 60a to indicate intention to drive display 22a (para. [0066]). Once button 60a is selected, four things happen, first, information currently displayed via display 22a is replaced by the information from the user's laptop 60 display, second, if a different laptop was previously presenting information via display 22a when button 60a is selected, the other user's puck illumination may change (para. [0066]). In at least some embodiments it is contemplated that laptops 69 and other visual/audio sources may be able to wirelessly link up to a configuration 10b processor via a wireless access device 100 or the like (para. [0072]). A software "widget" puck representation or control interface representation (hereafter a "widget") 48a may be provided on screen (para. [0072]). In wireless embodiments, a mechanical control interface 140 akin to puck 48 described above may be provided where the interface 140 links to a USB port or the like on a laptop 69 (para. [0075]). Here, interface 140 operates in the same fashion as puck 48 described above except that control signals from interface 140 are provided to a switching device wirelessly through the laptop (para. [0075]). In other words, *Epstein* teaches a puck or widget for selecting one of the display screens, but fails to disclose or suggest "an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network," as recited in amended claim 1 and "wherein the triggering comprises actuating the actuator on the peripheral device to send a signal to the processing device to trigger the processing device to wirelessly transfer said user selected arbitrary media content to said transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network," as recited in amended claim 12.

In so doing, Patent Owner submits, as discussed during the interview, the skilled person would have understood that the puck assembly or widget of *Epstein* has a different structure and function than the actuator as recited in amended claims 1 and 12. Rather, as evidenced by the attached Declaration of Filip Louwet dated December 4, 2018 ("Louwet

Declaration"), the skilled person would have understood that the claims are now more clearly directed to an actuator on the peripheral device, wherein the actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network. That is, the skilled person would have understood that such user action triggers sending the signal to the laptop, which drives the laptop not the display (*see* Louwet Declaration, para. [5]). In other words, the skilled person would have understood that in the present case, the node configuration drives the display, not the peripheral device, which is instead, connected to the processing device (*see* Louwet Declaration, para. [5]).

On the other hand, Patent Owner submits that the skilled person would have understood that *Epstein* only teaches using a puck connected to the video/audio output port of the computer/laptop to connect to one of the input ports of the switching device, where one of the buttons on the puck is pressed to indicate intention to drive one of the displays or that control signals are sent to the switching device through the laptop to drive one of the displays (*see* Louwet Declaration, para. [6]). In so doing, the skilled person would have understood that the structure and function of the puck or widget of *Epstein* fails to disclose or suggest the recited features, at least because the pressing of one of the buttons of the puck or widget of *Epstein* does not trigger the processing device to transfer the user selected arbitrary media content to the wireless transmitter (of the peripheral device) through the port to transmit the user selected arbitrary media content to the display node via the communications network (*see* Louwet Declaration, para. [6]).

Therefore, since none of *Kita*, *Banerjee*, and *Epstein* discloses or suggests "an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the

communications network," as recited in amended claim 1 and "wherein the triggering comprises actuating the actuator on the peripheral device to send a signal to the processing device to trigger the processing device to wirelessly transfer said user selected arbitrary media content to said transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network," as recited in amended claim 12, any proposed modification of the card type network interface of *Kita* with the teachings of *Banerjee* and *Epstein* fails to result in the features recited in claims 1 and 12. Rather, even assuming, but not admitting that the prior art teach certain features recited in the claims, "a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418, 127 S. Ct. 1727, 1741 (2007).

In this case, Patent Owner submits that the skilled person would not have observed the necessary evidence that would have prompted the skilled person to have combined the teachings of *Kita*, *Banerjee*, and *Epstein* in the same way to result in the same combination of features as recited in the inventions of amended claims 1 and 12. Rather, only through the disclosure of the '348 patent is the skilled person taught of a method and apparatus that overcomes the deficiencies of the prior art, where when using electronic tools in meetings, to bring the display content of a computer to a projector, the most common ways are to use a cable that connects the display adapter to the graphics card to the video input of the projector [method 1] or to use a software that captures the display contents and sends it over a wired or wireless network to a remote base unit connected to the projector [method 2] (col. 3, lines 7-15).

For example, in one embodiment of the invention, at least one connection unit 47, (optionally 49 for receiving) is adapted to communicate the user selected arbitrary media

content to said base node 36 (col. 15, lines 10-13). A portable application 60 runs as a process on the client processing device 31 that is adapted to deliver an arbitrary media content from the client processing device 31 to the communication network 50 in response to a user action applied to an input device 48, the process leaving a zero footprint on termination (col. 15, lines 43-48). The user action applied to the input device 48 generates a signal that triggers transfer of data from the processing device 31 (to which the connection unit 47 is coupled) to the network 50 (col. 16, lines 5-8). The connection unit is a physical device in the form of an external peripheral device (shown in Fig. 3 comprising permanent storage storing the portable application (7) and configuration parameters (12), memory, a processing engine (e.g. CPU, FPGA), a wireless transmitter such as WiFi (3), a plug and play interface such as a USB interface (2), a button as input device (9), an LED ring as visual indicator (10) (col. 20, lines 28-35). The portable application will use the wireless, e.g. wifi interface of the peripheral device (3) to connect to the correct base node (col. 21, lines 60-62). When the user at the computer (C) wants to show her content, she presses the button (9) (col. 22, lines 5-6).

In so doing, the skilled person would have appreciated that the features recited in the claims are at least directed to a system that includes a display node of a communications network, the display node being coupled to a first display, the display node further being arranged to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display, at least one peripheral device configured to communicate the user selected arbitrary media content via the communications network, where the peripheral device is a connection unit comprising a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system; a wireless transmitter arranged to communicate with the communications network; and an actuator on the peripheral device, where the actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer the user selected arbitrary media content to the wireless transmitter through the port to transmit the user selected arbitrary media content to the display node via the communications network; and a program configured to be

loaded onto the processing device and to run on the operating system of the processing device. The skilled person would have understood that such features then allow a normal conversation between several people in a meeting so that everybody can speak at the same time or whenever they want to. However to avoid confusion, the participants will wait their turn to speak – or interject a statement if they feel it is necessary. So the device having such features allows each person to transmit display data at any time – just like a verbal discussion in a meeting. In so doing, the skilled person would have understood that features are at least directed to a democratic displaying method, as opposed to a centric scheme, as discussed in the background of the present patent (*see* col. 2, lines 39-45).

On the other hand, the skilled person would have appreciated that *Kita*, *Banerjee*, and *Epstein* are all directed to different structures and methods for overcoming their respective prior art deficiencies. For example, *Kita* is directed to providing a PCMCIA card for wireless transmission, where the skilled person would have understood that Wi-Fi was introduced for home use in 1999 (*see* Louwet Declaration, para. [7]). *Kita* teaches a wireless LAN conference system can be constructed where there are provided network conference terminal devices (11 (2) to 11(n)) in which network interface cards (1) are attached to information terminal devices (abstract). The CPU 8 controls the PCMCIA interface 3 by executing a microprogram (firmware) stored in the flash ROM 9 so that data and command may be transmitted and received between the network interface card and the personal computer having the network interface card 1, and also controls the network interface 4 so that data and commands may be transmitted and received through the wireless LAN in accordance with a predetermined communications protocol (e.g., TCP/IP protocol) (page 22, lines 12-19). The network interface card 1 of the host 11 (1) transmits a polling command for permitting the transmission of the request to one client 11 (2) of the clients 11 (2) to 11 (i) in which the network setting was already completed (page 27, line 27 to page 28, line 4). The network interface card of the client 11 (2) learns that it is permitted to transmit the request, and transmits the request within a time t1 if it has any request (page 28, lines 6-8). While being seated, the participant of the conference can obtain the presentation right by the client on hand and can transmit the presentation data

(page 40, lines 18-20). That is, *Kita* only generally discloses transmitting presentation data to the host and client by using the presentation application software, but fails to teach how the presentation data is transmitted (*see* Louwet Declaration, para. [8]).

Meanwhile, *Banerjee* teaches a master/slave or peer-to-peer configuration for remote connection for an interface to a touch panel (*see* Louwet Declaration, para. [9]). For example, *Banerjee* teaches a plug-and-play device comprising a first plug-and-play interface for establishing a connection with a first computing device; a second plug-and-play interface for establishing a connection with a second computing device; storage storing code that is automatically executed by the second computing device when said plug-and-play device is connected thereto via said second plug-and-play interface, said code when executed initiating a screen display data exchange between said first and second computing devices; and at least one controller controlling said first plug-and-play interface, said second plug-and-play interface and said storage (para. [0009]). Alternatively, system 220 comprises a plug-and-play device 236, a master computer 238 and at least one remote computer 240 (para. [0039]). In this embodiment, the plug-and-play device 236 captures and compresses screen display data generated at the remote computer 240 and allows screen sharing between the remote computer 240 and the master computer 238 by automatically launching software stored on the plug-and-play device 236 (para. [0039]). Once the remote computer 240 is connected to the master computer 238 over the peer-to-peer wireless connection, the remote computer 240 may send a request to share the screen display data of the remote computer 240 to the master computer 238 (para. [0048]). The master computer 238 passes input events, such as keyboard, mouse, trackball and/or pen-touch events, that it receives to the remote computer 240 thereby to remotely control the remote computer 240 (para. [0048]). With the peer-to-peer wireless connection established between the master computer 238 and the remote computer 240, those skilled in the art will appreciate that the user of the remote computer 240 may also be allowed to access the Internet through the master computer 238 (para. [0050]). In other words, *Banerjee* only discloses a plug-and-play device where the launching software is automatically loaded to

allow screen sharing and the master computer receives a request to share the screen display data and passes its input events (*see* Louwet Declaration, para. [9]).

In view of such different structures and functions, Patent Owner submits that the skilled person would not have observed any evidence that would prompted the skilled person to have added an actuator on the PCMCIA card of *Kita* or added an actuator on the plug-and-play device of *Banerjee* so that the combination of prior art teachings would have resulted in an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network (*see* Louwet Declaration, para. [10]). At most, the skilled person would have been prompted to have connected a puck assembly to the PCMCIA card or the plug-and-play device or using the master computer's input events to send a control signal to a switching device with an intention to drive a display, as taught in *Epstein*. The skilled person, however, would not have observed any evidence that would have prompted the skilled person to have modified the teachings of *Kita* so that the card type network interface includes an actuator on the network interface card, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network (*see* Louwet Declaration, para. [10]).

In fact, Patent Owner submits that the skilled person would have appreciated that there would have been thousands of different combination of arrangements that could have resulted from the combination of the teachings of *Kita*, *Banerjee*, and *Epstein* (*see* Louwet Declaration, para. [11]). The skilled person, however, would not have observed any evidence or reason why the skilled person would have added an actuator to a PCMCIA card so that the actuator would have been on the PCMCIA card so that a user action by

actuating the actuator triggers the processing device to transfer the user selected arbitrary media content to the wireless transmitter through the port to transmit the user selected arbitrary media content to the display node via the communications network (*see* Louwet Declaration, para. [11]).

Since any proposed modification of the invention of *Kita* in accordance with the teachings of *Banerjee* and *Epstein* fails to result in each and every feature recited in amended claims 1 and 12, from which the remaining claims depend, the claims are patentable over the cited prior art.

Accordingly, affirmance of the patentability of these claims is respectfully requested.

5. Rejection of claim 7 under 35 U.S.C. § 103(a) as being unpatentable over WIPO publication WO 01/8915 (*Kita*) in view of WIPO publication WO 2010/105335 (*Banerjee*) and U.S. publication 2010/0302454 (*Epstein*) and further in view of Court Authority

   This rejection is moot in view of the cancellation of claim 7.

   Accordingly, withdrawal of this rejection is requested.

6. Rejection of claims 8-9 under 35 U.S.C. § 103(a) as being unpatentable over WIPO publication WO 01/8915 (*Kita*) in view of WIPO publication WO 2010/105335 (*Banerjee*) and U.S. publication 2010/0302454 (*Epstein*) and further in view of U.S. publication 2002/0196378 (*Slobodin*)

   This rejection is moot in view of the cancellation of claims 8-9.

   Accordingly, withdrawal of this rejection is requested.

7. Rejection of claims 1-6 and 10-20 under 35 U.S.C. § 103(a) as being unpatentable over WIPO publication WO 2010/105335 (*Banerjee*) and U.S. publication 2010/0302454 (*Epstein*)

Reconsideration of this rejection is respectfully requested on the basis that the cited prior art fails to establish obviousness with respect to amended claims 1 and 12, from which the remaining claims depend.

Specifically, Patent Owner submits that any proposed combination of the plug-and-play device of *Banerjee* in accordance with the teachings of *Epstein* fails to at least result in "an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network," as recited in amended claim 1 and "wherein the triggering comprises actuating the actuator on the peripheral device to send a signal to the processing device to trigger the processing device to wirelessly transfer said user selected arbitrary media content to said transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network," as recited in amended claim 12.

As the Examiner suggests on page 15 of the Office Action, "Banerjee does not expressly teach that the user action triggers transfer of said user selected arbitrary media content to said transmitter through said port." The Examiner then attempts to resolve the missing elements of the plug-and-play device of *Banerjee* using the disclosure of *Epstein*. *Epstein*, however, fails to cure the deficiencies of *Kita* with respect to amended claims 1 and 12. Rather, *Epstein* only teaches a puck or widget for selecting one of the display screens, as discussed above, but fails to disclose or suggest "an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit

said user selected arbitrary media content to the display node via the communications network," as recited in amended claim 1 and "wherein the triggering comprises actuating the actuator on the peripheral device to send a signal to the processing device to trigger the processing device to wirelessly transfer said user selected arbitrary media content to said transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network," as recited in amended claim 12.

Therefore, since neither *Banerjee* nor *Epstein* discloses or suggests "an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network," as recited in amended claim 1 and "wherein the triggering comprises actuating the actuator on the peripheral device to send a signal to the processing device to trigger the processing device to wirelessly transfer said user selected arbitrary media content to said transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network," as recited in amended claim 12, any proposed modification of the plug-and-play device of *Banerjee* with the teachings of *Epstein* fails to result in the features recited in claims 1 and 12. Rather, even assuming, but not admitting that the prior art teach certain features recited in the claims, "a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418, 127 S. Ct. 1727, 1741 (2007).

In this case, Patent Owner submits that the skilled person would not have observed the necessary evidence that would have prompted the skilled person to have combined the

teachings of *Banerjee* and *Epstein* in the same way to result in the same combination of features as recited in the inventions of amended claims 1 and 12. Rather, the skilled person would have appreciated that *Banerjee* and *Epstein* are directed to different structures and methods for overcoming their respective prior art deficiencies, as discussed above. For example, the skilled person would have appreciated that *Banerjee* is directed to the plug-and-play device having code that is automatically executed when the plug-and-play device is connected to the remote computer and the remote computer sending a request to share the screen by the master computer, whereas *Epstein* is directed to a puck that sends an intention to drive the display to a switching device via a cable connected to the switching device or wirelessly through the laptop.

In view of such different structures and functions, Patent Owner submits that the skilled person would not have observed any evidence that would prompted the skilled person to have added an actuator on the plug-and-play device of *Banerjee* so that the combination of prior art teachings would have resulted in an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network (*see* Louwet Declaration, para. [10]). At most, the skilled person would have been prompted to have connected a puck assembly to the plug-and-play device or used the master computer's input events to send a control signal to a switching device with an intention to drive a display, as taught in *Epstein*. The skilled person, however, would not have observed any evidence that would have prompted the skilled person to have modified the teachings of *Banerjee* so that the plug-and-play device includes an actuator on the plug-and-play device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network (*see* Louwet Declaration, para. [10]).

Since the proposed modification of the invention of *Banerjee* in accordance with the teachings of *Epstein* fails to result in each and every feature recited in amended claims 1 and 12, from which the remaining claims depend, the claims are patentable over the cited prior art.

Accordingly, affirmance of the patentability of these claims is respectfully requested

8. Rejection of claim 7 under 35 U.S.C. § 103(a) as being unpatentable over WIPO publication WO 2010/105335 (*Banerjee*) and U.S. publication 2010/0302454 (*Epstein*) and further in view of Court Authority

This rejection is moot in view of the cancellation of claim 7.

Accordingly, withdrawal of this rejection is requested.

9. Rejection of claims 8-9 under 35 U.S.C. § 103(a) as being unpatentable over WIPO publication WO 2010/105335 (*Banerjee*) and U.S. publication 2010/0302454 (*Epstein*) and further in view of U.S. publication 2002/0196378 (*Slobodin*)

This rejection is moot in view of the cancellation of claims 8-9.

Accordingly, withdrawal of this rejection is requested.

10. New Claims

Claims 21-24 are patentable over the cited prior art at least based on their dependency on amended claim 1, as well as their individually recited features.

For example, Patent Owner submits that any combination of the teachings of *Kita*, *Banerjee*, and *Epstein* fails to at least result in "wherein the actuator is a single button on the at least one peripheral device" (as recited in new claim 23) and "wherein the electronic meeting tool is configured in a way such that the communications network is set up between the at least one peripheral device coupled to the processing device and the display node without altering or affecting networking capabilities of the processing device" (as recited in new claim 22.

As stated in MPEP 2141.02 "[i]n determining the differences between the prior art and the claims, the question under 35 U.S.C. § 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious" (emphasis in original).

In this case, Patent Owner submits that the features emphasized in claim 23 are directed to a unique combination of features as embodied by Barco's ClickShare™ product. For example, as evidenced by the Declaration of Hanne Page dated December 4, 2018 ("Page Declaration"), the ClickShare product includes a display node, at least one peripheral device including a connector, a wireless transmitter, and an actuator, and a program and further includes a flexible data and power connector, is configured in a way such that the communications network is set up between the at least one peripheral device and the display node, and includes a single button on the peripheral device (*see* Page Declaration, para. [4]).

Moreover, Patent Owner submits that obviousness cannot be established with respect to new claim 23, which includes the subject matter of claims 1, 5, and 21-22, especially in view of the commercial success of the ClickShare™ product that includes the features recited in these claims.

As there were not many products in the wireless presentation market in 2012, it was surprisingly found that when the ClickShare™ product was introduced, vendors, customers, and other end users were amazed with the simplicity and usability of the ClickShare™ product, where after just hitting the button, the content from the PC (or other device) would appear on the screen effortlessly (*see* Page Declaration, para. [5]). In so doing, Patent Owner received customer feedback on the ClickShare product and soon started marketing it as the "One Click Wonder" (*see* Page Declaration, para. [6]).

In view of the design of the ClickShare button, others in the industry, for example, AV Network, which is the premier online resource for audio visual news and industry trends, published an article in which it highly recommended ClickShare where "[w]ith one click, a presenter can launch their content on the meeting room main display with no

worries about IP address, having the right cables, room locations, and screen resolution" (*see* Page Declaration, para. [7]). Specifically, AV Network noted that "[t]he system is highly intuitive, and offers automatic formatting to conform to users' presentation needs. Adding a presenter's content to the main display is as simple as pressing the ClickShare Button" (*see* Page Declaration, para. [7]).

Additionally, Barco received the Gold Winner for Innovation from the Edison Awards in 2013 for this device, in part, due "[t]he ClickShare "one-click" wireless meeting room presentation system improves collaboration to enhance productivity and decision-making in today's companies" (*see* Page Declaration, para. [8]).

In view of such features in part, ClickShare has been commercially successful in the Wireless Presentation (WP) market having sold over 500,000 units since 2012 and controls a 37% market-share in 2017 (selling 150,000 units out of the 411,000 units sold in 2017) (*see* Page Declaration, para. [9]).

In other words, in view of the design and features of the product, as embodied in the ClickShare button, Patent Owner submits that the product received praise from others in the field and was commercially successful because of the features recited in claim 23.

Competitors have copied the "highly intuitive" ClickShare product due to the claimed features. Patent Owner submits that this copying attests to the non-obviousness of the claimed invention.

Claims 25-28 are allowable for reciting similar features as recited in amended claim 1, as well as their individually recited features.

11. Conclusion

As a result of the amendments to the claims and further in view of the foregoing remarks, it is respectfully submitted that the amended claims of the '348 patent are clearly patentable.

Please charge any additional fees required or credit any overpayments in connection with this paper to Deposit Account No. 02-0200.

If any issues remain that may be resolved by a telephone or facsimile communication with the Patent Owner's attorney, the examiner is invited to contact the undersigned at the numbers shown below.

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Respectfully submitted,

/Thomas Lee/

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CERTIFICATE OF SERVICE

The undersigned hereby certify that on December 5, 2018, the attached Reply to the Non-Final Office Action, in its entirety, was sent via United States Postal Service, first class mail to the Third Party Requester at the address listed below pursuant to 37 C.F.R. § 1.550(f) and 1.248(a)(4).

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reexamination of:

Patent Owner:	BARCO N.V.	**Inventors:**	BEEL et al.
Serial No.:	90/014,087	**Confirm. No.:**	8024
Filing Date:	February 9, 2018	**Art Unit:**	3992
Patent No.:	8,756,348	**Customer No.:**	23364
Attorney No.:	BEEL3001REX/TJM/TL	**Examiner:**	Christopher E. Lee
For:	**ELECTRONIC TOOL AND METHODS FOR MEETINGS**		

DECLARATION OF FILIP LOUWET
UNDER 37 C.F.R. § 1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

I, Filip Louwet, declare:

1. I am employed by the Patent Owner, Barco N.V. ("Barco"), as a System Architect for ClickShare. I received a Master's Degree in Computer Science from Katholieke Universiteit Leuven in 1999 and have been employed at Barco for eighteen years.

2. I have carefully studied U.S. patent 8,756,348 ("the '348 patent"), the Examiner's Office Action dated September 4, 2018, and the prior art documents cited by the Examiner in this reexamination. It is my understanding that the claims in the present patent are at least directed an electronic meeting tool for communicating arbitrary media content from users at a meeting that includes a display node, at least one peripheral device that is a connection unit that includes a connector, a wireless transmitter, and an actuator, and a program configured to be loaded onto the processing device and to run on the operating system of the processing device, the program being arranged to obtain user selected arbitrary media content and leave a zero footprint on termination and a method for doing the same. In the Office Action, the Examiner indicates that claims 1-6 and 10-20 of the patent are unpatentable over WIPO publication WO 01/89156 (*Kita*) in view of WIPO publication WO 2010/105335 (*Banerjee*)

and U.S. publication 2010/0302454 (*Epstein*) and that claims 1-6 and 10-20 are also unpatentable over *Banerjee* in view of *Epstein*. I am advised that the Examiner will be asked to consider the following amended claim 1 of the patent, where amended claim 12 recites a method having similar features as recited in amended claim 1:

> 1. (Twice Amended) An electronic meeting tool for communicating arbitrary media content from users at a meeting comprising:
>
> a display node of a communications network, the display node being coupled to a first display, the display node further being arranged to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display;
>
> at least one peripheral device configured to communicate the user selected arbitrary media content via the communications network, wherein the peripheral device is a connection unit comprising:
>
> (a) a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system;
>
> (b) a wireless transmitter arranged to communicate with the communications network;
>
> (c) an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network; and
>
> a program configured to be loaded onto the processing device and to run on the operating system of the processing device, said program being arranged to obtain user selected arbitrary media content, said program leaving a zero footprint on termination.

3. As the Examiner suggests on page 6 of the Office Action, "Kita, as modified by Banerjee, does not expressly teach that the user action triggers transfer of said user selected arbitrary media content to said transmitter through said port" and "Kita, as modified by Banerjee, does not expressly teach that the user action triggers transfer of said user selected arbitrary media content to said transmitter through said port." Although the Examiner suggests that *Epstein* teaches such features, it is my opinion that *Epstein* fails to teach the features now recited in amended claims 1 and 12 and the combination of *Kita, Banerjee*, and

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Epstein or the combination of *Banerjee* and *Epstein* would not have resulted in the claimed features.

4. Instead, it is my understanding that *Epstein* teaches presentation of audiovisual information via one or more large format common displays in a collaborative workspace and more specifically to a fast and intuitive controller allowing a meeting participant with a laptop computer to quickly and easily control the presentation of laptop information on common displays (para. [0003]). Display system 12 includes a totem or stand support structure 28 and four relatively large flat panel displays 22a, 22b, 22c and 22d (para. [0044]). Interface assembly 19 includes a deck member 21 and six selectable control interfaces referred to as "puck" assemblies, two of which are labelled 20 (para. [0050]). Referring still to FIG. 4 and also to FIG. 5, exemplary puck 48 includes a disc or puck shaped housing 49 that supports a plurality of components including a processor 71, an on/off button 58, first through fourth selectable controls or control buttons 60a-60d, four illumination devices 73a through 73d and an illumination ring 56 (para. [0052]). Here, each number 1, 2, 3 or 4 corresponds to a different one of the display screens 22a through 22d in Fig. 1 (para. [0054]). A user pulls one of the pucks 48 from the cavity below a door 39 or 41 and links a laptop 69 to the puck 48 via cable 50 (para. [0065]). Once a laptop 69 is linked to cable 50, ring 59 as well as selectable buttons 60a-60d are illuminated white to indicate to the laptop user that the user is linked and can opt to present information from the user's laptop screen via any one or combination of displays 22a-22d corresponding to illuminated buttons 60a-60d respectively (para. [0065]). When a puck user wants to present information from her laptop 69 display via display screen 22a, the user presses button 60a to indicate intention to drive display 22a (para. [0066]). Once button 60a is selected, four things happen, first, information currently displayed via display 22a is replaced by the information from the user's laptop 60 display, second, if a different laptop was previously presenting information via display 22a when button 60a is selected, the other user's puck illumination may change (para. [0066]). In at least some embodiments it is contemplated that laptops 69 and other visual/audio sources may be able to wirelessly link up to a configuration 10b processor via a wireless access device 100 or the like (para. [0072]). A software "widget" puck representation or control interface representation (hereafter a "widget") 48a may be provided on screen (para. [0072]). In wireless embodiments, a mechanical control interface 140 akin to puck 48 described above may be provided where the interface 140 links to a USB port or the like on a laptop 69 (para. [0075]). Here, interface 140 operates in the same fashion as puck 48 described above except that control signals from

interface 140 are provided to a switching device wirelessly through the laptop (para. [0075]). That is, it is my understanding that *Epstein* only teaches a display system located on a conference table having a puck linked to a switch to display information on multiple displays.

5. In view of such teachings of *Epstein*, it is my opinion that *Epstein* does not teach "an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network," as now presented in claim 1. Rather, I would have understood that the claims are now more clearly directed to an actuator on the peripheral device, where the actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer the user selected arbitrary media content to the wireless transmitter through the port to transmit the user selected arbitrary media content to the display node via the communications network. That is, such user action triggers the sending of a signal to the laptop, which drives the laptop not the display. In other words, in this case, the display node drives the display, not the peripheral device, which is instead, connected to the processing device.

6. On the other hand, in my opinion *Epstein* only teaches using a puck connected to the video/audio output port of the computer/laptop to connect to one of the input ports of the switching device, where one of the buttons on the puck is pressed to indicate intention to drive one of the displays or that control signals are sent to the switching device through the laptop to drive one of the displays. In so doing, the structure and function of the puck or widget of *Epstein* fails to teach the recited features, at least because the pressing of one of the buttons of the puck or widget of *Epstein* does not trigger the processing device to send a signal to the laptop to transfer the user selected arbitrary media content to the wireless transmitter (of the peripheral device) through the port to transmit the user selected arbitrary media content to the display node via the communications network, but rather sends a signal to the switch with the intention to drive one of the displays with the display information from the user's laptop. Instead, it is my understanding that in all embodiments of *Epstein*, the pressing of one of the buttons of the puck would either send a signal to the puck or, in the

case where a wireless access device is used, the wireless on the laptop is used to send the audio/visual information to the switching device.

7. In so doing, since none of *Kita*, *Banerjee*, or *Epstein* teaches "an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network," any proposed combination of the teachings of *Kita*, *Banerjee*, and *Epstein* cannot result in the features now recited in claim 1. Instead, it is my understanding, that the prior art teaches different structures and methods for solving their respective prior art deficiencies. For example, *Kita* is directed to providing a PCMCIA card for wireless transmission, where the skilled person would have understood that Wi-Fi was introduced for home use in 1999. *Kita* teaches a wireless LAN conference system can be constructed where there are provided network conference terminal devices (11 (2) to 11(n)) in which network interface cards (1) are attached to information terminal devices (abstract). The CPU 8 controls the PCMCIA interface 3 by executing a microprogram (firmware) stored in the flash ROM 9 so that data and command may be transmitted and received between the network interface card and the personal computer having the network interface card 1, and also controls the network interface 4 so that data and commands may be transmitted and received through the wireless LAN in accordance with a predetermined communications protocol (e.g., TCP/IP protocol) (page 22, lines 12-19). The network interface card 1 of the host 11 (1) transmits a polling command for permitting the transmission of the request to one client 11 (2) of the clients 11 (2) to 11 (i) in which the network setting was already completed (page 27, line 27 to page 28, line 4). The network interface card of the client 11 (2) learns that it is permitted to transmit the request, and transmits the request within a time t1 if it has any request (page 28, lines 6-8). While being seated, the participant of the conference can obtain the presentation right by the client on hand and can transmit the presentation data (page 40, lines 18-20).

8. That is, *Kita* only generally discloses transmitting presentation data to the host and client by using the presentation application software, but fails to teach how the presentation data is transmitted. In other words, *Kita* teaches an ad hoc wireless LAN, where a host has the ability to grant access to the LAN and the ability to refuse access (and presentation rights,

where the presentation right needs to be acquired before presentations can be made). In so doing, it is my opinion that *Kita* teaches a centric scheme with centric control, e.g., having a host computer.

9. Similarly, *Banerjee* teaches a master/slave or peer-to-peer configuration for remote connection for an interface to a touch panel. For example, *Banerjee* teaches a plug-and-play device comprising a first plug-and-play interface for establishing a connection with a first computing device; a second plug-and-play interface for establishing a connection with a second computing device; storage storing code that is automatically executed by the second computing device when said plug-and-play device is connected thereto via said second plug-and-play interface, said code when executed initiating a screen display data exchange between said first and second computing devices; and at least one controller controlling said first plug-and-play interface, said second plug-and-play interface and said storage (para. [0009]). Alternatively, system 220 comprises a plug-and-play device 236, a master computer 238 and at least one remote computer 240 (para. [0039]). In this embodiment, the plug-and-play device 236 captures and compresses screen display data generated at the remote computer 240 and allows screen sharing between the remote computer 240 and the master computer 238 by automatically launching software stored on the plug-and-play device 236 (para. [0039]). Once the remote computer 240 is connected to the master computer 238 over the peer-to-peer wireless connection, the remote computer 240 may send a request to share the screen display data of the remote computer 240 to the master computer 238 (para. [0048]). The master computer 238 passes input events, such as keyboard, mouse, trackball and/or pen-touch events, that it receives to the remote computer 240 thereby to remotely control the remote computer 240 (para. [0048]). With the peer-to-peer wireless connection established between the master computer 238 and the remote computer 240, those skilled in the art will appreciate that the user of the remote computer 240 may also be allowed to access the Internet through the master computer 238 (para. [0050]). In other words, *Banerjee* only discloses a plug-and-play device where the launching software is automatically loaded to allow screen sharing and the master computer receives a request to share the screen display data and passes its input events.

10. In so doing, it is my opinion that even if the references were properly combinable, the resulting combination would have resulted in a structure and method that is different than the features now recited in amended claim 1. For example, the combination of the teachings of *Kita* with *Banerjee* and *Epstein* would have resulted in a wireless network interface card that is attached into the PCMCIA slot of a personal computer, where a plug-and-play device (or puck) is attached to the PCMCIA network interface card, and a user action on a keyboard, mouse, etc. of the personal computer or the pressing of one of the buttons of the puck would signal the personal computer to send a signal to a switching device connected to multiple displays (as taught in *Epstein*). Similarly, it is my understanding if the teachings of *Banerjee* and *Epstein* were combined, the combination would have resulted in a plug-and-play device, which is connected to a remote computer, that is connected to the puck as taught in *Epstein*, where the pressing of the one of the buttons of the puck would send a control signal to the computer to send the audio/visual information to be displayed by a switching unit which can be controlled to output the video/audio (as taught in *Epstein*, *see* para. [0049]), e.g., would have used the wireless capabilities of the laptop. That is, it is my opinion that I would not have observed any teaching that any combination of the teachings of *Kita*, *Banerjee*, and *Epstein* would have resulted in the specific combination of features, where the actuator is on the peripheral device, where the actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer the user selected arbitrary media content to the wireless transmitter through the port to transmit the user selected arbitrary media content to the display node via the communications network.

11. Instead, it is my understanding that there are thousands of different combinations of arrangements that could have resulted from the combination of the teachings of *Kita*, *Banerjee*, and *Epstein* and the features recited in claim 1, but no teaching or suggestion from the prior art that would have prompted the skilled person to have arrived at the specific combination of features recited in claim 1. For example, it is my understanding that there is no teaching or reason in the prior art that a skilled person would have added an actuator (e.g., button) to a PCMCIA card (as taught in *Kita*) or that such a combination has ever been made or added an actuator to the plug-and-play device that automatically loads a program to allow screen sharing. Rather, it is my opinion that the prior art of *Kita*, *Banerjee*, and *Epstein* teach mutually exclusive alternatives with respect to the following features:

(1) Communication medium: wired or wireless;

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(2) Peripheral Device: is there plug-and-play device or dongle or software program;

(3) Position of wireless transmitter: on peripheral device or on host computer;

(4) Actuator:

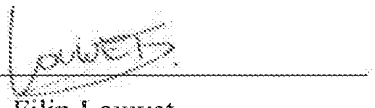
(4a) Position: (1) on the peripheral device (having two to four buttons), (2) on host computer (keyboard or mouse), (3) on host computer (touchscreen), (4) on master computer (remote control), (5) on remote display (e.g., touchscreen);

(4b) Mechanism: (1) Polling, Request (interrupt), (2) Automatic (upon connection of plug-and-play device, and/or (3) Sending a control signal to a switch and wirelessly transmitting audio/visual information from the laptop.

In so doing, it is my understanding that there are at least 248 possibilities to choose among the recited combination of features, where even with these combination of features, the skilled person would not have observed any teaching from *Kita*, *Banerjee*, or *Epstein* that would have taught of the specific combination of features now recited in claim 1.

12. In so doing, in my opinion, as discussed above, on September 14, 2011 (the date that Barco filed U.S. Provisional Patent Application No. 61/534,592), it would not have been obvious to the skilled person to have combined the teachings of *Kita*, *Banerjee*, and *Kita*, or any combination thereof, in the same way as now recited in the amended claims.

13. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the U.S. code and that such willful false statements may jeopardize the validity of the patent.

Date: 04/12/2018 Signature: 

Filip Louwet

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reexamination of:

Patent Owner:	BARCO N.V.	**Inventors:**	BEEL et al.
Serial No.:	90/014,087	**Confirm. No.:**	8024
Filing Date:	February 9, 2018	**Art Unit:**	3992
Patent No.:	8,756,348	**Customer No.:**	23364
Attorney No.:	BEEL3001REX/TJM/TL	**Examiner:**	Christopher E. Lee
For:	**ELECTRONIC TOOL AND METHODS FOR MEETINGS**		

DECLARATION OF MS. HANNE PAGE UNDER 37 C.F.R. § 1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

I, Ms. Hanne Page, declare:

1. I have been employed by the Patent Owner, Barco N.V. ("Barco"), since 2010. I obtained a Master's degree in business engineering at KU Leuven University in 2008. From 2010 to 2016, I was a product manager, where my primary responsibilities consisted of analyzing market data, business case generation, product requirement definition, coordination of sales launch activities, and product marketing. I am currently a Brand & Communication Manager at Barco N.V.

2. In my opinion, on September 14, 2011 (the date that Barco filed U.S. Provisional Patent Application No. 61/534,592 on what was to become the ClickShare product), it would not have been obvious to the skilled person in the field of electronic meeting tools, to create an electronic meeting tool having the same combination of features embodied by the claims of the patent, and amended claim 1 below, at least because of the commercial success of the ClickShare product.

3. Specifically, Barco N.V., which was already a leader in the visualization and sharing market, began developing the ClickShare product after customers of Barco's visualization

systems, which included displays and audio/visual sharing products, requested that the screen sharing products be sold as a stand-alone unit to be used in smaller meeting rooms. While before the ClickShare product was introduced, there existed products for sharing content, for example, some of the prior products used complicated software that was downloaded on a PC.

4. One of my responsibilities as a Product Manager was analyzing, introducing, and marketing Barco's ClickShare product, which is encompassed by the claims of the '348 patent. Specifically, the ClickShare product includes, for example, as seen in the attached article from AV Technology, "Hands-On Review of the Barco ClickShare" dated November 2012 (Appendix A) and Fig. 10 of the '348 patent at least the following features:

Claim 1	
• a display node of a communications network, the display node being coupled to a first display, the display node further being arranged to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display;	• ClickShare Base Unit
• at least one peripheral device configured to communicate the user selected arbitrary media content via the communications network, wherein the peripheral device is a connection unit comprising:	• ClickShare Button(s)
○ (a) a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system;	• USB powered devices, which users plug into their PC or MAC to present their content on the meeting room display with one click (pgs. 64-65 of Appendix A).
○ (b) a wireless transmitter arranged to communicate with the communications network; and	• Then it's just a matter of one click to present, or one click to remove, your content (pg. 65). • USB powered devices, which users plug into their PC or MAC to present their content on the meeting room display with one click (pgs. 64-65). • Upon detecting a ClickShare Button, the service will automatically start the application and connect to the Base

	Unit (pg. 65).
○ (c) an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network; and	• Adding a presenter's content to the main display is as simple as pressing the ClickShare button (pg. 65). • First, Barco promotes ClickShare as the "One Click Wonder" and, believe it or not, it lives up to this promise. With one click, a presenter can launch their content on the meeting room main display with on worries about IP address, having the right cables, room locations, and screen resolution (pg. 64).
• a program configured to be loaded onto the processing device and to run on the operating system of the processing device, said program being arranged to obtain user selected arbitrary media content, said program leaving a zero footprint on termination.	• Once it's plugged into the laptop, the user launches the application from the ClickShare drive. Then it's just a matter of one click to present, or one click to remove, your content (pg. 65). • The system is highly intuitive, and offers automatic formatting to conform to users' presentation needs (pg. 65).
Claim 21	
• wherein the connector of the peripheral device further comprises a flexible data and power connector, wherein the flexible data and power connector is configured in a way such that, when the peripheral device is connected to the processing device in an operating position, the peripheral device is in a region between an outside edge of the processing device and an ergonomic boundary of 4000 square cm, and wherein the actuator has a surface area between 100 and 14,400 square mm.	• ClickShare Buttons • I just love the ClickShare Buttons, the hand-held controls that connects to a user's laptop. Although they sport an elegant, low-profile design, they're quite robust and sturdy (pg. 65).
Claim 22	
• wherein the electronic meeting tool is configured in a way such that the communications network is set up between the at least one peripheral device coupled to the processing device and the display node without altering or affecting networking capabilities of the processing device.	• Upon detecting a ClickShare Button, the service will automatically start the application and connect to the Base Unit (pg. 65).

Claim 23	
• wherein the actuator is a single button on the at least one peripheral device.	• ClickShare Button

5. Surprisingly, even though, our marketing budget for this project in 2012 was only around $300,000 and ClickShare was not easy to sell on paper, e.g., through marketing, we were surprised how easy it was to sell once an end-user or customer obtained a demo of the product, where we had a very high hit ratio of 1 to 2, i.e., for every two products given to customers, one was sold, due to the design and intuitiveness of the "one-click" nature of the ClickShare product. For example, at trade shows, vendors, customers, and other end users knew of our product and wanted to test and see the ClickShare product. Specifically, at Integrated Systems Europe in 2012 in Amsterdam, which is the largest AV and systems integration show in the world, end users and developers would come into our "whisper suite" to see the product and test the product. The customers and end users were so amazed with the simplicity and usability of the ClickShare product, where after just hitting the button, the content from the PC (or other device) would appear on the screen effortlessly, they would bring other customers to see and test the ClickShare product.

6. In view of the customer feedback, we began marketing the ClickShare product as the "One Click Wonder," which was indicative of the clicking of the button to share content. For example, as seen in Appendix B, which are excerpts from our Launch Plan from March 21, 2012, our marketing plan was to highlight the simple, but impressive solution to improve the productivity of meetings with the one click operation. In so doing, our key message was promoting ClickShare as "the one click wonder."

7. To further evidence the features that made ClickShare commercially successful, AV Network, which is the premier online resource for audio visual news, indicated that "Barco promotes ClickShare as the "One Click Wonder,"" where "[w]ith one click, a presenter can launch their content on the meeting room main display with no worries about IP addresses, having the right cables, room locations, and screen resolution" (Appendix A at page 64, second column). Additionally, as seen in Appendix A, the ClickShare was highly recommended to others in part to its ease of learning and ease of use, e.g., one-click wonder (page 65, Satisfaction Survey Results from Beta Users). Such features allow "[p]articipants easily enter and exit, alternating fluidly between single image presentations and multi-user

collaboration…it all happens naturally and seamlessly, without interrupting the flow of conversation" (page 65, End-User/Operator Level "User Friendliness"). Additionally, "[t]he system is highly intuitive, and offers automatic formatting to conform to users' presentation needs. Adding a presenter's content to the main display is as simple as pressing the ClickShare Button" (page 65, Overall Operation of the Equipment). In view of such features, ClickShare was found to be "the most ingenious product to date designed for the enterprise collaboration. It takes collaboration to a whole new level, removing the barriers to communication" (page 66, Final Thoughts).

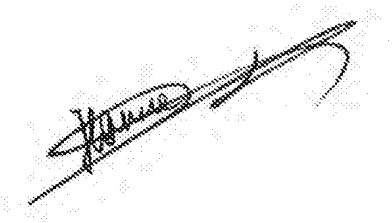
8. Moreover, since its release, ClickShare has received numerous awards and recognition, in part due to its simple design and intuitiveness in meetings, e.g., would not interrupt the flow in a meeting to present data. For example, Barco N.V. was voted a Gold Winner for Innovation by the Edison Award in 2013, as seen in Appendix C, for "[t]he ClickShare "one-click" wireless meeting room presentation system improves collaboration to enhance productivity and decision-making in today's companies."

9. Additionally, due to the success of ClickShare, a new market emerged for Wireless Presentation Units. Due to the young age of the Wireless Presentation market, while there is no data available for 2012-2015, Barco's market-share in the Wireless Presentation market has grown and holds about a 37% market-share in 2017, having sold 150,000 of units out of the 411,000 units sold in 2017. In fact, over the time period since ClickShare was on the market, Barco has sold over 500,000 units and continues to be a leader in the wireless presentation market.

10. As seen in the above documents, it is my understanding that ClickShare was so successful at least because of the design and intuitiveness of ClickShare, which is encompassed by the claims as discussed above, where the combination of the features resulted in this "one-click" design. At least in view of the praise from others in the field and from the commercial success of ClickShare, it is my opinion that on September 14, 2011 (the date that Barco filed U.S. Provisional Patent Application No. 61/534,592 on what was to become the ClickShare product), the skilled person would not have combined the publicly known technology, in the same way as now recited in the amended claims.

11. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the U.S. code and that such willful false statements may jeopardize the validity of the patent.

Date:_____4/12/2018_____ Signature



Hanne Page

APPENDIX A

HANDS-ON REVIEW OF THE BARCO CLICKSHARE

By L. William Nattress III

It's not every day that a product comes along in the presentation and collaboration arena that really is a game changer. Not just a different design of a popular component, or another cool feature that adds marginal value so you can call it "new and improved." I'm talking about true innovation, the kind of technology advancement that will change the way people work on a daily basis and measurably improve their lives in the office.

That product is Barco's ClickShare. I had the opportunity to demonstrate it at this year's InfoComm during a presentation I gave on "Unified Communications and Collaboration." While Barco is widely recognized for its excellent reputation in the high-end display and control room space, it hasn't been a big player in standalone AV components. So my doubts I had about their foray into enterprise installation were quickly dismissed once I experienced this new presentation and collaboration tool.

First, Barco promotes ClickShare as the "One Click Wonder," and, believe it or not, it lives up to this promise. With one click, a presenter can launch their content on the meeting room's main display with no worries about IP addresses, having the right cables, room locations, and screen resolution. You simply plug in the Base Unit, attach the ClickShare Button to your laptop, start the application, and wirelessly transfer your desktop content to the main display in an instant.

With just three components, ClickShare removes the physical and communications barriers to achieving meaningful collaboration and information sharing in the meeting room.

ClickShare Base Unit: Requiring only a simple, one-time set up, the Base Unit has a fixed connection to the meeting room's visualization system, and takes care of all the needed processing. No connection to the corporate network is necessary.

ClickShare Buttons: USB-powered devices, which users plug



BARCO
ClickShare

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into their PC or MAC to present their content on the meeting room display with one click. A basic set comes with four buttons out of the box. The system can connect up to 25 buttons.

ClickShare Tray. The storage unit for the ClickShare buttons when they're not in use.

Here's my nine point detailed review:

1. PHYSICAL CONSTRUCTION

The physical construction of the product couldn't be simpler—it's only two main pieces, the Base Unit and the ClickShare Buttons. The Base Unit, while somewhat large, can be conveniently stowed at the end of the table or unobtrusively placed behind the screen.

I just love the ClickShare buttons, the hand-held controls that connects to a user's laptop. Although they sport an elegant, low-profile design, they're quite robust and sturdy. They have a nice weight to them and the short cable is ergonomically smart. The system feels really solid, like it won't break over time, even with daily use.

2. REVIEW OF INPUTS, OUTPUTS, CONTROLS AND INDICATORS

The only input is the network jack, which is connected once during the initial installation and only used to access the admin functions. Enough said.

The digital video outputs of the ClickShare Base Unit are well designed, featuring a DVI port with a positive locking feature, which provides a secure connection that stays put during a presentation even when you're moving things around, and a DisplayPort output.

The ClickShare Button couldn't be simpler: once it's plugged into the laptop, the user launches the application from the ClickShare drive. The white LEDs will blink until the ClickShare Button is connected to the Base unit. Once connected, the white LEDs will stop blinking and remain on, which means "ready to share." Then, it's just a matter of one click to present, or one click to remove your content. When presenting, the red LEDs convey that you are on-screen.

A free service is available to install the application on your laptop so you won't have to start up the application each time. Upon detecting a ClickShare Button, the service will automatically start the application and connect to the Base Unit.

The devil is in the details. When one's content is shared on the screen, his or her name will briefly and discretely appear on the screen—a nice feature that pleasantly surprises all participants and adds value to the meeting dynamics.

SATISFACTION SURVEY RESULTS FROM BETA USERS

Barco has selected various Fortune 500 companies, educational institutions, and integrators to test ClickShare as beta users; their feedback will help the company learn and evolve the product. See below for the key findings from a recent satisfaction survey to these beta users.

- *Highly recommended to others:* Average rating of 9.78 out of 10 in terms of recommending ClickShare to others.
- *Game-changing meeting room technology:* 100% of respondents could see installing ClickShare in their meeting rooms—from basic, mid-end or high-end boardrooms to classrooms.
- *Easy learning:* 63% of respondents learned how to use ClickShare simply by word-of-mouth.
- *It's that easy to use:* 94% of respondents liked the ease of use of ClickShare—the one-click wonder.
- *A new way of meeting:* More than half of respondents used ClickShare to engage at least three meeting participants to share their presentations onscreen at the same time.
- *Enhanced meeting efficiency:* 93% of respondents are convinced that ClickShare improves meeting efficiency.
- *Positive ROI from ClickShare:*
- Increase in meeting productivity: 69%
- Time savings for IT and Facilities: 69%
- Time saved during the meeting: 56%

3. TECHNICIAN LEVEL "USER FRIENDLINESS"

Since I was a beta tester, I didn't have any manual for reference nor a set of instructions. But, I didn't need any either—I simply plugged it in, and it worked.

However, at InfoComm, we had a very densely populated Wi-Fi environment. Although it fired up quickly when switching on in the first session, I wasn't able to launch immediately in the second. But I just downloaded a quick software fix from Barco's convenient web interface, and I was back in business again—problem solved. To me, that says a lot about the product's robustness, adaptability and ease of use, all rolled into one.

It's also nice to know that as the product matures, existing devices can obtain firmware updates from this easy-to-use interface to upgrade and fix any issues. It's just another reason that ClickShare is really a game changer in this market.

4. END-USER/OPERATOR LEVEL "USER FRIENDLINESS"

Very user friendly. The system easily adapts to whatever people need to support their meeting and communication needs. Participants easily enter and exit, alternating fluidly between single image presentations and multi-user collaboration. There's never any confusion about whose turn it is, how to make room for a presenter, or revert to a meeting leader's presentation—it all happens naturally and seamlessly, without interrupting the flow of conversation.

5. REVIEW OF THE WEB-BASED CONTROL SCREENS

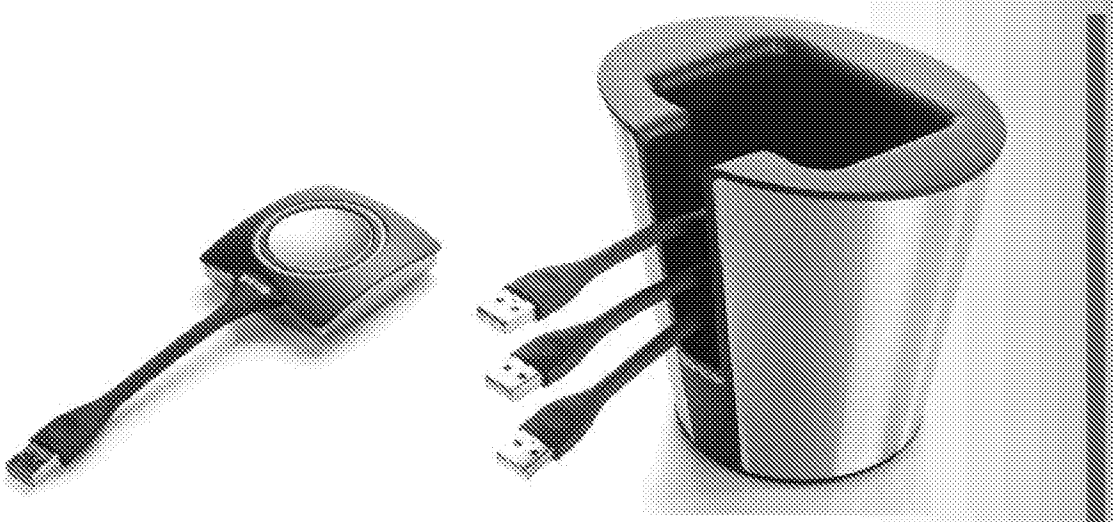
Web-based controls are available at the technician level, but end users don't need to worry about them. Users can easily create backgrounds, upload simple jpegs, update software machine/web interfaces, set channels and Wi-Fi ranges, and change screen resolution by following a few simple steps.

6. OVERALL OPERATION OF THE EQUIPMENT

The system is highly intuitive, and offers automatic formatting to conform to users' presentation needs. Adding a presenter's content to the main display is as simple as pressing the ClickShare button—the screen automatically reformats to split-screen, up to four quadrants, to feature different participant's images simultaneously. Pressing and holding the

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CLICK. SHARE.

Barco Exhibit 2001



ClickShare button causes the display to revert to a full-screen image of the user's presentation. UP to 25 buttons can be distributed to meeting participants, enabling them to be ready to share at a moment's notice with a simple click of the button.

Want to show a PowerPoint, spreadsheet, and a video on the same screen? No problem. All three windows can accommodate a wide range of application content, even videos like YouTube. ClickShare not only allows you to make your presentations richer and more dynamic, it displays them in a way that invites information sharing and real collaboration by allowing everyone to chime in with their data at once.

There's even a done-out/sleep function to conserve energy and prevent screen burn-in, making it an environmentally friendly product.

7. REVIEW OF OPERATION/REFERENCE INSTRUCTIONS

As mentioned previously, I didn't even have instructions and got it working right away. It takes almost no time to master the basics, and a couple of minutes to leverage all the system's capabilities.

8. WEBSITE—ALL MATERIALS ARE CLEAR, EASY TO READ

All of these elements were in progress and coming online after I initially reviewed the product, but from a cursory review of the updated website, my rankings are:

- Data sheets—Excellent
- Drawings—Very Good
- Diagrams—Very Good
- Product photos—Excellent
- Tech manuals—Excellent
- Firmware files—Very Good
- Overall—Excellent

9. PRICE POINT

The MSRP for ClickShare is $5,995, which includes the Base Unit, four ClickShare buttons, and the ClickShare Tray. Additional ClickShare buttons can be purchased separately.

One might initially think that this is a pricey investment when you consider the cost of the actual display, but all of the designed-in intelligence and functionality adds up to a substantial value. Think about this: how many "man hours" have you lost during the past year resulting from stalled meetings where four or five employees sat idly by waiting for the presenter to solve connectivity issues? Conversely, what is the price of a great idea that comes from a wildly successful brainstorming session where true collaboration has occurred?

ClickShare's ease and efficiency, combined with enabling technologies that facilitate knowledge sharing, provide a tremendous benefit to organizations. And, when compared to the total cost to outfit a new or refurbished meeting space, ClickShare reduces or eliminates typical cable switching and even construction costs. So, in the end, it's a bargain.

From a pure technology perspective, when it comes to transitioning your corporate AV infrastructure from analog or mixed sources to a fully digital platform, ClickShare is the catalyst that can make it happen.

FINAL THOUGHTS

ClickShare is the most ingenious product to date designed for the enterprise collaboration. It takes the concept of presentation and collaboration to a whole new level, removing the barriers to communication—whether they be physical or figurative—to harness the collective genius of an organization. The fact that it's so simple and easy to use—with no pre-loaded software required—makes it a game changer.

With ClickShare, meetings will—fortunately—never be the same.

L. William Nattress III, CTS-D, CEO, has more than 30 years of project management experience in the design, engineering, installation and integration of audio, video, conferencing and control systems. As an associate principal at Shen Milsom & Wilke, he is responsible for client relationship development and project management. His experience formed the foundation of a chapter on remote control systems in the book "Basics of Audio and Visual Systems Design: Revised Edition." Ready to share a hands-on product review with your peers? Email AVTinnovation@nbmedia.com to learn more about the *AV Technology* Product Focus.

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ClickShare

Launch plan – Version 3.5 (social media strategy updated)

Corporate Marketing

21 March 2012

Barco Confidential

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1. Whisper suite ISE (done)

- Invite number of key customers, partners, influencers, etc to come and preview ClickShare in private room at the Barco booth.
  - **Access only on invitation; no press**
  - **We talk about the concept, show the alpha unit, but give no pics, literature, etc.**
  - **Visitors are not allowed to take pictures**
  - **We ask visitors if we can tape them for first reaction and use their reaction online**

- Press release immediately after ISE on the revolutionary concept shown at ISE and announce launch date/event

- Launch web page(s) with product teaser, basic info and possibility to subscribe to be kept up to date

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ClickShare Value Proposition for Partners v1.4 (Long-Form)

Take advantage of Barco ClickShare – a market making product

Barco ClickShare is set to revolutionize the meeting room technology market.

It radically improves the way people present and share information at meetings. It even changes the dynamics of the meetings themselves – increasing engagement and co-operation amongst attendees*. With millions of meetings taking place every day and widespread dissatisfaction with current meeting room technology - the potential is huge and is an opportunity ready to be exploited.

ClickShare is easy

- Easy to understand
- Easy to use
- Easy to explain
- Easy to see why people like it
- Easy to sell and easy to maintain

An excellent product that's hard to resist

An attractive product that customers are talking about, with minimal setup, excellent margins (usually over 20%) and great revenue potential – ClickShare is a product that's hard to resist.

The route to new opportunities

ClickShare is new, innovative and a talking point with all those who come in contact with it. Open new sales dialogues with ClickShare – the route to new opportunities in both new and existing installations.

You're invited to be a part of it

We depend on our partners. We are currently selecting a limited number of partners to work with on ClickShare and we would like you to be one of them.

ClickShare is very important to Barco and we're making significant investments in marketing and product development to help you succeed.

Our excellent products are just one way we help our partners. We also offer great financial benefits, technical teams to support you, demo products, and a dedicated extranet for partners (my.barco.com). Find out more by contacting {TBD} today … *(276 words)*

150 x 610 Barco Exhibit 2001

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ClickShare Value Proposition for Customers v1.4 (Long-Form)

Present the right image with Barco ClickShare

Present the right image to your clients and colleagues with ClickShare. At last - a professional, attractive solution to presentation problems that anyone can pick up and use. It works! Just plug in and click – no more embarrassing moments* setting things up when clients or guests want to present. What's on your screen is what's shared with the meeting – we maintain the same aspect ratio of displays, so no more stretched, squashed or distorted images.

Business life can be messy, that's why we've spent so much attention on getting the details right (even down to the dispensing tray to store and share your ClickShare dongles). Clear out unsightly cables, smarten up your meeting rooms and let participants focus on their meeting not the technology. After all ...

- You deserve great design
- You deserve fewer problems in your working day
- You deserve more time to focus on what's important
- You deserve ClickShare.

A simple, but impressive solution that improves the productivity of your meetings

One click operation – it's so easy!

- It saves time wasted setting up computers and switching presenters
- It avoids problems getting the projector to work**
- It allows more than four different PCs and Mac displays to be shared at once
- It even changes meeting dynamics – participants are more actively engaged and more likely to present or share information

Positive technology for positive meetings

Impressively robust and reliable - ClickShare gives you confidence. Confidence that the technology will work. Confidence that you can focus on getting your message across. Confidence your meeting will be a success.

It's great for IT

Barco ClickShare is proven technology from a prestige brand. A brand trusted for visualisation solutions throughout the world.

"Getting the projector to work" takes a typical IT manager almost 40 minutes our of every working day or almost 23 days a year. With one-off server setup, no client setup and extremely simple operation – support is minimal – giving IT and meeting participants precious time back in their day.

The one click wonder

With ClickShare, just one click opens your world to focused and productive meetings. Take the first click by clicking barco.com/ClickShare or ask your IT or AV supplier about Barco ClickShare today … *(379 words)*

* Almost half of meeting room hosts feel embarrassed and frustrated when meeting room technology fails (Casio Research)

** Problems happen on average three times a month and cause more than 20% of meetings to over-run (Casio Research)

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3 of 61

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Messaging - summary

- Start from one USP/key message and gradually widen scope to include supporting messages

KEY MESSAGE

"The one click wonder"

SUPPORTING MESSAGES

- Present with confidence: failproof solution, one click and you're on screen
- Collaboration: one click to share your views with the team
- Impress your audience: underline your professionalism in the meeting room

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APPENDIX C

Barco ClickShare named 2013 Gold Edison Award Winner

ClickShare single-click presentation and collaboration system wins at Chicago ceremony

Duluth, Ga., USA – 23 May 2013 – Visualization pioneer Barco was voted a Gold Winner for Innovation by the Edison Awards at the April 25th event at Navy Pier in Chicago. The Edison Awards, celebrating 26 years of honoring the best in innovation and excellence in the development of new products and services, gathered hundreds of senior executives from some of the world's most recognized companies to acknowledge the hard work and commitment of all of the 2013 Edison Award winners.

Being recognized with an Edison Award has become one of the highest accolades a company can receive in the name of innovation and business. The awards are named after Thomas Alva Edison (1847-1931) whose inventions, new product development methods and innovative achievements literally changed the world, garnered him 1,093 U.S. patents, and made him a household name around the world.

The ClickShare "one-click" wireless meeting room presentation system improves collaboration to enhance productivity and decision-making in today's companies. Now enhanced with dual-display and audio functionality, Windows 8 compatibility, as well as iPad connectivity (with free app and software update), ClickShare is more user-friendly than ever to facilitate the BYOD trend.

"Our judges recognized Barco ClickShare as a true innovator out of the many products in its category," said Frank Bonafilia, executive director of the Edison Awards.

The ballot of nominees for the Edison Awards™ was judged by a panel of more than 3,000 leading business executives including past award winners, academics and leaders in the fields of product development, design, engineering, science and medical.

One of the evening's many highlights was the presentation of the prestigious Edison Achievement Award to Dr. Paul E. Jacobs, chairman and CEO of Qualcomm Incorporated. The award honors innovation leaders and business executives who have made a significant and lasting contribution to innovation throughout their careers. The Edison Achievement Award serves as inspiration to future innovators and to the world at large.

In addition to the Awards Gala, the annual Edison Awards program encompassed multiple events over a two-day period including an opening reception, "Meet the Innovators Forum" and the "Innovators' Showcase," which offered guests a hands-on experience with many of the winning products.

About the Edison Awards™
The Edison Awards is a program conducted by Edison Universe, a non-profit, 501(c)(3) organization dedicated to fostering future innovators. The Awards have been recognizing and honoring the best in innovations and innovators since 1987. They honor game-changing innovations that are at the forefront of new product and service development, marketing and human-centered design, and are one of the highest accolades a company can receive in the name of successful innovation. For more information about the Edison Awards complete program and a list of past winners, visit www.edisonawards.com.

About Barco
Barco, a global technology company, designs and develops visualization products for a variety of selected professional markets. Barco has its own facilities for Sales & Marketing, Customer Support, R&D and Manufacturing in Europe, North America and Asia Pacific. Barco (NYSE Euronext Brussels: BAR) is active in more than 90 countries with about 3,900 employees worldwide. Barco posted sales of 1.156 billion euro in 2012.

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EFS ID:	34483298
Application Number:	90014087
International Application Number:	
Confirmation Number:	8024
Title of Invention:	Electronic Tool and Methods for Meetings
First Named Inventor/Applicant Name:	8756348
Customer Number:	23364
Filer:	Thomas Lee
Filer Authorized By:	
Attorney Docket Number:	BEEL3001REX/TJM/TL
Receipt Date:	04-DEC-2018
Filing Date:	09-FEB-2018
Time Stamp:	17:00:11
Application Type:	Reexam (Patent Owner)

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Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		BEEL3001REX_nfoa_amnd_rply_04DEC18.pdf	138728 4f0fa5af1f5b3f0edef860074f69938fcd0ae567	yes	29

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Amendment/Req. Reconsideration-After Non-Final Reject	1	1
	Claims	2	9
	Applicant summary of interview with examiner	10	10
	Applicant Arguments/Remarks Made in an Amendment	11	29

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2	Affidavit-traversing rejectns or objectns rule 132	BEEL3001REX_1_132_Louwet.pdf	511634 f846dd37dd7b32fe090dc4c299a7a340c98a7844	no	8
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Warnings:					
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If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

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If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reexamination of:

Patent Owner:	BARCO N.V.	**Inventors:**	BEEL et al.
Serial No.:	90/014,087	**Confirm. No.:**	8024
Filing Date:	February 9, 2018	**Art Unit:**	3992
Patent No.:	8,756,348	**Customer No.:**	23364
Attorney No.:	BEEL3001REX/TJM/TL	**Examiner:**	Christopher E. Lee
For:	**ELECTRONIC TOOL AND METHODS FOR MEETINGS**		

REPLY UNDER 37 C.F.R. § 1.111 TO OFFICE ACTION OF SEPTEMBER 4, 2018

Mail Stop
Ex Parte Reexam
Central Reexamination Unit
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

INTRODUCTORY COMMENTS

This is responsive to the Office Action dated September 4, 2018 in the above application, where a request for extension of time was granted on October 17, 2018, to reply to the Office Action until December 4, 2018. A fee for one additional independent claim accompanies this reply. Additionally, an Information Disclosure Statement (IDS) is being submitted to submit references cited in related applications.

In view of the following amendments and remarks, reconsideration of the ex parte reexamination of this patent is respectfully requested.

AMENDMENT TO THE CLAIMS

Pursuant to 37 C.F.R. § 1.530(d)(2) and (f), the claims are amended below:

1. (Twice Amended) An electronic meeting tool for communicating arbitrary media content from users at a meeting comprising:

~~a node configuration arranged to operate~~ a display node of a communications network, the display node being coupled to a first display, the display node ~~configuration~~ further being arranged to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display;

at least one peripheral device configured to communicate the user selected arbitrary media content via the communications network, wherein the peripheral device is a connection unit comprising:

(a) a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system; [and]

(b) a wireless transmitter arranged to communicate with the communications network;

(c) an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network; and

a program configured to be loaded onto the processing device and to run on the operating system of the processing device, said program being arranged to obtain user selected arbitrary media content, said program leaving a zero footprint on termination[, and

an input device enabling the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port].

2. (Original) The electronic meeting tool of claim 1, wherein the program is stored on the peripheral device.

3. (Cancelled)

4. (Original) The electronic meeting tool of claim 1, wherein the peripheral device is a plug-and-play device.

5. (Original) The electronic meeting tool of claim 1, wherein the program is arranged to screen scrape content of the second display.

6. (Cancelled)

7. (Cancelled)

8. (Cancelled)

9. (Cancelled)

10. (Original) The electronic meeting tool of claim 1, wherein the peripheral device comprises a memory in which executable software code is stored for execution on the processing device, said executable software code comprising:

a first software code portion for setting up, by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device and the processing device;

a second software code portion for connecting the processing device to the communications network via the peripheral device, the peripheral device having a transceiver;

a third software code portion for screen scraping data from the processing device; and

a fourth software code for routing screen scraped data between the processing device and the communications network over the means for communication; wherein the first software code portion is adapted to use a generic communication protocol for transferring the screen scraped data between the processing device and the peripheral device.

11. (Original) A non-transitory storage medium storing the first to fourth software code portion of claim 10.

12. (Twice Amended) A method for communicating arbitrary media content from users at a meeting comprising:

operating a display node of a communications network, the display node being coupled to a first display, to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display; and

connecting a peripheral device to a port of a processing device and communicating the user selected arbitrary media content via the communications network, wherein the peripheral device comprises a connector arranged to couple to the port of the processing device, a wireless transmitter arranged to communicate with the communications network, and an actuator on the peripheral device,

loading a program onto the processing device and running the program on the operating system of the processing device to obtain user selected arbitrary media content, said program leaving a zero footprint on termination, and

triggering transfer of said user selected arbitrary media content to said wireless transmitter of the peripheral device through said port after a user action on [an] the actuator [input device] of the peripheral device,

wherein the triggering comprises actuating the actuator on the peripheral device to send a signal to the processing device to trigger the processing device to wirelessly

transfer said user selected arbitrary media content to said transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network.

13. (Original) The method of claim 12, further comprising configuring the peripheral device to connect to the communications network by pairing the peripheral device with the display node.

14. (Original) The method of claim 13, wherein the pairing is performed by plugging the peripheral device into the display node.

15. (Original) The method of claim 12, further comprising setting up by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device and the processing device.

16. (Original) The method of claim 12, wherein a pre-installed generic driver is selected from a human interface device driver and a mass storage device driver.

17. (Original) The method of claim 12, further comprising one of:
presenting the peripheral device to the processing device as a human interface device,
presenting the peripheral device to the processing device as a mass storage device; and
presenting the peripheral device to the processing device as a composite device.

18. (Original) The method of claim 12, wherein the program is stored on the peripheral device, and which obtains screen scraped data when run on the processing device.

19. (Original) The method of claim 17, wherein a generic communication protocol is used for transferring screen scraped data between the processing device and the peripheral device.

20. (Original) The method of claim 12 further comprising displaying the user selected arbitrary media content on the first display in accordance with a set of rules.

21. (New) The electronic meeting tool of claim 5, wherein the connector of the peripheral device further comprises a flexible data and power connector, wherein the flexible data and power connector is configured in a way such that, when the peripheral device is connected to the processing device in an operating position, the peripheral device is in a region between an outside edge of the processing device and an ergonomic boundary of 4000 square cm, and wherein the actuator has a surface area between 100 and 14,400 square mm.

22. (New) The electronic meeting tool of claim 21, wherein the electronic meeting tool is configured in a way such that the communications network is set up between the at least one peripheral device coupled to the processing device and the display node without altering or affecting networking capabilities of the processing device.

23. (New) The electronic meeting tool of claim 22, wherein the actuator is a single button on the at least one peripheral device.

24. (New) The electronic meeting tool of claim 1, wherein said transfer of said user selected arbitrary media content to said wireless transmitter through said port to the display node via the communications network comprising automatically transferring said user selected arbitrary media content to the display node to force the displaying of the user selected arbitrary media content on the first display.

25. (New) An electronic meeting tool comprising:

a display node of a communications network, the display node being coupled to a first meeting display, the display node further being arranged to receive a first user

selected arbitrary media content and to control display of the first user selected arbitrary media content on the first meeting display;

a first external peripheral device configured to communicate the first user selected arbitrary media content via the communications network, wherein the first external peripheral device is a first connection unit comprising:

(a) a first connector configured to couple to a first port of a first processing device having a first display, a first memory and a first operating system;

(b) a first wireless transmitter configured to communicate with the communications network;

(c) a first actuator on the perianal device, wherein said first actuator is configured to enable the first user to carry out a first user action by actuating the actuator to trigger a first transfer of said first user selected arbitrary media content to said first wireless transmitter through said first port to transmit said first user selected arbitrary media content to the display node via the communications network, wherein the first actuator is a first single button on the first external peripheral device; and

a first software code configured to be loaded from the first external peripheral device onto the first processing device and to run on the first operating system of the first processing device, said first software code being configured to obtain the first user selected arbitrary media content, said first software code configured to display said first user selected arbitrary media content when the first single button is pushed, and said program leaving a zero footprint on termination.

26. (New) The electronic meeting tool of claim 25, further comprising

a second external peripheral device configured to communicate a second user selected arbitrary media content via the communications network, wherein the second external peripheral device is a second connection unit comprising:

(a) a second connector configured to couple to a second port of a second processing device having a second display, a second memory, and a second operating system;

(b) a second wireless transmitter configured to communicate with the communications network;

(c) a second actuator on the peripheral device, wherein said second actuator is configured to enable the second user to carry out a second user action by actuating the second actuator to trigger a second transfer of said second user selected arbitrary media content to said wireless transmitter through said second port to transmit said second user selected arbitrary media content to the display node via the communications network, wherein the second actuator is a second single button on the second external peripheral device; and

a second software code configured to be loaded from the second external peripheral device onto the second processing device and to run on the second operating system of the second processing device, said second software code being configured to obtain the second user selected arbitrary media content, said second software code configured to display said second user selected arbitrary media content when the second single button is pushed, and said program leaving a zero footprint on termination.

27. (New) The electronic meeting tool of claim 26, wherein said first operating system is different from said second operating system.

28. (New) An electronic meeting tool for communicating arbitrary media content from users at a meeting comprising:

a display node of a communications network, the display node configured in a way to be able to be coupled to a first display, the display node further being arranged to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display, when coupled to the first display;

at least one peripheral device configured to communicate the user selected arbitrary media content via the communications network, wherein the peripheral device is a connection unit comprising:

(a) a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system;

(b) a wireless transmitter arranged to communicate with the communications network;

(c) an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network; and

a program configured to be loaded onto the processing device and to run on the operating system of the processing device, said program being arranged to obtain user selected arbitrary media content, said program leaving a zero footprint on termination.

REMARKS

Reconsideration of the rejection of the claims is respectfully requested on the basis of the following particulars.

1. Patent Owner's Summary of Interview with Examiners

Patent Owner is gratefully appreciative of the opportunity for Patent Owner's counsel, Mr. Thomas Moore and Thomas Lee, to discuss the pending application with Examiner Lee and Supervisory Examiners Corsaro and Ton on November 20, 2018.

During the interview, Patent Owner through counsel presented proposed amendments to the claims and arguments against the Examiner's prior art rejections. Specifically, Patent Owner performed a demonstration of a specific embodiment of the invention to demonstrate one embodiment of some of the claimed features. Then Patent Owner argued that none of *Kita*, *Banerjee*, and *Epstein* taught of the specific combination of claimed features including the peripheral device comprising a wireless transmitter, an actuator on the peripheral device, and the actuator being arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer the user selected arbitrary media content to the wireless transmitter through the port to transmit the user selected arbitrary media content to the node configuration via the communications network. Instead, *Kita* is directed to a PCMCIA card that uses a host and polling mechanism where the presentation application software is automatically activated, while *Banerjee* is directed to a dongle used for peer-to-peer and remote desktop connection and *Epstein* is directed to a puck or software and a switch to control which input to display. Patent Owner then argued that new dependent claims 21-24 were additionally patentable in view of their respective differences with the prior art.

The Examiners indicated that such amendments would likely overcome the prior art of record, but further search and consideration would be required. The Examiners also suggested to clarify the node configuration and the method step of claim 12. No agreement was reached as to the patentability of the claims.

In view of the Examiners' suggestions, Patent Owner submits amendments to the claims and arguments for formal consideration.

2. Claim Amendments

Claim 1 is amended to clarify the display node and to include the subject matter previously presented in claim 3. Additionally, claim 1 is amended to recite "an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network."

Claim 12 is amended to recite similar features as recited in amended claim 1 and to clarify the previously presented features.

It is respectfully submitted that no new matter is added and the claims have not been broadened, since support for the amendments may be found, for example, at least in Figs. 1-1b, 4, and 10 of the '348 Patent and, for example, at least in col. 13, line 67 to col. 14, line 15; col. 16, lines 3-8; col. 22, lines 5-8; and col. 25, lines 16-22 of the accompanying description in the '348 Patent.

Claims 3 and 6-9 have been cancelled without prejudice or disclaimer.

Claims 2, 4-5, 10-11, and 13-20 are left unchanged.

Claim 21 has been added, but does not broaden the scope of the claims. It is respectfully submitted that support for the claim may be found, for example, at least in Figs. 10 and, for example, at least in col. 13, lines 35-62 and col. 25, lines 23-24 of the accompanying description in the '348 Patent.

Claim 22 has been added, but does not broaden the scope of the claims. It is respectfully submitted that support for the claim may be found, for example, at least in col. 17, lines 4-16 and col. 21, line 60 to col. 22, line 1 of the accompanying description in the '348 Patent.

Claim 23 has been added, but does not broaden the scope of the claims. It is respectfully submitted that support for the claim may be found, for example, at least in Fig. 10 and, for example, at least in col. 25, lines 16-23 of the accompanying description in the '348 Patent.

Claim 24 has been added, but does not broaden the scope of the claims. It is respectfully submitted that support for the claim may be found, for example, at least in col. 14, lines 40-60 of the accompanying description in the '348 Patent.

Claims 25-27 have been added. It is respectfully submitted that support for these claims may be found, for example, at least in col. 14, lines 37-42 and col. 19, lines 54-56 of the accompanying description in the '348 Patent, and claim 1.

Claim 28 has been added, but does not broaden the scope of the claims. It is respectfully submitted that support for the claim may be found, for example, at least in claim 1 and, for example, at least in col. 13, line 67 to col. 14, line 25 and col. 20, lines 20-26 of the accompanying description in the '348 Patent.

3. Rejection of claims 8-9 under 35 U.S.C. § 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement

This rejection is moot in view of the cancellation of claims 8-9.

Accordingly, withdrawal of this rejection is requested.

4. Rejection of claims 1-6 and 10-20 under 35 U.S.C. § 103(a) as being unpatentable over WIPO publication WO 01/8915 (*Kita*) in view of WIPO publication WO 2010/105335 (*Banerjee*) and U.S. publication 2010/0302454 (*Epstein*)

Reconsideration of this rejection is respectfully requested on the basis that the cited prior art fails to establish obviousness with respect to amended claims 1 and 12, from which the remaining claims depend.

Specifically, Patent Owner submits that any proposed combination of the card type network interface of *Kita* with the teachings of *Banerjee* and *Epstein* fails to at least result

in "an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network," as recited in amended claim 1 and "wherein the triggering comprises actuating the actuator on the peripheral device to send a signal to the processing device to trigger the processing device to wirelessly transfer said user selected arbitrary media content to said transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network," as recited in amended claim 12.

As the Examiner admits, "Kita does not expressly teach that the peripheral device is a connection unit comprising (c) an input device arranged to enable the user to carry out a user action" (see page 5 of the Office Action dated September 4, 2018), and "Kita, as modified by Banerjee, does not expressly teach that the user action triggers transfer of said user selected arbitrary media content to said transmitter through said port" (see page 6 of the Office Action dated September 4, 2018). The Examiner then attempts to resolve the missing elements of the card type network interface of *Kita* using the disclosure of *Epstein*. *Epstein*, however, fails to cure the deficiencies of *Kita* with respect to amended claims 1 and 12. Rather, *Epstein* only teaches a switching device 16, a user interface assembly 19 and a power source 55 (para. [0049]). Switching device 16, as the label implies, can be used to switch different input video/audio sources at different input ports to change which input is feeding video/audio output ports (para. [0049]). Exemplary puck assembly 20 includes a puck 48 and first and second video/audio cables 50 and 52 (para. [0051]). Cable 50 is used to link puck 48 to a computer/laptop audio/video output port or other video source while cable 52 links puck 48 through a circuitous path to one of the six input ports 17 (para. [0051]). Exemplary puck 48 includes a disc or puck shaped housing 49 that supports a plurality of components including a processor 71, an on/off button 48, first through fourth selectable controls or control buttons 60a-60d, four illumination devise 73a through 73d and an illumination ring 56 (para. [0052]). When a puck user wants to present

information from her laptop 69 display via display screen 22a, the user presses button 60a to indicate intention to drive display 22a (para. [0066]). Once button 60a is selected, four things happen, first, information currently displayed via display 22a is replaced by the information from the user's laptop 60 display, second, if a different laptop was previously presenting information via display 22a when button 60a is selected, the other user's puck illumination may change (para. [0066]). In at least some embodiments it is contemplated that laptops 69 and other visual/audio sources may be able to wirelessly link up to a configuration 10b processor via a wireless access device 100 or the like (para. [0072]). A software "widget" puck representation or control interface representation (hereafter a "widget") 48a may be provided on screen (para. [0072]). In wireless embodiments, a mechanical control interface 140 akin to puck 48 described above may be provided where the interface 140 links to a USB port or the like on a laptop 69 (para. [0075]). Here, interface 140 operates in the same fashion as puck 48 described above except that control signals from interface 140 are provided to a switching device wirelessly through the laptop (para. [0075]). In other words, *Epstein* teaches a puck or widget for selecting one of the display screens, but fails to disclose or suggest "an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network," as recited in amended claim 1 and "wherein the triggering comprises actuating the actuator on the peripheral device to send a signal to the processing device to trigger the processing device to wirelessly transfer said user selected arbitrary media content to said transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network," as recited in amended claim 12.

In so doing, Patent Owner submits, as discussed during the interview, the skilled person would have understood that the puck assembly or widget of *Epstein* has a different structure and function than the actuator as recited in amended claims 1 and 12. Rather, as evidenced by the attached Declaration of Filip Louwet dated December 4, 2018 ("Louwet

Declaration"), the skilled person would have understood that the claims are now more clearly directed to an actuator on the peripheral device, wherein the actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network. That is, the skilled person would have understood that such user action triggers sending the signal to the laptop, which drives the laptop not the display (*see* Louwet Declaration, para. [5]). In other words, the skilled person would have understood that in the present case, the node configuration drives the display, not the peripheral device, which is instead, connected to the processing device (*see* Louwet Declaration, para. [5]).

On the other hand, Patent Owner submits that the skilled person would have understood that *Epstein* only teaches using a puck connected to the video/audio output port of the computer/laptop to connect to one of the input ports of the switching device, where one of the buttons on the puck is pressed to indicate intention to drive one of the displays or that control signals are sent to the switching device through the laptop to drive one of the displays (*see* Louwet Declaration, para. [6]). In so doing, the skilled person would have understood that the structure and function of the puck or widget of *Epstein* fails to disclose or suggest the recited features, at least because the pressing of one of the buttons of the puck or widget of *Epstein* does not trigger the processing device to transfer the user selected arbitrary media content to the wireless transmitter (of the peripheral device) through the port to transmit the user selected arbitrary media content to the display node via the communications network (*see* Louwet Declaration, para. [6]).

Therefore, since none of *Kita*, *Banerjee*, and *Epstein* discloses or suggests "an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the

communications network," as recited in amended claim 1 and "wherein the triggering comprises actuating the actuator on the peripheral device to send a signal to the processing device to trigger the processing device to wirelessly transfer said user selected arbitrary media content to said transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network," as recited in amended claim 12, any proposed modification of the card type network interface of *Kita* with the teachings of *Banerjee* and *Epstein* fails to result in the features recited in claims 1 and 12. Rather, even assuming, but not admitting that the prior art teach certain features recited in the claims, "a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418, 127 S. Ct. 1727, 1741 (2007).

In this case, Patent Owner submits that the skilled person would not have observed the necessary evidence that would have prompted the skilled person to have combined the teachings of *Kita*, *Banerjee*, and *Epstein* in the same way to result in the same combination of features as recited in the inventions of amended claims 1 and 12. Rather, only through the disclosure of the '348 patent is the skilled person taught of a method and apparatus that overcomes the deficiencies of the prior art, where when using electronic tools in meetings, to bring the display content of a computer to a projector, the most common ways are to use a cable that connects the display adapter to the graphics card to the video input of the projector [method 1] or to use a software that captures the display contents and sends it over a wired or wireless network to a remote base unit connected to the projector [method 2] (col. 3, lines 7-15).

For example, in one embodiment of the invention, at least one connection unit 47, (optionally 49 for receiving) is adapted to communicate the user selected arbitrary media

content to said base node 36 (col. 15, lines 10-13). A portable application 60 runs as a process on the client processing device 31 that is adapted to deliver an arbitrary media content from the client processing device 31 to the communication network 50 in response to a user action applied to an input device 48, the process leaving a zero footprint on termination (col. 15, lines 43-48). The user action applied to the input device 48 generates a signal that triggers transfer of data from the processing device 31 (to which the connection unit 47 is coupled) to the network 50 (col. 16, lines 5-8). The connection unit is a physical device in the form of an external peripheral device (shown in Fig. 3 comprising permanent storage storing the portable application (7) and configuration parameters (12), memory, a processing engine (e.g. CPU, FPGA), a wireless transmitter such as WiFi (3), a plug and play interface such as a USB interface (2), a button as input device (9), an LED ring as visual indicator (10) (col. 20, lines 28-35). The portable application will use the wireless, e.g. wifi interface of the peripheral device (3) to connect to the correct base node (col. 21, lines 60-62). When the user at the computer (C) wants to show her content, she presses the button (9) (col. 22, lines 5-6).

In so doing, the skilled person would have appreciated that the features recited in the claims are at least directed to a system that includes a display node of a communications network, the display node being coupled to a first display, the display node further being arranged to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display, at least one peripheral device configured to communicate the user selected arbitrary media content via the communications network, where the peripheral device is a connection unit comprising a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system; a wireless transmitter arranged to communicate with the communications network; and an actuator on the peripheral device, where the actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer the user selected arbitrary media content to the wireless transmitter through the port to transmit the user selected arbitrary media content to the display node via the communications network; and a program configured to be

loaded onto the processing device and to run on the operating system of the processing device. The skilled person would have understood that such features then allow a normal conversation between several people in a meeting so that everybody can speak at the same time or whenever they want to. However to avoid confusion, the participants will wait their turn to speak – or interject a statement if they feel it is necessary. So the device having such features allows each person to transmit display data at any time – just like a verbal discussion in a meeting. In so doing, the skilled person would have understood that features are at least directed to a democratic displaying method, as opposed to a centric scheme, as discussed in the background of the present patent (*see* col. 2, lines 39-45).

On the other hand, the skilled person would have appreciated that *Kita*, *Banerjee*, and *Epstein* are all directed to different structures and methods for overcoming their respective prior art deficiencies. For example, *Kita* is directed to providing a PCMCIA card for wireless transmission, where the skilled person would have understood that Wi-Fi was introduced for home use in 1999 (*see* Louwet Declaration, para. [7]). *Kita* teaches a wireless LAN conference system can be constructed where there are provided network conference terminal devices (11 (2) to 11(n)) in which network interface cards (1) are attached to information terminal devices (abstract). The CPU 8 controls the PCMCIA interface 3 by executing a microprogram (firmware) stored in the flash ROM 9 so that data and command may be transmitted and received between the network interface card and the personal computer having the network interface card 1, and also controls the network interface 4 so that data and commands may be transmitted and received through the wireless LAN in accordance with a predetermined communications protocol (e.g., TCP/IP protocol) (page 22, lines 12-19). The network interface card 1 of the host 11 (1) transmits a polling command for permitting the transmission of the request to one client 11 (2) of the clients 11 (2) to 11 (i) in which the network setting was already completed (page 27, line 27 to page 28, line 4). The network interface card of the client 11 (2) learns that it is permitted to transmit the request, and transmits the request within a time t1 if it has any request (page 28, lines 6-8). While being seated, the participant of the conference can obtain the presentation right by the client on hand and can transmit the presentation data

(page 40, lines 18-20). That is, *Kita* only generally discloses transmitting presentation data to the host and client by using the presentation application software, but fails to teach how the presentation data is transmitted (*see* Louwet Declaration, para. [8]).

Meanwhile, *Banerjee* teaches a master/slave or peer-to-peer configuration for remote connection for an interface to a touch panel (*see* Louwet Declaration, para. [9]). For example, *Banerjee* teaches a plug-and-play device comprising a first plug-and-play interface for establishing a connection with a first computing device; a second plug-and-play interface for establishing a connection with a second computing device; storage storing code that is automatically executed by the second computing device when said plug-and-play device is connected thereto via said second plug-and-play interface, said code when executed initiating a screen display data exchange between said first and second computing devices; and at least one controller controlling said first plug-and-play interface, said second plug-and-play interface and said storage (para. [0009]). Alternatively, system 220 comprises a plug-and-play device 236, a master computer 238 and at least one remote computer 240 (para. [0039]). In this embodiment, the plug-and-play device 236 captures and compresses screen display data generated at the remote computer 240 and allows screen sharing between the remote computer 240 and the master computer 238 by automatically launching software stored on the plug-and-play device 236 (para. [0039]). Once the remote computer 240 is connected to the master computer 238 over the peer-to-peer wireless connection, the remote computer 240 may send a request to share the screen display data of the remote computer 240 to the master computer 238 (para. [0048]). The master computer 238 passes input events, such as keyboard, mouse, trackball and/or pen-touch events, that it receives to the remote computer 240 thereby to remotely control the remote computer 240 (para. [0048]). With the peer-to-peer wireless connection established between the master computer 238 and the remote computer 240, those skilled in the art will appreciate that the user of the remote computer 240 may also be allowed to access the Internet through the master computer 238 (para. [0050]). In other words, *Banerjee* only discloses a plug-and-play device where the launching software is automatically loaded to

allow screen sharing and the master computer receives a request to share the screen display data and passes its input events (*see* Louwet Declaration, para. [9]).

In view of such different structures and functions, Patent Owner submits that the skilled person would not have observed any evidence that would prompted the skilled person to have added an actuator on the PCMCIA card of *Kita* or added an actuator on the plug-and-play device of *Banerjee* so that the combination of prior art teachings would have resulted in an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network (*see* Louwet Declaration, para. [10]). At most, the skilled person would have been prompted to have connected a puck assembly to the PCMCIA card or the plug-and-play device or using the master computer's input events to send a control signal to a switching device with an intention to drive a display, as taught in *Epstein*. The skilled person, however, would not have observed any evidence that would have prompted the skilled person to have modified the teachings of *Kita* so that the card type network interface includes an actuator on the network interface card, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network (*see* Louwet Declaration, para. [10]).

In fact, Patent Owner submits that the skilled person would have appreciated that there would have been thousands of different combination of arrangements that could have resulted from the combination of the teachings of *Kita*, *Banerjee*, and *Epstein* (*see* Louwet Declaration, para. [11]). The skilled person, however, would not have observed any evidence or reason why the skilled person would have added an actuator to a PCMCIA card so that the actuator would have been on the PCMCIA card so that a user action by

actuating the actuator triggers the processing device to transfer the user selected arbitrary media content to the wireless transmitter through the port to transmit the user selected arbitrary media content to the display node via the communications network (*see* Louwet Declaration, para. [11]).

Since any proposed modification of the invention of *Kita* in accordance with the teachings of *Banerjee* and *Epstein* fails to result in each and every feature recited in amended claims 1 and 12, from which the remaining claims depend, the claims are patentable over the cited prior art.

Accordingly, affirmance of the patentability of these claims is respectfully requested.

5. Rejection of claim 7 under 35 U.S.C. § 103(a) as being unpatentable over WIPO publication WO 01/8915 (*Kita*) in view of WIPO publication WO 2010/105335 (*Banerjee*) and U.S. publication 2010/0302454 (*Epstein*) and further in view of Court Authority

This rejection is moot in view of the cancellation of claim 7.

Accordingly, withdrawal of this rejection is requested.

6. Rejection of claims 8-9 under 35 U.S.C. § 103(a) as being unpatentable over WIPO publication WO 01/8915 (*Kita*) in view of WIPO publication WO 2010/105335 (*Banerjee*) and U.S. publication 2010/0302454 (*Epstein*) and further in view of U.S. publication 2002/0196378 (*Slobodin*)

This rejection is moot in view of the cancellation of claims 8-9.

Accordingly, withdrawal of this rejection is requested.

7. Rejection of claims 1-6 and 10-20 under 35 U.S.C. § 103(a) as being unpatentable over WIPO publication WO 2010/105335 (*Banerjee*) and U.S. publication 2010/0302454 (*Epstein*)

Reconsideration of this rejection is respectfully requested on the basis that the cited prior art fails to establish obviousness with respect to amended claims 1 and 12, from which the remaining claims depend.

Specifically, Patent Owner submits that any proposed combination of the plug-and-play device of *Banerjee* in accordance with the teachings of *Epstein* fails to at least result in "an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network," as recited in amended claim 1 and "wherein the triggering comprises actuating the actuator on the peripheral device to send a signal to the processing device to trigger the processing device to wirelessly transfer said user selected arbitrary media content to said transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network," as recited in amended claim 12.

As the Examiner suggests on page 15 of the Office Action, "Banerjee does not expressly teach that the user action triggers transfer of said user selected arbitrary media content to said transmitter through said port." The Examiner then attempts to resolve the missing elements of the plug-and-play device of *Banerjee* using the disclosure of *Epstein*. *Epstein*, however, fails to cure the deficiencies of *Kita* with respect to amended claims 1 and 12. Rather, *Epstein* only teaches a puck or widget for selecting one of the display screens, as discussed above, but fails to disclose or suggest "an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit

said user selected arbitrary media content to the display node via the communications network," as recited in amended claim 1 and "wherein the triggering comprises actuating the actuator on the peripheral device to send a signal to the processing device to trigger the processing device to wirelessly transfer said user selected arbitrary media content to said transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network," as recited in amended claim 12.

Therefore, since neither *Banerjee* nor *Epstein* discloses or suggests "an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network," as recited in amended claim 1 and "wherein the triggering comprises actuating the actuator on the peripheral device to send a signal to the processing device to trigger the processing device to wirelessly transfer said user selected arbitrary media content to said transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network," as recited in amended claim 12, any proposed modification of the plug-and-play device of *Banerjee* with the teachings of *Epstein* fails to result in the features recited in claims 1 and 12. Rather, even assuming, but not admitting that the prior art teach certain features recited in the claims, "a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418, 127 S. Ct. 1727, 1741 (2007).

In this case, Patent Owner submits that the skilled person would not have observed the necessary evidence that would have prompted the skilled person to have combined the

teachings of *Banerjee* and *Epstein* in the same way to result in the same combination of features as recited in the inventions of amended claims 1 and 12. Rather, the skilled person would have appreciated that *Banerjee* and *Epstein* are directed to different structures and methods for overcoming their respective prior art deficiencies, as discussed above. For example, the skilled person would have appreciated that *Banerjee* is directed to the plug-and-play device having code that is automatically executed when the plug-and-play device is connected to the remote computer and the remote computer sending a request to share the screen by the master computer, whereas *Epstein* is directed to a puck that sends an intention to drive the display to a switching device via a cable connected to the switching device or wirelessly through the laptop.

In view of such different structures and functions, Patent Owner submits that the skilled person would not have observed any evidence that would prompted the skilled person to have added an actuator on the plug-and-play device of *Banerjee* so that the combination of prior art teachings would have resulted in an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network (*see* Louwet Declaration, para. [10]). At most, the skilled person would have been prompted to have connected a puck assembly to the plug-and-play device or used the master computer's input events to send a control signal to a switching device with an intention to drive a display, as taught in *Epstein*. The skilled person, however, would not have observed any evidence that would have prompted the skilled person to have modified the teachings of *Banerjee* so that the plug-and-play device includes an actuator on the plug-and-play device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network (*see* Louwet Declaration, para. [10]).

Since the proposed modification of the invention of *Banerjee* in accordance with the teachings of *Epstein* fails to result in each and every feature recited in amended claims 1 and 12, from which the remaining claims depend, the claims are patentable over the cited prior art.

Accordingly, affirmance of the patentability of these claims is respectfully requested

8. Rejection of claim 7 under 35 U.S.C. § 103(a) as being unpatentable over WIPO publication WO 2010/105335 (*Banerjee*) and U.S. publication 2010/0302454 (*Epstein*) and further in view of Court Authority

This rejection is moot in view of the cancellation of claim 7.

Accordingly, withdrawal of this rejection is requested.

9. Rejection of claims 8-9 under 35 U.S.C. § 103(a) as being unpatentable over WIPO publication WO 2010/105335 (*Banerjee*) and U.S. publication 2010/0302454 (*Epstein*) and further in view of U.S. publication 2002/0196378 (*Slobodin*)

This rejection is moot in view of the cancellation of claims 8-9.

Accordingly, withdrawal of this rejection is requested.

10. New Claims

Claims 21-24 are patentable over the cited prior art at least based on their dependency on amended claim 1, as well as their individually recited features.

For example, Patent Owner submits that any combination of the teachings of *Kita*, *Banerjee*, and *Epstein* fails to at least result in "wherein the actuator is a single button on the at least one peripheral device" (as recited in new claim 23) and "wherein the electronic meeting tool is configured in a way such that the communications network is set up between the at least one peripheral device coupled to the processing device and the display node without altering or affecting networking capabilities of the processing device" (as recited in new claim 22.

As stated in MPEP 2141.02 "[i]n determining the differences between the prior art and the claims, the question under 35 U.S.C. § 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious" (emphasis in original).

In this case, Patent Owner submits that the features emphasized in claim 23 are directed to a unique combination of features as embodied by Barco's ClickShare™ product. For example, as evidenced by the Declaration of Hanne Page dated December 4, 2018 ("Page Declaration"), the ClickShare product includes a display node, at least one peripheral device including a connector, a wireless transmitter, and an actuator, and a program and further includes a flexible data and power connector, is configured in a way such that the communications network is set up between the at least one peripheral device and the display node, and includes a single button on the peripheral device (*see* Page Declaration, para. [4]).

Moreover, Patent Owner submits that obviousness cannot be established with respect to new claim 23, which includes the subject matter of claims 1, 5, and 21-22, especially in view of the commercial success of the ClickShare™ product that includes the features recited in these claims.

As there were not many products in the wireless presentation market in 2012, it was surprisingly found that when the ClickShare™ product was introduced, vendors, customers, and other end users were amazed with the simplicity and usability of the ClickShare™ product, where after just hitting the button, the content from the PC (or other device) would appear on the screen effortlessly (*see* Page Declaration, para. [5]). In so doing, Patent Owner received customer feedback on the ClickShare product and soon started marketing it as the "One Click Wonder" (*see* Page Declaration, para. [6]).

In view of the design of the ClickShare button, others in the industry, for example, AV Network, which is the premier online resource for audio visual news and industry trends, published an article in which it highly recommended ClickShare where "[w]ith one click, a presenter can launch their content on the meeting room main display with no

worries about IP address, having the right cables, room locations, and screen resolution" (*see* Page Declaration, para. [7]). Specifically, AV Network noted that "[t]he system is highly intuitive, and offers automatic formatting to conform to users' presentation needs. Adding a presenter's content to the main display is as simple as pressing the ClickShare Button" (*see* Page Declaration, para. [7]).

Additionally, Barco received the Gold Winner for Innovation from the Edison Awards in 2013 for this device, in part, due "[t]he ClickShare "one-click" wireless meeting room presentation system improves collaboration to enhance productivity and decision-making in today's companies" (*see* Page Declaration, para. [8]).

In view of such features in part, ClickShare has been commercially successful in the Wireless Presentation (WP) market having sold over 500,000 units since 2012 and controls a 37% market-share in 2017 (selling 150,000 units out of the 411,000 units sold in 2017) (*see* Page Declaration, para. [9]).

In other words, in view of the design and features of the product, as embodied in the ClickShare button, Patent Owner submits that the product received praise from others in the field and was commercially successful because of the features recited in claim 23.

Competitors have copied the "highly intuitive" ClickShare product due to the claimed features. Patent Owner submits that this copying attests to the non-obviousness of the claimed invention.

Claims 25-28 are allowable for reciting similar features as recited in amended claim 1, as well as their individually recited features.

11. Conclusion

As a result of the amendments to the claims and further in view of the foregoing remarks, it is respectfully submitted that the amended claims of the '348 patent are clearly patentable.

Please charge any additional fees required or credit any overpayments in connection with this paper to Deposit Account No. 02-0200.

If any issues remain that may be resolved by a telephone or facsimile communication with the Patent Owner's attorney, the examiner is invited to contact the undersigned at the numbers shown below.

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Date: December 4, 2018

Respectfully submitted,

/Thomas Lee/

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Attorney for Patent Owner
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Electronic Patent Application Fee Transmittal

Application Number:	90014087
Filing Date:	09-Feb-2018
Title of Invention:	Electronic Tool and Methods for Meetings
First Named Inventor/Applicant Name:	8756348
Filer:	Thomas J. Moore
Attorney Docket Number:	BEEL3001REX/TJM/TL

Filed as Large Entity

Filing Fees for ex parte reexam

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
REEXAMINATION INDEPENDENT CLAIMS	1821	1	460	460
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**460**

Electronic Acknowledgement Receipt

EFS ID:	34478456
Application Number:	90014087
International Application Number:	
Confirmation Number:	8024
Title of Invention:	Electronic Tool and Methods for Meetings
First Named Inventor/Applicant Name:	8756348
Customer Number:	23364
Filer:	Thomas J. Moore
Filer Authorized By:	
Attorney Docket Number:	BEEL3001REX/TJM/TL
Receipt Date:	04-DEC-2018
Filing Date:	09-FEB-2018
Time Stamp:	16:05:35
Application Type:	Reexam (Patent Owner)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	BEEL3001REX_IDS_SB08_04DEC18.pdf	615898 0e70778949c9938b5ee41de68cd1421a0d74ba0e	no	11

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7	Foreign Reference	EP2107463A2.pdf	672857 3cce45a8a72215ca81cb94ff89652adaf49d1773	no	13
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37	Non Patent Literature	NPL6_QuickConnectWirelessEpsonProjectors_YouTube.pdf	1489862 1e8c9519bcfd7966abae6b9bac119fd6421ebb54	no	2
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53		BEEL3001REX_nfoa_amnd_rply_04DEC18.pdf	138728 4f0fa5af1f5b3f0edef860074f69938fcd0ae567	yes	29

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Document Description	Start	End
Amendment/Req. Reconsideration-After Non-Final Reject	1	1
Claims	2	9
Applicant Arguments/Remarks Made in an Amendment	10	29

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54	Non Patent Literature	NPL8_Trautschold_Part_1.pdf	11209815 7c59e54525035a7f2b68b3fed2a84061d447d9ef	no	100
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55	Non Patent Literature	NPL8_Trautschold_Part_2.pdf	5693771 c09837367bdb79e053fa1840d67a293851816780	no	249
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56	Non Patent Literature	NPL8_Trautschold_Part_3a.pdf	19944968 e49ba2d0b88e8c0995f3570b3161f87bbd3f150d	no	175

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57	Non Patent Literature	NPL8_Trautschold_Part_3b.pdf	21336367 ab2e415a0c9ddba69607852a724c6898cfb0189d	no	174
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	90014087
Filing Date	2018-02-09
First Named Inventor	Koen Simon Herman BEEL
Art Unit	3992
Examiner Name	Christopher Lee
Attorney Docket Number	BEEL3001REX/TJM/TL

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Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	8346753	B1	2013-01-01	Hayes	
	2	6966035		2005-11-15	Suess et al.	
	3	8316138		2012-11-20	Chang	

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Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20100064063	A1	2010-03-11	Deforche et al.	
	2	20110179182	A1	2011-07-21	VADLA RAVNAS	
	3	20050015719	A1	2005-01-20	MARCHON et al.	

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	Examiner Name	Christopher Lee
	Attorney Docket Number	BEEL3001REX/TJM/TL

	4	20090092198	A1	2009-04-09	Motoyoshi	
	5	20050122392	A1	2005-06-09	Johansen et al.	
	6	20090300520		2009-12-03	Ashutosh et al.	
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	8	20110180380	A1	2011-07-28	Lee	
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	16	20110023096	A1	2011-01-27	XIAO et al.	
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	27	20040263636		2004-12-30	Cutler et al.	
	28	20110115689		2011-05-19	Sugiyama et al.	
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	1	2013037979	WO		2013-03-21	Barco N.V.		
	2	2008165007	JP	A1	2008-07-17	Brother Ind Ltd		☒
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	4	2001/089156	WO	A2	2001-11-22	SONY CORP		☐
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	6	2107463	EP	A2	2009-10-07	OPTION		☐
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	Attorney Docket Number	BEEL3001REX/TJM/TL

	9	101106681	CN	A	2008-01-16	VTRON CORP	English machine translation	☒
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	11	101022529	CN	A	2007-08-22	LIXING INTERNAT SCIENCE & TECH	English abstract	☒
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	13	101442500	CN	A	2009-05-27	XIAOTAO YIN	English abstract	☒
	14	101828392	CN	A	2010-09-08	CREATIVE TECH LTD	English abstract	☒
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	16	1689275	CN	A	2005-10-26	SONY CORP	English abstract, corresponds to US 20020174254	☒
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	18	2008-090561	JP		2008-04-17	BROTHER IND LTD	English abstract & mach translation	☒
	19	1329055	EP		2003-07-23	SONY CORP	corresponds to WO 01/089156	☐

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	20	1476242	CN		2004-02-18	SEIKO EPSON CORP	English abstract of corresponding EP 1385336,	☒
	21	2010/105335	WO		2010-09-23	SMART TECHNOLOGIES ULC		☐
	22	102045864	CN		2011-05-04	NEC CASIO MOBILE COMM LTD	English abstract (Corresponds U.S. 2011/0092198)	☒
	23	101631223	CN		2011-04-20	SHANGHAI HUAPING INFORMATION TECHNOLOGY CO LTD	English abstract	☒
	24	101454762	CN		2013-06-12	SMART TECHNOLOGIES ULC	English abstract	☒
	25	1550996	CN		2004-12-01	SEIKO EPSON CORP	English abstract	☒
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	27	1385336	EP		2004-01-28	SEIKO EPSON CORP		☐
	28	1187480	EP		2002-03-13	TeleSuite Corporation		☐
	29	1246395	EP		2002-10-02	MOTOROLA, INC.		☐
	30	0052887	WO		2000-09-08	MICROSOFT CORPORATION		☐

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	1	http://esupport.epson-europe.com/ViewArticle.aspx?lng=sv-SE&kbid=328038&data=bOU002FRIftu7YFtMOBp2mpSKntPq1A26Wyw&cl=1, accessed July 8, 2017.	
	2	https://www.infocus.com/resources/documents/User-Guides/Liteshow-3-UserGuide.pdf, accessed October 3, 2018.	
	3	"Manual of the Epson projectors", retrieved from http://esupport.epsoneurope.com/ViewArticle.aspx?lng=sv-SE&kbid=328038&data=bOU002FRIftu7YFtMOBp2mpSKntPq1A26Wyw&cl=1, February 14, 2011.	
	4	Richardson & Wood, "The RFB Protocol", Cambridge: ORL, 1998.	
	5	"Remote Framebuffer Protocol (RFB)", Internet standard IETF RFC 6143 , March 2011.	
	6	"Quick Connect Wireless with Epson Projectors", retrieved from https://www.youtube.com/watch?v=9POz4-HyDXY, November 3, 2009.	
	7	Jiang et al., "A Novel Wireless Approach for Conference Projecting and Cooperating", Lecture Notes in Computer Science, Vol. 4159, pp. 688-697, 2006. (cited in GB 1206841.7 Search Report)	
	8	Martin Trautschold, iPhone 4 Made Simple, 2010, Apress, Pages 1-819.	
	9	HWebPage on Availability of Trulink, retrieved on September 7, 2017.	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	90014087
	Filing Date	2018-02-09
	First Named Inventor	Koen Simon Herman BEEL
	Art Unit	3992
	Examiner Name	Christopher Lee
	Attorney Docket Number	BEEL3001REX/TJM/TL

	10	Trulink Wireless USB2VGA Adapter, Quick Start Guide, retrieved from www.c2g.com.	
	11	Marc AL-HAMES et al., Audio-Visual Processing in Meetings: Seven Questions and Current AMI Answers, 2006.	
	12	Mood indicators on electronic meeting tools" IBM, IP.com number: IPCOMOOOO1171D, Publication Date: March 12, 2003.	
	13	Webopedia Definition of Peripheral Device, retrieved on September 7, 2017.	
	14	Microsoft Community, conversation on August 30, 2011 about USB2VGA Adapter, retrieved on September 7, 2017.	
	15	StarTech.com: USB to DVI External Dual Monitor Video Adapter/USS to VGA External Dual Monitor Video Adapter, User Manual dated May 19, 2011.	
	16	European Notice of Opposition dated September 27, 2017 for EP 2756668.	

If you wish to add additional non-patent literature document citation information please click the Add button Add

EXAMINER SIGNATURE

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	Examiner Name	Christopher Lee
	Attorney Docket Number	BEEL3001REX/TJM/TL

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

☒ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Thomas Lee/	Date (YYYY-MM-DD)	2018-12-04
Name/Print	THOMAS LEE	Registration Number	66396

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reexamination of:

Patent Owner:	BARCO N.V.	**Inventors:**	BEEL et al.
Serial No.:	90/014,087	**Confirm. No.:**	8024
Filing Date:	February 9, 2018	**Art Unit:**	3992
Patent No.:	8,756,348	**Customer No.:**	23364
Attorney No.:	BEEL3001REX/TJM/TL	**Examiner:**	Christopher E. Lee
For:	**ELECTRONIC TOOL AND METHODS FOR MEETINGS**		

DECLARATION OF MS. HANNE PAGE UNDER 37 C.F.R. § 1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

I, Ms. Hanne Page, declare:

1. I have been employed by the Patent Owner, Barco N.V. ("Barco"), since 2010. I obtained a Master's degree in business engineering at KU Leuven University in 2008. From 2010 to 2016, I was a product manager, where my primary responsibilities consisted of analyzing market data, business case generation, product requirement definition, coordination of sales launch activities, and product marketing. I am currently a Brand & Communication Manager at Barco N.V.

2. In my opinion, on September 14, 2011 (the date that Barco filed U.S. Provisional Patent Application No. 61/534,592 on what was to become the ClickShare product), it would not have been obvious to the skilled person in the field of electronic meeting tools, to create an electronic meeting tool having the same combination of features embodied by the claims of the patent, and amended claim 1 below, at least because of the commercial success of the ClickShare product.

3. Specifically, Barco N.V., which was already a leader in the visualization and sharing market, began developing the ClickShare product after customers of Barco's visualization

systems, which included displays and audio/visual sharing products, requested that the screen sharing products be sold as a stand-alone unit to be used in smaller meeting rooms. While before the ClickShare product was introduced, there existed products for sharing content, for example, some of the prior products used complicated software that was downloaded on a PC.

4. One of my responsibilities as a Product Manager was analyzing, introducing, and marketing Barco's ClickShare product, which is encompassed by the claims of the '348 patent. Specifically, the ClickShare product includes, for example, as seen in the attached article from AV Technology, "Hands-On Review of the Barco ClickShare" dated November 2012 (Appendix A) and Fig. 10 of the '348 patent at least the following features:

Claim 1	
• a display node of a communications network, the display node being coupled to a first display, the display node further being arranged to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display;	• ClickShare Base Unit
• at least one peripheral device configured to communicate the user selected arbitrary media content via the communications network, wherein the peripheral device is a connection unit comprising:	• ClickShare Button(s)
○ (a) a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system;	• USB powered devices, which users plug into their PC or MAC to present their content on the meeting room display with one click (pgs. 64-65 of Appendix A).
○ (b) a wireless transmitter arranged to communicate with the communications network; and	• Then it's just a matter of one click to present, or one click to remove, your content (pg. 65). • USB powered devices, which users plug into their PC or MAC to present their content on the meeting room display with one click (pgs. 64-65). • Upon detecting a ClickShare Button, the service will automatically start the application and connect to the Base

	Unit (pg. 65).
○ (c) an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network; and	• Adding a presenter's content to the main display is as simple as pressing the ClickShare button (pg. 65). • First, Barco promotes ClickShare as the "One Click Wonder" and, believe it or not, it lives up to this promise. With one click, a presenter can launch their content on the meeting room main display with on worries about IP address, having the right cables, room locations, and screen resolution (pg. 64).
• a program configured to be loaded onto the processing device and to run on the operating system of the processing device, said program being arranged to obtain user selected arbitrary media content, said program leaving a zero footprint on termination.	• Once it's plugged into the laptop, the user launches the application from the ClickShare drive. Then it's just a matter of one click to present, or one click to remove, your content (pg. 65). • The system is highly intuitive, and offers automatic formatting to conform to users' presentation needs (pg. 65).
Claim 21	
• wherein the connector of the peripheral device further comprises a flexible data and power connector, wherein the flexible data and power connector is configured in a way such that, when the peripheral device is connected to the processing device in an operating position, the peripheral device is in a region between an outside edge of the processing device and an ergonomic boundary of 4000 square cm, and wherein the actuator has a surface area between 100 and 14,400 square mm.	• ClickShare Buttons • I just love the ClickShare Buttons, the hand-held controls that connects to a user's laptop. Although they sport an elegant, low-profile design, they're quite robust and sturdy (pg. 65).
Claim 22	
• wherein the electronic meeting tool is configured in a way such that the communications network is set up between the at least one peripheral device coupled to the processing device and the display node without altering or affecting networking capabilities of the processing device.	• Upon detecting a ClickShare Button, the service will automatically start the application and connect to the Base Unit (pg. 65).

Claim 23	
• wherein the actuator is a single button on the at least one peripheral device.	• ClickShare Button

5. Surprisingly, even though, our marketing budget for this project in 2012 was only around $300,000 and ClickShare was not easy to sell on paper, e.g., through marketing, we were surprised how easy it was to sell once an end-user or customer obtained a demo of the product, where we had a very high hit ratio of 1 to 2, i.e., for every two products given to customers, one was sold, due to the design and intuitiveness of the "one-click" nature of the ClickShare product. For example, at trade shows, vendors, customers, and other end users knew of our product and wanted to test and see the ClickShare product. Specifically, at Integrated Systems Europe in 2012 in Amsterdam, which is the largest AV and systems integration show in the world, end users and developers would come into our "whisper suite" to see the product and test the product. The customers and end users were so amazed with the simplicity and usability of the ClickShare product, where after just hitting the button, the content from the PC (or other device) would appear on the screen effortlessly, they would bring other customers to see and test the ClickShare product.

6. In view of the customer feedback, we began marketing the ClickShare product as the "One Click Wonder," which was indicative of the clicking of the button to share content. For example, as seen in Appendix B, which are excerpts from our Launch Plan from March 21, 2012, our marketing plan was to highlight the simple, but impressive solution to improve the productivity of meetings with the one click operation. In so doing, our key message was promoting ClickShare as "the one click wonder."

7. To further evidence the features that made ClickShare commercially successful, AV Network, which is the premier online resource for audio visual news, indicated that "Barco promotes ClickShare as the "One Click Wonder,"" where "[w]ith one click, a presenter can launch their content on the meeting room main display with no worries about IP addresses, having the right cables, room locations, and screen resolution" (Appendix A at page 64, second column). Additionally, as seen in Appendix A, the ClickShare was highly recommended to others in part to its ease of learning and ease of use, e.g., one-click wonder (page 65, Satisfaction Survey Results from Beta Users). Such features allow "[p]articipants easily enter and exit, alternating fluidly between single image presentations and multi-user

collaboration…it all happens naturally and seamlessly, without interrupting the flow of conversation" (page 65, End-User/Operator Level "User Friendliness"). Additionally, "[t]he system is highly intuitive, and offers automatic formatting to conform to users' presentation needs. Adding a presenter's content to the main display is as simple as pressing the ClickShare Button" (page 65, Overall Operation of the Equipment). In view of such features, ClickShare was found to be "the most ingenious product to date designed for the enterprise collaboration. It takes collaboration to a whole new level, removing the barriers to communication" (page 66, Final Thoughts).

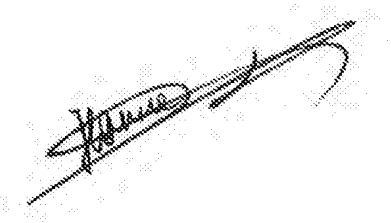
8. Moreover, since its release, ClickShare has received numerous awards and recognition, in part due to its simple design and intuitiveness in meetings, e.g., would not interrupt the flow in a meeting to present data. For example, Barco N.V. was voted a Gold Winner for Innovation by the Edison Award in 2013, as seen in Appendix C, for "[t]he ClickShare "one-click" wireless meeting room presentation system improves collaboration to enhance productivity and decision-making in today's companies."

9. Additionally, due to the success of ClickShare, a new market emerged for Wireless Presentation Units. Due to the young age of the Wireless Presentation market, while there is no data available for 2012-2015, Barco's market-share in the Wireless Presentation market has grown and holds about a 37% market-share in 2017, having sold 150,000 of units out of the 411,000 units sold in 2017. In fact, over the time period since ClickShare was on the market, Barco has sold over 500,000 units and continues to be a leader in the wireless presentation market.

10. As seen in the above documents, it is my understanding that ClickShare was so successful at least because of the design and intuitiveness of ClickShare, which is encompassed by the claims as discussed above, where the combination of the features resulted in this "one-click" design. At least in view of the praise from others in the field and from the commercial success of ClickShare, it is my opinion that on September 14, 2011 (the date that Barco filed U.S. Provisional Patent Application No. 61/534,592 on what was to become the ClickShare product), the skilled person would not have combined the publicly known technology, in the same way as now recited in the amended claims.

11. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the U.S. code and that such willful false statements may jeopardize the validity of the patent.

Date:_____4/12/2018_____ Signature



Hanne Page

APPENDIX A

HANDS-ON REVIEW OF THE BARCO CLICKSHARE

By L. William Nattress III

It's not every day that a product comes along in the presentation and collaboration arena that really is a game changer. Not just a different design of a popular component, or another cool feature that adds marginal value so you can call it "new and improved." I'm talking about true innovation, the kind of technology advancement that will change the way people work on a daily basis and measurably improve their lives in the office.

That product is Barco's ClickShare. I had the opportunity to demonstrate it at this year's InfoComm during a presentation I gave on "Unified Communications and Collaboration." While Barco is widely recognized for its excellent reputation in the high-end display and simulation space, it hasn't been a big player in standalone AV components. So my doubts I had about their foray into enterprise installation were quickly dismissed once I experienced this new presentation and collaboration tool.

First, Barco promotes ClickShare as the "One Click Wonder," and, believe it or not, it lives up to this promise. With one click, a presenter can launch their content on the meeting room's main display with no worries about IP addresses, having the right cables, room locations, and screen resolution. You simply plug in the Base Unit, attach the ClickShare Button to your laptop, start the application, and wirelessly transfer your desktop content to the main display in an instant.

With just three components, ClickShare removes the physical and communications barriers to achieving meaningful collaboration and information sharing in the meeting room.

ClickShare Base Unit: Requiring only a simple, one-time set up, the Base Unit has a fixed connection to the meeting room's visualization system, and takes care of all the needed processing. No connection to the corporate network is necessary.

ClickShare Buttons: USB-powered devices, which users plug



into their PC or MAC to present their content on the meeting room display with one click. A basic set comes with four buttons out of the box. The system can connect up to 25 buttons.

ClickShare Tray. The storage unit for the ClickShare buttons when they're not in use.

Here's my nine point detailed review:

1. PHYSICAL CONSTRUCTION

The physical construction of the product couldn't be simpler—it's only two main pieces, the Base Unit and the ClickShare Buttons. The Base Unit, while somewhat large, can be conveniently stowed at the end of the table or unobtrusively placed behind the screen.

I just love the ClickShare buttons, the hand-held controls that connects to a user's laptop. Although they sport an elegant, low-profile design, they're quite robust and sturdy. They have a nice weight to them and the short cable is ergonomically smart. The system feels really solid, like it won't break over time, even with daily use.

2. REVIEW OF INPUTS, OUTPUTS, CONTROLS AND INDICATORS

The only input is the network jack, which is connected once during the initial installation and only used to access the admin functions. Enough said.

The digital video outputs of the ClickShare Base Unit are well designed, featuring a DVI port with a positive locking feature, which provides a secure connection that stays put during a presentation even when you're moving things around, and a DisplayPort output.

The ClickShare Button couldn't be simpler: once it's plugged into the laptop, the user launches the application from the ClickShare drive. The white LEDs will blink until the ClickShare Button is connected to the Base unit. Once connected, the white LEDs will stop blinking and remain on, which means "ready to share." Then, it's just a matter of one click to present, or one click to remove your content. When presenting, the red LEDs convey that you are on-screen.

A free service is available to install the application on your laptop so you won't have to start up the application each time. Upon detecting a ClickShare Button, the service will automatically start the application and connect to the Base Unit.

The devil is in the details. When one's content is shared on the screen, his or her name will briefly and discretely appear on the screen—a nice feature that pleasantly surprises all participants and adds value to the meeting dynamics.

SATISFACTION SURVEY RESULTS FROM BETA USERS

Barco has selected various Fortune 500 companies, educational institutions, and integrators to test ClickShare as beta users; their feedback will help the company learn and evolve the product. See below for the key findings from a recent satisfaction survey to these beta users.

- *Highly recommended to others:* Average rating of 9.78 out of 10 in terms of recommending ClickShare to others.
- *Game-changing meeting room technology:* 100% of respondents could see installing ClickShare in their meeting rooms—from basic, mid-end or high-end boardrooms to classrooms.
- *Easy learning:* 63% of respondents learned how to use ClickShare simply by word-of-mouth.
- *It's that easy to use:* 94% of respondents liked the ease of use of ClickShare—the one-click wonder.
- *A new way of meeting:* More than half of respondents used ClickShare to engage at least three meeting participants to share their presentations onscreen at the same time.
- *Enhanced meeting efficiency:* 93% of respondents are convinced that ClickShare improves meeting efficiency.
- *Positive ROI from ClickShare:*
- Increase in meeting productivity: 69%
- Time savings for IT and Facilities: 69%
- Time saved during the meeting: 56%

3. TECHNICIAN LEVEL "USER FRIENDLINESS"

Since I was a beta tester, I didn't have any manual for reference nor a set of instructions. But, I didn't need any either—I simply plugged it in, and it worked.

However, at InfoComm, we had a very densely populated Wi-Fi environment. Although it fired up quickly when switching on in the first session, I wasn't able to launch immediately in the second. But I just downloaded a quick software fix from Barco's convenient web interface, and I was back in business again—problem solved. To me, that says a lot about the product's robustness, adaptability and ease of use, all rolled into one.

It's also nice to know that as the product matures, existing devices can obtain firmware updates from this easy-to-use interface to upgrade and fix any issues. It's just another reason that ClickShare is really a game changer in this market.

4. END-USER/OPERATOR LEVEL "USER FRIENDLINESS"

Very user friendly. The system easily adapts to whatever people need to support their meeting and communication needs. Participants easily enter and exit, alternating fluidly between single image presentations and multi-user collaboration. There's never any confusion about whose turn it is, how to make room for a presenter, or revert to a meeting leader's presentation—it all happens naturally and seamlessly, without interrupting the flow of conversation.

5. REVIEW OF THE WEB-BASED CONTROL SCREENS

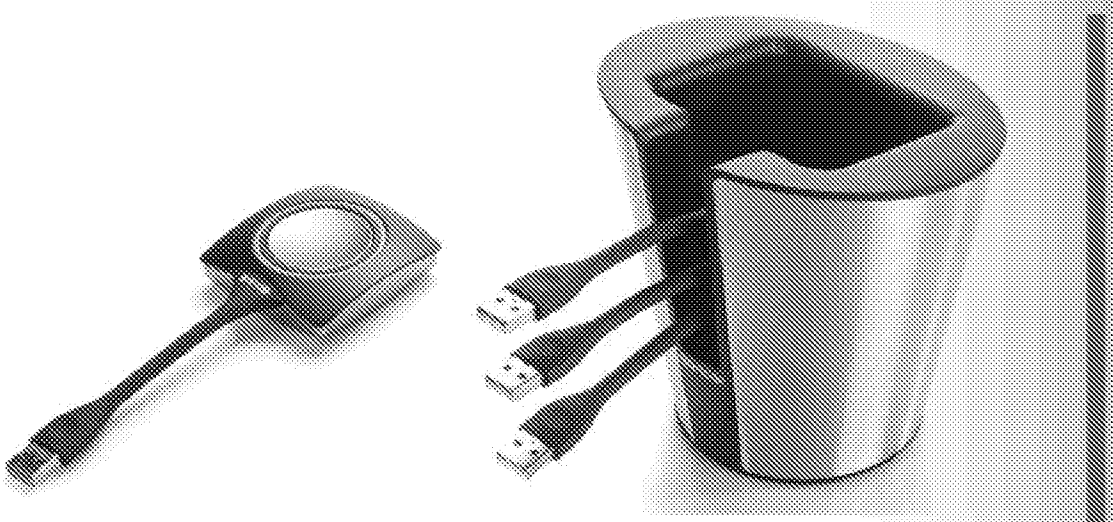
Web-based controls are available at the technician level, but end users don't need to worry about them. Users can easily create backgrounds, upload simple jpegs, update software machine/web interfaces, set channels and Wi-Fi ranges, and change screen resolution by following a few simple steps.

6. OVERALL OPERATION OF THE EQUIPMENT

The system is highly intuitive, and offers automatic formatting to conform to users' presentation needs. Adding a presenter's content to the main display is as simple as pressing the ClickShare button—the screen automatically reformats to split-screen, up to four quadrants, to feature different participant's images simultaneously. Pressing and holding the

BARCO
CLICK & GO

Barco Exhibit 2001



ClickShare button causes the display to revert to a full-screen image of the user's presentation. UP to 25 buttons can be distributed to meeting participants, enabling them to be ready to share at a moment's notice with a simple click of the button.

Want to show a PowerPoint, spreadsheet, and a video on the same screen? No problem. All three windows can accommodate a wide range of application content, even videos like YouTube. ClickShare not only allows you to make your presentations richer and more dynamic, it displays them in a way that invites information sharing and real collaboration by allowing everyone to chime in with their data at once.

There's even a done-out/sleep function to conserve energy and prevent screen burn-in, making it an environmentally friendly product.

7. REVIEW OF OPERATION/REFERENCE INSTRUCTIONS

As mentioned previously, I didn't even have instructions and got it working right away. It takes almost no time to master the basics, and a couple of minutes to leverage all the system's capabilities.

8. WEBSITE—ALL MATERIALS ARE CLEAR, EASY TO READ

All of these elements were in progress and coming online after I initially reviewed the product, but from a cursory review of the updated website, my rankings are:

- Data sheets—Excellent
- Drawings—Very Good
- Diagrams—Very Good
- Product photos—Excellent
- Tech manuals—Excellent
- Firmware files—Very Good
- Overall—Excellent

9. PRICE POINT

The MSRP for ClickShare is $5,995, which includes the Base Unit, four ClickShare buttons, and the ClickShare Tray. Additional ClickShare buttons can be purchased separately.

One might initially think that this is a pricey investment when you consider the cost of the actual display, but all of the designed-in intelligence and functionality adds up to a substantial value. Think about this: how many "man hours" have you lost during the past year resulting from stalled meetings where four or five employees sat idly by waiting for the presenter to solve connectivity issues? Conversely, what is the price of a great idea that comes from a wildly successful brainstorming session where true collaboration has occurred?

ClickShare's ease and efficiency, combined with enabling technologies that facilitate knowledge sharing, provide a tremendous benefit to organizations. And, when compared to the total cost to outfit a new or refurbished meeting space, ClickShare reduces or eliminates typical cable switching and even construction costs. So, in the end, it's a bargain.

From a pure technology perspective, when it comes to transitioning your corporate AV infrastructure from analog or mixed sources to a fully digital platform, ClickShare is the catalyst that can make it happen.

FINAL THOUGHTS

ClickShare is the most ingenious product to date designed for the enterprise collaboration. It takes the concept of presentation and collaboration to a whole new level, removing the barriers to communication—whether they be physical or figurative—to harness the collective genius of an organization. The fact that it's so simple and easy to use—with no pre-loaded software required—makes it a game changer.

With ClickShare, meetings will—fortunately—never be the same.

L. William Nattress III, CTS-D, CEO, has more than 30 years of project management experience in the design, engineering, installation and integration of audio, video, conferencing and control systems. As an associate principal at Shen Milsom & Wilke, he is responsible for client relationship development and project management. His experience formed the foundation of a chapter on remote control systems in the book "Basics of Audio and Visual Systems Design: Revised Edition." Ready to share a hands-on product review with your peers? Email AVTmarcom@nbmedia.com to learn more about the *AV Technology Product Focus*.

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Barco Inc.

Barco Exhibit 2001

ClickShare

Launch plan – Version 3.5 (social media strategy updated)

Corporate Marketing

21 March 2012

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1. Whisper suite ISE (done)

- Invite number of key customers, partners, influencers, etc to come and preview ClickShare in private room at the Barco booth.
  - **Access only on invitation; no press**
  - **We talk about the concept, show the alpha unit, but give no pics, literature, etc.**
  - **Visitors are not allowed to take pictures**
  - **We ask visitors if we can tape them for first reaction and use their reaction online**

- Press release immediately after ISE on the revolutionary concept shown at ISE and announce launch date/event

- Launch web page(s) with product teaser, basic info and possibility to subscribe to be kept up to date

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ClickShare Value Proposition for Partners v1.4 (Long-Form)

Take advantage of Barco ClickShare – a market making product

Barco ClickShare is set to revolutionize the meeting room technology market.

It radically improves the way people present and share information at meetings. It even changes the dynamics of the meetings themselves – increasing engagement and co-operation amongst attendees*. With millions of meetings taking place every day and widespread dissatisfaction with current meeting room technology - the potential is huge and is an opportunity ready to be exploited.

ClickShare is easy

- Easy to understand
- Easy to use
- Easy to explain
- Easy to see why people like it
- Easy to sell and easy to maintain

An excellent product that's hard to resist

An attractive product that customers are talking about, with minimal setup, excellent margins (usually over 20%) and great revenue potential – ClickShare is a product that's hard to resist.

The route to new opportunities

ClickShare is new, innovative and a talking point with all those who come in contact with it. Open new sales dialogues with ClickShare – the route to new opportunities in both new and existing installations.

You're invited to be a part of it

We depend on our partners. We are currently selecting a limited number of partners to work with on ClickShare and we would like you to be one of them.

ClickShare is very important to Barco and we're making significant investments in marketing and product development to help you succeed.

Our excellent products are just one way we help our partners. We also offer great financial benefits, technical teams to support you, demo products, and a dedicated extranet for partners (my.barco.com). Find out more by contacting {TBD} today … *(276 words)*

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ClickShare Value Proposition for Customers v1.4 (Long-Form)

Present the right image with Barco ClickShare

Present the right image to your clients and colleagues with ClickShare. At last - a professional, attractive solution to presentation problems that anyone can pick up and use. It works! Just plug in and click – no more embarrassing moments* setting things up when clients or guests want to present. What's on your screen is what's shared with the meeting – we maintain the same aspect ratio of displays, so no more stretched, squashed or distorted images.

Business life can be messy, that's why we've spent so much attention on getting the details right (even down to the dispensing tray to store and share your ClickShare dongles). Clear out unsightly cables, smarten up your meeting rooms and let participants focus on their meeting not the technology. After all ...

- You deserve great design
- You deserve fewer problems in your working day
- You deserve more time to focus on what's important
- You deserve ClickShare.

A simple, but impressive solution that improves the productivity of your meetings

One click operation – it's so easy!

- It saves time wasted setting up computers and switching presenters
- It avoids problems getting the projector to work**
- It allows more than four different PCs and Mac displays to be shared at once
- It even changes meeting dynamics – participants are more actively engaged and more likely to present or share information

Positive technology for positive meetings

Impressively robust and reliable - ClickShare gives you confidence. Confidence that the technology will work. Confidence that you can focus on getting your message across. Confidence your meeting will be a success.

It's great for IT

Barco ClickShare is proven technology from a prestige brand. A brand trusted for visualisation solutions throughout the world.

"Getting the projector to work" takes a typical IT manager almost 40 minutes our of every working day or almost 23 days a year. With one-off server setup, no client setup and extremely simple operation – support is minimal – giving IT and meeting participants precious time back in their day.

The one click wonder

With ClickShare, just one click opens your world to focused and productive meetings. Take the first click by clicking barco.com/ClickShare or ask your IT or AV supplier about Barco ClickShare today … *(379 words)*

* Almost half of meeting room hosts feel embarrassed and frustrated when meeting room technology fails (Casio Research)

** Problems happen on average three times a month and cause more than 20% of meetings to over-run (Casio Research)

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Messaging - summary

- Start from one USP/key message and gradually widen scope to include supporting messages

KEY MESSAGE

"The one click wonder"

SUPPORTING MESSAGES

- Present with confidence: failproof solution, one click and you're on screen
- Collaboration: one click to share your views with the team
- Impress your audience: underline your professionalism in the meeting room

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APPENDIX C

Barco ClickShare named 2013 Gold Edison Award Winner

ClickShare single-click presentation and collaboration system wins at Chicago ceremony

Duluth, Ga., USA – 23 May 2013 – Visualization pioneer Barco was voted a Gold Winner for Innovation by the Edison Awards at the April 25th event at Navy Pier in Chicago. The Edison Awards, celebrating 26 years of honoring the best in innovation and excellence in the development of new products and services, gathered hundreds of senior executives from some of the world's most recognized companies to acknowledge the hard work and commitment of all of the 2013 Edison Award winners.

Being recognized with an Edison Award has become one of the highest accolades a company can receive in the name of innovation and business. The awards are named after Thomas Alva Edison (1847-1931) whose inventions, new product development methods and innovative achievements literally changed the world, garnered him 1,093 U.S. patents, and made him a household name around the world.

The ClickShare "one-click" wireless meeting room presentation system improves collaboration to enhance productivity and decision-making in today's companies. Now enhanced with dual-display and audio functionality, Windows 8 compatibility, as well as iPad connectivity (with free app and software update), ClickShare is more user-friendly than ever to facilitate the BYOD trend.

"Our judges recognized Barco ClickShare as a true innovator out of the many products in its category," said Frank Bonafilia, executive director of the Edison Awards.

The ballot of nominees for the Edison Awards™ was judged by a panel of more than 3,000 leading business executives including past award winners, academics and leaders in the fields of product development, design, engineering, science and medical.

One of the evening's many highlights was the presentation of the prestigious Edison Achievement Award to Dr. Paul E. Jacobs, chairman and CEO of Qualcomm Incorporated. The award honors innovation leaders and business executives who have made a significant and lasting contribution to innovation throughout their careers. The Edison Achievement Award serves as inspiration to future innovators and to the world at large.

In addition to the Awards Gala, the annual Edison Awards program encompassed multiple events over a two-day period including an opening reception, "Meet the Innovators Forum" and the "Innovators' Showcase," which offered guests a hands-on experience with many of the winning products.

About the Edison Awards™
The Edison Awards is a program conducted by Edison Universe, a non-profit, 501(c)(3) organization dedicated to fostering future innovators. The Awards have been recognizing and honoring the best in innovations and innovators since 1987. They honor game-changing innovations that are at the forefront of new product and service development, marketing and human-centered design, and are one of the highest accolades a company can receive in the name of successful innovation. For more information about the Edison Awards complete program and a list of past winners, visit www.edisonawards.com.

About Barco
Barco, a global technology company, designs and develops visualization products for a variety of selected professional markets. Barco has its own facilities for Sales & Marketing, Customer Support, R&D and Manufacturing in Europe, North America and Asia Pacific. Barco (NYSE Euronext Brussels: BAR) is active in more than 90 countries with about 3,900 employees worldwide. Barco posted sales of 1.156 billion euro in 2012.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reexamination of:

Patent Owner:	BARCO N.V.	**Inventors:**	BEEL et al.
Serial No.:	90/014,087	**Confirm. No.:**	8024
Filing Date:	February 9, 2018	**Art Unit:**	3992
Patent No.:	8,756,348	**Customer No.:**	23364
Attorney No.:	BEEL3001REX/TJM/TL	**Examiner:**	Christopher E. Lee
For:	**ELECTRONIC TOOL AND METHODS FOR MEETINGS**		

DECLARATION OF FILIP LOUWET
UNDER 37 C.F.R. § 1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

I, Filip Louwet, declare:

1. I am employed by the Patent Owner, Barco N.V. ("Barco"), as a System Architect for ClickShare. I received a Master's Degree in Computer Science from Katholieke Universiteit Leuven in 1999 and have been employed at Barco for eighteen years.

2. I have carefully studied U.S. patent 8,756,348 ("the '348 patent"), the Examiner's Office Action dated September 4, 2018, and the prior art documents cited by the Examiner in this reexamination. It is my understanding that the claims in the present patent are at least directed an electronic meeting tool for communicating arbitrary media content from users at a meeting that includes a display node, at least one peripheral device that is a connection unit that includes a connector, a wireless transmitter, and an actuator, and a program configured to be loaded onto the processing device and to run on the operating system of the processing device, the program being arranged to obtain user selected arbitrary media content and leave a zero footprint on termination and a method for doing the same. In the Office Action, the Examiner indicates that claims 1-6 and 10-20 of the patent are unpatentable over WIPO publication WO 01/89156 (*Kita*) in view of WIPO publication WO 2010/105335 (*Banerjee*)

and U.S. publication 2010/0302454 (*Epstein*) and that claims 1-6 and 10-20 are also unpatentable over *Banerjee* in view of *Epstein*. I am advised that the Examiner will be asked to consider the following amended claim 1 of the patent, where amended claim 12 recites a method having similar features as recited in amended claim 1:

> 1. (Twice Amended) An electronic meeting tool for communicating arbitrary media content from users at a meeting comprising:
>
> a display node of a communications network, the display node being coupled to a first display, the display node further being arranged to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display;
>
> at least one peripheral device configured to communicate the user selected arbitrary media content via the communications network, wherein the peripheral device is a connection unit comprising:
>
> (a) a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system;
>
> (b) a wireless transmitter arranged to communicate with the communications network;
>
> (c) an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network; and
>
> a program configured to be loaded onto the processing device and to run on the operating system of the processing device, said program being arranged to obtain user selected arbitrary media content, said program leaving a zero footprint on termination.

3. As the Examiner suggests on page 6 of the Office Action, "Kita, as modified by Banerjee, does not expressly teach that the user action triggers transfer of said user selected arbitrary media content to said transmitter through said port" and "Kita, as modified by Banerjee, does not expressly teach that the user action triggers transfer of said user selected arbitrary media content to said transmitter through said port." Although the Examiner suggests that *Epstein* teaches such features, it is my opinion that *Epstein* fails to teach the features now recited in amended claims 1 and 12 and the combination of *Kita, Banerjee*, and

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Epstein or the combination of *Banerjee* and *Epstein* would not have resulted in the claimed features.

4. Instead, it is my understanding that *Epstein* teaches presentation of audiovisual information via one or more large format common displays in a collaborative workspace and more specifically to a fast and intuitive controller allowing a meeting participant with a laptop computer to quickly and easily control the presentation of laptop information on common displays (para. [0003]). Display system 12 includes a totem or stand support structure 28 and four relatively large flat panel displays 22a, 22b, 22c and 22d (para. [0044]). Interface assembly 19 includes a deck member 21 and six selectable control interfaces referred to as "puck" assemblies, two of which are labelled 20 (para. [0050]). Referring still to FIG. 4 and also to FIG. 5, exemplary puck 48 includes a disc or puck shaped housing 49 that supports a plurality of components including a processor 71, an on/off button 58, first through fourth selectable controls or control buttons 60a-60d, four illumination devices 73a through 73d and an illumination ring 56 (para. [0052]). Here, each number 1, 2, 3 or 4 corresponds to a different one of the display screens 22a through 22d in Fig. 1 (para. [0054]). A user pulls one of the pucks 48 from the cavity below a door 39 or 41 and links a laptop 69 to the puck 48 via cable 50 (para. [0065]). Once a laptop 69 is linked to cable 50, ring 59 as well as selectable buttons 60a-60d are illuminated white to indicate to the laptop user that the user is linked and can opt to present information from the user's laptop screen via any one or combination of displays 22a-22d corresponding to illuminated buttons 60a-60d respectively (para. [0065]). When a puck user wants to present information from her laptop 69 display via display screen 22a, the user presses button 60a to indicate intention to drive display 22a (para. [0066]). Once button 60a is selected, four things happen, first, information currently displayed via display 22a is replaced by the information from the user's laptop 60 display, second, if a different laptop was previously presenting information via display 22a when button 60a is selected, the other user's puck illumination may change (para. [0066]). In at least some embodiments it is contemplated that laptops 69 and other visual/audio sources may be able to wirelessly link up to a configuration 10b processor via a wireless access device 100 or the like (para. [0072]). A software "widget" puck representation or control interface representation (hereafter a "widget") 48a may be provided on screen (para. [0072]). In wireless embodiments, a mechanical control interface 140 akin to puck 48 described above may be provided where the interface 140 links to a USB port or the like on a laptop 69 (para. [0075]). Here, interface 140 operates in the same fashion as puck 48 described above except that control signals from

interface 140 are provided to a switching device wirelessly through the laptop (para. [0075]). That is, it is my understanding that *Epstein* only teaches a display system located on a conference table having a puck linked to a switch to display information on multiple displays.

5. In view of such teachings of *Epstein*, it is my opinion that *Epstein* does not teach "an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network," as now presented in claim 1. Rather, I would have understood that the claims are now more clearly directed to an actuator on the peripheral device, where the actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer the user selected arbitrary media content to the wireless transmitter through the port to transmit the user selected arbitrary media content to the display node via the communications network. That is, such user action triggers the sending of a signal to the laptop, which drives the laptop not the display. In other words, in this case, the display node drives the display, not the peripheral device, which is instead, connected to the processing device.

6. On the other hand, in my opinion *Epstein* only teaches using a puck connected to the video/audio output port of the computer/laptop to connect to one of the input ports of the switching device, where one of the buttons on the puck is pressed to indicate intention to drive one of the displays or that control signals are sent to the switching device through the laptop to drive one of the displays. In so doing, the structure and function of the puck or widget of *Epstein* fails to teach the recited features, at least because the pressing of one of the buttons of the puck or widget of *Epstein* does not trigger the processing device to send a signal to the laptop to transfer the user selected arbitrary media content to the wireless transmitter (of the peripheral device) through the port to transmit the user selected arbitrary media content to the display node via the communications network, but rather sends a signal to the switch with the intention to drive one of the displays with the display information from the user's laptop. Instead, it is my understanding that in all embodiments of *Epstein*, the pressing of one of the buttons of the puck would either send a signal to the puck or, in the

case where a wireless access device is used, the wireless on the laptop is used to send the audio/visual information to the switching device.

7. In so doing, since none of *Kita*, *Banerjee*, or *Epstein* teaches "an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the display node via the communications network," any proposed combination of the teachings of *Kita*, *Banerjee*, and *Epstein* cannot result in the features now recited in claim 1. Instead, it is my understanding, that the prior art teaches different structures and methods for solving their respective prior art deficiencies. For example, *Kita* is directed to providing a PCMCIA card for wireless transmission, where the skilled person would have understood that Wi-Fi was introduced for home use in 1999. *Kita* teaches a wireless LAN conference system can be constructed where there are provided network conference terminal devices (11 (2) to 11(n)) in which network interface cards (1) are attached to information terminal devices (abstract). The CPU 8 controls the PCMCIA interface 3 by executing a microprogram (firmware) stored in the flash ROM 9 so that data and command may be transmitted and received between the network interface card and the personal computer having the network interface card 1, and also controls the network interface 4 so that data and commands may be transmitted and received through the wireless LAN in accordance with a predetermined communications protocol (e.g., TCP/IP protocol) (page 22, lines 12-19). The network interface card 1 of the host 11 (1) transmits a polling command for permitting the transmission of the request to one client 11 (2) of the clients 11 (2) to 11 (i) in which the network setting was already completed (page 27, line 27 to page 28, line 4). The network interface card of the client 11 (2) learns that it is permitted to transmit the request, and transmits the request within a time t1 if it has any request (page 28, lines 6-8). While being seated, the participant of the conference can obtain the presentation right by the client on hand and can transmit the presentation data (page 40, lines 18-20).

8. That is, *Kita* only generally discloses transmitting presentation data to the host and client by using the presentation application software, but fails to teach how the presentation data is transmitted. In other words, *Kita* teaches an ad hoc wireless LAN, where a host has the ability to grant access to the LAN and the ability to refuse access (and presentation rights,

where the presentation right needs to be acquired before presentations can be made). In so doing, it is my opinion that *Kita* teaches a centric scheme with centric control, e.g., having a host computer.

9. Similarly, *Banerjee* teaches a master/slave or peer-to-peer configuration for remote connection for an interface to a touch panel. For example, *Banerjee* teaches a plug-and-play device comprising a first plug-and-play interface for establishing a connection with a first computing device; a second plug-and-play interface for establishing a connection with a second computing device; storage storing code that is automatically executed by the second computing device when said plug-and-play device is connected thereto via said second plug-and-play interface, said code when executed initiating a screen display data exchange between said first and second computing devices; and at least one controller controlling said first plug-and-play interface, said second plug-and-play interface and said storage (para. [0009]). Alternatively, system 220 comprises a plug-and-play device 236, a master computer 238 and at least one remote computer 240 (para. [0039]). In this embodiment, the plug-and-play device 236 captures and compresses screen display data generated at the remote computer 240 and allows screen sharing between the remote computer 240 and the master computer 238 by automatically launching software stored on the plug-and-play device 236 (para. [0039]). Once the remote computer 240 is connected to the master computer 238 over the peer-to-peer wireless connection, the remote computer 240 may send a request to share the screen display data of the remote computer 240 to the master computer 238 (para. [0048]). The master computer 238 passes input events, such as keyboard, mouse, trackball and/or pen-touch events, that it receives to the remote computer 240 thereby to remotely control the remote computer 240 (para. [0048]). With the peer-to-peer wireless connection established between the master computer 238 and the remote computer 240, those skilled in the art will appreciate that the user of the remote computer 240 may also be allowed to access the Internet through the master computer 238 (para. [0050]). In other words, *Banerjee* only discloses a plug-and-play device where the launching software is automatically loaded to allow screen sharing and the master computer receives a request to share the screen display data and passes its input events.

10. In so doing, it is my opinion that even if the references were properly combinable, the resulting combination would have resulted in a structure and method that is different than the features now recited in amended claim 1. For example, the combination of the teachings of *Kita* with *Banerjee* and *Epstein* would have resulted in a wireless network interface card that is attached into the PCMCIA slot of a personal computer, where a plug-and-play device (or puck) is attached to the PCMCIA network interface card, and a user action on a keyboard, mouse, etc. of the personal computer or the pressing of one of the buttons of the puck would signal the personal computer to send a signal to a switching device connected to multiple displays (as taught in *Epstein*). Similarly, it is my understanding if the teachings of *Banerjee* and *Epstein* were combined, the combination would have resulted in a plug-and-play device, which is connected to a remote computer, that is connected to the puck as taught in *Epstein*, where the pressing of the one of the buttons of the puck would send a control signal to the computer to send the audio/visual information to be displayed by a switching unit which can be controlled to output the video/audio (as taught in *Epstein*, *see* para. [0049]), e.g., would have used the wireless capabilities of the laptop. That is, it is my opinion that I would not have observed any teaching that any combination of the teachings of *Kita*, *Banerjee*, and *Epstein* would have resulted in the specific combination of features, where the actuator is on the peripheral device, where the actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer the user selected arbitrary media content to the wireless transmitter through the port to transmit the user selected arbitrary media content to the display node via the communications network.

11. Instead, it is my understanding that there are thousands of different combinations of arrangements that could have resulted from the combination of the teachings of *Kita*, *Banerjee*, and *Epstein* and the features recited in claim 1, but no teaching or suggestion from the prior art that would have prompted the skilled person to have arrived at the specific combination of features recited in claim 1. For example, it is my understanding that there is no teaching or reason in the prior art that a skilled person would have added an actuator (e.g., button) to a PCMCIA card (as taught in *Kita*) or that such a combination has ever been made or added an actuator to the plug-and-play device that automatically loads a program to allow screen sharing. Rather, it is my opinion that the prior art of *Kita*, *Banerjee*, and *Epstein* teach mutually exclusive alternatives with respect to the following features:

(1) Communication medium: wired or wireless;

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(2) Peripheral Device: is there plug-and-play device or dongle or software program;

(3) Position of wireless transmitter: on peripheral device or on host computer;

(4) Actuator:

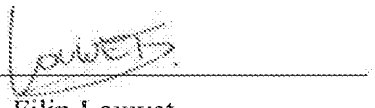
(4a) Position: (1) on the peripheral device (having two to four buttons), (2) on host computer (keyboard or mouse), (3) on host computer (touchscreen), (4) on master computer (remote control), (5) on remote display (e.g., touchscreen);

(4b) Mechanism: (1) Polling, Request (interrupt), (2) Automatic (upon connection of plug-and-play device, and/or (3) Sending a control signal to a switch and wirelessly transmitting audio/visual information from the laptop.

In so doing, it is my understanding that there are at least 248 possibilities to choose among the recited combination of features, where even with these combination of features, the skilled person would not have observed any teaching from *Kita*, *Banerjee*, or *Epstein* that would have taught of the specific combination of features now recited in claim 1.

12. In so doing, in my opinion, as discussed above, on September 14, 2011 (the date that Barco filed U.S. Provisional Patent Application No. 61/534,592), it would not have been obvious to the skilled person to have combined the teachings of *Kita*, *Banerjee*, and *Kita*, or any combination thereof, in the same way as now recited in the amended claims.

13. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the U.S. code and that such willful false statements may jeopardize the validity of the patent.

Date: 04/12/2018 Signature: 

Filip Louwet

PTO/SB/06 (09-11)
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 90/014,087	Filing Date 02/09/2018	☐ To be Mailed

ENTITY: ☑ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	20 minus 20 =	* 0		x $100 =	0
INDEPENDENT CLAIMS (37 CFR 1.16(h))	2 minus 3 =	* 0		x $460 =	0
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	0

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	12/04/2018	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 23	Minus	** 20	= 3		x $100 =	300
	Independent (37 CFR 1.16(h))	* 4	Minus	*** 3	= 1		x $460 =	460
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	760

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	LIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/RHONDA BELL/
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".	
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.	

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/014,087	02/09/2018	8756348	BEEL3001REX/TJM/TL	8024

23364 7590 11/23/2018

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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

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Liang, Frank & King LLP
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Tarrytown, NY 10591

EX PARTE REEXAMINATION COMMUNICATION TRANSMITTAL FORM

REEXAMINATION CONTROL NO. *90/014,087* .

PATENT UNDER REEXAMINATION *8756348* .

ART UNIT *3992* .

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified *ex parte* reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the *ex parte* reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

Ex Parte Reexamination Interview Summary	Control No.	Patent Under Reexamination	
	90/014,087	8756348	
	Examiner	Art Unit	AIA Status
	Christopher E Lee	3992	No

All participants (USPTO personnel, patent owner, patent owner's representative):

(1) Christopher Lee (USPTO)	(3) Thomas Lee(66396),Thomas Moor(28974),Filip Louwel
(2) Nick Corsaro, Ton My Tran (USPTO)	(4) David Fitzgerald,Oliver Charlier,Jan Willem Brands

Date of Interview: 20 November 2018

Type: a) ☐ Telephonic b) ☐ Video Conference
c) ☑ Personal (copy given to: 1) ☐ patent owner 2) ☐ patent owners representative)

Exhibit shown or demonstration conducted: d) ☑ Yes e) ☐ No.
If Yes, brief description: See Continuation Sheet

Agreement with respect to the claims f) ☐ was reached. g) ☑ was not reached. h) ☐ N/A.
Any other agreement(s) are set forth below under "Description of the general nature of what was agreed to..."

Claim(s) discussed: 1,12 and 21-27 .

Identification of prior art discussed: Kita et al. [WO 01/89156 A2], Banerjee et al. [WO 2010/105335 A1], EPstein et al. [US 2010/0302454 A1] .

Description of the general nature of what was agreed to if an agreement was reached, or any other comments:
See Continuation Sheet .

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims patentable, if available, must be attached. Also, where no copy of the amendments that would render the claims patentable is available, a summary thereof must be attached.)

A FORMAL WRITTEN RESPONSE TO THE LAST OFFICE ACTION MUST INCLUDE PATENT OWNER'S STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. (See MPEP § 2281). IF A RESPONSE TO THE LAST OFFICE ACTION HAS ALREADY BEEN FILED, THEN PATENT OWNER IS GIVEN **ONE MONTH** FROM THIS INTERVIEW DATE TO PROVIDE THE MANDATORY STATEMENT OF THE SUBSTANCE OF THE INTERVIEW (37 CFR 1.560(b)). THE REQUIREMENT FOR PATENT OWNERS STATEMENT CAN NOT BE WAIVED. **EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.550(c).**

/Christopher E. Lee/ Primary Examiner, Art Unit 3992	/Nick Corsaro/ Acting SPE, Art Unit 3992	

cc: Requester (if third party requester)

Continuation of Description of Exhibit Shown or Demonstration Conducted:
The Patent Owner demonstrated the patented invention (i.e., electronic meeting tool) using commercial products of Patent Owner's (i.e., base and buttons), two laptops respectively installing executable codes for the invention, and one display screen.

Continuation of Description of the general nature of what was agreed to if an agreement was reached, or any other comments:

Discussed the disclosed invention and the amended claims 1, 12, and the newly added claims 21-27, which were proposed by the Patent Owner.

First, the representative of the Patent Owner (hereinafter "the representative") stated that the actuator (viz., button) triggers a processing device to transfer user selected arbitrary media content to a wireless transmitter, which is able to transmit the media content to a node configuration (viz., base) via a communication network.
The representative argues that the primary reference Kita teaches a connector (e.g., port) based on PCMCIA interface, which is different from the USB-type wireless transmitter of the actuator.
The Examiner mentioned that the alleged USB-type network interface is not recited in the claims, and thus the subject matter "wireless transmitter" of the actuator could not be teaching away from Kita's PCMCIA-type network interface.

Second, the proposed new claim 25 and its dependent claim 26 introduce a new feature, "the electronic meeting tool comprising a first processing device having a first operating system and a second processing device having a second operating system". The representative pointed out the patent under reexamination, column 19, lines 54-56, at where the new feature is allegedly supported.
Moreover, the representive stated that the claiming language "trigger" is defined at column 16, lines 3-28 of the patent under reexamination.

Third, the representative asserted a commercial success derived from the claimed invention. The representative stated that the Patent Owner is willing to submit an affidavit attributing the commercial success to the product of Patent Owner's.

The Examiner expects to receive a reply to the previous Office action, and will consider amended claims, if any, in due course.

PROPOSED CLAIM AMENDMENTS

1. (Twice Amended) An electronic meeting tool for communicating arbitrary media content from users at a meeting comprising:

a node configuration arranged to operate a display node of a communications network, the display node being coupled to a first display, the node configuration further being arranged to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display;

at least one peripheral device configured to communicate the user selected arbitrary media content via the communications network, wherein the peripheral device is a connection unit comprising:

(a) a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system; [and]

(b) a wireless transmitter arranged to communicate with the communications network;

(c) an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the node configuration via the communications network; and

a program configured to be loaded onto the processing device and to run on the operating system of the processing device, said program being arranged to obtain user selected arbitrary media content, said program leaving a zero footprint on termination[, and

an input device enabling the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port].

2. (Original) The electronic meeting tool of claim 1, wherein the program is stored on the peripheral device.

3. (Cancelled)

4. (Original) The electronic meeting tool of claim 1, wherein the peripheral device is a plug-and-

play device.

5. (Original) The electronic meeting tool of claim 1, wherein the program is arranged to screen scrape content of the second display.

6. (Cancelled)

7. (Cancelled)

8. (Cancelled)

9. (Cancelled)

10. (Original) The electronic meeting tool of claim 1, wherein the peripheral device comprises a memory in which executable software code is stored for execution on the processing device, said executable software code comprising:

a first software code portion for setting up, by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device and the processing device;

a second software code portion for connecting the processing device to the communications network via the peripheral device, the peripheral device having a transceiver;

a third software code portion for screen scraping data from the processing device; and

a fourth software code for routing screen scraped data between the processing device and the communications network over the means for communication; wherein the first software code portion is adapted to use a generic communication protocol for transferring the screen scraped data between the processing device and the peripheral device.

11. (Original) A non-transitory storage medium storing the first to fourth software code portion of claim 10.

12. (Twice Amended) A method for communicating arbitrary media content from users at a meeting comprising:

operating a display node of a communications network, the display node being coupled to a first display, to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display; and

connecting a peripheral device to a port of a processing device and communicating the user selected arbitrary media content via the communications network, wherein the peripheral device comprises a connector arranged to couple to the port of the processing device, a wireless transmitter arranged to communicate with the communications network, and an actuator on the peripheral device,

loading a program onto the processing device and running the program on the operating system of the processing device to obtain user selected arbitrary media content, said program leaving a zero footprint on termination, and

triggering transfer of said user selected arbitrary media content to said wireless transmitter of the peripheral device through said port after a user action on [an] the actuator [input device] of the peripheral device that triggers the processing device to wirelessly transfer said user selected arbitrary media content to said transmitter through said port to the display node via the communications network.

13. (Original) The method of claim 12, further comprising configuring the peripheral device to connect to the communications network by pairing the peripheral device with the display node.

14. (Original) The method of claim 13, wherein the pairing is performed by plugging the peripheral device into the display node.

15. (Original) The method of claim 12, further comprising setting up by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device and the processing device.

16. (Original) The method of claim 12, wherein a pre-installed generic driver is selected from a human interface device driver and a mass storage device driver.

17. (Original) The method of claim 12, further comprising one of:
presenting the peripheral device to the processing device as a human interface device,
presenting the peripheral device to the processing device as a mass storage device; and
presenting the peripheral device to the processing device as a composite device.

18. (Original) The method of claim 12, wherein the program is stored on the peripheral device, and which obtains screen scraped data when run on the processing device.

19. (Original) The method of claim 17, wherein a generic communication protocol is used for transferring screen scraped data between the processing device and the peripheral device.

20. (Original) The method of claim 12 further comprising displaying the user selected arbitrary media content on the first display in accordance with a set of rules.

21. (New) The electronic meeting tool of claim 5, wherein the connector of the peripheral device further comprises a flexible data and power connector, wherein the flexible data and power connector is configured in a way such that, when the peripheral device is connected to the processing device in an operating position, the peripheral device is in a region between an outside edge of the processing device and an ergonomic boundary of 4000 square cm, and wherein the actuator has a surface area between 100 and 14,400 square mm.

22. (New) The electronic meeting tool of claim 21, wherein the electronic meeting tool is configured in a way such that the communications network is set up between the at least one peripheral device coupled to the processing device and the node configuration without altering or affecting networking capabilities of the processing device.

23. (New) The electronic meeting tool of claim 22, wherein the actuator is a single button on the at least one peripheral device.

24. (New) The electronic meeting tool of claim 1, wherein said transfer of said user selected arbitrary media content to said wireless transmitter through said port to the node configuration via the communications network comprising automatically transferring said user selected arbitrary media content to the node configuration to force the displaying of the user selected arbitrary media content on the first display.

25. (New) An electronic meeting tool comprising:

a node configuration arranged to operate a display node of a communications network, the display node being coupled to a first meeting display, the node configuration further being arranged to receive a first user selected arbitrary media content and to control display of the first user selected arbitrary media content on the first meeting display;

a first external peripheral device configured to communicate the first user selected arbitrary media content via the communications network, wherein the first external peripheral device is a first connection unit comprising:

(a) a first connector configured to couple to a first port of a first processing device having a first display, a first memory and a first operating system;

(b) a first wireless transmitter configured to communicate with the communications network;

(c) a first input device configured to enable the first user to carry out a first user action that triggers a first transfer of said first user selected arbitrary media content to said transmitter through said first port to transmit said first user selected arbitrary media content to the node configuration via the communications network, wherein the first input device is a first single button on the first external peripheral device; and

a first software code configured to be loaded from the first external peripheral device onto the first processing device and to run on the first operating system of the first processing device, said first software code being configured to obtain the first user selected arbitrary media content, said first software code configured to display said first user selected arbitrary media content when the first single button is pushed, and said program leaving a zero footprint on termination.

26. (New) The electronic meeting tool of claim 25, further comprising

a second external peripheral device configured to communicate a second user selected arbitrary media content via the communications network, wherein the second external peripheral device is a second connection unit comprising:

(a) a second connector configured to couple to a second port of a second processing device having a second display, a second memory and a second operating system;

(b) a second wireless transmitter configured to communicate with the communications network;

(c) a second input device configured to enable the second user to carry out a second user action that triggers a second transfer of said second user selected arbitrary media content to said transmitter through said second port to transmit said second user selected arbitrary media content to the node configuration via the communications network, wherein the second input device is a second single button on the second external peripheral device; and

a second software code configured to be loaded from the second external peripheral device onto the second processing device and to run on the second operating system of the second processing device, said second software code being configured to obtain the second user selected arbitrary media content, said second software code configured to display said second user selected arbitrary media content when the second single button is pushed, and said program leaving a zero footprint on termination.

27. (New) The electronic meeting tool of claim 26, wherein said first operating system is different from said second operating system.

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November 16, 2018

To: Examiner Christopher E. Lee

Email: christopher.lee@uspto.gov

Re: U.S. Reexamination No. 90/014,087, proposed interview agenda

From: Thomas Lee

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Dear Examiner Lee:

Thank you for agreeing to discuss the rejections of the Office Action dated September 4, 2018. In advance of our in-person interview scheduled for November 20, 2018 at 10:00 AM, please find below an agenda for the interview.

Applicant notes the following attendees: 1) Mr. Olivier Charlier, IP Officer at Barco N.V. (WebEx/Teleconference); 2) Mr. Filip Louwet (inventor, WebEx/Teleconference); 3) Jan Willem Brands, CPO at Barco (WebEx/Teleconference); 4) Mr. David Fitzgerald, VP Strategic Alliances at Barco (in-person)

The Applicant's representative intends to discuss the following points:

- The differences between the proposed electronic meeting tool and method and the proposed modification of the invention of WIPO publication WO 01/89156 (*Kita*) in view of WIPO publication WO 2010/105335 (*Banerjee*) and U.S. publication 2010/0302454 (*Epstein*) or *Banerjee* in view of *Epstein*
    - The proposed modification fails to result in "an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the node configuration via the communications network," as proposed in amended claim 1.

- As the Examiner suggests on pages 5-6 of the Office Action "Kita does not expressly teach that the peripheral device is a connection unit comprising (c) an input device arranged to enable the user to carry out a user action" and "Kita, as modified by Banerjee, does not expressly teach that the user action triggers transfer of said user selected arbitrary media content to said transmitter through said port."

- Although the Examiner suggests on page 10 of the Office Action that *Epstein* teaches the previously disclosed features, Applicant submits that *Epstein* fails to teach the features as now clarified in the amended claims. Rather, the claims are now more clearly directed to an actuator on the peripheral device, wherein said actuator is arranged in a way to enable the user to carry out a user action by actuating the actuator to trigger the processing device to transfer said user selected arbitrary media content to said wireless transmitter through said port to transmit said user selected arbitrary media content to the node configuration via the communications network. That is, the skilled person would have understood that such user action triggers the signal to the laptop, which drives the laptop not the display. The skilled person would have understood that the term "trigger" is a term of art, which at least refers to initiating a program that is already loaded (*see* Appendix A, McGraw-Hill Dictionary of Scientific and Technical Terms), which is on the laptop. In other words, the skilled person would have understood that in the present case, the node configuration drives the display, not the peripheral device, which is instead, connected to the processing device.

- On the other hand, the skilled person would have understood that *Epstein* teaches a different system using the puck (or software version if wireless transmission is used). For example, *Epstein* teaches:

    - when **a puck user wants to present information** from her laptop 69 display via display screen 22a, **the user presses button 60a to indicate intention to drive display 22a**. Once button 60a is selected, **four things happen. First, information currently displayed via display 22a is replaced by the information from the user's laptop 69 display. Second,** if a different laptop was previously presenting information via display 22a when button 60a is selected, the other user's puck illumination may change (para. [0066]) (emphasis added).

- In so doing, the skilled person would have understood that *Epstein* only teaches the "intention to drive display 22a," because of the fact that *Epstein* teaches that the puck (and switching device) is connected to a video output.

- In fact, *Epstein* teaches that in the absence of cables, activation is to be done by a software version of at least two buttons (on / off and select screen). "Here, interface **140** operates in the same fashion as puck **48** described above except that control signals from interface **140** are provided to a switching device **wirelessly through the laptop**" (para. [0075]) (emphasis added).

- In so doing, Applicant submits that the skilled person would not have observed the necessary evidence that would have prompted the skilled person to have combined the teachings of *Kita*, *Banerjee*, and *Epstein* in the same way as now proposed in amended claim 1. Rather, the skilled person would have appreciated that *Kita*, *Banerjee*, and *Epstein* are all directed to different structures and methods for overcoming their respective prior art deficiencies. For example, *Kita* is directed to providing a PCMCIA card for wireless transmission, where the skilled person would have understood that Wifi was introduced for home use in 1999. Meanwhile, *Banerjee* teaches a master/slave or peer-to-peer configuration for remote connection for an interface to a touch panel and *Epstein* teaches of either using a puck with wired connection to a switching device or using a software version for sending control signals wirelessly through the laptop. In view of such different structures and functions, Applicant submits that the skilled person would not have observed the necessary evidence that would have prompted the skilled person to have combined the teachings of *Kita*, *Banerjee*, and *Epstein* in the same way to result in the same combination of features as recited in proposed claim 1.

- That is, the skilled person would not have observed any evidence that would prompted the skilled person to have added a button to the PCMCIA card of *Kita* or a button to the plug-and-play device of *Banerjee* so that the combination of prior art teachings would have resulted in the button being arranged in a way to enable the user to carry out a user action that triggers the processing device to transfer the user selected arbitrary media content to the wireless transmitter through the port to transmit the user selected arbitrary media content to the node configuration via the communications network.

- Furthermore, Applicant submits that the proposed combination of *Kita*, *Banerjee*, and *Epstein* fails to result in "wherein the connector of the peripheral device further comprises a flexible data and power connector, wherein the flexible data and power connector is configured in a way such that, when the peripheral device is connected to the processing device in an operating position, the peripheral device is in a region between an outside edge of the processing device and an ergonomic boundary of 4000 square cm, and wherein the actuator has a surface area between 100 and 14,400 square mm," as recited in proposed new claim 21.

    - As discussed in the patent, the ergonomic boundary will typically have the user as one side of the boundary and the comfortable reach of the arms will determine an area on the left and right of the processing device which falls within the ergonomic boundary and the far edge of the boundary of the processing device will determined the other side of the ergonomic boundary (col. 13, lines 35-62).

    - Applicant submits that *Kita*, *Banerjee* and *Epstein* fail to disclose this feature. For example, since *Kita* is directed to a card type network interface, *Kita* does not disclose such an ergonomic boundary. Similarly, *Banerjee* only teaches a plug-and-play device which includes USB interface to touch panel 256, while *Epstein* discloses the use of a puck connected to a switching device.

- Moreover, Applicant submits that the proposed combination of *Kita*, *Banerjee*, and *Epstein* fails to result in "wherein said transfer of said user selected arbitrary media content to said wireless transmitter through said port to the node configuration via the communications network comprising automatically transferring said user selected arbitrary media content to the node configuration to force the displaying of the user selected arbitrary media content on the first display," as recited in proposed new claim 24.

    - In so doing, the skilled person would have appreciated that such features allows for fast transitions to display on the display node by triggering the transmission of the arbitrary media content. That is, in a normal conversation in a meeting of several people, everybody can speak at the same time or whenever they want to. However to avoid confusion, the participants will wait their turn to speak – or interject a statement if they feel it is necessary. So the device having such features allows each person to transmit display data at any time – just like an actual verbal discussion in a meeting. That is, the base node 36 is adapted to force display of the received user selected arbitrary media content, i.e. to allow participation in the meeting by an individual user displaying own selected content on display 44

independently of the person who is nominally responsible for giving a presentation or chairing the meeting (col. 14, lines 50-59). In so doing, the skilled person would have understood that features are at least directed to a democratic displaying method, as opposed to a centric scheme, as discussed in the background of the present patent.

- In contrast, as taught in *Kita*, a host or centric presentation device in which a master or host is used to decide who can speak, e.g., polling, centric control. Whereas, *Banerjee* only teaches a master/slave or peer-to-peer connection, while *Epstein* teaches the user presses button 60a to indicate intention to drive display 22a.

- Additionally, Applicant submits that the proposed combination of *Kita*, *Banerjee*, and *Epstein* fails to result in "wherein the electronic meeting tool is configured in a way such that the communications network is set up between the at least one peripheral device coupled to the processing device and the node configuration without altering or affecting networking capabilities of the processing device," as proposed in new claim 22.

    - In so doing, the skilled person would have appreciated that one advantage of this is that it leaves the communications of the laptop unaffected. So emails do not have to go through the peripheral device. Another advantage is that this communication network is potentially more secure especially for visitors.

    - Since *Kita* is directed to PCMCIA cards, which is used to provide the wireless connection, the personal computer would not have wireless capabilities.

    - *Banerjee*, however only teaches that an email will be sent to the master computer and from there to the Internet. So for a visitor to a meeting, any email he/she wants to send or receive has to go via the host system thereby exposing the emails to the host company.

- Still further, Applicant submits that the proposed combination of *Kita*, *Banerjee*, and *Epstein* fails to result in "wherein the actuator is a single button on the at least one peripheral device," as proposed in new claim 23.

    - Instead, Applicant submits that the commercial success of one of the commercial embodiments of the present invention, ClickShare™, goes against the obviousness of the combination of features.

    - Furthermore, Applicant submits that the skilled person would not have been prompted to combine the teachings of *Kita*, *Banerjee*, and

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Barco Exhibit 2001

Epstein in the same way as recited in claim 23, at least because, *Epstein* teaches using two to four buttons for corresponding to the associated display (e.g., would have changed the principle of operation and intended purpose of the puck of *Epstein*, *see* MPEP 2143.01(V),(VI)).

- In fact, in view of the several mutually exclusive alternative combinations, Applicant submits that the skilled person would not have been prompted to result in this specific combination of features.

- The Examiners' comments on the above points will be requested to assist Applicant in the expeditious continued prosecution of the application.

I look forward with speaking with you.

Sincerely,
BACON & THOMAS, PLLC



THOMAS LEE
Reg. No.: 66,396

McGRAW-HILL DICTIONARY OF SCIENTIFIC AND TECHNICAL TERMS

Sixth Edition

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On the cover: Representation of a fullerene molecule with a noble gas atom trapped inside. At the Permian-Triassic sedimentary boundary the noble gases helium and argon have been found trapped inside fullerenes. They exhibit isotope ratios quite similar to those found in meteorites, suggesting that a fireball meteorite or asteroid exploded when it hit the Earth, causing major changes in the environment. ***(Image copyright © Dr. Luann Becker. Reproduced with permission.)***

Over the six editions of the Dictionary, material has been drawn from the following references: G. M. Garrity et al., *Taxonomic Outline of the Procaryotes*, Release 2, Springer-Verlag, January 2002; D. W. Linzey, *Vertebrate Biology*, McGraw-Hill, 2001; J. A. Pechenik, *Biology of the Invertebrates*, 4th ed., McGraw-Hill, 2000; *U.S. Air Force Glossary of Standardized Terms*, AF Manual 11-1, vol. 1, 1972; F. Casey, ed., *Compilation of Terms in Information Sciences Technology*, Federal Council for Science and Technology, 1970; *Communications-Electronics Terminology*, AF Manual 11-1, vol. 3, 1970; P. W. Thrush, comp. and ed., *A Dictionary of Mining, Mineral, and Related Terms*, Bureau of Mines, 1968; *A DOD Glossary of Mapping, Charting and Geodetic Terms*, Department of Defense, 1967; J. M. Gilliland, *Solar-Terrestrial Physics: A Glossary of Terms and Abbreviations*, Royal Aircraft Establishment Technical Report 67158, 1967; W. H. Allen, ed., *Dictionary of Technical Terms for Aerospace Use*, National Aeronautics and Space Administration, 1965; *Glossary of Stinfo Terminology*, Office of Aerospace Research, U.S. Air Force, 1963; *Naval Dictionary of Electronic, Technical, and Imperative Terms*, Bureau of Naval Personnel, 1962; R. E. Huschke, *Glossary of Meteorology*, American Meteorological Society, 1959; *ADP Glossary*, Department of the Navy, NAVSO P-3097; *Glossary of Air Traffic Control Terms*, Federal Aviation Agency; *A Glossary of Range Terminology, White Sands Missile Range, New Mexico*, National Bureau of Standards, AD 467-424; *Nuclear Terms: A Glossary*, 2d ed., Atomic Energy Commission.

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Barco Exhibit 2001

glittering crystals; soluble in alcohol, insoluble in water; melts at 48°C; used as a chemical intermediate. { 'trī·kə,sān }

tricot {TEXT} A warp-knitted fabric, that is, flat-knitted with fine ribs on the face (lengthwise) and ribs on the back (widthwise). { 'trē kō }

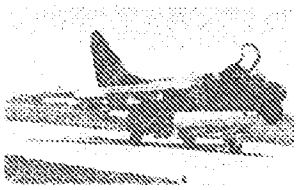
tricotine {TEXT} A fabric similar to gabardine but with a steep double-twill weave resembling a knitted surface. Also known as cavalry twill. { ,trik·ə'tēn }

tricresyl phosphate {ORG CHEM} $(CH_3C_6H_4O)_3PO$ A combustible, colorless liquid; insoluble in water, soluble in common solvents and vegetable oils; boils at 420°C; used as a plasticizer, plastics fire retardant, air-filter medium, and gasoline and lubricant additive. Abbreviated TCP. { trī'kres·ə,fāt }

Trictenotomidae {INV ZOO} A small family of Indian and Malaysian beetles in the superfamily Tenebrionoidea. { ,trik·tə·nō'täm·ə,dē }

tricuspid valve {ANAT} A valve consisting of three flaps located between the right atrium and right ventricle of the heart. { trī'kəs·pəd 'valv }

TRICYCLE LANDING GEAR



Typical tricycle landing gear on A-7 Corsair II. (*LTV Aerospace Corp.*)

tricycle landing gear {AERO ENG} A landing-gear arrangement that places the nose gear well forward of the center of gravity on the fuselage and the two main gears slightly aft of the center of gravity, with sufficient distance between them to provide stability against rolling over during a yawed landing in a crosswind, or during ground maneuvers. { 'trī·sik·əl 'land·iŋ ,gir }

tricyclic dibenzopyran *See* xanthene. { trī'sī·klik dī,ben·zō'pī·ran }

Tridacnidae {INV ZOO} A family of bivalve mollusks in the subclass Eulamellibranchia which contains the giant clams of the tropical Pacific. { trī'dak·nə,dē }

Tridactylidae {INV ZOO} The pygmy mole crickets, a family of insects in the order Orthoptera, highly specialized for fossorial existence. { ,trī·dak'til·ə,dē }

n-tridecane {ORG CHEM} $CH_3(CH_2)_{11}CH_3$ A combustible liquid; soluble in alcohol, insoluble in water; boils at 226°C; used as a distillation chaser and chemical intermediate. { ,en trī'de,kān }

tridecanol *See* tridecyl alcohol. { trī'dek·ə,nōl }

tridecyl alcohol {ORG CHEM} $C_{12}H_{25}CH_2OH$ An isomer mixture; a white, combustible solid with a pleasant aroma; melts at 31°C; used in detergents and perfumery and to make synthetic lubricants. Also known as tridecanol. { trī'des·əl 'al·kə,hōl }

tridentate ligand {ENDURG CHEM} A chelating agent having three groups capable of attachment to a metal ion. Also known as terdentate ligand. { trī'den,tāt 'lig·ənd }

trident of Newton {MATH} The curve in the plane given by the equation $xy = ax^3 + bx^2 + cx + d$, where $a \neq 0$; this cuts the x axis in one or three points and is asymptotic to the y axis if $d \neq 0$. { 'trīd·ənt əv 'nüt·ən }

tridiagonal matrix {MATH} A square matrix in which all entries other than those on the principal diagonal and the two adjacent diagonals are zero. { ,trī·dī'ag·ən·əl 'mā·triks }

triductor {ELEC} Arrangement of iron-core transformers and capacitors used to triple a power-line frequency. { trī'dək·tər }

tridymite {MINERAL} SiO_2 A white or colorless crystal occurring in minute, thin, tabular crystals or scales; a high-temperature polymorph of quartz. { 'trid·ə,mīt }

triethanolamine {ORG CHEM} $(HOCH_2CH_2)_3N$ A viscous, hygroscopic liquid with an ammonia aroma; soluble in chloroform, water, and alcohol; and boiling at 335°C; used in dry-cleaning soaps, cosmetics, household detergents, and textile processing, for wool scouring, and as a corrosion inhibitor. { trī,eth·ə'nōl·ə,mēn }

triethanolamine stearate *See* trihydroxyethylamine stearate. { trī,eth·ə'nōl·ə,mēn 'stir,āt }

triethylamine {ORG CHEM} $(C_2H_5)_3N$ A colorless, toxic, flammable liquid with an ammonia aroma; soluble in water and alcohol; boils at 90°C; used as a solvent, rubber-accelerator activator, corrosion inhibitor, and propellant, and in penetrating and waterproofing agents. { trī'eth·ə·lə,mēn }

triethylborane {ORG CHEM} $(C_2H_5)_3B$ A colorless liquid with a boiling point of 95°C; used as a jet fuel or igniter for jet engines and as a fuel additive. Also known as boron triethyl; triethylborine. { trī,eth·əl'bōr,ān }

triethylborine *See* triethylborane. { trī,eth·əl'bor,ān }

triethylene glycol {ORG CHEM} $HO(C_2H_4O)_3H$ A colorless, combustible, hygroscopic, water-soluble liquid; boils at 287°C; used as a chemical intermediate, solvent, bactericide, humectant, and fungicide. Abbreviated TEG. { trī'eth·ə,lēn 'glī,kōl }

triethylenemelamine {ORG CHEM} $NC[N(CH_2)_2]NC[N(CH_2)_2]NC[N(CH_2)_2]$ White crystals, soluble in water, alcohol, acetone, chloroform, and methanol; polymerizes at 160°C; used in medicine and insecticides and as a chemosterilant. Abbreviated TEM. Also known as tretamine. { trī,eth·ə,lēn'·mel·ə,mēn }

triethylenetetramine {ORG CHEM} $NH_2(C_2H_4NH)_2C_2H_4NH_2$ A yellow, water-soluble liquid with a boiling point of 277.5°C; used in detergents and in the manufacture of dyes and pharmaceuticals. { trī,eth·ə,lēn'te·trə,mēn }

triethylic borate *See* ethyl borate. { ,trī·ə'thil·ik 'bōr,āt }

triethyl phosphate {ORG CHEM} $(C_2H_5)_3PO_4$ A toxic, colorless liquid that acts as a cholinesterase inhibitor; boiling point is 216°C; soluble in organic solvents; used as a solvent and plasticizer and for pesticides manufacture. Abbreviated TEP. { trī'eth·əl 'fā,sfāt }

trifid {BIOL} Divided into three lobes separated by narrow sinuses partway to the base. { 'trī,fid }

Trifid nebula {ASTROG} An emission nebula in Sagittarius that consists mostly of hydrogen ionized by hot, young stars, and displays dark lanes formed by dust. { 'trī,fid 'neb·yə·lə }

trifilter hydrophotometer {ENG} An instrument that uses red, green, and blue filters to measure the transparency of the water at three wavelengths. { 'trī,fil·tər ,hī·drō·fə'täm·əd·ər }

trifluorochloroethylene resin {ORG CHEM} A fluorocarbon used as a base for polychlorotrifluoroethylene resin. { trī,flur·ō,klor·ō'eth·ə,lēn ,rez·ən }

trifluoromethane *See* fluoroform. { trī,flür·ō'meth,ān }

trifluorotrichloroethane *See* 1,1,2-trichloro-1,2,2-trifluoroethane. { trī,flür·ō·trī,klōr·ō'eth,ān }

trifoliate {BOT} Having three leaves or leaflets. { trī'fō·lē,āt }

TRIFOLIATE



Trifoliate leaf, with three leaflets.

trifoliosis {VET MED} An acute photosensitization characterized by superficial necrosis of white or light-skinned animals feeding on certain leguminous plants. { trī,fō·lē'ō·səs }

Trifolium hybridium *See* alsike clover. { trī,fō·lē·əm hī'brid·ē·əm }

triformal *See* sym-trioxane. { trī'for·məl }

trigamma function {MATH} The derivative of the digamma function. { 'trī,gam·ə ,fəŋk·shən }

trigatron {ELECTR} Gas-filled, spark-gap switch used in line pulse modulators. { 'trig·ə,trän }

trigeminal nerve {NEUROSCI} The fifth cranial nerve in vertebrates; either of a pair of composite nerves rising from the side of the medulla, and with three great branches: the ophthalmic, maxillary, and mandibular nerves. { trī'jem·ə·nəl 'nərv }

trigeminal neuralgia {MED} Sudden severe pains of unknown cause along the path of one or more branches of the trigeminal nerve. Also known as tic douloureux. { trī'jem·ə·nəl nu'ral·jə }

trigger {COMPUT SCI} To execute a jump to the first instruction of a program after the program has been loaded into the computer. Also known as initiate. {ELECTR} 1. To initiate an action, which then continues for a period of time, as by applying a pulse to a trigger circuit. 2. The pulse used to initiate the action of a trigger circuit. 3. *See* trigger circuit. {ORD} A metallic item, part of the firing mechanism of a firearm, designed to release a firing pin by the application of pressure by the finger. { 'trig·ər }

trigger action {ELECTR} Use of a weak input pulse to initiate main current flow suddenly in a circuit or device. { 'trig·ər ,ak·shən }

trigger bolt *See* auxiliary dead latch. { 'trig·ər ,bōlt }

trigger circuit {ELECTR} 1. A circuit or network in which the output changes abruptly with an infinitesimal change in input at a predetermined operating point. Also known as trigger. 2. A circuit in which an action is initiated by an input pulse, as in a radar modulator. 3. *See* bistable multivibrator. { 'trig·ər ,sər·kət }

trigger control {ELECTR} Control of thyratrons, ignitrons, and other gas tubes in such a way that current flow may be started or stopped, but not regulated as to rate. { 'trig·ər kən,trōl }

Barco Exhibit 2001

Doc Code: ECOMM.AUTH/ECOMM.WTDW
Doc Description: Internet Communications Authorized/Internet Communications Authorization Withdrawn

PTO/SB/439 (11-15)

AUTHORIZATION FOR INTERNET COMMUNICATIONS IN A PATENT APPLICATION OR REQUEST TO WITHDRAW AUTHORIZATION FOR INTERNET COMMUNICATIONS		
	Application No.	90/014,087
	Filing Date	February 9, 2018
	First Named Inventor	Koen Simon Herman BEEL
	Art Unit	3992
	Examiner Name	Christopher E. Lee
	Practitioner Docket No.	BEEL3001REX/TJM/TL

To: Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

I. To authorize permission for Internet Communications.

☑ Recognizing that Internet communications are not secure, I hereby authorize the USPTO to communicate with the undersigned and practitioners in accordance with 37 CFR 1.33 and 37 CFR 1.34 concerning any subject matter of this application via video conferencing, instant messaging, or electronic mail. I understand that a copy of these communications will be made of record in the application file. (MPEP 502.03)

II. To withdraw authorization for Internet Communications.

☐ The authorization given on _____, to the USPTO to communicate with the undersigned and any practitioner in accordance with 37 CFR 1.33 and 37 CFR 1.34 concerning any subject matter of this application via Internet communications such as video conferencing, instant messaging, or electronic mail is hereby withdrawn. I understand that the withdrawal is effective when approved rather than when received.

I am the

☐ applicant.

☑ attorney or agent of record. Registration number 66396.

☐ attorney or agent acting under 37 CFR 1.34. Registration number _____.

/Thomas Lee/ — Signature

November 9, 2018 — Date

THOMAS LEE — Typed or printed name

571-317-7026 — Telephone Number

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. Juristic entities must be represented by a patent practitioner (see 37 CFR 1.31, which is applicable to any paper filed on or after September 16, 2012, that is presented on behalf of a juristic entity, regardless of application filing date). Submit multiple forms if more than one signature is required, see below*.

☐ * Total of _____ forms are submitted.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Acknowledgement Receipt

EFS ID:	34268962
Application Number:	90014087
International Application Number:	
Confirmation Number:	8024
Title of Invention:	Electronic Tool and Methods for Meetings
First Named Inventor/Applicant Name:	8756348
Customer Number:	23364
Filer:	Thomas Lee
Filer Authorized By:	
Attorney Docket Number:	BEEL3001REX/TJM/TL
Receipt Date:	09-NOV-2018
Filing Date:	09-FEB-2018
Time Stamp:	17:33:47
Application Type:	Reexam (Patent Owner)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Miscellaneous Incoming Letter	BEEL3001REX_intrnt_authrzn_09NOV18.pdf	74903 f599e1b6d8d6b848a13e1e4270cf7c45db08ea45	no	2

Warnings:

Information:	
Total Files Size (in bytes):	74903

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Patent Owner:	BARCO N.V.	**Inventors:**	BEEL et al.
Serial No.:	90/014,087	**Confirm. No.:**	8024
Filing Date:	February 9, 2018	**Art Unit:**	3992
Patent No.:	8,756,348	**Customer No.:**	23364
Attorney No.:	BEEL3001REX/TJM/TL	**Examiner:**	Christopher E. Lee
For:	**ELECTRONIC TOOL AND METHODS FOR MEETINGS**		

PATENT OWNER'S REQUEST FOR EXTENSION OF TIME UNDER 37 C.F.R. § 1.550(c)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Director:

Patent Owner, Barco N.V. ("Barco"), hereby requests under 37 C.F.R. § 1.550(c) for an extension of time for replying to the outstanding non-Final Office Action mailed September 4, 2018 in the above identified reexamination where the fee set forth in 37 CFR 1.17(g) accompanies this request. The current deadline is NOVEMBER 4, 2018, where Barco requests that the Patent Office extend the deadline for reply to DECEMBER 7, 2018.

Barco requests for the extension of time for sufficient cause for the following reasons:

Barco requests a fair opportunity to prepare its arguments and any affidavits against the Examiner's obviousness rejection. Specifically, Barco and counsel have been

interviewing and have scheduled to interview several members involved in the development and marketing of the product covered by U.S. patent 8,756,348 to prepare evidence for submission pursuant to 37 C.F.R. § 1.132 to rebut the Examiner's obviousness rejections. While Barco and counsel have interviewed a few of the members in October 2018, Barco and counsel have scheduled additional interviews and will require time to prepare the affidavits for signature. In so doing, although Barco has been diligent in its efforts to prepare a response to the outstanding Office Action, Barco requests an extension of time to prepare the necessary evidence and arguments for consideration by the Examiner.

STATEMENT OF FACTS

1. U.S. patent 8,756,348 ("the '348 patent") issued on June 17, 2018 and is owned by Barco.
2. A Third Party Requester filed an Ex Parte Request for Reexamination on February 9, 2018 seeking reexamination of the claims of the '348 patent.
3. On March 23, 2018, the Patent Office issued a Decision Granting Ex Parte Reexamination.
4. Barco filed a Patent Owner's Statement on May 23, 2018.
5. Barco and counsel interviewed members involved in the development and marketing of the product covered by the '348 patent on October 15 and 16, 2018 and have scheduled an additional interview for October 18, 2018.

ARGUMENT

Under 37 C.F.R. § 1.550(c), a request for an extension in a third party requested ex parte reexamination will not be granted in the absence of sufficient cause or for more than a reasonable time.

While Barco and counsel have been diligently reviewing and analyzing the Examiner's reasons for rejection, additional time will be required to prepare the necessary evidence to rebut the Examiner's obviousness rejection.

In this case, Barco submits that sufficient cause is shown at least because Barco is in the process of preparing declarations pursuant to 37 CFR 1.132 to rebut the Examiner's obviousness rejections, where in order to ensure full consideration of any amendments, affidavits or declarations, or other documents as evidence of patentability, such documents must be submitted in response to this Office action (*see* MPEP 2260). For example, while Barco and counsel have already interviewed two members involved in the development and marketing of the product covered by the '348 patent, they have scheduled at least one additional interview and will need time to prepare the appropriate affidavits, where the declarants are overseas and/or executives at Barco and time is necessary to schedule the interviews. Since any subsequent Office Action will likely be made final and be governed by the requirements of 37 C.F.R. 1.116 after final rejection, the evidence required to rebut the Examiner's rejection in the present Office Action will be extensive and time-consuming to prepare and present by the initial deadline.

In view of such time required to obtain such affidavits or declarations, Barco submits that an extension to DECEMBER 7, 2018 is both necessary and reasonable.

Accordingly, Barco respectfully requests that the Director grant this request for extension of time to reply to the outstanding Office Action in view of the sufficient cause for granting the extension for a reasonable time.

Please charge any additional fees required or credit any overpayments in connection with this paper to Deposit Account No. 02-0200.

If any issues remain that may be resolved by a telephone or facsimile communication with the Patent Owner's attorney, the examiner is invited to contact the undersigned at the numbers shown below.

BACON & THOMAS, PLLC
625 Slaters Lane, Fourth Floor
Alexandria, Virginia 22314-1176
Phone: (703) 683-0500
Facsimile: (703) 683-1080

Date: October 17, 2018

Respectfully submitted,

/Thomas Lee/

THOMAS LEE
Attorney for Patent Owner
Registration No. 66,396

CERTIFICATE OF SERVICE

The undersigned hereby certify that on October 17, 2018, the attached Request for Extension of time, in its entirety, was sent via United States Postal Service, first class mail to the Third Party Requester at the address listed below pursuant to 37 C.F.R. § 1.550(f) and 1.248(a)(4).

Stanley Liang
Liang, Frank & King LLP
520 White Plains Road, Suite 500
Tarrytown, NY 10591

BACON & THOMAS, PLLC

By: /Thomas Lee/

THOMAS LEE
Attorney for Patent Owner
Registration No. 66,396

Electronic Patent Application Fee Transmittal

Application Number:	90014087
Filing Date:	09-Feb-2018
Title of Invention:	Electronic Tool and Methods for Meetings
First Named Inventor/Applicant Name:	8756348
Filer:	Thomas Lee
Attorney Docket Number:	BEEL3001REX/TJM/TL

Filed as Large Entity

Filing Fees for ex parte reexam

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
PETITION FEE- 37 CFR 1.17(G) (GROUP II)	1463	1	200	200
Miscellaneous:				
			Total in USD ($)	**200**

Electronic Acknowledgement Receipt

EFS ID:	34031016
Application Number:	90014087
International Application Number:	
Confirmation Number:	8024
Title of Invention:	Electronic Tool and Methods for Meetings
First Named Inventor/Applicant Name:	8756348
Customer Number:	23364
Filer:	Thomas Lee
Filer Authorized By:	
Attorney Docket Number:	BEEL3001REX/TJM/TL
Receipt Date:	17-OCT-2018
Filing Date:	09-FEB-2018
Time Stamp:	08:50:36
Application Type:	Reexam (Third Party)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$200
RAM confirmation Number	101718INTEFSW08515900
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Barco Exhibit 2001

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Reexam Request for Extension of Time	BEEL3001REX_rqst_EOT_17OCT18.pdf	151396 ecf64b2dd328125de166a5024424ac5821e1e814	no	4
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30247 9a3691ec193b16a93e84c3d72b8b96b3a2aa331f	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	181643		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/014,087	02/09/2018	8756348	BEEL3001REX/TJM/TL	8024

23364 7590 10/17/2018

BACON & THOMAS, PLLC
625 SLATERS LANE
FOURTH FLOOR
ALEXANDRIA, VA 22314-1176

EXAMINER
LEE, CHRISTOPHER E

ART UNIT	PAPER NUMBER
3992	

MAIL DATE	DELIVERY MODE
10/17/2018	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patents and Trademark Office
P.O.Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

THIRD PARTY REQUESTER'S CORRESPONDENCE ADDRESS

LIANG, FRANK & KING LLP
520 WHITE PLAINS ROAD
SUITE 500
TARRYTOWN, NY 10591

Date:

OCT 17 2018

EX PARTE REEXAMINATION COMMUNICATION TRANSMITTAL FORM

REEXAMINATION CONTROL NO. : 90014087
PATENT NO. : 8756348
ART UNIT : 3992

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified ex parte reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the ex parte reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

Decision on Petition for Extension of Time in Reexamination	Application No.	Applicant(s)	
	90/014,087	8,756,348	
	Examiner	Art Unit	
	Christopher E. Lee	3992	

1. THIS IS A DECISION ON THE PETITION FILED October 17, 2018.

2. THIS DECISION IS ISSUED PURSUANT TO:
   - A. ☒ 37 CFR 1.550(c) – The time for taking any action by a patent owner in a third party requested *ex parte* reexamination proceeding will be extended only for sufficient cause and for a reasonable time specified.
   - B. ☐ 37 CFR 1.550(c) – The time for taking action by a patent owner in a patent owner requested *ex parte* reexamination proceeding will only be extended for more than two months for sufficient cause and for a reasonable time specified.
   - C. ☐ 37 CFR 1.956 – The time for taking any action by a patent owner in an *inter partes* reexamination proceeding will be extended only for sufficient cause and for a reasonable time specified.

   The petition is before the Central Reexamination Unit for consideration.

3. FORMAL MATTERS

Patent owner requests that the period for responding to the Office action mailed on September 4, 2018 which set a two (2) month period for filing a response thereto, be extended by an additional one (1) month.

   - A. Petition fee per 37 CFR §1.17(g)):
     - i. ☐ Petition includes authorization to debit a deposit account.
     - ii. ☒ Petition includes authorization to charge a credit card account.
     - iii. ☐ Other _____.
   - B. ☒ Proper certificate of service was provided. (Not required in reexamination where patent owner is requester.)
   - C. ☒ Petition was timely filed.
   - D. ☒ Petition properly signed.

4. DECISION (See MPEP 2265 and 2665)
   - A. ☒ Granted or ☐ Granted-in-part for **one (1) month** because petitioner provided a factual accounting that established sufficient cause. (See 37 CFR 1.550(c) and 37 CFR 1.956).
     - i. ☐ Other/comment: (See attached)
   - B. ☐ Dismissed because:
     - i. ☐ Formal matters (See unchecked box(es) (A, B, C and/or D) in section 4 above).
     - ii. ☐ Petitioner failed to provide a factual accounting of reasonably diligent behavior by all those responsible for preparing a response to the outstanding Office action within the statutory time period.
     - iii. ☐ Petitioner failed to explain why, in spite of the action taken thus far, the requested additional time is needed.
     - iv. ☐ The statements provided fail to establish sufficient cause to warrant extension of the time for taking action (See attached).
     - v. ☐ The petition is moot
     - vi. ☐ Other/comment:

5. CONCLUSION: **The response to the Office action mailed September 4, 2018 is due now December 4, 2018.**

6. Telephone inquiries with regard to this decision should be directed to Stephen Stein at 571-272-1544 in the CRU.

/Stephen Stein/
Supervisory Patent Reexamination Specialist
Central Reexamination Unit

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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EX PARTE REEXAMINATION COMMUNICATION TRANSMITTAL FORM

REEXAMINATION CONTROL NO. *90/014,087* .

PATENT UNDER REEXAMINATION *8756348* .

ART UNIT *3992* .

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified *ex parte* reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the *ex parte* reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

Office Action in Ex Parte Reexamination	**Control No.** 90/014,087	**Patent Under Reexamination** 8756348	
	Examiner Christopher E Lee	**Art Unit** 3992	**AIA Status** No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

a. ☑ Responsive to the communication(s) filed on 09 February 2018.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

b. ☐ This action is made FINAL.

c. ☐ A statement under 37 CFR 1.530 has not been received from the patent owner.

A shortened statutory period for response to this action is set to expire 2 month(s) from the mailing date of this letter. Failure to respond within the period for response will result in termination of the proceeding and issuance of an *ex parte* reexamination certificate in accordance with this action. 37 CFR 1.550(d). **EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.550(c).** If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. ☐ Notice of References Cited by Examiner, PTO-892.
2. ☐ Information Disclosure Statement, PTO/SB/08.
3. ☐ Interview Summary, PTO-474.
4. ☐ _____.

Part II SUMMARY OF ACTION

1a. ☑ Claims 1-20 are subject to reexamination.
1b. ☐ Claims _____ are not subject to reexamination.
2. ☐ Claims _____ have been canceled in the present reexamination proceeding.
3. ☐ Claims _____ are patentable and/or confirmed.
4. ☑ Claims 1-20 are rejected.
5. ☐ Claims _____ are objected to.
6. ☐ The drawings, filed on _____ are acceptable.
7. ☐ The proposed drawing correction, filed on _____ has been (7a) ☐ approved (7b) ☐ disapproved.
8. ☐ Acknowledgment is made of the priority claim under 35 U.S.C. 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the certified copies have
   1 ☐ been received.
   2 ☐ not been received.
   3 ☐ been filed in Application No. _____.
   4 ☐ been filed in reexamination Control No. _____.
   5 ☐ been received by the International Bureau in PCT application No. _____.
   * See the attached detailed Office action for a list of the certified copies not received.
9. ☐ Since the proceeding appears to be in condition for issuance of an *ex parte* reexamination certificate except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte* Quayle, 1935 C.D. 11, 453 O.G. 213.
10. ☐ Other: _____

cc: Requester (if third party requester)

DETAILED ACTION

Ex Parte Reexamination

1. This is an *ex parte* reexamination of United States Patent Number US 8,756,348 B2, which issued to Beel et al. (hereinafter "the '348 Patent"), and it is being reexamined under the pre-AIA first to invent provisions.

2. The Third Party requester filed a request for *ex parte* reexamination of the '659 Patent on February 9, 2018 (hereinafter "the Request"). The Patent Owner filed Patent Owner's Statement on May 23, 2018, and the Third Party requester's Reply to the Patent Owner's Statement was submitted on July 20, 2018. All of the documents have been entered for consideration.

3. Original claims 1, 8, and 12 have been amended since the instant reexamination request was filed. Currently, the claims 1-20 are subject to the instant *ex parte* reexamination.

Summary of Ex Parte Reexamination Prosecution

4. In the request for reexamination, the Third Party requester alleges that the following references, in certain combinations, have been asserted as providing teachings relevant to the claims 1-22 of the '959 Patent:

- Kita et al. [WO 01/89156 A2], "Card Type Network Interface, Network Conference Terminal Device and Network Conference System," published on November 22, 2001 (hereinafter "Kita")
- Banerjee et al. [WO 2010/105335 A1], "Plug-and-Play Interface Device," published on September 23, 2010 (hereinafter "Banerjee")
- Epstein et al. [US 2010/0302454 A1], "Personal Control Apparatus and Method for sharing Information in a Collaborative Workplace," published on December 2, 2010 (hereinafter "Epstein")
- Slobodin et al. [US 2002/0196378 A1], "Method and Apparatus for Wireless Image Transmission to a Projector," published on December 26, 2002 (hereinafter "Slobodin")

Prosecution History of the '348 Patent

5. The '348 Patent was issued from the U.S. Patent Application No. 13/270,659 (hereinafter "the '659 Application") filed on October 11, 2011, and it is generally directed to an electronic tool and method for meetings.

Here is the prosecution history of the '348 Patent listed in chronological.

09/14/2011 The provisional application 61/534,592 was filed.

10/11/2011 The non-provisional application 13/270,659 was filed.

05/07/2013 Telephonic interview for restriction/election initiated by the Examiner of record was conducted.

06/02/2013 The Examiner of record issued a non-final First action on the merit for the '659 Application.

12/12/2013 The Applicant responded to the non-final First action of the '659 Application.

02/04/2014 The Examiner of record issued a notice of allowance for the '659 Application, which was ultimately patented as US 8,756,348 B2.

02/09/2018 The Third Party requester filed a request for *ex parte* reexamination of the '659 Patent.

3/23/18 The Request was granted, and the original claims 1-20 were determined to be subject to reexamination, and the decision was mailed.

5/23/18 The Patent Owner filed Patent Owner's statement under 37 CFR § 1.530(c), and it was entered.

7/20/18 The Third Party requester filed Third Party requester's Reply to the Patent Owner's statement under 37 CFR § 1.535, and it was entered.

The Examiner issues the instant First Action on the Merit (FAOM) Non-Final Office action.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of pre-AIA 35 U.S.C. § 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 8 and 9 are rejected under 35 U.S.C. § 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor or a joint inventor, or for pre-AIA the inventor(s), at the time the application was filed, had possession of the claimed invention.

The amended claim 8 recites a limitation "the input device on the peripheral device is triggered by a key displayed on the second display". However, the disclosure of the '348 Patent does not support this limitation because the specification is silent upon the key displayed on the second display that *triggers the input device* on the peripheral device (*emphasis* added). Instead, the specification discloses a key on the display of the client processing device for allowing a user to input the start the transfer of data from the processing device to the base node (See the specification, col. 6, lines 56-60). In other words, the specification discloses that the key displayed on the second display does not trigger the input device on the peripheral device, but the transfer of data from the processing device to the base node.

Therefore, the claim 8 and its dependent claim 9 contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor or a joint inventor, or for pre-AIA the inventor(s), at the time the application was filed, had possession of the claimed invention.

Statutory Basis for Grounds of Rejections - 35 USC § 103

8. The following is a quotation of pre-AIA 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This patent under reexamination currently names joint inventors. In considering patentability of the claims under pre-AIA 35 U.S.C. § 103(a), the Examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Patent Owner is advised of the obligation under 37 CFR § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the Examiner to consider the applicability of pre-AIA 35 U.S.C. § 103(c) and potential pre-AIA 35 U.S.C. § 102(e), (f) or (g) prior art under pre-AIA 35 U.S.C. § 103(a).

Claim Rejections

Re. Ground #1: Kita in view of Banerjee and Epstein

9. Claims 1-6 and 10-20 are rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Kita [WO 01/89156 A2] in view of Banerjee [WO 2010/105335 A1] and Epstein [US 2010/0302454 A1].

Referring to claim 1, Kita discloses an electronic meeting tool (i.e., network conference terminal device and network system) for communicating arbitrary media content (i.e., presentation data) from users (i.e., clients) at a meeting[1] (i.e., conference; See page 1, lines 5-9 and page 7, lines 2-18) comprising:

- a node configuration (i.e., configuration of wireless LAN conference terminal devices 11(1, 2, … n) in Fig. 5) arranged to operate a display node (e.g., notebook size personal computer 11(1) of Fig. 5) of a communications network (i.e., wireless LAN in Fig. 5; See

[1] The preamble of the claim 1 does not constitute any structural limitation because it is not a part of the claimed invention, but an intended use of the claimed invention. Thus, the preamble of the claim 1 is not given patentable weight. *Pac-Tec Inc. v. Amerace Corp.,* 903 F.2d 796, 801, 14 USPQ2d 1871, 1876 (Fed. Cir. 1990) (determining that preamble language that constitutes a structural limitation is actually part of the claimed invention).

page 23, lines 19-26),

- the display node (i.e., said notebook size personal computer) being coupled to a first display (i.e., projector 12 of Fig. 5; See page 26, lines 5-9),
- the node configuration (i.e., said configuration of wireless LAN conference terminal devices) further being arranged to receive user selected arbitrary media content (i.e., presentation data) and to control display of the user selected arbitrary media content (i.e., command for displaying the presentation data) on the first display (i.e., said projector; See page 38, lines 4-12);

- at least one peripheral device (i.e., network interface cards 1 in Fig. 5) configured to communicate the user selected arbitrary media content (i.e., said presentation data) via the communications network (i.e., said wireless LAN; See page 21, lines 13-19), wherein
  - the peripheral device (i.e., said network interface card) is a connection unit (i.e., PCMCIA interface 3, network interface 4, RF modulator 5, RF demodulator 6, and antenna 7 in Fig. 4; See page 21, lines 10-13) comprising:
    - (a) a connector (i.e., connection means, e.g., PCMCIA interface 3 of Fig. 3, See page 9, lines 9-13) arranged to couple to a port (i.e., PC card slot 2a of Fig. 3) of a processing device (i.e., notebook size personal computer 2 of Fig. 3) having a second display, a memory and an operating system (i.e., said personal computer is commonly known to have a display, a memory, and an operating system; See Fig. 3); and
    - (b) a transmitter (i.e., RF Modulator 5 of Fig. 4) arranged to communicate with the communications network (See page 21, line 20 through page 22, line 1),

- a program (i.e., presentation application software processed for displaying and controlling presentation data such as images and graphical; See page 23, lines 9-17) configured to be loaded (i.e., activated) onto the processing device (See page 8, lines 5-23 and page 34, lines 13-20) and to run on the operating system of the processing device (in fact, said presentation application software stored in flash memory 9 of Fig. 4 as hard disk being executed by said notebook size personal computer; See page 23, lines 18-19),
  - said program (i.e., said presentation application software) being arranged to obtain user selected arbitrary media content (i.e., receiving presentation data/command in S42 in Fig. 14; See page 36, line 21 through page 37, line 1).

Kita does not expressly teach that the peripheral device is a connection unit comprising (c) an input device arranged to enable the user to carry out a user action; and said program

leaves a zero footprint[2] on termination.

Banerjee discloses a plug-and-play interface device (See Abstract), wherein

- a peripheral device (i.e., plug-and-play device 236 in Figs. 4, 5, and 7) is
    - a connection unit (i.e., USB interface 256 to wireless communication device adapter connected to wireless transceiver 260 in Fig. 5 and touch panel 228 in Fig. 7; See ¶ [0041]) comprising (c) an input device (i.e., touch panel 228 of Fig. 7) arranged to enable a user to carry out a user action (i.e., user interacts with image projected onto touch surface 246 in Fig. 7; See ¶ [0054]); and
- a program (i.e., LinQ software application and some associated DLLs) configured to be loaded onto a processing device (i.e., remote computer 240 in Fig. 4; See ¶¶ [0046]-[0047]) and to run on an operating system of the processing device (i.e., operating system of the remote computer; See ¶ [0042]), said program leaving a zero footprint on termination (i.e., upon termination of the session, terminate the execution of LinQ software application and delete the files; See ¶ [0051]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said input device (i.e., touch panel) for the program (e.g., LinQ software application, and some associated DLLs), as disclosed by Banerjee, in said electronic meeting tool (i.e., network conference terminal device and network system), as disclosed by Kita, for the advantage of providing the user with the ability to interact with the user selected arbitrary media content (i.e., image) projected onto the first display (i.e., touch surface) of the input device (i.e., touch panel) and inject input into an application program running on the processing device (i.e., computer) using an active pointer or an passive pointer (See Banerjee, ¶ [0027]).

Kita, as modified by Banerjee, does not expressly teach that the user action triggers transfer of said user selected arbitrary media content to said transmitter through said port.

Epstein discloses a personal control apparatus (See Abstract), wherein

- a peripheral device (i.e., puck assembly 20 in Figs. 2 and 4; See ¶ [0050]) is
    - a connection unit (i.e., puck 48 in Figs. 1 and 4; See ¶ [0051]) comprising (c) an input device (i.e., on/off button 58 and selectable controls or control buttons 60a-60d in Fig. 4) arranged to enable a user (i.e., puck user) to carry out a user action (e.g.,

[2] All temporary files, registry entries, and any other changes to the machine exist only while the program is running (See the specification of the '348 Patent, col. 10, lines 10-13).

presenting information; See ¶ [0065]) that triggers transfer of user selected arbitrary media content (i.e., pressing the button to indicate intention to drive display information from user's laptop; See ¶ [0066]) to a transmitter (i.e., switching device 16 of Fig. 2) through a port (i.e., video port of said user's laptop; See ¶ [0049]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said personal control apparatus, as disclosed by Epstein, in said electronic meeting tool (i.e., network conference terminal device and network system), as disclosed by Kita, as modified by Banerjee, for the advantage of providing a separate control interface for each of a plurality of attendees where each interface includes control buttons or the like and indicators that can indicate visually distinguished states (See Epstein, ¶ [0009]).

Referring to claim 2, Kita teaches that

- the program (i.e., presentation application software processed for displaying and controlling presentation data such as images and graphical; See page 23, lines 9-17) is stored on the peripheral device (i.e., network interface card 1 in Fig. 5; See page 22, line 20 through page 23, line 19).

Referring to claim 3, Kita teaches that

- the transmitter (i.e., RF Modulator 5 of Fig. 4) is a wireless transmitter or transceiver (See page 22, lines 2-5).

Referring to claim 4, Kita, as modified by Banerjee and Epstein, teaches that

- the peripheral device (i.e., network interface card 1 in Fig. 5; Kita) is a plug-and-play device (in fact, said network interface card comprising PCMCIA Interface 3 in Fig. 5, which is a plug-and-play interface; See Kita, page 1, lines 11-17 and page 5, lines 14-17). And, Banerjee also clearly teaches that the peripheral device (i.e., plug-and-play device 236 in Figs. 4, 5, and 7; Banerjee) is a plug-and-play device (See Banerjee, ¶ [0003]), as well.

Referring to claim 5, Banerjee teaches that

- the program (i.e., LinQ software application and some associated DLLs) is arranged to screen scrape[3] content of the second display (i.e., capturing and compressing screen

[3] Screen scraping is the process of collecting screen display data from one application and translating it so that another application can display it. This is normally done to capture data from a legacy application in order to display it

display data generated at the remote computer 240 and allowing screen sharing between the remote computer 240 and the master computer 238 by automatically launching software stored on the plug-and-play device 236 in Fig. 7; See ¶¶ [0039] and [0048]).

Referring to claim 6, Epstein teaches that

- the input device (i.e., on/off button 58 and selectable controls or control buttons 60a-60d in Fig. 4) is physical actuator (i.e., physical buttons) coupled to the peripheral device (i.e., puck assembly 20 in Figs. 2 and 4; See ¶¶ [0051]-[0052]).

Referring to claim 10, Kita, as modified by Banerjee and Epstein, teaches that the peripheral device (i.e., network interface cards 1 in Fig. 5; Kita) comprises

- a memory (i.e., flash memory 9 of Fig. 5; Kita) in which executable software code (i.e., presentation application software) is stored for execution on the processing device (i.e., notebook size personal computer 2 of Fig. 3; See Kita, page 8, lines 5-14), said executable software code (i.e., said presentation application software) comprising:
  - a first software code portion for setting up, by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device (i.e., network interface card 1 in Fig. 5) and the processing device (i.e., said notebook size personal computer; See Kita, page 8, lines 15-23 and see Banerjee, ¶ [0004]);
  - a second software code portion for connecting the processing device (i.e., said notebook size personal computer) to the communications network (i.e., wireless LAN in Fig. 5; Kita) via the peripheral device (i.e., said network interface card), the peripheral device having a transceiver (i.e., RF modulator 5, RF demodulator 6, and antenna 7 in Fig. 4; See Kita, page 26, lines 15-19);
  - a third software code portion for screen scraping data from the processing device (See Kita, page 38, lines 4-12 and see Banerjee, ¶ [0039]); and
  - a fourth software code for routing screen scraped data between the processing device and the communications network over the means for communication (See Banerjee, ¶ [0048]); wherein
    - the first software code portion is adapted to use a generic communication

using a more modern user interface. (https://www.techopedia.com/definition/16597/screen-scraping)

protocol (e.g., LAN Standard IEEE 802) for transferring the screen scraped data between the processing device and the peripheral device (See Kita, page 21, line 20 through page 22, line 1 and see Banerjee, ¶ [0043]).

Referring to claim 11, Kita, as modified by Banerjee and Epstein, teaches that a non-transitory storage medium storing the first to fourth software code portion of claim 10 (in fact, Kita teaches the flash memory 9 of Fig. 5 in which a presentation application software is stored for execution on the notebook size personal computer 2 of Fig. 3; See Kita, page 8, lines 5-14 and the above claim 10 rejection).

Referring to claim 12, Kita discloses a method for communicating arbitrary media content (i.e., presentation data) from users (i.e., clients) at a meeting[4] (i.e., conference; See page 1, lines 5-9 and page 7, lines 2-18) comprising:

- operating a display node (e.g., notebook size personal computer 11(1) of Fig. 5) of a communications network (i.e., wireless LAN in Fig. 5; See page 23, lines 19-26),
  - the display node (i.e., said notebook size personal computer) being coupled to a first display (i.e., projector 12 of Fig. 5; See page 26, lines 5-9), to receive user selected arbitrary media content (i.e., presentation data) and to control display of the user selected arbitrary media content (i.e., command for displaying the presentation data) on the first display (i.e., said projector; See page 38, lines 4-12); and
- connecting a peripheral device (i.e., network interface cards 1 in Fig. 5) to a port (i.e., PC card slot 2a of Fig. 3) of a processing device (i.e., notebook size personal computer 2 of Fig. 3) and communicating the user selected arbitrary media content (i.e., said presentation data) via the communications network (i.e., said wireless LAN; See page 21, lines 13-19),
- loading (i.e., activating) a program (i.e., presentation application software processed for displaying and controlling presentation data such as images and graphical; See page 23, lines 9-17) onto the processing device (See page 8, lines 5-23 and page 34, lines 13-20) and running the program on the operating system of the processing device (in fact, said presentation application software stored in flash memory 9 of Fig. 4 as hard disk being executed by said notebook size personal computer; See page 23, lines 18-19) to obtain

[4] The preamble of the claim 1 does not constitute any structural limitation because it is not a part of the claimed invention, but an intended use of the claimed invention. Thus, the preamble of the claim 1 is not given patentable weight. *Pac-Tec Inc. v. Amerace Corp.,* 903 F.2d 796, 801, 14 USPQ2d 1871, 1876 (Fed. Cir. 1990) (determining that preamble language that constitutes a structural limitation is actually part of the claimed invention).

user selected arbitrary media content (i.e., receiving presentation data/command in S42 in Fig. 14; See page 36, line 21 through page 37, line 1).

Kita does not expressly teach the peripheral device comprising an input device, and said program leaving a zero footprint on termination.

Banerjee discloses a method of using computer peripheral device (See ¶ [0002]), wherein

- a peripheral device (i.e., plug-and-play device 236 in Figs. 4, 5, and 7) comprising an input device (i.e., USB interface 256 to wireless communication device adapter connected to wireless transceiver 260 in Fig. 5 and touch panel 228 in Fig. 7; See ¶ [0041]), and
- a program (i.e., LinQ software application and some associated DLLs; See ¶¶ [0046]-[0047]) leaving a zero footprint on termination (i.e., upon termination of the session, terminate the execution of LinQ software application and delete the files; See ¶ [0051]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said method of using computer peripheral device, as disclosed by Banerjee, in said method for communicating arbitrary media content, as disclosed by Kita, for the advantage of providing the user with the ability to interact with the user selected arbitrary media content (i.e., image) projected onto the first display (i.e., touch surface) of the input device (i.e., touch panel) and inject input into an application program running on the processing device (i.e., computer) using an active pointer or an passive pointer (See Banerjee, ¶ [0027]).

Kita, as modified by Banerjee, does not expressly teach triggering transfer of said user selected arbitrary media content to said transmitter through said port after a user action on the input device of the peripheral device.

Epstein discloses a personal control method (See Abstract), wherein

- a peripheral device (i.e., puck assembly 20 in Figs. 2 and 4; See ¶ [0050]) is
  - triggering transfer of user selected arbitrary media content (i.e., pressing the button to indicate intention to drive display information from user's laptop; See ¶ [0066]) to a transmitter (i.e., switching device 16 of Fig. 2) through a port (i.e., video port of said user's laptop; See ¶ [0049]) after a user action (e.g., presenting information) on an input device (i.e., on/off button 58 and selectable controls or control buttons 60a-60d in Fig. 4) of the peripheral device (i.e., said puck assembly; See ¶ [0065]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention

was made to have included said personal control method, as disclosed by Epstein, in said method for communicating arbitrary media content, as disclosed by Kita, as modified by Banerjee, for the advantage of providing a separate control interface for each of a plurality of attendees where each interface includes control buttons or the like and indicators that can indicate visually distinguished states (See Epstein, ¶ [0009]).

Referring to claim 13, Kita teaches that

- configuring the peripheral device (i.e., network interface cards 1 in Fig. 5) to connect to the communications network (i.e., wireless LAN in Fig. 5) by pairing the peripheral device with the display node (i.e., said network interface cards connect to said wireless LAN by attaching network interface card with notebook size personal computer in Fig. 5; See page 12, line 14 through page 13, line 21).

Referring to claim 14, Kita teaches that

- the pairing (i.e., attaching) is performed by plugging the peripheral device into the display node (e.g., network interface card 1 is plugged in notebook size personal computer 11(1) in Fig. 5; See page 12, line 14 through page 13, line 21).

Referring to claim 15, Kita, as modified by Banerjee and Epstein, teaches that

- setting up by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device (i.e., network interface card 1 in Fig. 5; Kita) and the processing device (i.e., notebook size personal computer 11(1) of Fig. 5; See Kita, page 8, lines 15-23 and see Banerjee, ¶ [0004]).

Referring to claim 16, Kita, as modified by Banerjee and Epstein, teaches that

- a pre-installed generic driver (i.e., device driver; Kita) is selected from a human interface device driver (i.e., network setting function and human interface device) and a mass storage device driver (See Kita, page 32, line 24 through page 33, line 3 and see Banerjee, ¶ [0028]).

Referring to claim 17, Kita, as modified by Banerjee and Epstein, teaches that

- presenting the peripheral device (i.e., network interface card 1 of Fig. 1 in Kita and plug-and-play device 236 of Fig.4 in Banerjee) to the processing device (i.e., notebook size personal computer 2 of Fig. 3 in Kita and remote computer 240 of Fig. 4 in Banerjee) as

a composite device (in fact, said network interface card and said plug-and-play device are composite devices having memory and wireless transceiver; See Kita, page 1, line 24 through page 2, line 7 and page 8, lines 5-7 and see Banerjee, ¶¶ [0041]-[0042]).

Referring to claim 18, Kita, as modified by Banerjee and Epstein, teaches that

- the program (i.e., presentation application software processed for displaying and controlling presentation data such as images and graphical; See Kita, page 23, lines 9-17) is stored on the peripheral device (i.e., network interface card 1 of Fig. 5 in Kita; See Kita, page 22, line 20 through page 23, line 19), and which obtains screen scraped data when run on the processing device (i.e., screen sharing and communications between the remote computer and the master computer; See Banerjee ¶ [0046]).

Referring to claim 19, Banerjee teaches that

- a generic communication protocol (i.e., pre-loaded drivers for generic plug-and-play devices classes) is used for transferring (See ¶ [0004]) screen scraped data between the processing device and the peripheral device (i.e., capturing and compressing screen display data generated at the remote computer 240 and allowing screen sharing between the remote computer 240 and the master computer 238 by automatically launching software stored on the plug-and-play device 236 in Fig. 7; See ¶¶ [0039] and [0048]).

Referring to claim 20, Kita, as modified by Banerjee and Epstein, teaches

- displaying the user selected arbitrary media content (i.e., presentation data; Kita) on the first display (i.e., projector 12 of Fig. 5 in Kita; See Kita, page 26, lines 5-9) in accordance with a set of rules (See Kita, page 38, lines 4-12 and see Epstein, ¶¶ [0066]-[0067]).

Re. Ground #2: Kita in view of Banerjee, Epstein, and Court Authority

10. Claim 7 is rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Kita [WO 01/89156 A2] in view of Banerjee [WO 2010/105335 A1] and Epstein [US 2010/0302454 A1] as applied to claims 1-6 and 10-20 above, and further in view of Court Authority[5].

[5] In *Gardner v. TEC Syst., Inc.,* 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied,* 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device

Referring to claim 7, Kita, as modified by Banerjee and Epstein, discloses all the limitations of the claim 7 except that does not expressly teach the physical actuator having a surface area of between 100 and 14,400 square mm.

However, the only difference between the surface area of the physical actuator (i.e., on/off button 58 and selectable controls or control buttons 60a-60d in Fig. 4) disclosed by Epstein and the physical actuator's surface area of "between 100 and 14,400 square mm" recited in the claim 7 is a recitation of relative dimension of the physical actuator's surface area and a physical actuator having the surface area of between 100 and 14,400 square mm will not differently perform than the physical actuator (i.e., said on/off button and selectable controls or control buttons) disclosed by Epstein.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have implemented the physical actuator's surface area, as disclosed by Kita, as modified by Banerjee and Epstein, of between 100 and 14,400 square mm, since it has been held that the claimed physical actuator is not patentably distinct from the physical actuator disclosed by Epstein. *Gardner v. TEC Syst., Inc.,* 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied,* 469 U.S. 830, 225 USPQ 232 (1984).

Re. Ground #3: Kita in view of Banerjee, Epstein, and Slobodin

11. Claim 8 and 9 are rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Kita [WO 01/89156 A2] in view of Banerjee [WO 2010/105335 A1] and Epstein [US 2010/0302454 A1] as applied to claims 1-6 and 10-20 above, and further in view of Slobodin [US 2002/0196378 A1].

Referring to claim 8, Kita, as modified by Banerjee and Epstein, discloses all the limitations of the claim 8 except that does not teach that the input device on the peripheral device is triggered by a key displayed on the second display.

Slobodin discloses an apparatus for wireless image transmission to a projector (See Fig. 1 and Abstract), wherein

- an input device (i.e., User Interface 116 of Fig. 2) on a peripheral device (i.e., Image Generation Device 110 of Fig. 2) is triggered by a key (i.e., projector icon or visual graphics symbol) displayed on a second display (i.e., Display Device 111 of Fig. 2; See ¶¶ [0064]-[0066]).

(See MPEP § 2144.04 IV. A. Changes in Size/Proportion).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said key (i.e., projector icon or visual graphics symbol), as disclosed by Slobodin, in said electronic meeting tool (i.e., network conference terminal device and network system), as disclosed by Kita, as modified by Banerjee and Epstein, for the advantage of providing user-friendly way of transmitting user selected arbitrary media content to the first display (i.e., image transmission to selected projector; See Slobodin, ¶ [0011]).

Referring to claim 9, Slobodin teaches that

- the key (i.e., projector icon or visual graphics symbol) displayed on the second display (i.e., Display Device 111 of Fig. 2) is not screen scraped by the program (in fact, said projector icon is not screen scraped because the image to be transmitted is generated after a projector is selected by the key; See ¶¶ [0059]-[0060] and [0063]).

Re. Ground #4: Banerjee in view of Epstein

12. Claims 1-6 and 10-20 are rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Banerjee [WO 2010/105335 A1] in view of Epstein [US 2010/0302454 A1].

Referring to claim 1, Banerjee discloses an electronic meeting tool (i.e., plug-and play interface device) for communicating arbitrary media content from users at a meeting[6] (e.g., display screen sharing; See Abstract) comprising:

- a node configuration (i.e., configuration of plug-and-play device 236 with a touch panel 246 and projector 244 communicating with master computer 238 in Fig. 7) arranged to operate a display node (i.e., master computer 238 of Fig. 7) of a communications network (i.e., wireless communications link; See ¶ [0039]),
  - the display node (i.e., said master computer) being coupled to a first display (i.e., projection device 244 of Fig. 7; See ¶ [0054]),
  - the node configuration (i.e., said configuration of plug-and-play device with a touch panel and projector communicating with master computer) further being arranged to receive user selected arbitrary media content (i.e., shared screen display data) and to control display of the user selected arbitrary media content (i.e., said shared screen display data) on the first display (i.e., user interacts with said shared screen display data on said projection device; See ¶ [0054]);

[6] The preamble of the claim 1 does not constitute any structural limitation because it is not a part of the claimed invention, but an intended use of the claimed invention. Thus, the preamble of the claim 1 is not given patentable weight. *Pac-Tec Inc. v. Amerace Corp.,* 903 F.2d 796, 801, 14 USPQ2d 1871, 1876 (Fed. Cir. 1990) (determining that preamble language that constitutes a structural limitation is actually part of the claimed invention).

- at least one peripheral device (i.e., plug-and-play device 236 in Figs. 4, 5, and 7) configured to communicate the user selected arbitrary media content (i.e., said shared screen display data) via the communications network (i.e., said wireless communications link; See ¶ [0039]), wherein
  - the peripheral device (i.e., said plug-and-play device) is a connection unit (i.e., USB interface 256 to wireless communication device adapter connected to wireless transceiver 260 in Fig. 5 and touch panel 228 in Fig. 7; See ¶ [0041]) comprising:
    - (a) a connector (i.e., cable segment 268 of Fig. 5) arranged to couple to a port of a processing device (i.e., a port to receive a cable segment 268 to the remote computer 240 in Fig. 4) having a second display (i.e., monitor of said remote computer), a memory and an operating system (i.e., computer memory and computer operating system; See ¶ [0042]);
    - (b) a transmitter (i.e., wireless transceiver 260 of Fig. 5) arranged to communicate with the communications network (i.e., said wireless communications link; See ¶ [0054]), and
    - (c) an input device (i.e., touch panel 228 of Fig. 7) arranged to enable the user to carry out a user action (i.e., user interacts with image projected onto touch surface 246 in Fig. 7; See ¶ [0054]); and
- a program (i.e., LinQ software application and some associated DLLs) configured to be loaded onto the processing device (i.e., said remote computer; See ¶¶ [0046]-[0047]) and to run on the operating system of the processing device (i.e., operating system of the remote computer; See ¶ [0042]), said program leaving a zero footprint on termination (i.e., upon termination of the session, terminate the execution of LinQ software application and delete the files; See ¶ [0051]).

Banerjee does not expressly teach that the user action triggers transfer of said user selected arbitrary media content to said transmitter through said port.

Epstein discloses a personal control apparatus (See Abstract), wherein

- a peripheral device (i.e., puck assembly 20 in Figs. 2 and 4; See ¶ [0050]) is
  - a connection unit (i.e., puck 48 in Figs. 1 and 4; See ¶ [0051]) comprising (c) an input device (i.e., on/off button 58 and selectable controls or control buttons 60a-60d in Fig. 4) arranged to enable a user (i.e., puck user) to carry out a user action (e.g., presenting information; See ¶ [0065]) that triggers transfer of user selected arbitrary media content (i.e., pressing the button to indicate intention to drive display

information from user's laptop; See ¶ [0066]) to a transmitter (i.e., switching device 16 of Fig. 2) through a port (i.e., video port of said user's laptop; See ¶ [0049]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said personal control apparatus, as disclosed by Epstein, in said electronic meeting tool (i.e., network conference terminal device and network system), as disclosed by Banerjee, for the advantage of providing a separate control interface for each of a plurality of attendees where each interface includes control buttons or the like and indicators that can indicate visually distinguished states (See Epstein, ¶ [0009]).

Referring to claim 2, Banerjee teaches that

- the program (i.e., LinQ software application and some associated DLLs) is stored on the peripheral device (i.e., being stored in storage 276 of plug-and-play device 236 in Figs. 4, 5, and 7; See ¶ [0042]).

Referring to claim 3, Banerjee teaches that

- the transmitter (i.e., wireless transceiver 260 of Fig. 5) is a wireless transmitter or transceiver (See ¶ [0041]).

Referring to claim 4, Banerjee teaches that

- the peripheral device (i.e., plug-and-play device 236 in Figs. 4, 5, and 7) is a plug-and-play device (See ¶ [0039]).

Referring to claim 5, Banerjee teaches that

- the program (i.e., LinQ software application and some associated DLLs) is arranged to screen scrape[7] content of the second display (i.e., capturing and compressing screen display data generated at the remote computer 240 and allowing screen sharing between the remote computer 240 and the master computer 238 by automatically launching software stored on the plug-and-play device 236 in Fig. 7; See ¶¶ [0039] and [0048]).

Referring to claim 6, Epstein teaches that

[7] Screen scraping is the process of collecting screen display data from one application and translating it so that another application can display it. This is normally done to capture data from a legacy application in order to display it using a more modern user interface. (https://www.techopedia.com/definition/16597/screen-scraping)

- the input device (i.e., on/off button 58 and selectable controls or control buttons 60a-60d in Fig. 4) is physical actuator (i.e., physical buttons) coupled to the peripheral device (i.e., puck assembly 20 in Figs. 2 and 4; See ¶¶ [0051]-[0052]).

Referring to claim 10, Banerjee, as modified by Epstein, teaches that the peripheral device (i.e., plug-and-play device 236 in Figs. 4, 5, and 7; Banerjee) comprises

- a memory (i.e., storage 276 of Fig. 5; Banerjee) in which executable software code (i.e., software application) is stored for execution on the processing device (i.e., remote computer 240 of Fig. 4; See Banerjee, ¶ [0042]), said executable software code (i.e., said software application) comprising:
  - a first software code portion for setting up, by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device (i.e., plug-and-play device 236 in Figs. 4, 5, and 7; Banerjee) and the processing device (i.e., said remote computer; See Banerjee, ¶ [0004]);
  - a second software code portion for connecting the processing device (i.e., said remote computer) to the communications network (i.e., wireless communications link; See Banerjee, ¶ [0010]) via the peripheral device (i.e., said plug-and-play device; See Banerjee, ¶ [0039]), the peripheral device having a transceiver (i.e., wireless transceiver 260 of Fig. 5 in Banerjee; See Banerjee, ¶ [0040]);
  - a third software code portion for screen scraping data from the processing device (See Banerjee, ¶ [0039]); and
  - a fourth software code for routing screen scraped data between the processing device and the communications network over the means for communication (See Banerjee, ¶ [0048]); wherein
    - the first software code portion is adapted to use a generic communication protocol (e.g., LAN Standard IEEE 802) for transferring the screen scraped data between the processing device and the peripheral device (See Banerjee, ¶ [0043]).

Referring to claim 11, Banerjee, as modified by Epstein, teaches that a non-transitory storage medium storing the first to fourth software code portion of claim 10 (in fact, Banerjee teaches the storage 276 of Fig. 5 in which a software application is stored for execution on the master computer 238 of Fig. 4; See Banerjee, ¶ [0042] and the above claim 10 rejection).

Referring to claim 12, Banerjee discloses a method for communicating arbitrary media content from users at a meeting[8] (e.g., display screen sharing; See Abstract) comprising:

- operating a display node (i.e., master computer 238 of Fig. 7) of a communications network (i.e., wireless communications link; See ¶ [0039]),
  - the display node (i.e., said master computer) being coupled to a first display (i.e., projection device 244 of Fig. 7; See ¶ [0054]), to receive user selected arbitrary media content (i.e., shared screen display data) and to control display of the user selected arbitrary media content (i.e., said shared screen display data) on the first display (i.e., user interacts with said shared screen display data on said projection device; See ¶ [0054]); and
- connecting a peripheral device (i.e., plug-and-play device 236 in Figs. 4, 5, and 7) to a port of a processing device (i.e., a port to receive a cable segment 268 to the remote computer 240 in Fig. 4) and communicating the user selected arbitrary media content (i.e., said shared screen display data) via the communications network (i.e., said wireless communications link; See ¶ [0039]), wherein
  - the peripheral device (i.e., said plug-and-play device) comprises an input device (i.e., USB interface 256 to wireless communication device adapter connected to wireless transceiver 260 in Fig. 5 and touch panel 228 in Fig. 7; See ¶ [0041]),
- loading a program (i.e., LinQ software application and some associated DLLs) onto the processing device (i.e., said remote computer; See ¶¶ [0046]-[0047]) and running the program on the operating system of the processing device (i.e., operating system of the remote computer; See ¶ [0046]) to obtain user selected arbitrary media content (i.e., shared screen display data; See ¶ [0039]), said program (i.e., said LinQ software application and some associated DLLs) leaving a zero footprint on termination (i.e., upon termination of the session, terminate the execution of LinQ software application and delete the files; See ¶ [0051]).

Banerjee does not expressly teach triggering transfer of said user selected arbitrary media content to said transmitter through said port after a user action on the input device of the peripheral device.

Epstein discloses a personal control method (See Abstract), wherein

[8] The preamble of the claim 1 does not constitute any structural limitation because it is not a part of the claimed invention, but an intended use of the claimed invention. Thus, the preamble of the claim 1 is not given patentable weight. *Pac-Tec Inc. v. Amerace Corp.,* 903 F.2d 796, 801, 14 USPQ2d 1871, 1876 (Fed. Cir. 1990) (determining that preamble language that constitutes a structural limitation is actually part of the claimed invention).

- a peripheral device (i.e., puck assembly 20 in Figs. 2 and 4; See ¶ [0050]) is
    - triggering transfer of user selected arbitrary media content (i.e., pressing the button to indicate intention to drive display information from user's laptop; See ¶ [0066]) to a transmitter (i.e., switching device 16 of Fig. 2) through a port (i.e., video port of said user's laptop; See ¶ [0049]) after a user action (e.g., presenting information) on an input device (i.e., on/off button 58 and selectable controls or control buttons 60a-60d in Fig. 4) of the peripheral device (i.e., said puck assembly; See ¶ [0065]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said personal control method, as disclosed by Epstein, in said method for communicating arbitrary media content, as disclosed by Banerjee, for the advantage of providing a separate control interface for each of a plurality of attendees where each interface includes control buttons or the like and indicators that can indicate visually distinguished states (See Epstein, ¶ [0009]).

Referring to claim 13, Banerjee teaches that

- configuring the peripheral device (i.e., plug-and-play device 236 in Figs. 4, 5, and 7) to connect to the communications network (i.e., wireless communications link; See ¶ [0039]) by pairing the peripheral device with the display node (i.e., master computer 238 of Fig. 7; See ¶ [0041], wherein it states that the wireless communication device 238a and wireless transceiver 260 are paired to enable a peer-to-peer wireless connection between the master computer 238 and the remote computer 240 to be established.).

Referring to claim 14, Banerjee teaches that

- the pairing is performed by plugging the peripheral device (i.e., plug-and-play device 236 in Figs. 4, 5, and 7) into the display node (i.e., master computer 238 of Fig. 7; See ¶ [0041]).

Referring to claim 15, Banerjee teaches that

- setting up by means of a pre-installed generic driver of the operating system (i.e., pre-loaded drivers for generic plug-and-play devices classes, e.g., USB mass storage, two-button mouse, etc.; See ¶ [0004]), a means for communication (i.e., cable segment 268 of Fig. 4) between the peripheral device (i.e., plug-and-play device 236 in Fig. 4) and the processing device (i.e., remote computer 240 in Fig. 4; See ¶ [0055]).

Referring to claim 16, Kita, as modified by Banerjee and Epstein, teaches that

- a pre-installed generic driver (i.e., pre-loaded drivers for generic plug-and-play devices classes, e.g., USB mass storage, two-button mouse, etc.; See ¶ [0004]) is selected from a human interface device driver and a mass storage device driver (See ¶ [0028]).

Referring to claim 17, Banerjee teaches that

- presenting the peripheral device (i.e., plug-and-play device 236 of Fig.4) to the processing device (i.e., remote computer 240 of Fig. 4) as a composite device (in fact, said plug-and-play device is a composite device having storage and wireless transceiver; See ¶¶ [0041]-[0042]).

Referring to claim 18, Banerjee teaches that

- the program (i.e., LinQ software application and some associated DLLs) is stored on the peripheral device (e.g., executable launcher LinQLauncher.exe stored in the storage 276 in Fig. 5), and which obtains screen scraped data when run on the processing device (i.e., screen sharing and communications between the remote computer and the master computer; See ¶ [0046]).

Referring to claim 19, Banerjee teaches that

- a generic communication protocol (i.e., pre-loaded drivers for generic plug-and-play devices classes) is used for transferring (See ¶ [0004]) screen scraped data between the processing device and the peripheral device (i.e., capturing and compressing screen display data generated at the remote computer 240 and allowing screen sharing between the remote computer 240 and the master computer 238 by automatically launching software stored on the plug-and-play device 236 in Fig. 7; See ¶¶ [0039] and [0048]).

Referring to claim 20, Banerjee, as modified by Epstein, teaches

- displaying the user selected arbitrary media content (i.e., shared screen display data) on the first display (i.e., projection device 244 in Fig. 7 of Banerjee; See Banerjee, ¶ [0054]) in accordance with a set of rules (See Epstein, ¶¶ [0066]-[0067]).

Re. Ground #5: Banerjee in view of Epstein and Court Authority

13. Claim 7 is rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over

Banerjee [WO 2010/105335 A1] in view of Epstein [US 2010/0302454 A1] as applied to claims 1-6 and 10-20 above, and further in view of Court Authority[9].

Referring to claim 7, Banerjee, as modified by Epstein, discloses all the limitations of the claim 7 except that does not expressly teach the physical actuator having a surface area of between 100 and 14,400 square mm.

However, the only difference between the surface area of the physical actuator (i.e., on/off button 58 and selectable controls or control buttons 60a-60d in Fig. 4) disclosed by Epstein and the physical actuator's surface area of "between 100 and 14,400 square mm" recited in the claim 7 is a recitation of relative dimension of the physical actuator's surface area and a physical actuator having the surface area of between 100 and 14,400 square mm will not differently perform than the physical actuator (i.e., said on/off button and selectable controls or control buttons) disclosed by Epstein.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have implemented the physical actuator's surface area, as disclosed by Banerjee, as modified by Epstein, of between 100 and 14,400 square mm, since it has been held that the claimed physical actuator is not patentably distinct from the physical actuator disclosed by Epstein. *Gardner v. TEC Syst., Inc.,* 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied,* 469 U.S. 830, 225 USPQ 232 (1984).

Re. Ground #6: Banerjee in view of Epstein and Slobodin

14. Claim 8 and 9 are rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Banerjee [WO 2010/105335 A1] in view of Epstein [US 2010/0302454 A1] as applied to claims 1-6 and 10-20 above, and further in view of Slobodin [US 2002/0196378 A1].

Referring to claim 8, Banerjee, as modified by Epstein, discloses all the limitations of the claim 8 except that does not teach that the input device on the peripheral device is triggered by a key displayed on the second display.

Slobodin discloses an apparatus for wireless image transmission to a projector (See Fig. 1 and Abstract), wherein

- an input device (i.e., User Interface 116 of Fig. 2) on a peripheral device (i.e., Image

[9] In *Gardner v. TEC Syst., Inc.,* 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied,* 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device (See MPEP § 2144.04 IV. A. Changes in Size/Proportion).

Generation Device 110 of Fig. 2) is triggered by a key (i.e., projector icon or visual graphics symbol) displayed on a second display (i.e., Display Device 111 of Fig. 2; See ¶¶ [0064]-[0066]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said key (i.e., projector icon or visual graphics symbol), as disclosed by Slobodin, in said electronic meeting tool (i.e., network conference terminal device and network system), as disclosed by Banerjee, as modified by Epstein, for the advantage of providing user-friendly way of transmitting user selected arbitrary media content to the first display (i.e., image transmission to selected projector; See Slobodin, ¶ [0011]).

Referring to claim 9, Slobodin teaches that

- the key (i.e., projector icon or visual graphics symbol) displayed on the second display (i.e., Display Device 111 of Fig. 2) is not screen scraped by the program (in fact, said projector icon is not screen scraped because the image to be transmitted is generated after a projector is selected by the key; See ¶¶ [0059]-[0060] and [0063]).

Comments to the Patent Owner's statement and the Third Party requester's reply

15. The Patent Owner filed Patent Owner's Statement (hereinafter "the PO Statement") on May 23, 2018, and the Third Party requester's Reply (hereinafter "the TPR Reply") to the PO Statement was submitted on July 20, 2018.

16. With regard to the rejection of the original claims 1-20 over the combination of Kita, Banerjee, and Epstein, proposed by the Third Party requester, the Examiner found that the proposed rejections of the original claims 1-20 in the Request reasonably raise substantial new questions of patentability (See Exhibit 6 and Exhibit 7 in the Request). Nonetheless, the Patent Owner filed an amendment of the original claims 1, 8, and 12 (See the PO Statement at pages 2-5).

At the outset, the Patent Owner alleges that the limitations "an input device arranged to enable the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port" recited in the amended claim 1 and "the peripheral device comprises an input device … , and triggering transfer of said user selected arbitrary media content to said transmitter through said port after a user action on the input device of the peripheral device" recited in the amended claim 12 are disclosed or suggested by none of Kita, Banerjee, and Epstein because (i) Kita only discloses a PCMCIA network interface

card, (ii) Banerjee discloses a plug-and-play device having a first plug-and-play interface for establishing a connection with a first computing device and a second plug-and-play interface for establishing a connection with a second computer device, and (iii) Epstein relates with a display system located on a conference table having a puck to display information on multiple displays (See the PO Statement at page 6, line 7 through the end of page 17).

The Third Party requester replied to the claim amendment and asserts that the PO Statement fails to explain (i) why the combination of Kita, Banerjee, and Epstein does not teach the newly proposed features and (ii) why the claims 1 and 12 are not obvious in view of the combination of Kita, Banerjee, and Epstein as a whole (See the TPR Reply at page 7, line 18 through page 13, line 20).

The Examiner agrees with the Third Party requester's opinion because one cannot show nonobviousness by attacking references Kita, Banerjee, and Epstein individually where the rejections of the claims 1 and 12 are based on combinations of references Kita, Banerjee, and Epstein. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Although the Patent Owner further asserts that there was no motivation to combine Kita with Banerjee and Epstein, the Examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, the Examiner found some teaching, suggestion, and motivation to combine the references Kita, Banerjee, and Epstein (See the paragraph 9 in the instant Office action).

Second, the Patent Owner additionally argues that the Third Party requester's conclusion of obviousness is based upon improper hindsight reasoning (See the PO Statement at page 12, lines 14-21). However, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Third, the Patent Owner argues that the primary reference Kita teaches away from the

invention of claims 1 and 12 because Kita does not disclose an input device on the PCMCIA network card (i.e., peripheral device) arrange to enable the client (i.e., user) to carry out an action (i.e., user action) that triggers transfer of data (i.e., said user selected arbitrary media content) to a transmitter (See the PO Statement at page 15, line 10 through the end of page 17).

Basically, a reference will teach away when it suggests that the developments flowing from its disclosures are *unlikely to produce the objective of the applicant's invention*. *In re Gurley,* 27 F.3d 551,553 (Fed. Cir. 1994) (*emphasis* added). In this case, however, the reference Kita does not teach away because (i) it is noted that the feature upon which the Patent Owner relies (i.e., an input device on the peripheral device) is not recited in the amended claims 1 and 12. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993); and (ii) the claims 1 and 12 actually recite "the peripheral device is a connection unit comprising an input device" and "the peripheral device comprises an input device," respectively, which are taught by the secondary references Banerjee and Epstein (See the paragraph 9 in the instant Office action); and (iii) the mere presence of alternatives is insufficient for the purpose of a teaching away argument. The CAFC stated that "the prior art's mere disclosure of more than one alternative does not constitute a teaching away from any of these alternatives because such disclosure does not criticize, discredit, or otherwise discourage the solution claimed...." (See MPEP § 2143.03(VI), quoting *In re Fulton,* 391 F.3d 1195, 1201 (Fed. Cir. 2004)).

Moreover, the proposed combination of the prior art Kita, Banerjee, and Epstein does not change the principle of operation of the prior art invention being modified because all of the prior arts are in the same technical field of providing solutions for display sharing. Thus, the teachings of the references Kita, Banerjee, and Epstein are sufficient to render the claims *prima facie* obvious. *In re Ratti,* 270 F.2d 810, 813, 123 USPQ 349, 352 (CCPA 1959)

Fourth, the Patent Owner further alleges that the amended limitations "a program configured to be loaded onto the processing device and to run on the operating system of the processing device, said program being arranged to obtain user selected arbitrary media content, said program leaving a zero footprint on termination" recited in the claim 1 and "loading a program onto the processing device and running the program on the operating system of the processing device to obtain user selected arbitrary media content, said program leaving a zero footprint on termination" recited in the claim 12 are disclosed or suggested by none of Kita, Banerjee, and Epstein because the skilled person would not have appreciated that neither Kita

nor Banerjee discloses a zero footprint application on client processing devices (e.g., although the LinQLauncher.exe application of Banerjee deletes the files in the temporary directory on the remote computer that were copied from the storage, such an application is not zero footprint because on a system crash, the programs and its entries would still be kept; See the PO Statement at page 18, line 1 through page 20, line 10).

The Third Party requester replied to this allegation (See the TPR Reply at page 13, line 21 through the end of page 14) and asserts that the amended claims 1 and 12 do not recite the "zero footprint application," and Banerjee teaches "a program leaving a zero footprint on termination" claimed in the amended claims 1 and 12 such as "deletes the files in the temporary directory on the remote computer 240 that were copied from the storage 276" upon terminating "the execution of the LinQ software application" (See Banerjee, ¶¶ [0046]-[0048]).

The Examiner agrees with the Third Party requester's opinion because it is noted that the feature upon which the Patent Owner relies (i.e., zero footprint application) is not recited in the amended claims 1 and 12. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Moreover, the Patent Owner indicates an allegedly erroneous suggestion from the Examiner at page 18, lines 10-26 in the PO Statement. However, the Patent Owner fails to specifically explain why the Examiner's suggestion quoted by the Patent Owner is erroneous. In fact, the Patent Owner clearly admits that the skilled person would not have appreciated that the features recited in the claims 1 and 12 are disclosed by neither Kita nor Banerjee (i.e., the skilled person appreciates that the features recited in the claims 1 and 12 can be disclosed by Kita and/or Banerjee; See the PO Statement at page 18, lines 25-26).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teaching of Kita with the teaching of Banerjee, and further combining with the teaching of Epstein.

17. With regard to the rejection of the original claims 1-20 over the combination of Banerjee and Epstein, proposed by the Third Party requester, the Examiner found that the proposed rejections of the original claims 1-20 in the Request reasonably raise substantial new questions of patentability (See Exhibit 8 and Exhibit 9 in the Request). Nonetheless, the Patent Owner filed an amendment of the original claims 1, 8, and 12 (See the PO Statement at pages 2-5).

At the outset, the Patent Owner argues that the skilled person would not have observed any evidence in Banerjee of an input device on the connection unit (See the PO Statement at

page 18, line 15 through page 19, line 16).

However, it is noted that the feature upon which the Patent Owner relies (i.e., an input device on the connection unit) is not recited in the amended claims 1 and 12. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). This point is acknowledged by the Third Party requester, as well (See the TPR Reply at page 19).

Instead, the claims 1 and 12 actually recite "the peripheral device is a connection unit comprising an input device" and "the peripheral device comprises an input device," respectively, which are taught by the primary reference Banerjee and the secondary reference Epstein (See the paragraph 12 in the instant Office action).

Furthermore, the Patent Owner alleges that the limitation "said program leaving a zero footprint on termination" recited in the respective claims 1 and 12 is disclosed or suggested by none of Banerjee and Epstein because the skilled person would not have appreciated that neither Banerjee nor Epstein discloses software that leaves a zero footprint on termination (See the PO Statement at page 21, line 17 through page 23, line 22).

The Third Party requester replied to this allegation (See the TPR Reply at page 14, lines 3-17) and asserts that Banerjee teaches "a program leaving a zero footprint on termination" claimed in the amended claims 1 and 12 such as "deletes the files in the temporary directory on the remote computer 240 that were copied from the storage 276" upon terminating "the execution of the LinQ software application" (See Banerjee, ¶¶ [0046]-[0048]). The Examiner agrees with the Third Party requester's opinion.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teaching of Banerjee with the teaching of Epstein.

Conclusion

18. A shortened statutory period for response to this action is set to expire **TWO (2)** months from the mailing date of this action.

Extensions of time under 37 CFR § 1.136(a) will not be permitted in these proceedings because the provisions of 37 CFR § 1.136 apply only to "an applicant" and not to parties in a reexamination proceeding. Additionally, 35 U.S.C. § 305 requires that reexamination proceedings "will be conducted with special dispatch" (37 CFR § 1.550(a)). Extension of time in *ex parte* reexamination proceedings are provided for in 37 CFR § 1.550(c).The Patent Owner is reminded that any proposed amendment to the specification and/or claims in this reexamination proceeding must comply with 37 CFR § 1.530(d)-(j).

In order to ensure full consideration of any amendments, affidavits or declarations, or other documents as evidence of patentability, such documents must be submitted in response to this Office action. Submissions after the next Office action, which is intended to be a final action, will be governed by the requirements of 37 CFR § 1.116, after final rejection and 37 CFR § 41.33 after appeal, which will be strictly enforced.

After filing of a request for *ex parte* reexamination by a Third Party requester, any document filed by either the Patent Owner or the Third Party requester must be served on the other party (or parties where two or more Third Party requester proceedings are merged) in the reexamination proceeding in the manner provided in 37 CFR § 1.248. The document must reflect service or the document may be refused consideration by the Office. See 37 § CFR 1.550(f).

The Patent Owner is reminded of the continuing responsibility under 37 CFR § 1.565(a), to apprise the Office of any litigation activity, or other prior or concurrent proceeding, involving the instant Patent Under Reexamination or any related patent throughout the course of this reexamination proceeding. The Third Party requester is also reminded of the ability to similarly inform the Office of any such activity or proceeding throughout the course of this reexamination proceeding. See MPEP §§ 2207, 2282 and 2286.

All correspondence relating to this ex parte reexamination proceeding should be directed:

By EFS: Registered users may submit via the electronic filing system EFS-Web, at https://efs.uspto.gov/efile/myportal/efs-registered

By Mail to: Mail Stop *Ex Parte* Reexam
Central Reexamination Unit
Commissioner for Patents
United States Patent & Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

By FAX to: (571) 273-9900
Central Reexamination Unit

By hand: Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

For EFS-Web transmissions, 37 CFR § 1.8(a)(1)(i) (C) and (ii) states that correspondence (except for a request for reexamination and a corrected or replacement request for reexamination) will be considered timely filed if (a) it is transmitted via the Office's electronic

filing system in accordance with 37 CFR § 1.6(a)(4), and (b) includes a certificate of transmission for each piece of correspondence stating the date of transmission, which is prior to the expiration of the set period of time in the Office action.

Any inquiry concerning this communication or earlier communications from the Reexamination Legal Advisor or Examiner, or as to the status of this proceeding, should be directed to the Central Reexamination Unit at telephone number (571) 272-7705.

Signed:

/Christopher E. Lee/
Primary Examiner, Art Unit 3992

Conferees:
/My Trang Ton/
Primary Examiner
CRU, AU 3992

/NICK CORSARO/
Acting Supervisory Patent Examiner of Art Unit 3992

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	90/014,087	8756348
	Examiner	Art Unit
	Christopher E Lee	3992

CPC - Searched*		
Symbol	Date	Examiner
G06F 13/38; H04L 29/06, 29/08;	08/09/2018	/CEL/

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner
710	20	08/09/2018	/CEL/
709	206, 221	08/09/2018	/CEL/

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
Litigation Search performed	2/13/18	/CEL/
Search prosecution history of US patent application 13/270,659 and provisional application 61/534,592	3/8/18	/CEL/
G06F 13/38; H04L 29/06, 29/08;	08/09/2018	/CEL/
710/20	08/09/2018	/CEL/
709/206, 221	08/09/2018	/CEL/

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

/Christopher E. Lee/ Patent Reexamination Specialist	

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S7	121	(soft key) same (data with transfer$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	OFF	2018/08/09 09:14
S11	6	(soft key) same (screen with scrap$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	OFF	2018/08/09 09:46
S15	113	((input same peripheral) device) same ((button or menu or key) with display)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	OFF	2018/08/09 10:11
S17	3873	remote same (screen with shar$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/08/09 10:19
S19	193	remote same (screen with shar$4) same (menu or softkey or (soft button))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	OFF	2018/08/09 10:31
S21	107	(remote with control$4) same (screen with shar$4) same (menu or softkey or (soft button))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	OFF	2018/08/09 10:37
S23	29	remote same projector same scrap$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	OFF	2018/08/09 12:00
S25	19	(remote with control$4) same projector same scrap$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	OFF	2018/08/09 12:21

8/16/2018 3:31:27 PM
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Requester's Docket No: 6700-001
Patent Owner's Docket No: BEEL3001REX/TJM/TL

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Reexamination of:	)	Examiner: Lee, Christopher E.
Inventors: Koen Simon Herman Beel et al.	)	Art Unit: 3992
Application No.: 90/014,087 Filing Date: February 9, 2018 Patent No.: 8,756,348	)	Confirmation No.: 8024
For: ELECTRONIC TOOL AND METHODS FOR MEETINGS	)	

REPLY TO PATENT OWNER'S STATEMENT IN *EX PARTE* REEXAMINATION OF U.S. PATENT NO. 8,756,348 PURSUANT TO 37 C.F.R. §1.535

E-Filed via EFS-Web
Mail Stop Reexam
Central Reexamination Unit
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir/Madam:

Responsive to the Patent Owner's Statement filed by the patent owner (the "Patent Owner" hereinafter) dated May 23, 2018, the *ex parte* reexamination requester (the "Requester" hereinafter) submits this reply pursuant to 37 C.F.R. §1.535.

REMARKS

Responsive to the *ex parte* reexamination request (the "Request") of U.S. Pat. No. 8,756,348 (the '348 patent) submitted by the Requester on February 9, 2018, the Office issued a Decision Granting *Ex Parte* Reexamination (the "Decision" hereinafter) dated March 23, 2018. Responsive to the Decision, the Patent Owner submitted a Patent Owner's Statement dated May 23, 2018, in which the Patent Owner amended claims 1, 8, and 12 of the '348 patent and asserted that the amended claims are allowable. The Requester disagrees with the Patent Owner's assertion and submits that the amended claims are not patentable for the following reasons.

1. The Amended Claims 1 and 12, as well as their Dependent Claims, are Unpatentable Over Kita, Banerjee, Epstein

Claim 1, as amended, is still unpatentable over International Patent App. Pub. No. WO 2001/089156 to Kita et al ("Kita") in view of International Patent App. Pub. No. WO 2010/105335 to Banerjee et al ("Banerjee") in further view of U.S. Patent App. Pub. No. 2010/0302454 to Epstein et al ("Epstein").

Claim 1, as amended in the Patent Owner's Statement, recites:

1. An electronic meeting tool for communicating arbitrary media content from users at a meeting comprising:

a node configuration arranged to operate a display node of a communications network, the display node being coupled to a first display, the node configuration further being arranged to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display;

at least one peripheral device configured to communicate the user selected arbitrary media content via the communications network, wherein the peripheral device is a connection unit comprising:

(a) a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system;

(b) a transmitter arranged to communicate with the communications network; and

(c) an input device arranged to enable the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port; and

a program configured to be loaded onto the processing device and to run on the operating system of the processing device, said program being arranged to obtain user selected arbitrary media content, said program leaving a zero footprint on termination. (*the underline indicates the amended portion*)

Kita relates to a card type network interface, network conference terminal device, (see *e.g.*, the Title). As to features of claim 1, *Kita* teaches *an electronic meeting tool for communicating arbitrary media content from users at a meeting*, (see *e.g., Kita* at Title "CARD TYPE NETWORK INTERFACE, ***NETWORK CONFERENCE TERMINAL DEVICE AND NETWORK CONFERENCE SYSTEM***.").

Kita further teaches *a node configuration arranged to operate a display node of a communications network, the display node being coupled to a first display*, (see *e.g.*, *Kita* at Figure 5, page 23, lines 19 – 26, "FIG. 5 shows an example of an arrangement of ***a network conference terminal device (wireless LAN conference terminal device)***" and "This wireless LAN conference system is comprised of a plurality of (e.g., about 30 to 50) wireless LAN conference terminal devices 11 (11 (1) to 11 (n)), ***a projector*** 12"). *Kita* further teaches *the node configuration further being arranged to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display*, (see *e.g., Kita* at page 21, lines 10 – 19, page 38, lines 4 – 12, "Through this PCMCIA interface 3, ***data and commands are transmitted and received between the personal computer having the network interface card 1 and the network interface card 1***," and "***the same presentation data is transmitted to the host 11 (1)***").

Kita further teaches *at least one peripheral device configured to communicate the user selected arbitrary media content via the communications network*, (see *e.g.*, *Kita* at page 21,

lines 10 – 19, "***network interface card 1***"), *the peripheral device is a connection unit comprising: (a) a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system*, (see *e.g., id.*, "***PCMCIA interface 3 is an interface section which interacts with a personal computer having a PC card slot like the notebook size persona computer 2 shown in FIG. 3***"), *(b) a transmitter arranged to communicate with the communications network*, (see, *e.g., id.* "The ***network interface card 1 includes a PCMCIA interface 3, a network interface 4, an RF modulator 5, an RF demodulator 6, an antenna 7***").

Kita further teaches *a program configured to be loaded onto the processing device and to run on the operating system of the processing device, said program being arranged to obtain user selected arbitrary media content,* (see *e.g., Kita* at page 22, line 19 – page 23, line 17, page 33, lines 19 – line 23, "*the flash ROM 9 stores therein the following microprograms (1) to (4)*," "***When the network interface card 1 is attached to the notebook size personal computer and the operating system of the notebook size personal computer is*** activated (the network interface card 1 may be attached to the notebook size personal computer after the operating system of the notebook size personal computer has been activated)".)

To the extent that *Kita* does not explicitly teach *said program leaving a zero footprint on termination, Banerjee* in the analogous art ("a plug-and-play interface device for sharing computer display") teaches *a program configured to be loaded onto the processing device and to run on the operating system of the processing device, said program being arranged to obtain user selected arbitrary media content, said program leaving a zero footprint on termination*, (see e.g., *Banerjee* at paragraphs [0046-0048], "*the remote computer 240 uses the pointer to load a LinQ software application from the storage 276 (step 328). The LinQI_auncher.exe application directs the remote computer 240 to copy all necessary files of the LinQ software application*

from storage 276 to a temporary directory on the remote computer 240 and then start the LinQ software application (step 332). The LinQ software application is used for setting up and managing the peer-to-peer wireless connection on the remote computer 240, screen sharing and communications between the remote computer 240 and the master computer 238," and at paragraph [0051], "*The LinQLauncher.exe application in turn stops the screen sharing, disconnects the peer-to-peer wireless connection with the master computer 238, terminates the execution of the LJnQ software application,* ***deletes the files in the temporary directory on the remote computer 240 that were copied from the storage 276***.")

Although *Kita* teaches input devices and user's input operations, (see e.g., *Kita* at FIG. 3, and page 1, line 23 – page 2, line 7, FIG. 3 shows a notebook computer including input devices (e.g., keyboard and touch pad), and "*This network function contains a function which displays a network setting picture to execute a network setting* ***based on user's input operations***,"), *Kita* does not explicitly teach that *the peripheral device is a connection unit comprising: (c) an input device arranged to enable the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port*. *Banerjee* teaches a peripheral device is connection unit comprising *an input device arranged to enable the user to carry out a user action*, (see *e.g., Banerjee* at FIGS. 2 and 5 teaches a "USB interface to touch panel 56, 256," and *Banerjee* at paragraphs [0026-0027] teaches that "*touch panel 28 provides a user with the ability to interact with the image projected onto the touch surface 46 of the touch panel 28 and inject input into an application program running on the computer 40 using an active pointer*."). Thus, Banerjee teaches *peripheral device is connection unit comprising an input device* (e.g., USB interface to touch panel 56, 256) *arranged to enable the user to carry out a user action* (e.g., "touch panel 28 provides a user with the ability to interact."). Further,

Epstein in the analogous art of sharing information teaches *the peripheral device is a connection unit comprising: (c) an input device arranged to enable the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port*, (see *e.g., Epstein* at paragraphs [0051 – 0052] and paragraphs [0065 – 0066], "puck assembly 20 includes ***a puck 48*** *and first and second video/audio cables 50 and 52, respectively. Cable 50 is used to link puck 48 to a computer/laptop audio/video output port or other video source*," and "***puck 48 includes*** *a disc or puck shaped housing 49 that supports a plurality of components including a processor 71,* ***an on/off button 58, first through fourth selectable controls or control buttons 60a-60d***," and "*when a puck user wants to present information from her laptop 69 display via display screen 22a,* ***the user presses button 60a*** *to indicate intention to drive display 22a.*"). Therefore, Epstein teaches the peripheral device (e.g., the "puck 48") is a connection unit comprising: (c) an input device (e.g., the "button 60") arranged to enable the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port (e.g., "*to present information from her laptop 69 display via display screen 22a.*").

Therefore, the combination of *Kita*, *Banerjee*, and *Epstein* teaches all the features recited in the amended claim 1. *Kita* is concerned with "a card type network interface, network conference terminal device and network conference system." (See e.g., *Kita* at Title.) *Kita* teaches that "presentation data can be displayed on a personal computer connected to the LAN at each seat in the conference hall," and "if the conference is held by effectively utilizing the LAN, then participants on all seats become able to watch presentation data satisfactorily." (See e.g., *Kita* page 4, lines 2-6.). In the same technical field of display sharing, *Banerjee* is concerned with a plug-and-play interface device for sharing screen display data among computers. (See

e.g., *Banerjee* at paragraph [0009].). In the same technical field of display sharing, *Epstein* is concerned with "sharing information in a collaborative workspace." (See e.g., *Epstein* at Title.). Therefore, it is obvious for a person of ordinary skill in the art to combine *Kita, Banerjee*, and *Epstein*. The combination of *Kita* with the similar function of *Banerjee* and *Epstein*, which all are in the field of sharing computer displays and information, is a "predictable variation" or a "combination of familiar elements according to known methods .... [that] does no more than yield predictable results," and such combination is obvious under *KSR International Co. v. Teleflex Inc.,* 550 U.S. 398, 415-16, 82.

Claim 12, as amended, recites features substantially identical as claim 1, and is therefore unpatentable over *Kita*, *Banerjee*, and *Epstein* for essentially the same reasons as set forth against claim 1.

The Request submitted by the Requester provides detailed reasons as to why claims 2 – 11 and 13 – 20 of the '348 patent are unpatentable over *Kita*, *Banerjee*, *Epstein*, and *Slobodin*. These reasons are not repeated in this reply because the Patent Owner's Statement does not dispute these reasons set forth in the Request.

RESPONSE TO THE ARGUMENTS MADE IN PAGES 7 TO 20 OF THE PATENT OWNER'S STATEMENT

The Patent Owner's Statement fails to specifically explain why the combination of *Kita, Banerjee, and Epstein* does not teach features as proposed in amended claims 1 and 12. The Patent Owner's Statement (at page 6, line 14 – page 12, line 2) conclusorily states that the combination of *Kita, Banerjee, and Epstein* does not teach "the peripheral device is a connection unit comprising: (a) a connector arranged to couple to a port of a processing device having a

second display, a memory and an operating system; (b) a transmitter arranged to communicate with the communications network; and (c) an input device arranged to enable the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port" as proposed in amended claim 1 and "wherein the peripheral device comprises an input device" and "triggering transfer of said user selected arbitrary media content to said transmitter through said port after a user action on the input device of the peripheral device" as proposed in amended claim 12. (See Patent Owner's Statement page 11). The requester disagrees. The Patent Owner's Statement merely quoted various portions of *Kita, Banerjee,* and *Epstein*, and then conclusorily stated that these portions of *Kita, Banerjee,* and *Epstein* do not teach the proposed features in amended claim 1 or 12. The Patent Owner's Statement, however, failed to explain specifically why the combination of *Kita, Banerjee,* and *Epstein* does not teach these proposed features. Further, the Patent Owner's Statement attacked various portions of *Kita, Banerjee,* or *Epstein* individually, but failed to explain why claims 1 and 12 are not obvious in view of the combination of *Kita, Banerjee,* and *Epstein* as a whole. For these reasons, these portions of the Patent Owner's Statement are not persuasive.

At page 12, lines 11 – 21, the Patent Owner's Statement further asserted that "the skilled person would not have observed the necessary evidence that would have prompted the skilled person to have combined the teachings of *Kita, Banerjee*, and *Epstein* in the same way to result in the same combination of features as recited in the invention of the *Amended Claims*." The Requester disagrees. MPEP 2143 provides that the Examiner must provide a reasoned explanation as to why the invention as claimed would have been obvious to a person of ordinary skill in the art at the time of the invention. Non-exclusive exemplary rationales that may support a conclusion of obviousness include:

(A) Combining prior art elements according to known methods to yield predicable results;
(B) Simple substitution of one known element for another to obtain predictable results;
(C) Use of known technique to improve similar devices (methods, or products) in the same way;
(D) Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results;
(E) "Obvious to try" – choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success;
(F) Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations are predictable to one of ordinary skill in the art;
(G) Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention. (See MPEP 2143)

As explained above, *Kita, Banerjee,* and *Epstein* are all in the same technical field of providing solutions for display sharing. Therefore, the combination of *Kita* with the similar function of *Banerjee* and *Epstein*, which all are in the field of sharing computer displays and information, is a "predictable variation" or a "combination of familiar elements according to known methods .... [that] does no more than yield predictable results," and such combination is obvious under *KSR International Co. v. Teleflex Inc.,* 550 U.S. 398, 415-16, 82. Other rationales for combining *Kita, Banerjee*, and *Epstein* may also apply. For example, it is obvious for a person skilled in the art to combine "*an on/off button 58, first through fourth selectable controls or control buttons 60a - 60d*" of *Epstein* with the USB interface to touch panel 256 of *Banerjee* to achieve "a peripheral device is a connection unit comprising: . . . <u>(c) an input device arranged to enable the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port</u>" as proposed in the amended claim 1 (or similarly, in the amended claim 12) because a person of ordinary skilled in the art would have used "simple substitution of one known element for another to obtain predictable results," or

would have used "known technique to improve similar devices (methods, or products) in the same way," etc. (See MPEP 2143).

In support of its assertions, the Patent Owners asserted various arguments, but none of them are persuasive. At page 12, line 22 to page 13, line 24, the Patent Owner's Statement merely copies different portions of the '348 patent's specification which are irrelevant to the motivation to combine *Kita*, *Banerjee*, and *Epstein*.

At page 13, line 25 to page 14, line 11, the Patent Owner's Statement conclusorily asserts that a person of ordinary skill in the art would have not motivated to combine *Kita*, *Banerjee*, and *Epstein* without explanation as to why it is not obvious to combine these known technologies in the same technical field to achieve a predictable result.

At page 14, line 12 to page 15, line 9, the Patent Owner's Statement asserts that "*Kita* is clearly directed to PCMCIA extension card, where at the time of filing of the application that was patented as the '348 Patent (earliest effective filing date Sep. 14, 2011), PCMCIA cards were obsolete." To support this assertion, the Patent Owner's Statement relies upon two references of "Museum of Obsolete Media" – (*see* http://www.obsoletemedia.org/pcmcia-pc-card/), and wiki page (https://en/wikipedia.org/wiki/pC_Card). The Requester disagrees.

First, whether a known technology is obsolete or not is **not** a standard to determine whether a person skilled in the art would consider to combine the technology with other known technologies. The patent owner makes this assertion without any basis in legal authority. Had there were no motivation to combine "obsolete" technologies, the patent owner would have been absurdly able to claim nonobvious inventions by combining two or more "obsolete" technologies because a person skilled in the art would not consider "obsolete" technologies. Second, there is no evidence to support that the two references relied-upon by the patent owner are technical

authorities. It is unclear who the authors of these two references are and what their credentials are. In fact, it is well known that the relied-upon wiki pages can be edited by anyone. Further, MPEP requires that when any claim of an application or a patent under reexamination is rejected or objected to, ***any evidence submitted to traverse the rejection or objection on a basis not otherwise provided for must be by way of oath or declaration***. (See MPEP 716, 37 CFR 1.132). As such, this two relied-upon references are improperly introduced by the patent owner and should be disregarded because they are not introduced by way of oath or declaration. Third, at the filing of the '348 patent, PCMCIA cards were not obsolete technology because even the '348 patent itself seems to claim its invention includes the PCMCIA cards. For example, various portions of the specification of the '348 patent asserts that its invention includes a plug and play interface. (See *e.g.*, column 20, lines 19 – 27.). The specification of the '348 patent further states that "[p]lug and play interfaces include for example (not an exhaustive list): Firewire (IEEE-1394), PCI, Mini PCI, PCI Express, Mini PCI Express, ***PCMCIA***, PC Card, Universal Serial Bus (USB), SDIO cards." (See column 9, lines 38 – 47)(emphasis added). Therefore, the patent owner itself at the filing of the '348 patent seemingly did not believe that PCMCIA cards were obsolete because it asserted that its invention included PCMCIA cards as part of the plug and play interface. For these reasons, the argument that a person skilled in the art would not consider PCMCIA cards were obsolete is without legal or factual bases, and is therefore not persuasive.

At page 15, line 10 to page 17, line 32, the Patent Owner's Statement further asserts that because *Kita* teaches that a "presentation right" is passed around the network before any of the clients can trigger transfer of data, the skilled person would not have modified the card network interface of *Kita* to result in the claimed features, at least because such a modification would

have changed the principle of operations of *Kita*. The Patent Owner's Statement further asserts that since *Kita* is directed to PCMCIA cards that are attached to a person computer, such a modification would not only change of displaying data, e.g., *Kita* teaches sending the presentation data to all of the laptops and teaches away from the invention of the Amended Claims, the skilled person would have understood that an input device could not have been attached to the PCMCIA card of *Kita*. The Requester disagrees.

First, the Amended Claims 1 and 12 do not include limitations that exclude acquiring "presentation right." Contrary to the Patent Owner's Statement, Amended Claims 1 and 12 seem to include a node configuration that manage its access. For example, the Amended Claim 1 recites "a node configuration arranged to operate a display node of a communications network, the display node being coupled to a first display, the node configuration further being arranged to receive user selected arbitrary media content and **to control display of the user selected arbitrary media content on the first display**." (emphasis added). Therefore, the assertion that the skilled person would have modified the card network interface of *Kita* to result in the claimed features is not supported by the Amended Claims. Further, the specification of the '348 patent provides for acquiring an approval before presenting user selected arbitrary media content on the display of a based node. The specification of the '348 patent states as follows:

> Referring to FIGS. 1 *a* and 1 *b* embodiments of the present invention comprise a base or display node **36** being a processing device, e.g. a host computer adapted to receive user selected arbitrary media content, the base node **36** being coupled to a central display **44** which can be a fixed format display or a projector or similar. The arbitrary media content can be provided from any of the user processing devices **31**. ***The base node 36 can be adapted to display the received user selected arbitrary media content in accordance with a set of rules***, e.g. FIFO, automatically, ***on request or approval***, forced to display, in accordance with a priority etc. Optionally the base node **36** is adapted to force display of the received user selected arbitrary media content, i.e. to allow participation in the meeting by an individual user displaying own selected content on display **44** independently of the person who is nominally responsible for giving a presentation or chairing the meeting. Forcing the

display can also be considered as a rule. The meeting tool can also be adapted to allow a priority setting. This means that a user can set a priority setting for the media to be displayed. A priority of "1" for example can be interpreted by the base node as a forced display, a priority "2" can be interpreted by the base node as display as soon as possible, priority "3" can be interpreted by the base node as place in queue and display as the time comes etc. Setting and using priorities for display are also considered to be working to rules. To execute the rules, the base node **36** may have a decision module. The base node **36** may be a host computer having a processing engine such as a microprocessor and a memory. Preferably, the base node **36** is adapted to treat media content passed to the base node **36** from any or all of the connection units **47** in an equal manner. The base node **36** may be adapted to auto compose the media content on the central display **44** connected to it, e.g. from one or more processing devices **31**. (column 14, line 43 – column 15, line 9)(emphasis added)

As such, the specification of the '348 patent provides for acquiring approval (i.e., on request or approval) before displaying the received arbitrary media content. Therefore, the broadest interpretation of "to control display of the user selected arbitrary media content on the first display" recited in the Amended Claim 1 (or similarly, in claim 12) based on the specification includes acquiring a "presentation right" (*i.e.*, on request or approval) Therefore, the patent owner's assertions are not persuasive because the '348 patent itself claims to control the access to the node configuration, and the "presentation right" does not teach away from Amended Claim 1.

At page 18, line 1 to page 20, line 10, the Patent Owner's Statement further asserts that neither *Kita* nor *Banerjee* teaches the feature "said program leaving a zero footprint on termination." The Patent Owner's Statement asserts that "the skilled person, when considering all of the words in the claims in light of the specification, would have understood that zero footprint is a term of art related to zero footprint applications on client processing devices – where there is **nothing to clear up** or adjust or reset (see col. 20, lines 10-11)." (See the Patent Owner's Statement at page 19, lines 3-6). The Patent Owner's Statement further asserts that "a system with a 'clean up' program is **not** zero footprint at least because on such a system, a crash

of the computer results in the program and some of the entries being kept." (See the Patent Owner's Statement at page 19, lines 25 - 27). The Requester disagrees. **The Amended Claims 1 and 12 do not recite a "zero footprint application."** Instead, the Amended Claims 1 and 12 recite "said program leaving a zero footprint on termination." The "zero footprint" according to the specification of the '348 patent "meaning all temporary files, registry entries, and any other changes to the machine exist only while the program is running." (See the '348 patent at column 10, lines 11 – 14). The "termination" according to the specification of the '348 patent can be "**any form of termination** e.g. disconnecting the electronic device, system crash, no trace left. This is generally termed 'zero footprint'." (See the '348 patent at column 17, lines 17 – 21)(emphasis added). Thus, the claimed feature of "said program leaving a zero footprint on termination" can be broadly interpreted as any program that does not leave temporary files, registry entries, or changes to the machines on any forms of terminations including a normal termination as the program completes or an abnormal termination such as a system crash. Thus, *Banerjee* (at paragraphs [0046 – 0048]) teaches said program leaving a zero footprint on termination" recited in the Amended Claims 1 and 12 because Banerjee "***deletes the files in the temporary directory on the remote computer 240 that were copied from the storage 276***" upon terminating "*the execution of the LJnQ software application.*" Finally, if the patent owner intends to recite the limitation of a "zero-footprint application that does not generate any temporary files or modify any registers of the processing device during execution of the zero-footprint application on the processing device" so that it leaves "nothing to clear up" upon a system crash, the patent owner should expressly amend the claims to expressly recite this feature.

2. The Amended Claims 1 and 12, as well as their Dependent Claims are Unpatentable Over Banerjee and Epstein

Claim 1, as amended, is still unpatentable over *Banerjee* in view of *Epstein*.

As to features of claim 1, *Banerjee* teaches *a node configuration arranged to operate a display node of a communications network, the display node being coupled to a first display*, (see e.g., *Banerjee* at paragraph [0039] [0054], "*system 220 comprises a plug-and-play device 236,* ***a master computer 238*** and at least one remote computer 240. *The plug-and-play device 236 is physically connected to the remote computer 240 and* ***communicates with the master computer 238 over a wireless communications link***," and "*shared screen display data received by the master computer 238 can be presented on the touch surface 246 of the interactive input system 228 via a* ***projection device 244***."). *Banerjee* further teaches *the node configuration further being arranged to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display*, (see *e.g., Banerjee* at paragraph [0054], "*shared screen display data received by the master computer 238 can be presented on the touch surface 246 of the interactive input system 228 via a* ***projection device 244***.").

Banerjee further teaches *at least one peripheral device configured to communicate the user selected arbitrary media content via the communications network*, (see *e.g., Banerjee* at paragraph [0041], "*the plug-and-play device 236 comprises an interface 256 in the form of a USB interface to wireless communication device adapter connected to a wireless transceiver 260*), *the peripheral device is a connection unit comprising: (a) a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system*, (see *e.g., id.*, "*The interface 264 comprises a port (not shown) to receive a* ***cable segment 268 thereby to enable the physical connection to the remote computer 240 to be made***,"), *(b) a*

transmitter arranged to communicate with the communications network, (see *e.g., id.* "***wireless transceiver 260***,"), *(c) an input device arranged to enable the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port*, (see e.g., *Banerjee* at FIGS. 2 and 5 (USB interface to touch panel 56, 256); paragraphs [0026-0027], "*The touch panel 28 provides a user with the ability to interact with the image projected onto the touch surface 46 of the touch panel 28 and inject input into an application program running on the computer 40 using an active pointer.*")

Banerjee further teaches *a program configured to be loaded onto the processing device and to run on the operating system of the processing device, said program being arranged to obtain user selected arbitrary media content, said program leaving a zero footprint on termination*, (see e.g., *Banerjee* at paragraphs [0046-0048], "*the remote computer 240 uses the pointer to load a LinQ software application from the storage 276 (step 328). The LinQI_auncher.exe application directs the remote computer 240 to copy all necessary files of the LinQ software application from storage 276 to a temporary directory on the remote computer 240 and then start the LinQ software application (step 332). The LinQ software application is used for setting up and managing the peer-to-peer wireless connection on the remote computer 240, screen sharing and communications between the remote computer 240 and the master computer 238*," and at paragraph [0051], "*The LinQLauncher.exe application in turn stops the screen sharing, disconnects the peer-to-peer wireless connection with the master computer 238, terminates the execution of the LJnQ software application,* ***deletes the files in the temporary directory on the remote computer 240 that were copied from the storage 276***.").

Although *Banerjee* teaches a "USB interface to touch panel" 56, 256, and "*The touch panel 28 provides a user with the ability to interact with the image projected onto the touch*

surface 46 of the touch panel 28," *Banerjee* does not explicitly teach *the peripheral device is a connection unit comprising: (c) an input device arranged to enable the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port*. Epstein in the analogous art of sharing information teaches *the peripheral device is a connection unit comprising: (c) an input device arranged to enable the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port*, (see *e.g., Epstein* at paragraphs [0051 – 0052] and paragraphs [0065 – 0066], "puck assembly 20 includes ***a puck 48*** *and first and second video/audio cables 50 and 52, respectively. Cable 50 is used to link puck 48 to a computer/laptop audio/video output port or other video source*," and "***puck 48 includes*** *a disc or puck shaped housing 49 that supports a plurality of components including a processor 71,* ***an on/off button 58, first through fourth selectable controls or control buttons 60a-60d***," and "*when a puck user wants to present information from her laptop 69 display via display screen 22a,* ***the user presses button 60a*** *to indicate intention to drive display 22a*."). Therefore, *Epstein* teaches the peripheral device (e.g., the "puck 48") is a connection unit comprising: (c) an input device (e.g., the "button 60") arranged to enable the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port (e.g., "*to present information from her laptop 69 display via display screen 22a*.").

Therefore, the combination of *Banerjee* and *Epstein* teaches all the features recited in the amended claim 1. *Banerjee* is concerned with a plug-and-play interface device for sharing screen display data among computers. (See e.g., *Banerjee* at paragraph [0009].) In the same technical field of display sharing, *Epstein* is concerned with "sharing information in a collaborative workspace." (See e.g., *Epstein* at Title.). Therefore, it is obvious for a person of

ordinary skill in the art to combine *Banerjee* and *Epstein*. The combination of *Banerjee* with the similar function of *Epstein*, which all are in the field of sharing computer displays and information, is a "predictable variation" or a "combination of familiar elements according to known methods .... [that] does no more than yield predictable results," and such combination is obvious under *KSR International Co. v. Teleflex Inc.,* 550 U.S. 398, 415-16, 82.

Claim 12, as amended, recites features substantially identical as claim 1, and is therefore unpatentable over *Banerjee* and *Epstein* for essentially the same reasons as set forth against claim 1.

The Request submitted by the Requester provides detailed reasons as to why claims 2 – 11 and 13 – 20 of the '348 patent are unpatentable over *Banerjee* and *Epstein*. These reasons are not repeated in this reply because the Patent Owner's Statement does not dispute these reasons set forth in the Request.

RESPONSE TO THE ARGUMENTS MADE IN PAGES 20 TO 23 OF THE PATENT OWNER'S STATEMENT

At page 21, lines 8 – 16, the Patent Owner's Statement asserts that "such a teaching in *Banerjee* does not disclose the proposed features, at least because amended claims 1 and 12 require that the data transfer is triggered by the user action on an input device on the peripheral device being a connection unit. On the other hand, the Patent Owner submits that the skilled person would have appreciated that the remote computer of *Banerjee* can only send a request – it does not trigger transfer. In fact, the skilled person would not have observed any evidence in *Banerjee* of an input device on the connection unit and hence cannot disclose the feature of a user action on an input device on the connection unit which itself triggers transfer of data from

the processing device to the peripheral device." **The Requester submits that this assertion is a mis-characterization of features recited in the proposed Amended Claims 1 and 12**. Contrary to the assertion made by the patent owner, the proposed Amended Claim 1, in relevant part, recites "the peripheral device is a connection unit comprising: (c) an input device arranged to enable the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port," and the proposed Amended Claim 12, in relevant part, recites "the peripheral device comprises an input device, . . . , and trigger transfer of said user selected arbitrary media content to said transmitter through said port after a user action on [an] the input device of the peripheral device." **None of the proposed Amended Claims 1 and 12 require "an input device on the connection unit" as asserted in the Patent Owner's Statement**. Further, dependent claim 6 recites that "the input device is physical actuator ***coupled to*** the peripheral device." (Emphasis added). As to the meaning of "***coupled to***," the specification of the '348 patent states as follows:

> Similarly, it is to be noticed that the term "coupled", also used in the description or claims, should not be interpreted as being restricted to direct connections only. Thus, the scope of the expression "*a device A coupled to a device B" should not be limited to devices or systems wherein an output of device A is directly connected to an input of device B. It means that there exists a path between an output of A and an input of B which may be a path including other devices or means*. (the '348 patent at column 12, line 64 – column 13, line 4)(emphasis added)

As such, dependent claim 6 **does not require** the input device is "**on**" the peripheral device (or the connection unit). For this reason, the patent owner simply cannot assert that the proposed Amended Claims 1 and 12 require "an input device on the connection unit," and simply cannot, based on this mis-characterization, argue that *Banerjee* in view of *Epstein* does not teach "an input device on the connection unit."

Further, the Patent Owner's Statement argues the proposed Amended Claims 1 and 12 together as if they had the same claim limitations while they do not. The proposed Amended Claim 1 **does not require** "**a user action on an input device** on the connection unit" to trigger transfer of user selected arbitrary media content. Instead, the proposed Amended Claim 1 merely requires "(c) **an input device arranged to enable the user to carry out a user action** that triggers transfer of said user selected arbitrary media content to said transmitter through said port." As such, the user action can be from another device other than the input device as demonstrated in dependent claim 8 ("the input device on the peripheral device is trigger by [is] a key displayed by the second display."). Therefore, *Banerjee* (at FIGS. 2 and 5 (USB interface to touch panel 56, 256) teaches "an input device arranged to enable the user to carry out a user action" recited in the proposed Amended Claim 1. Finally, *Epstein* (at paragraphs [0051 – 0052] and paragraphs [0065 – 0066]), as discussed above, teaches a peripheral device ("puck 48) comprising an input device ("***an on/off button 58, first through fourth selectable controls or control buttons 60a-60d***,") on the peripheral device, and user action on the input device to trigger transfer of user selected media content ("*when a puck user wants to present information from her laptop 69 display via display screen 22a,* ***the user presses button 60a*** *to indicate intention to drive display 22a*," and "*to present information from her laptop 69 display via display screen 22a.*"). For these reasons, the proposed Amended Claims 1 and 12 are not patentable in view of *Banerjee* and *Epstein*.

At page 21, line 27 to page 23, line 19, the Patent Owner's Statement further asserts that "*Epstein* discloses a display unit which could be used to replace other displays such as the projector display of *Banerjee* or the display of *Kita*. The skilled person, however, would not have observed any evidence in *Epstein* that would have motivated the skilled person to modify a

peripheral device being a connection unit with an input device to trigger data transfer." (See the Patent Owner's Statement at page 23, lines 15 – 19). To support this assertion, the patent owner cuts and pastes various portions of *Epstein* into the statement. However, it is unclear how the patent owner derives its conclusion based on these copied portions of *Epstein*, and how the assertion would lead to the conclusion of no motivation to combine *Banerjee* with *Epstein*. As discussed above (and admitted by the patent owner at page 21, line 28 – page 22, line 4), Epstein teaches "presentation of audiovisual information via one or more large format common display in a collaborative workspace and more specifically to a fast and intuitive controller allowing a meeting participant with a laptop computer to quickly and easily control the presentation of laptop information on common displays," (see *Epstein* paragraph [0003]), which is the technical field of *Banerjee* and is in line with the problem of the '348 patent ("Electronic tool and methods for meetings.). Therefore, a person skilled in the art would have motivated to combine *Epstein* with *Banerjee*.

CONCLUSION

For at least the foregoing reasons and reasons set forth in the Request, the Requester respectfully submits that the amended claims as proposed in the Patent Owner's Statement are still unpatentable over *Kita, Banerjee*, and *Epstein*, or in alternative, are still unpatentable over *Banerjee* and *Epstein*. The amended claims 1 – 20 should be rejected.

Respectfully submitted,

Date: July 20, 2018 / Stanley Liang/

CERTIFICATE OF SERVICE

The undersigned hereby certifies that this reply to the Patent Owner's Statement in *ex parte* reexamination serial no. 90/014,087 was served on the patent owner by placing a copy in FedEx and by first mail with the US Post Office, both with sufficient postage addressed to counsel of record for U.S. Pat. No. 8,756,348:

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Date: July 20, 2018 /Stanley Liang /

Electronic Acknowledgement Receipt

EFS ID:	33240291
Application Number:	90014087
International Application Number:	
Confirmation Number:	8024
Title of Invention:	Electronic Tool and Methods for Meetings
First Named Inventor/Applicant Name:	8756348
Customer Number:	23364
Filer:	Stanley D. Liang/JODI LANG
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Reexam Timely Requester's Reply to an Owner's Statement	Reply_to_Patent_Owner_Statement.pdf	312638 9e4ff3437efe24fba0b9224b02b27af6dec9786d	no	23

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This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

CERTIFICATE OF SERVICE

The undersigned hereby certify that on May 23, 2018, the attached Patent Owner's Statement, in its entirety, was sent via United States Postal Service, first class mail to the Third Party Requester at the address listed below pursuant to 37 C.F.R. § 1.550(f) and 1.248(a)(4).

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REMARKS

Reconsideration of the preliminary conclusion in the Decision Granting Ex Parte Reexamination mailed March 23, 2018 (referred to as the "Decision" below), that a Substantial New Question of Patentability is presented by the Reexamination Request filed February 9, 2018, with respect to U.S. Patent No. 8,756,348 (referred to as "the '348 Patent" below), is respectfully requested on the basis of the following particulars.

1. Claim Amendments

Claim 1 is amended to recite that "the peripheral device is a connection device comprising:" "(c) an input device arranged to enable the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port."

Claim 12 is amended to recite that "the peripheral device comprises an input device" and "triggering transfer of said user selected arbitrary media content to said transmitter through said port after a user action on the input device of the peripheral device."

It is respectfully submitted that no new matter is added and the claims have not been broadened, since support for the amendments may be found, for example, at least in Figs. 4 and 10 of the '348 Patent and, for example, at least in col. 20, lines 28-35; col. 22, lines 5-6; col. 22, lines 14-16; and col. 25, lines 16-22 of the accompanying description in the '348 Patent.

Claim 8 is amended to recite "wherein the input device on the peripheral device is triggered by a key displayed on the second display." It is respectfully submitted that no new matter is added and the claims have not been broadened, since support for the amendments may be found, for example, at least in col. 6, lines 56-60 and col. 7, lines 31-35 of the accompanying description in the specification as granted.

Claims 2-7, 9-11, and 13-20 are left unchanged. However, claims 2-7 and 9-11 depend on presently amended claim 1, and claims 13-20 depend on presently amended claim 12. Thus, claims 1-20 may be referred to below as the "*Amended* Claims."

2. Claims 1-20 are allowable over the cited prior art

The Examiner on page 3 of the Decision states "that the consideration of Kita with Banerjee raises a substantial new question of patentability as to the claims 1-20 of the '348 patent" and on page 4 suggests that "the consideration of Banerjee raises a substantial new question of patentability as to the claims 1-20 of the '348 Patent." Patent Owner appreciates the Examiner's review. However, there is no substantial new question of patentability with respect to the *Amended* Claims, which are clearly patentable over *Kita* and *Banerjee* and in view of *Epstein*, or any reasonable combination thereof, as discussed below. As stated in the Decision, *Kita* is WO 01/89156, *Banerjee* is WO 2010/105335, and *Epstein* is US 2010/0302454.

A. Any proposed modification of the invention of *Kita* taken with *Banerjee* and *Epstein* fails to result in each and every feature proposed in amended claims 1 and 12

Specifically, Patent Owner submits that any proposed combination of the card type network interface of *Kita* with the teachings of *Banerjee* and *Epstein* fails to at least result in "wherein the peripheral device is a connection unit comprising: (a) a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system; (b) a transmitter arranged to communicate with the communications network; and (c) an input device arranged to enable the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port," as proposed in amended claim 1 and "wherein the peripheral device comprises an input device" and "triggering transfer of said user selected arbitrary media content to said transmitter through said port after a user action on the input device of the peripheral device," as proposed in amended claim 12.

Patent Owner submits that *Kita* fails to disclose or suggest "wherein the peripheral device is a connection unit comprising: (a) a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system; (b) a transmitter arranged to communicate with the communications network; and (c) an input device arranged to enable the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port," as proposed in amended claim 1 and "wherein the peripheral device comprises an input device" and "triggering transfer of said user selected arbitrary media content to said transmitter through said port after a user action on the input device of the peripheral device," as proposed in amended claim 12. At most, *Kita* teaches a wireless LAN conference system can be constructed where there are provided network conference terminal devices (11 (2) to 11(n)) in which network interface cards (1) are attached to information terminal devices (abstract). In the places such as various kinds of meetings, presentations and lecture meetings (these meetings, presentations and lecture meetings will be generally referred to as a 'conference' in this specification), heretofore, the presentation is made by displaying presentation data such as images and illustrations on a projector (page 3, lines 20-25). The network interface card 1 includes a PCMCIA interface 3, a network interface 4, an RF modulator 5, an RF demodulator 6, an antenna 7, a CPU 8, a flash ROM 9 and a RAM 10 (page 21, lines 11-13). The CPU 8 controls the PCMCIA interface 3 by executing a microprogram (firmware) stored in the flash ROM 9 so that data and command may be transmitted and received between the network interface card and the personal computer having the network interface card 1, and also controls the network interface 4 so that data and commands may be transmitted and received through the wireless LAN in accordance with a predetermined communications protocol (e.g., TCP/IP protocol) (page 22, lines 12-19). In other words, *Kita* only discloses a PCMCIA network interface card, but fails to disclose or suggest "wherein the peripheral device is a connection unit comprising: (a) a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system; (b) a transmitter arranged to communicate with the communications network; and (c) an input device arranged to enable the user to carry out a user action that

triggers transfer of said user selected arbitrary media content to said transmitter through said port," as proposed in amended claim 1 and "wherein the peripheral device comprises an input device" and "triggering transfer of said user selected arbitrary media content to said transmitter through said port after a user action on the input device of the peripheral device," as proposed in amended claim 12.

Banerjee fails to cure the deficiencies of *Kita* with respect to amended to claims 1 and 12. Rather, *Banerjee* teaches a plug-and-play device comprising a first plug-and-play interface for establishing a connection with a first computing device; a second plug-and-play interface for establishing a connection with a second computing device; storage storing code that is automatically executed by the second computing device when said plug-and-play device is connected thereto via said second plug-and-play interface, said code when executed initiating a screen display data exchange between said first and second computing devices; and at least one controller controlling said first plug-and-play interface, said second plug-and-play interface and said storage (para. [0009]). The plug-and-play device 24 comprises an interactive input system that includes a touch panel 28, a controller 32 and a cable 36 (para. [0026]). Alternatively, system 220 comprises a plug-and-play device 236, a master computer 238 and at least one remote computer 240 (para. [0039]). In this embodiment, the plug-and-play device 236 captures and compresses screen display data generated at the remote computer 240 and allows screen sharing between the remote computer 240 and the master computer 238 by automatically launching software stored on the plug-and-play device 236 (para. [0039]). Once the remote computer 240 is connected to the master computer 238 over the peer-to-peer wireless connection, the remote computer 240 may send a request to share the screen display data of the remote computer 240 to the master computer 238 (para. [0048]). With the peer-to-peer wireless connection established between the master computer 238 and the remote computer 240, those skilled in the art will appreciate that the user of the remote computer 240 may also be allowed to access the Internet through the master computer 238 (para. [0050]). In yet another embodiment, the USB host-to-host controller 472 allows bi-direction screen data sharing in real-time between the remote computer 440 and the master computer 438 (para. [0059]).

In other words, *Banerjee* discloses a plug-and-play device having a first plug-and-play interface for establishing a connection with a first computing device and a second plug-and-play interface for establishing a connection with a second computer device, but fails to disclose or suggest "wherein the peripheral device is a connection unit comprising: (a) a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system; (b) a transmitter arranged to communicate with the communications network; and (c) an input device arranged to enable the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port," as proposed in amended claim 1 and "wherein the peripheral device comprises an input device" and "triggering transfer of said user selected arbitrary media content to said transmitter through said port after a user action on the input device of the peripheral device," as proposed in amended claim 12.

Patent Owner submits that *Epstein* also fails to cure the deficiencies of *Kita* with respect to amended claims 1 and 12. At most, *Epstein* teaches a presentation of audiovisual information via one or more large format common displays in a collaborative workpiece and more specifically to a fast and intuitive controller allowing a meeting participant with a laptop computer to quickly and easily control the presentation of laptop information on common displays (para. [0003]). Display system 12 includes a totem or stand support structure 28 and four relatively large flat panel displays 22a, 22b, 22c and 22d (para. [0044]). Interface assembly 19 includes a deck member 21 and six selectable control interfaces referred to as "puck" assemblies, two of which are labeled 20 (para. [0050]). Referring still to FIG. 4 and also to FIG. 5, exemplary puck 48 includes a disc or puck shaped housing 49 that supports a plurality of components including a processor 71, an on/off button 58, first through fourth selectable controls or control buttons 60a-60d, four illumination devices 73a through 73d and an illumination ring 56 (para. [0052]). Here, each number 1, 2, 3 or 4 corresponds to a different one of the display screens 22a through 22d in Fig. 1 (para. [0054]). A user pulls one of the pucks 48 from the cavity below a door 39 or 41 and links a laptop 69 to the puck 48 via cable 50 (para. [0065]). Once a laptop 69 is linked to cable 50, ring 59 as well as selectable buttons 60a-60d are illuminated white to

indicate to the laptop user that the user is linked and can opt to present information from the user's laptop screen via any one or combination of displays 22a-22d corresponding to illuminated buttons 60a-60d respectively (para. [0065]). If the user wants to display her laptop information via displays 22a-22c, referring to Fig. 12, the user selects buttons 60b and 60c which causes information from the user's laptop screen to replace any existing information on displays 22b and 22c, causes other puck illumination to change accordingly and cause buttons 60b and 60c to change from white to green illumination (para. [0068]).

In other words, *Epstein* relates with a display system located on a conference table having a puck to display information on multiple displays, but fails to disclose "wherein the peripheral device is a connection unit comprising: (a) a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system; (b) a transmitter arranged to communicate with the communications network; and (c) an input device arranged to enable the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port," as proposed in amended claim 1 and "wherein the peripheral device comprises an input device" and "triggering transfer of said user selected arbitrary media content to said transmitter through said port after a user action on the input device of the peripheral device," as proposed in amended claim 12.

Therefore, since none of *Kita*, *Banerjee*, and *Epstein* discloses or suggests "wherein the peripheral device is a connection unit comprising: (a) a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system; (b) a transmitter arranged to communicate with the communications network; and (c) an input device arranged to enable the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port," as proposed in amended claim 1 and "wherein the peripheral device comprises an input device" and "triggering transfer of said user selected arbitrary media content to said transmitter through said port after a user action on the input device of the peripheral device," as proposed in amended claim 12, any proposed modification of the card type

network interface of *Kita* with the teachings of *Banerjee* and *Epstein* fails to result in the features proposed in amended claims 1 and 12. Rather, even assuming, but not admitting that the prior art teach certain features recited in the claims, "a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418, 127 S. Ct. 1727, 1741 (2007).

In this case, Patent Owner submits that the skilled person would not have observed the necessary evidence that would have prompted the skilled person to have combined the teachings of *Kita*, *Banerjee*, and *Epstein* in the same way to result in the same combination of features as recited in the invention of the *Amended* Claims. Rather, only through the disclosure of the '348 patent is the skilled person taught of a method and apparatus that overcomes the deficiencies of the prior art, where when using electronic tools in meetings, to bring the display content of a computer to a projector, the most common ways are to use a cable that connects the display adapter to the graphics card to the video input of the projector [method 1] or to use a software that captures the display contents and sends it over a wired or wireless network to a remote base unit connected to the projector [method 2] (col. 3, lines 7-15).

For example, in one embodiment of the invention, at least one connection unit 47, (optionally 49 for receiving) is adapted to communicate the user selected arbitrary media content to said base node 36 (col. 15, lines 10-13). A portable application 60 runs as a process on the client processing device 31 that is adapted to deliver an arbitrary media content from the client processing device 31 to the communication network 50 in response to a user action applied to an input device 48, the process leaving a zero footprint on termination (col. 15, lines 43-48). The user action applied to the input device 48 generates

a signal that can trigger transfer of data from the processing device 31 (to which the connection unit 47 is coupled) to the network 50 (col. 16, lines 5-8). The connection unit is a physical device in the form of an external peripheral device (shown in the drawings as a "dongle" D) comprising permanent storage storing the portable application (7) and configuration parameters (12), memory, a processing engine (e.g. CPU, FPGA), a wireless transmitter such as WiFi (3), a plug and play interface such as a USB interface (2), a button as input device (9), an LED ring as visual indicator (10) (col. 20, lines 28-35). The portable application will use the wireless, e.g. wifi interface of the peripheral device (3) to connect to the correct base node (col. 21, lines 60-62). When the user at the computer (C) wants to show her content, she presses the button (9) (col. 22, lines 5-6).

In so doing, the skilled person would have appreciated that the features recited in the claims are at least directed to a simplified system that includes a base configuration arranged to operate a display node of a communications network, the display node being coupled to a first display, the node configuration further being arranged to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display, at least one peripheral device configured to communicate the user selected arbitrary media content via the communications network, where the peripheral device is a connection unit comprising a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system; a transmitter arranged to communicate with the communications network; and an input device arranged to enable the user to carry out a user action that triggers transfer of the user selected arbitrary media content to the transmitter through the port; and a program configured to be loaded onto the processing device and to run on the operating system of the processing device.

On the other hand, Patent Owner submits that the skilled person would have appreciated that *Kita*, *Banerjee*, and *Epstein* are all directed to different structures and methods for overcoming their respective prior art deficiencies. For example, the skilled person would have understood that *Kita* is directed to a network interface card that can be

attached to the personal computer so that the network setting can be executed without troubling users and for those seated distant from the projector to have presentation data displayed on a personal computer connected to the LAN at each seat in the conference hall so that the participants on all seat are able to watch presentation data satisfactorily, whereas *Banerjee* is directed to a plug-and-play device, where when code is executed by the second computing device initiates a screen display data exchange and *Epstein* is directed to a puck connected to a common display via cables and input ports. The skilled person, however, would not have observed any evidence that would have prompted the skilled person to have modified the card type network interface of *Kita* so that the card type network interface includes an input device arranged to enable the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port.

For example, Patent Owner submits that the skilled person would have appreciated that *Kita* is clearly directed to PCMCIA extension cards, where at the time of filing of the application that was patented as the '348 Patent (earliest effective filing date Sep. 14, 2011), PCMCIA cards were obsolete. The obsolescence is mentioned for example in the "Museum Of Obsolete Media" – (*see* http://www.obsoletemedia.org/pcmcia-pc-card/), which shows that PCMCIA cards were obsolete as of the mid-2000's. This is also confirmed by: https://en.wikipedia.org/wiki/PC_Card, namely:

> *Technological obsolescence*
>
> *After the release of PCIe-based ExpressCard in 2003, laptop manufacturers started to fit ExpressCard slots to new laptops instead of PC Card slots. PC Card devices can be plugged into an ExpressCard adaptor, which provides a PCI-to-PCIe Bridge. ExpressCard was not as popular as PC Card, due in part to the ubiquity of USB ports on modern computers. Most functionality provided by PC Card or ExpressCard devices is now available as an external USB device. These USB devices have the advantage of being compatible with desktop computers as well as portable devices. (Desktop computers were rarely fitted with a PC Card or ExpressCard slot).*

Patent Owner submits that the skilled person would have appreciated that PCMCIA cards were obsolete by 2003, which is well before the priority date of the '348 Patent. Therefore there was no motivation for the skilled person in the art to consider a document like *Kita*, since the primary elements of *Kita* were obsolete on the relevant date of the present invention. For example, the skilled person would have appreciated as of the filing date of the '348 Patent, that although the obsolete PCMCIA cards have certain functionalities, it would not be clear which functionalities would be present when using a USB serial port to achieve the result in the *Amended* Claims, especially if somehow an input device was on the PCMCIA card.

Moreover, Patent Owner submits that the skilled person would have appreciated that *Kita* is directed to a system and method that operates in a different way than the invention of the *Amended* Claims. For example, *Kita* teaches:

> On page 34, lines 6-12: FIGS. 13 and 14 show the contents of the processings at the "host program" and the "client program", respectively. As shown in FIG. 13, the network interface card 1 of the host 11(1) enables the operating system of the notebook size personal computer of the host 11(1) to recognize this network interface card 1 as a hard disk. At the same time, this network interface card sets an automatic activation file (step S31).
>
> On page 37, lines 5-10: As shown in FIG. 13, while executing the steps S32 and S33, the network interface card 1 of the host 11(1) repeatedly determines whether or not **a presentation right get request from any of the clients 11(2) to 11(n) is received (step S34)**. The request signals are transmitted and received in the polling system shown in FIG. 9 in the processings shown in FIGS. 13 and 14.
>
> On page 37, lines 11-17: As shown in FIG. 14, while executing the steps S42 and S43, the network interface cards 1 of the clients 11(2) to 11(n) repeatedly determine whether or not the notebook size personal computers of the clients 11(2) to 11(n) **execute the predetermined operation in order to get the presentation right (step S44).** If this operation is executed, **then the presentation right get request is transmitted to the host 11(1) (step S45).**
>
> On page 37, lines 18-21: As shown in FIG. 13, if the presentation right get

request from any of the clients 11(2) to 11(n) is received, then the network interface card 1 of the host 11(1**) transmits the presentation right get command to the corresponding client (step S35).**

On page 37, lines 22-26: As shown in FIG. 14, after the network interface card 1 of the client which has transmitted the presentation right get request transmitted the presentation right get request, **this network interface card 1 awaits that the presentation right get command is received (step S46).**

On page 37, line 27 to page 38, line 3: **When this command is received, the network interface card awaits that the notebook size personal computer of the client concerned displays presentation data by using the presentation application software (step S47).**

On page 38, lines 4-12: If such operation is carried out (i.e., if the presentation data is displayed on the notebook size personal computer of the client concerned), then the same presentation data is transmitted to the host 11(1) and other clients, and the command for displaying the presentation data by using the presentation application software corresponding to that presentation data and the command for displaying that presentation data in synchronism with the client concerned are transmitted to the host 11(1) and other clients (step S48).

On page 38, lines 13-20: As shown in FIG. 13, it is determined by the network interface card 1 of the host 11(1) whether the presentation data and the command are received (step S36). If they are received, then this presentation data is displayed on the notebook size personal computer of the host 11(1) and the projector 12 by using the presentation application software (step S37). The network interface cards 1 of other clients display this presentation data at the steps S42, S43 shown in FIG. 14.

On page 38, lines 21-24: As a result, the same presentation data as that displayed on the notebook size personal computer of the client who got the presentation right is displayed on the notebook size personal computers of the host 11(1) and other clients and the projector 12.

On page 38, line 25 to page 39, line 4: As shown in FIG. 13, while executing the steps S36 and S37, the network interface card 1 of the host 11(1) repeatedly determines whether or not the notebook size personal computer of the host 11(1) **executes a predetermined operation for returning the presentation right (step S38)** and also repeatedly determines whether or not a new presentation right get request from other client is received (step S39).

On page 39, lines 5-8: **Then, if the presentation return operation is executed,**

then a command for returning the presentation right is transmitted to the client which got the presentation right (step S40). Then, control goes back to the step S32.

On page 39, lines 9-11: If the presentation right get request from any one of other clients is received, then at a step S35, **a new presentation right get command is transmitted to that client.**

On page 39, lines 12-18: **As shown in FIG. 14, while executing the steps S47 and S48 and transmitting the presentation data and the command, it is repeatedly determined by the network interface card 1 of the client which got the presentation right whether or not the presentation right return command or the command for enabling other client to get the presentation right is received (step S49).** Then, if any command is received, then control goes back to the step S42.

On page 39, lines 19-23: Consequently, t**he presentation right is again transferred to the host 11(1) or other client** and the presentation data transmitted from the host 11(1) or the client is displayed on the notebook size personal computers of the host 11(1) and the clients 11(2) to 11(n) and the projector 12.

In so doing, the skilled person would have appreciated, as evidenced by the emphasized sections above that *Kita* teaches that a "presentation right" is passed around the network before any of the clients can trigger transfer of data. That is, the skilled person would have appreciated that *Kita* does not disclose an input device **on the network card** arranged to enable the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter, but teaches such presentation right before transfer of data. In fact, Patent Owner submits that the skilled person would not have modified the card network interface of *Kita* to result in the claimed features, at least because such a modification would have changed the principle of operations of *Kita* (*see* MPEP 2143.01(VI)). For example, since *Kita* is directed to PCMCIA cards that are attached to a personal computer, such a modification would not only change the operation of displaying data, e.g., *Kita* teaches sending the presentation data to all of the laptops and **teaches away** from the invention of the *Amended* Claims, the skilled person would have understood that an input device could not have been attached to the PCMCIA card of *Kita*.

Furthermore, Patent Owner submits that any proposed combination of the card type network interface of *Kita* with the teachings of *Banerjee* and *Epstein* fails to further at least result in "program configured to be loaded onto the processing device and to run on the operating system of the processing device, said program being arranged to obtain user selected arbitrary media content, said program leaving a zero footprint on termination," as recited in claim 1 and "loading a program onto the processing device and running the program on the operating system of the processing device to obtain user selected arbitrary media content, said program leaving a zero footprint on termination," as recited in claim 12.

The Examiner erroneously suggests on pages 3-4 of the Decision as follows:

> "Kita teaches a program (i.e., microprograms (1)-(4); See Kita, page 22, line 25 through page 23, line 17) configured to be loaded onto the processing device (i.e., notebook size personal computer in Fig. 5; Kita) and to run on the operating system of the processing device (i.e., the operating system of said notebook size personal computer; See Kita, Fig. 12 and page 33, lines 9-23), said program (i.e., said microprograms) being arranged to obtain user selected arbitrary media content (See Kita, page 23, lines 9-17, wherein it states "[p]resentation application software (program which has described processing for displaying and controlling presentation data such as images and graphical)"). And, Banejee teaches said program leaving a zero footprint on termination (see Banerjee, ¶ [0051], wherein it states "[t]he LinQLauncher.exe application in turn stops the screen sharing, disconnects the peer-to-peer wireless connection with the master computer, terminates the execution of the LinQ software application, deletes the files in the temporary directory of the remote computer that were copied from the storage")."

The foregoing is erroneous because the skilled person would not have appreciated that neither *Kita* nor *Banerjee* discloses the features recited in claims 1 and 12.

Rather, the skilled person would appreciated that in one embodiment of the invention, as recited in presently amended claim 1, the program is configured to be loaded

onto the processing device and to run on the operating system of the processing device, said program being arranged to obtain user selected arbitrary media content, said program leaving a zero footprint on termination. In so doing, the skilled person, when considering all of the words in the claims in light of the specification, would have understood that zero footprint is a term of art related to zero footprint applications on client processing devices – where there is **nothing to clear up** or adjust or reset (*see* col. 20, lines 10-11). The specification of the '348 Patent also teaches:

> A "portable application" (portable app), sometimes also called standalone, is a computer software program designed to run without installation on the target machine. This type of application is stored on a removable storage device such as a CD, USB flash drive, flash card, or floppy disk—storing its program files, configuration information and data on the storage medium alone. It is a program that can be stored on an electronic device such as a USB flash drive, iPod, memory card, portable hard drive or other portable electronic device and runs on a computer or other processing device coupled to the electronic device without making permanent configuration changes to the host computer. **All such programs have a zero-footprint, meaning all temporary files, registry entries, and any other changes to the machine exist only while the program is running.**
>
> (col. 10, lines 11 to 14) (emphasis added); and
>
> The use of a portable application has the advantage that any modification to settings in the register or generally in the operating system can be avoided, **so that upon any form of termination, e.g. disconnecting the electronic device, system crash, no trace is left. This is generally termed "zero footprint."**
>
> (col. 17, lines 17-21) (emphasis added).

In so doing, the skilled person would have understood that a system with a "clean up" program is **not** zero footprint at least because on such a system, a crash of the computer results in the programs and some of the entries being kept.

On the other hand, Patent Owner submits that since *Banerjee* teaches that the LinQLauncher.exe application deletes the files in the temporary directory on the remote computer that were copied from the storage, such an application is not "zero footprint" as would have been understood by the skilled person, e.g., a clean up program is not zero footprint because on a system crash, the programs and its entries would still be kept.

Therefore, since neither *Kita* nor *Banerjee* (or *Epstein*) teaches "program configured to be loaded onto the processing device and to run on the operating system of the processing device, said program being arranged to obtain user selected arbitrary media content, said program leaving a zero footprint on termination," as recited in amended claim 1 and "loading a program onto the processing device and running the program on the operating system of the processing device to obtain user selected arbitrary media content, said program leaving a zero footprint on termination," as recited in amended claim 12, any proposed combination of the card type network interface of *Kita* in accordance with the teachings of *Banerjee* (or *Epstein*) further fails to result in the features recited in amended claims 1 and 12.

Since any proposed modification of the invention of *Kita* in accordance with the teachings of *Banerjee* and *Epstein* fails to result in each and every feature recited in amended claims 1 and 12, from which the remaining claims depend, the claims are allowable over the cited prior art and a substantial new questions of patentability has not been established.

Accordingly, allowance of these claims are respectfully requested.

B. Any proposed modification of the invention of *Banerjee* with the teachings of *Epstein* fails to result in each and every feature proposed in amended claims 1 and 12

Although the Examiner suggests on pages 4-5 of the Decision that "[i]t is agreed that the consideration of Banerjee raises a substantial new question of patentability as to the claims 1-20 of the '348 Patent," Patent Owner submits that the skilled person would not have observed the necessary evidence to support this conclusion with respect to the *Amended* Claims.

Specifically, as pointed out on pages 54-57 of the Request For Ex Parte Reexamination filed February 9, 2018, the Requestor has only argued that *Banerjee* teaches

a program, i.e. LinQ software application which is configured to be loaded onto the processing device and to run on the operating system of the processing device (i.e., the operating system of said master computer; referring to *Banerjee*, paras. [0045]-[0046]), said program (i.e. said LinQ software application) being arranged to obtain user selected arbitrary media content. The Requestor then argues that a remote computer may send a request to share the screen display data of the remote computer to the master computer, referring to *Banerjee*, paras. [0047]-[0050]). Patent Owner submits, however, that such a teaching in *Banerjee* does not disclose the proposed features, at least because amended claims 1 and 12 require that the data transfer is triggered by the user action on an input device on the peripheral device being a connection unit. On the other hand, Patent Owner submits that the skilled person would have appreciated that the remote computer of *Banerjee* can only send a request – it does not trigger transfer. In fact, the skilled person would not have observed any evidence in *Banerjee* of an input device on the connection unit and hence cannot disclose the feature of a user action on an input device on the connection unit which itself triggers transfer of data from the processing device to the peripheral device.

Moreover, as discussed above, Patent Owner submits that *Banerjee* fails to teach or suggest software that leaves a zero footprint on termination. Instead, *Banerjee* teaches, for example in para. [0051], that a residue is left upon a computer crash as "[t]he LinQLauncher.exe application in turn stops the screen sharing, disconnects the peer-to-peer wireless connection with the master computer, terminates the execution of the LinQ software application, deletes the files in the temporary directory on the remote computer that were copied from the storage." In so doing, the skilled person would have appreciated that *Banerjee* does not therefor disclose a program configured to be loaded onto the processing device, the program being arranged to obtain user selected arbitrary media content, and the program leaving a zero footprint on termination.

Epstein fails to cure the deficiencies of *Banerjee* with respect to the *Amended* Claims, as discussed above. Instead, *Epstein* only relates to the presentation of audiovisual

information via one or more large format common displays in a collaborative workspace and more specifically to a fast and intuitive controller allowing a meeting participant with a laptop computer to quickly and easily control the presentation of laptop information on common displays (para. [0003]). Display system 12 includes a **totem or stand support structure 28** and four relatively **large flat panel displays 22a, 22b, 22c and 22d** (para. [0074]). **Conference table assembly 14 includes a support structure 24, a table top member 26 and a bridge assembly 30** (para. [0075]). **Bridge assembly 30 secures totem 28 to support structure 24 to stabilize totem in a vertical orientation** (para. [0076]). In so doing, the skilled person would have understood from such teachings that the displays of *Epstein*, the "totem", the support structure, table top and bridge are all fastened together.

Epstein further teaches the following:

> [0079] Referring specifically to FIG. 2, components mounted within **structure 24 below top member 26 include a switching device 16**, **a user interface assembly 19** and a power source 55. Referring also to FIG. 3, where switching device 16 is shown in four different views, **switching device 16, as the label implies, can be used to switch different input video/audio sources at different input ports to change which input is feeding video/audio output ports.** To this end, exemplary **switching device 16 includes six input ports collectively identified by numeral 17** (three on either end of device 16), a video conference input port 42, and a PC input port 40. D**evice 16 includes four video/audio output ports collectively labeled 44**. In operation, switching device 16 can be controlled to output video/audio from any one of the input ports 17, 40 or 42 to any one or more of output ports 44. In addition, switching device 16 is controllable so that input from two, three or four of the different inputs 17, 40 or 42 can be output simultaneously to different ones of the output ports 44.
>
> **[0080] Referring again to FIG. 2, interface assembly 19 includes a deck member 21 and six selectable control interfaces referred to as "puck" assemblies, two of which are labeled 20. Deck member 21 forms a top surface 25 for receiving and supporting the puck assemblies 20 when the puck assemblies are in stored positions below covers 39 and 41 (see again FIG. 1). Each puck assembly 20 is similarly constructed and operated in a similar fashion and therefore, in the interest of simplifying this explanation, only one puck assembly 20 will be described here in detail.**

In so doing, the skilled person would have understood that *Epstein* teaches that

the switching device 16 is also part of the complete unit as is the interface assembly 19.

Furthermore, *Epstein* teaches:

> [0081] Referring also to FIG. 4, exemplary puck assembly 20 includes a **puck 48 and first and second video/audio cables 50 and 52, respectively. Cable 50 is used to link puck 48 to a computer/laptop audio/video output port or other video source while cable 52 links puck 48 through a circuitous path to one of the six input ports 17 shown in FIGS. 2 and 3.** In at least some embodiments, each cable 52 can be taken up by a take up assembly (not shown) below deck member 21 as an associated puck 48 is moved from a use position on top of top member 26 (see FIG. 4) to a storage position as shown in FIG. 2. For more detail regarding one possible take up assembly, see U.S. patent application Ser. No. 12/250,192 referenced above. As seen in FIG. 4, when a puck 48 is pulled into a use position on top of member 26, cable 52 can pass through gap 43 when door 39 is closed.

That is, the skilled person would have understood that *Epstein* discloses a display unit which could be used to replace other displays such as the projector display of *Banerjee* or the display of *Kita*. The skilled person, however, would not have observed any evidence in *Epstein* that would have motivated the skilled person to modify a peripheral device being a connection unit with an input device to trigger data transfer.

Accordingly, *Kita* and/or *Banerjee* in light of *Epstein* does/do not raise a substantial new question of patentability as to the *Amended* Claims.

Accordingly, allowance of these claims is respectfully requested.

3. Conclusion

As a result of the amendments to the claims and further in view of the foregoing remarks, it is respectfully submitted that the Examiner reconsider the Decision, and conclude that there is no Substantial New Question of Patentability with respect to the *Amended* Claims of the '348 patent, which are clearly patentable.

Please charge any additional fees required or credit any overpayments in connection with this paper to Deposit Account No. 02-0200.

If any issues remain that may be resolved by a telephone or facsimile communication with the Patent Owner's attorney, the examiner is invited to contact the undersigned at the numbers shown below.

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AMENDMENT TO THE CLAIMS

Pursuant to 37 C.F.R. § 1.530(d)(2) and (f), the claims are amended below:

1. (Amended) An electronic meeting tool for communicating arbitrary media content from users at a meeting comprising:

a node configuration arranged to operate a display node of a communications network, the display node being coupled to a first display, the node configuration further being arranged to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display;

at least one peripheral device configured to communicate the user selected arbitrary media content via the communications network, wherein the peripheral device is a connection unit comprising:

(a) a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system; [and]

(b) a transmitter arranged to communicate with the communications network; and

(c) an input device arranged to enable the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port; and

a program configured to be loaded onto the processing device and to run on the operating system of the processing device, said program being arranged to obtain user selected arbitrary media content, said program leaving a zero footprint on termination[, and

an input device enabling the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port].

2. (Original) The electronic meeting tool of claim 1, wherein the program is stored on the peripheral device.

3. (Original) The electronic meeting tool of claim 1, wherein the transmitter is a wireless transmitter or transceiver.

4. (Original) The electronic meeting tool of claim 1, wherein the peripheral device is a plug-and-play device.

5. (Original) The electronic meeting tool of claim 1, wherein the program is arranged to screen scrape content of the second display.

6. (Original) The electronic meeting tool claim 1, wherein the input device is physical actuator coupled to the peripheral device.

7. (Original) The electronic meeting tool of claim 6, wherein the physical actuator has a surface area of between 100 and 14,400 square mm.

8. (Amended) The electronic meeting tool of claim 1, wherein the input device <u>on the peripheral device is triggered by</u> [is] a key displayed on the second display.

9. (Original) The electronic meeting tool of claim 8, wherein the key displayed on the second display is not screen scraped by the program.

10. (Original) The electronic meeting tool of claim 1, wherein the peripheral device comprises a memory in which executable software code is stored for execution on the processing device, said executable software code comprising:

a first software code portion for setting up, by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device and the processing device;

a second software code portion for connecting the processing device to the communications network via the peripheral device, the peripheral device having a transceiver;

a third software code portion for screen scraping data from the processing device; and

a fourth software code for routing screen scraped data between the processing device and the communications network over the means for communication; wherein the first software code portion is adapted to use a generic communication protocol for transferring the screen scraped data between the processing device and the peripheral device.

11. (Original) A non-transitory storage medium storing the first to fourth software code portion of claim 10.

12. (Amended) A method for communicating arbitrary media content from users at a meeting comprising:

operating a display node of a communications network, the display node being coupled to a first display, to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display; and

connecting a peripheral device to a port of a processing device and communicating the user selected arbitrary media content via the communications network, wherein the peripheral device comprises an input device,

loading a program onto the processing device and running the program on the operating system of the processing device to obtain user selected arbitrary media content, said program leaving a zero footprint on termination, and

triggering transfer of said user selected arbitrary media content to said transmitter through said port after a user action on [an] the input device of the peripheral device.

13. (Original) The method of claim 12, further comprising configuring the peripheral

device to connect to the communications network by pairing the peripheral device with the display node.

14. (Original) The method of claim 13, wherein the pairing is performed by plugging the peripheral device into the display node.

15. (Original) The method of claim 12, further comprising setting up by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device and the processing device.

16. (Original) The method of claim 12, wherein a pre-installed generic driver is selected from a human interface device driver and a mass storage device driver.

17. (Original) The method of claim 12, further comprising one of:
presenting the peripheral device to the processing device as a human interface device,
presenting the peripheral device to the processing device as a mass storage device; and
presenting the peripheral device to the processing device as a composite device.

18. (Original) The method of claim 12, wherein the program is stored on the peripheral device, and which obtains screen scraped data when run on the processing device.

19. (Original) The method of claim 17, wherein a generic communication protocol is used for transferring screen scraped data between the processing device and the peripheral device.

20. (Original) The method of claim 12 further comprising displaying the user selected arbitrary media content on the first display in accordance with a set of rules.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reexamination of:

Patent Owner:	BARCO N.V.	**Inventors:**	BEEL et al.
Serial No.:	90/014,087	**Confirm. No.:**	8024
Filing Date:	February 9, 2018	**Art Unit:**	3992
Patent No.:	8,756,348	**Customer No.:**	23364
Attorney No.:	BEEL3001REX/TJM/TL	**Examiner:**	Christopher E. Lee
For:	**ELECTRONIC TOOL AND METHODS FOR MEETINGS**		

PATENT OWNER'S STATEMENT UNDER 37 C.F.R. § 1.530(c)

Mail Stop
Ex Parte Reexam
Central Reexamination Unit
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

INTRODUCTORY COMMENTS

In accordance with the provisions of 37 C.F.R. § 1.530(c) and MPEP § 2249, Patent Owner, BARCO N.V., submits this paper in response to the Decision Granting Ex Parte Reexamination mailed March 23, 2018.

Electronic Acknowledgement Receipt

EFS ID:	32702640
Application Number:	90014087
International Application Number:	
Confirmation Number:	8024
Title of Invention:	Electronic Tool and Methods for Meetings
First Named Inventor/Applicant Name:	8756348
Customer Number:	23364
Filer:	Thomas Lee
Filer Authorized By:	
Attorney Docket Number:	BEEL3001REX/TJM/TL
Receipt Date:	23-MAY-2018
Filing Date:	09-FEB-2018
Time Stamp:	14:00:55
Application Type:	Reexam (Patent Owner)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		BEEL3001REX_Ptnt_Ownr_Sttmnt_23MAY18.pdf	270404 5cf9232f01a5901fb159dfe81bfe5ef662fb4312	yes	25

Barco Exhibit 2001

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Reexam Certificate of Service	25	25
	Reexam Timely Patent Owner's Stmnt in Resp to Order	6	24
	Claims	2	5
	Reexam Timely Patent Owner's Stmnt in Resp to Order	1	1
Warnings:			
Information:			
	Total Files Size (in bytes):	270404	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/014,087	02/09/2018	8756348	BEEL3001REX/TJM/TL	8024

23364 7590 03/23/2018

BACON & THOMAS, PLLC
625 SLATERS LANE
FOURTH FLOOR
ALEXANDRIA, VA 22314-1176

EXAMINER
LEE, CHRISTOPHER E

ART UNIT	PAPER NUMBER
3992	

MAIL DATE	DELIVERY MODE
03/23/2018	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DECISION GRANTING *EX PARTE* REEXAMINATION

Ex Parte Reexamination

1. This is an *ex parte* reexamination of United States Patent Number US 8,756,348 B2, which issued to Beel et al. (hereinafter "the '348 Patent"), and it is being reexamined under the AIA first invent to file (FITF) provisions.

Substantial New Question of Patentability

2. A substantial new question of patentability affecting claims 1-20 of the '348 Patent is raised by the request for *ex parte* reexamination filed on February 9, 2018 (hereinafter "the Request").

Extensions of time under 37 CFR § 1.136(a) will not be permitted in this proceeding because the provisions of 37 CFR § 1.136 apply only to "an applicant" and not to parties in a reexamination proceeding. Additionally, 35 U.S.C. § 305 requires that *ex parte* reexamination proceedings "will be conducted with special dispatch" (37 CFR § 1.550(a)). Extensions of time in *ex parte* reexamination proceedings are provided for in 37 CFR § 1.550(c).

A prior art patent or printed publication raises a substantial new question of patentability where there is:

(A) a substantial likelihood that a reasonable Examiner would consider the prior art patent or printed publication **important** in deciding whether or not the claim is patentable, MPEP § 2242 (I) and,

(B) the same question of patentability as to the claim has not been decided in a previous or pending proceeding or in a final holding of invalidity by a federal court. See MPEP § 2242 (III).

Prosecution History of the '348 Patent

3. The '348 Patent was issued from the U.S. Patent Application No. 13/270,659 (hereinafter "the '659 Application") filed on October 11, 2011, and it is generally directed to an electronic tool and method for meetings.

Here is the prosecution history of the '348 Patent listed in chronological.

09/14/2011 The provisional application 61/534,592 was filed.

10/11/2011 The non-provisional application 13/270,659 was filed.

05/07/2013 Telephonic interview for restriction/election initiated by the Examiner of record was conducted.

06/02/2013 The Examiner of record issued a non-final First action on the merit for the '659 Application.

12/12/2013 The Applicant responded to the non-final First action of the '659 Application.

02/04/2014 The Examiner of record issued a notice of allowance for the '659 Application, which was ultimately patented as US 8,756,348 B2.

References presenting Substantial New Question of Patentability

4. In the request for reexamination, the Third Party requester alleges that the claims 1-20 of the '348 Patent are unpatentable over the following references in combination:

- Kita et al. [WO 01/89156 A2], "Card Type Network Interface, Network Conference Terminal Device and Network Conference System," published on November 22, 2001 (hereinafter "Kita")
- Banerjee et al. [WO 2010/105335 A1], "Plug-and-Play Interface Device," published on September 23, 2010 (hereinafter "Banerjee")
- Epstein et al. [US 2010/0302454 A1], "Personal Control Apparatus and Method for sharing Information in a Collaborative Workplace," published on December 2, 2010 (hereinafter "Epstein")

Substantial New Questions of Patentability raised by the Third Party requester

5. In the request for reexamination, it sets forth that the Third Party requester considers that:

(1) Substantial new question of patentability as to claims 1-20 is raised by Kita [WO 01/89156 A2] taken with Banerjee [WO 2010/105335 A1], and Epstein [US 2010/0302454 A1].

(2) Substantial new question of patentability as to claims 1-20 is raised by Banerjee [WO 2010/105335 A1] taken with Epstein [US 2010/0302454 A1].

Of the above references cited in the substantial new questions of patentability, all of the references are not cited on the faces of the '348 Patent and its related patents. Thus, they are not cumulative to the art of record in the original.

A discussion of the specifics now follows.

Analysis of Substantial New Questions of Patentability

Re. SNQ of patentability raised by Kita taken with Banerjee and Epstein

6. It is **agreed** that the consideration of Kita with Banerjee raises a substantial new question of patentability as to the claims 1-20 of the '348 Patent.

As pointed out on pages 18-22 of the Request, Kita teaches a program (i.e.,

microprograms (1)-(4); See Kita, page 22, line 25 through page 23, line 17) configured to be loaded onto the processing device (i.e., notebook size personal computer in Fig. 5; Kita) and to run on the operating system of the processing device (i.e., the operating system of said notebook size personal computer; See Kita, Fig. 12 and page 33, lines 9-23), said program (i.e., said microprograms) being arranged to obtain user selected arbitrary media content (See Kite, page 23, lines 9-17, wherein it states "[p]resentation application software (program which has described processing for displaying and controlling presentation data such as images and graphical)"). And, Banerjee teaches said program leaving a zero footprint on termination (See Banerjee, ¶ [0051], wherein it states "[t]he LinQLauncher.exe application in turn stops the screen sharing, disconnects the peer-to-peer wireless connection with the master computer, terminates the execution of the LinQ software application, deletes the files in the temporary directory on the remote computer that were copied from the storage").

The teachings as to a program configured to be loaded onto the processing device, the program being arranged to obtain user selected arbitrary media content, and the program leaving a zero footprint on termination were not present in the prosecution of the application, which ultimately became the '348 Patent. Further, there is a substantial likelihood that a reasonable Examiner would consider this teaching important in deciding whether or not the claim is patentable.

Accordingly, the combination of Kita and Banerjee raises a substantial new question of patentability as to claims 1 and 12 and their respective dependent claims 2-11 and 13-20, which question has not been raised in a previous examination of the '348 Patent.

Re. SNQ of patentability raised by Banerjee taken with Epstein

7. It is **agreed** that the consideration of Banerjee raises a substantial new question of patentability as to the claims 1-20 of the '348 Patent.

As pointed out on pages 54-57 of the Request, Banerjee teaches a program (i.e., LinQ software application) configured to be loaded onto the processing device (i.e., master computer 238 in Fig. 7; Banerjee) and to run on the operating system of the processing device (i.e., the operating system of said master computer; See Banerjee, ¶¶ [0045]-[0046]), said program (i.e., said LinQ software application) being arranged to obtain user selected arbitrary media content (i.e., a remote computer may send a request to share the screen display data of the remote computer to the master computer.; See Banerjee, ¶¶ [0047]-[0050]), said program leaving a

zero footprint on termination (See Banerjee, ¶ [0051], wherein it states "[t]he LinQLauncher.exe application in turn stops the screen sharing, disconnects the peer-to-peer wireless connection with the master computer, terminates the execution of the LinQ software application, deletes the files in the temporary directory on the remote computer that were copied from the storage").

The teachings as to a program configured to be loaded onto the processing device, the program being arranged to obtain user selected arbitrary media content, and the program leaving a zero footprint on termination were not present in the prosecution of the application, which ultimately became the '348 Patent. Further, there is a substantial likelihood that a reasonable Examiner would consider this teaching important in deciding whether or not the claim is patentable.

Accordingly, Banerjee raises a substantial new question of patentability as to claims 1 and 12 and their respective dependent claims 2-11 and 13-20, which question has not been raised in a previous examination of the '348 Patent.

Conclusion

8. Claims 1-20 of the '348 Patent will be reexamined.

The Patent Owner is reminded that any proposed amendment to the specification and/or claims in this reexamination proceeding must comply with 37 CFR § 1.530(d)-(j).

After filing of a request for *ex parte* reexamination by a Third Party requester, any document filed by either the Patent Owner or the Third Party requester must be served on the other party (or parties where two or more Third Party requester proceedings are merged) in the reexamination proceeding in the manner provided in 37 CFR § 1.248. The document must reflect service or the document may be refused consideration by the Office. See 37 CFR § 1.550(f).

The Patent Owner is reminded of the continuing responsibility under 37 CFR § 1.565(a), to apprise the Office of any litigation activity, or other prior or concurrent proceeding, involving the instant patent under reexamination or any related patent throughout the course of this reexamination proceeding. The Third Party requester is also reminded of the ability to similarly

inform the Office of any such activity or proceeding throughout the course of this reexamination proceeding. See MPEP §§ 2207, 2282 and 2286.

All correspondence relating to this ex parte reexamination proceeding should be directed:

By EFS:	Registered users may submit via the electronic filing system EFS-Web, at https://efs.uspto.gov/efile/myportal/efs-resigtered
By Mail to:	Mail Stop *Ex Parte* Reexam Central Reexamination Unit Commissioner for Patents United States Patent & Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450
By FAX to:	(571) 273-9900 Central Reexamination Unit
By hand:	Customer Service Window Randolph Building 401 Dulany Street Alexandria, VA 22314

For EFS-Web transmissions, 37 CFR § 1.8(a)(1)(i) (C) and (ii) states that correspondence (except for a request for reexamination and a corrected or replacement request for reexamination) will be considered timely filed if (a) it is transmitted via the Office's electronic filing system in accordance with 37 CFR § 1.6(a)(4), and (b) includes a certificate of transmission for each piece of correspondence stating the date of transmission, which is prior to the expiration of the set period of time in the Office action.

Any inquiry concerning this communication or earlier communications from the Reexamination Legal Advisor or Examiner, or as to the status of this proceeding, should be directed to the Central Reexamination Unit at telephone number (571) 272-7705.

Signed:

/Christopher E. Lee/
Patent Reexamination Specialist
Central Reexamination Unit / Art Unit 3992

Conferees:

/My Trang Ton/
Primary Examiner
CRU, AU 3992

/Andrew J. Fischer/
Supervisory Patent Reexamination Specialist, Art Unit 3992

Order Granting Request For Ex Parte Reexamination	Control No.	Patent Under Reexamination
	90/014,087	8756348
	Examiner	Art Unit
	Christopher E. Lee	3992

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

The request for *ex parte* reexamination filed *09 February 2018* has been considered and a determination has been made. An identification of the claims, the references relied upon, and the rationale supporting the determination are attached.

Attachments: a)☐ PTO-892, b)☒ PTO/SB/08, c)☐ Other: _____

1. ☒ The request for *ex parte* reexamination is GRANTED.

RESPONSE TIMES ARE SET AS FOLLOWS:

For Patent Owner's Statement (Optional): TWO MONTHS from the mailing date of this communication (37 CFR 1.530 (b)). **EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.550(c).**

For Requester's Reply (optional): TWO MONTHS from the **date of service** of any timely filed Patent Owner's Statement (37 CFR 1.535). **NO EXTENSION OF THIS TIME PERIOD IS PERMITTED.** If Patent Owner does not file a timely statement under 37 CFR 1.530(b), then no reply by requester is permitted.

/Christopher E. Lee/ Patent Reexamination Specialist Central Reexamination Unit, AU 3992		

cc:Requester (if third party requester)

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

DO NOT USE IN PALM PRINTER

(THIRD PARTY REQUESTER'S CORRESPONDENCE ADDRESS)

LIANG, FRANK & KING LLP
520 WHITE PLAINS RD, SUITE 500
TARRYTOWN, NY 10591

Date Mailed:

Ex Parte Reexamination Communication Transmittal Form

REEXAMINATION CONTROL NO. : *90/014,087*

PATENT NO. : *8756348*

TECHNOLOGY CENTER : *3999*

ART UNIT *3992*

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified *ex parte* reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the ex parte reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (03-15)
Approved for use through 07/31/2016. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	13270659
Filing Date	2011-10-11
First Named Inventor	Koen Simon Herman Beel
Art Unit	~~2181~~ 3992
Examiner Name	~~Sun, Scott C.~~ Christopher E. Lee
Attorney Docket Number	6700-001

U.S.PATENTS

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1					

If you wish to add additional U.S. Patent citation information please click the Add button.

U.S.PATENT APPLICATION PUBLICATIONS

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
/CEL/	1	20100302454	A1	2010-12-02	Epstein, et al.	

If you wish to add additional U.S. Published Application citation information please click the Add button.

FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
/CEL/	1	2001/089156	WO	A2	2001-11-22	KITA, et al.		☐

If you wish to add additional Foreign Patent Document citation information please click the Add button

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	13270659
Filing Date	2011-10-11
First Named Inventor	Koen Simon Herman Beel
Art Unit	~~2181~~ 3992
Examiner Name	~~Sun, Scott C.~~ Christopher E. Lee
Attorney Docket Number	6700-001

	1		☐

If you wish to add additional non-patent literature document citation information please click the Add button

EXAMINER SIGNATURE

Examiner Signature	/Christopher E. Lee/	Date Considered	02/16/2018

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

Reexamination	Application/Control No.	Applicant(s)/Patent Under Reexamination
	90014087	8756348
	Certificate Date	Certificate Number

Requester Correspondence Address:	☐ Patent Owner	☒ Third Party

LIANG, FRANK & KING LLP
520 WHITE PLAINS RD, SUITE 500
TARRYTOWN, NY 10591

LITIGATION REVIEW ☐	/CEL/ (examiner initials)	02/13/2018 (date)
Case Name		Director Initials
No litigation		

COPENDING OFFICE PROCEEDINGS	
TYPE OF PROCEEDING	NUMBER
1. no copending office proceeding	n/a

	/Christopher E. Lee/ Patent Reexamination Specialist Central Reexamination Unit, Art Unit 3992

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	90014087	8756348
	Examiner	Art Unit
	CHRISTOPHER E LEE	3992

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

SEARCH NOTES		
Search Notes	Date	Examiner
Litigation Search performed	2/13/18	/CEL/
Search prosecution history of US patent application 13/270,659 and provisional application 61/534,592	3/8/18	/CEL/

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

	/Christopher E. Lee/ Patent Reexamination Specialist Central Reexamination Unit, Art Unit 3992

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REEXAM CONTROL NUMBER	FILING OR 371 (c) DATE	PATENT NUMBER
90/014,087	02/09/2018	8756348

CONFIRMATION NO. 8024

REEXAM ASSIGNMENT NOTICE

23364
BACON & THOMAS, PLLC
625 SLATERS LANE
FOURTH FLOOR
ALEXANDRIA, VA 22314-1176

OC000000097392888

Date Mailed: 02/14/2018

NOTICE OF ASSIGNMENT OF REEXAMINATION REQUEST

The above-identified request for reexamination has been assigned to Art Unit 3992. All future correspondence to the proceeding should be identified by the control number listed above and directed to the assigned Art Unit.

A copy of this Notice is being sent to the latest attorney or agent of record in the patent file or to all owners of record. (See 37 CFR 1.33(c)). If the addressee is not, or does not represent, the current owner, he or she is required to forward all communications regarding this proceeding to the current owner(s). An attorney or agent receiving this communication who does not represent the current owner(s) may wish to seek to withdraw pursuant to 37 CFR 1.36 in order to avoid receiving future communications. If the address of the current owner(s) is unknown, this communication should be returned within the request to withdraw pursuant to Section 1.36.

NOTICE OF USPTO EX PARTE REEXAMINATION PATENT OWNER STATEMENT WAIVER PROGRAM

The USPTO has implemented a pilot program where, after a reexamination proceeding has been granted a filing date and before the examiner begins his or her review, the patent owner may orally waive the right to file a patent owner's statement. See *"Pilot Program for Waiver of Patent Owner's Statement in Ex Parte Reexamination Proceedings,"* 75 FR 47269 (August 5, 2010). One goal of the pilot program is to reduce the pendency of reexamination proceedings and improve the efficiency of the reexamination process.

Ordinarily when ex parte reexamination is ordered, the USPTO must wait until after the receipt of the patent owner's statement and the third party requester's reply, or after the expiration of the time period for filing the statement and reply (a period that can be as long as 5 to 6 months), before mailing a first determination of patentability. The USPTO's first determination of patentability is usually a first Office action on the merits or a Notice of Intent to Issue Reexamination Certificate (NIRC).

Under the pilot program, the patent owner's oral waiver allows the USPTO to act on the first determination of patentability immediately after determining that reexamination will be ordered, and in a suitable case issue the reexamination order and the first determination of patentability (which could be a NIRC if the claims under reexamination are confirmed) at the same time.

Benefits to the Patent Owner for participating in this pilot program include reduction in pendency.

To participate in this pilot program, Patent Owners may contact the USPTO's Central Reexamination Unit (CRU) at 571-272-7705. The USPTO will make the oral waiver of record in the reexamination file in an interview summary and a copy will be mailed to the patent owner and any third party requester.

cc: Third Party Requester(if any)
LIANG, FRANK & KING LLP
520 WHITE PLAINS ROAD
SUITE 500
TARRYTOWN, NY 10591

/rbell/

Legal Instruments Examiner
Central Reexamination Unit 571-272-7705; FAX No. 571-273-9900

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Alexandria, Virginia 22313-1450
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REEXAM CONTROL NUMBER	FILING OR 371 (c) DATE	PATENT NUMBER
90/014,087	02/09/2018	8756348

CONFIRMATION NO. 8024

LIANG, FRANK & KING LLP
520 WHITE PLAINS ROAD
SUITE 500
TARRYTOWN, NY 10591

REEXAMINATION REQUEST NOTICE

OC000000097392886

Date Mailed: 02/14/2018

NOTICE OF REEXAMINATION REQUEST FILING DATE

(Third Party Requester)

Requester is hereby notified that the filing date of the request for reexamination is 02/09/2018, the date that the filing requirements of 37 CFR § 1.510 were received.

A decision on the request for reexamination will be mailed within three months from the filing date of the request for reexamination. (See 37 CFR 1.515(a)).

A copy of the Notice is being sent to the person identified by the requester as the patent owner. Further patent owner correspondence will be the latest attorney or agent of record in the patent file. (See 37 CFR 1.33). Any paper filed should include a reference to the present request for reexamination (by Reexamination Control Number).

cc: Patent Owner
23364
BACON & THOMAS, PLLC
625 SLATERS LANE
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ALEXANDRIA, VA 22314-1176

/rbell/

Legal Instruments Examiner
Central Reexamination Unit 571-272-7705; FAX No. 571-273-9900

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/014,087	02/09/2018	8756348	6700-001	8024

23364 7590 02/14/2018

BACON & THOMAS, PLLC
625 SLATERS LANE
FOURTH FLOOR
ALEXANDRIA, VA 22314-1176

EXAMINER	
LEE, CHRISTOPHER E	

ART UNIT	PAPER NUMBER
3992	

MAIL DATE	DELIVERY MODE
02/14/2018	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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THIRD PARTY REQUESTER'S CORRESPONDENCE ADDRESS

LIANG, FRANK & KING LLP
520 WHITE PLAINS ROAD
SUITE 500
TARRYTOWN, NY 10591

Date:

FEB 14 2018

EX PARTE REEXAMINATION COMMUNICATION TRANSMITTAL FORM

REEXAMINATION CONTROL NO. : 90014087
PATENT NO. : 8756348
ART UNIT : 3992

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified ex parte reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the ex parte reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

Ex Parte Reexamination Interview Summary – Pilot Program for Waiver of Patent Owner's Statement	**Control No.** 90/014,087	**Patent For Which Reexamination is Requested** 8,756,348
	Examiner LEE	**Art Unit** 3992

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address. --

All participants (USPTO official and patent owner):

(1) MANUEL SALDANA, CRU (3)

(2) THOMAS MOORE, REG. NO. 28,97R (4)

Date of Telephonic Interview: 02/13/2018.

The USPTO official requested waiver of the patent owner's statement pursuant to the pilot program for waiver of patent owner's statement in *ex parte* reexamination proceedings.*

☐ The patent owner **agreed** to waive its right to file a patent owner's statement under 35 U.S.C. 304 in the event reexamination is ordered for the above-identified patent.

☐ The patent owner **did not agree** to waive its right to file a patent owner's statement under 35 U.S.C. 304 at this time.

The patent owner is not required to file a written statement of this telephone communication under 37 CFR 1.560(b) or otherwise. However, any disagreement as to this interview summary must be brought to the immediate attention of the USPTO, and no later than one month from the mailing date of this interview summary. Extensions of time are governed by 37 CFR 1.550(c).

*For more information regarding this pilot program, see *Pilot Program for Waiver of Patent Owner's Statement in Ex Parte Reexamination Proceedings*, 75 *Fed. Reg.* 47269 (August 5, 2010), available on the USPTO Web site at http://www.uspto.gov/patents/law/notices/2010.jsp.

☒ USPTO personnel were unable to reach the patent owner.

The patent owner may contact the USPTO personnel at the telephone number provided below if the patent owner decides to waive the right to file a patent owner's statement under 35 U.S.C. 304.

/MANUEL SALDANA/ 571-272-7740

Signature and telephone number of the USPTO official who contacted or attempted to contact the patent owner.

cc: Requester (if third party requester)

Litigation Search Report CRU 3999

Reexam Control No. 90/014,087

TO: CHRISTOPHER LEE Location: CRU Art Unit: 3992 Date: 02/13/2018	From: MANUEL SALDANA Location: CRU 3999 MDE 5D14 Phone: (571) 272-7740 MANUEL.SALDANA@uspto.gov

Search Notes

Litigation was NOT found for US Patent Number: **8,756,348**

1) I performed a KeyCite Search in Westlaw, which retrieves all history on the patent including any litigation.

2) I performed a search on the patent in Lexis CourtLink for any open dockets or closed cases.

3) I performed a search in Lexis in the Federal Courts and Administrative Materials databases for any cases found.

4) I performed a search in Lexis in the IP Journal and Periodicals database for any articles on the patent.

5) I performed a search in Lexis in the news databases for any articles about the patent or any articles about litigation on this patent.

Patent Search 8756348 2/ 13/ 2018

No cases found.

Return to Search

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Objects

8756348

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Publication year

- 2014 1

Authority

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CPC

- G06F13/102 1
- G06F3/16 1
- G06F9/44505 1
- H04L12/1813 1
- H04L65/4023 1

More

Application year

- 2011 1

Priority year

- 2011 1

Standardized Assignees

- BARCO 1

Inventors

- Filip Josephine Johan Louwet 1
- Guy Coen 1
- Koen Simon Herman Beel 1
- Yoav Nir 1

Top 10 authorities Clear filters

11.US (1)

Top 10 standardized assignees Clear filters

11.BARCO (1)

Top 10 inventors Clear filters

12341.FILIP JO... (1)2.GUY COEN... (1)3.KOEN SIMON HERMAN BEEL (1)4.YOAV NIR (1)

1 record found out of 118,407,311 searched (0.36 seconds)

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Electronic tool and methods for meetings
Granted

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An electronic meeting tool for communicating arbitrary media content from users at a meeting includes a node configuration operating a display node of a communications network that is coupled to a display. The node configuration receives user selected arbitrary media content and controls display of the user selected arbitrary media content on the display. At least one peripheral device communicates the user selected arbitrary media content via the communications network. The peripheral device is a connection unit including a connector that couples to a port of a processing device having a second display, a memory and an operating system; and a transmitter communicating with the communications network. A program is provided to run on the operating system of the processing device and obtains user selected arbitrary media content, while leaving a zero footprint on termination.

Bibliographic information

Publication US8756348B2 06/17/2014

Application US13270659 10/11/2011

Priority US13270659 10/11/2011

Current assignee BARCO

Inventor Koen Simon Herman Beel

Legal representative Bacon & Thomas, PLLC

Status Granted

Claims

Language of publication

1. An electronic meeting tool for communicating arbitrary media content from users at a meeting comprising: a node configuration arranged to operate a display node of a communications network, the display node being coupled to a first display, the node configuration further being arranged to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display; at least one peripheral device configured to communicate the user selected arbitrary media content via the communications network, wherein the peripheral device is a connection unit comprising: (a) a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system; and (b) a transmitter arranged to communicate with the communications network, a program configured to be loaded onto the processing device and to run on the operating system of the processing device, said program being arranged to obtain user selected arbitrary media content, said program leaving a zero footprint on termination, and an input device enabling the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port. 2. The electronic meeting tool of claim 1 , wherein the program is stored on the peripheral device. 3. The electronic meeting tool of claim 1 , wherein the transmitter is a wireless transmitter or transceiver. 4. The electronic meeting tool of claim 1 , wherein the peripheral device is a plug-and-play device. 5. The electronic meeting tool of claim 1 , wherein the program is arranged to screen scrape content of the second display. 6. The electronic meeting tool claim 1 , wherein the input device is physical actuator coupled to the peripheral device. 7. The electronic meeting tool of claim 6 , wherein the physical actuator has a surface area of between 100 and 14,400 square mm. 8. The electronic meeting tool of claim 1 , wherein the input device is a key displayed on the second display. 9. The electronic meeting tool of claim 8 , wherein the key displayed on the second display is not screen scraped by the program. 10. The electronic meeting tool of claim 1 , wherein the peripheral device comprises a memory in which executable software code is stored for execution on the processing device, said executable software code comprising: a first software code portion for setting up, by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device and the processing device; a second software code portion for connecting the processing device to the communications network via the peripheral device, the peripheral device having a transceiver; a third software code portion for screen scraping data from the processing device; and a fourth software code for routing screen scraped data between the processing device and the communications network over the means for communication; wherein the first software code portion is adapted to use a generic communication protocol for transferring the screen scraped data between the processing device and the peripheral device. 11. A non-transitory storage medium storing the first to fourth software code portion of claim 10 . 12. A method for communicating arbitrary media content from users at a meeting comprising: operating a display node of a communications network, the display node being coupled to a first display, to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display; and connecting a peripheral device to a port of a processing device and communicating the user selected arbitrary media content via the communications network, loading a program onto the processing device and running the program on the operating system of the processing device to obtain user selected arbitrary media content, said program leaving a zero footprint on termination, and triggering transfer of said user selected arbitrary media content to said transmitter through said port after a user action on an input device. 13. The method of claim 12 , further comprising configuring the peripheral device to connect to the communications network by pairing the peripheral device with the display node. 14. The method of claim 13 , wherein the pairing is performed by plugging the peripheral device into the display node. 15. The method of claim 12 , further comprising setting up by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device and the processing device. 16. The method of claim 12 , wherein a pre-installed generic driver is selected from a human interface device driver and a mass storage device driver. 17. The method of claim 12 , further comprising one of: presenting the peripheral device to the processing device as a human interface device, presenting the peripheral device to the processing device as a mass storage device; and presenting the peripheral device to the processing device as a composite device. 18. The method of claim 12 , wherein the program is stored on the peripheral device, and which obtains screen scraped data when run on the processing device. 19. The method of claim 17 , wherein a generic communication protocol is used for transferring screen scraped data between the processing device and the peripheral device. 20. The method of claim 12 further comprising displaying the user selected arbitrary media content on the first display in accordance with a set of rules.1. An electronic meeting tool for communicating arbitrary media content from users at a meeting comprising: a node configuration arranged to operate a display node of a communications network, the display node being coupled to a first display, the node configuration further being arranged to receive user selected arbitrary media content and to control display of the user selected

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arbitrary media content on the first display; at least one peripheral device configured to communicate the user selected arbitrary media content via the communications network, wherein the peripheral device is a connection unit comprising: (a) a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system; and (b) a transmitter arranged to communicate with the communications network, a program configured to be loaded onto the processing device and to run on the operating system of the processing device, said program being arranged to obtain user selected arbitrary media content, said program leaving a zero footprint on termination, and an input device enabling the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port. 2. The electronic meeting tool of claim 1 , wherein the program is stored on the peripheral device. 3. The electronic meeting tool of claim 1 , wherein the transmitter is a wireless transmitter or transceiver. 4. The electronic meeting tool of claim 1 , wherein the peripheral device is a plug-and-play device. 5. The electronic meeting tool of claim 1 , wherein the program is arranged to screen scrape content of the second display. 6. The electronic meeting tool claim 1 , wherein the input device is physical actuator coupled to the peripheral device. 7. The electronic meeting tool of claim 6 , wherein the physical actuator has a surface area of between 100 and 14,400 square mm. 8. The electronic meeting tool of claim 1 , wherein the input device is a key displayed on the second display. 9. The electronic meeting tool of claim 8 , wherein the key displayed on the second display is not screen scraped by the program. 10. The electronic meeting tool of claim 1 , wherein the peripheral device comprises a memory in which executable software code is stored for execution on the processing device, said executable software code comprising: a first software code portion for setting up, by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device and the processing device; a second software code portion for connecting the processing device to the communications network via the peripheral device, the peripheral device having a transceiver; a third software code portion for screen scraping data from the processing device; and a fourth software code for routing screen scraped data between the processing device and the communications network over the means for communication; wherein the first software code portion is adapted to use a generic communication protocol for transferring the screen scraped data between the processing device and the peripheral device. 11. A non-transitory storage medium storing the first to fourth software code portion of claim 10 . 12. A method for communicating arbitrary media content from users at a meeting comprising: operating a display node of a communications network, the display node being coupled to a first display, to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display; and connecting a peripheral device to a port of a processing device and communicating the user selected arbitrary media content via the communications network, loading a program onto the processing device and running the program on the operating system of the processing device to obtain user selected arbitrary media content, said program leaving a zero footprint on termination, and triggering transfer of said user selected arbitrary media content to said transmitter through said port after a user action on an input device. 13. The method of claim 12 , further comprising configuring the peripheral device to connect to the communications network by pairing the peripheral device with the display node. 14. The method of claim 13 , wherein the pairing is performed by plugging the peripheral device into the display node. 15. The method of claim 12 , further comprising setting up by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device and the processing device. 16. The method of claim 12 , wherein a pre-installed generic driver is selected from a human interface device driver and a mass storage device driver. 17. The method of claim 12 , further comprising one of: presenting the peripheral device to the processing device as a human interface device, presenting the peripheral device to the processing device as a mass storage device; and presenting the peripheral device to the processing device as a composite device. 18. The method of claim 12 , wherein the program is stored on the peripheral device, and which obtains screen scraped data when run on the processing device. 19. The method of claim 17 , wherein a generic communication protocol is used for transferring screen scraped data between the processing device and the peripheral device. 20. The method of claim 12 further comprising displaying the user selected arbitrary media content on the first display in accordance with a set of rules.

Total of 100% of claims loaded.

Complete Family

Publication number	Publication date	Application date	Title	PDF
EP3220633A1	09/20/2017	09/14/2012	ELECTRONIC TOOL AND METHODS FOR MEETINGS	
ES2613884T3	05/26/2017	09/14/2012	Electronic tool and methods for meetings	

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DK2756668T3	04/03/2017	09/14/2012	ELECTRONIC TOOL AND METHODS FOR MEETINGS
EP2756668B1	01/04/2017	09/14/2012	ELECTRONIC TOOL AND METHODS FOR MEETINGS
SG10201605318YA	08/30/2016	09/14/2012	ELECTRONIC TOOL AND METHODS FOR MEETINGS
SG10201601302PA	03/30/2016	09/14/2012	ELECTRONIC TOOL AND METHODS WITH AUDIO FOR MEETINGS
SG10201601309YA	03/30/2016	09/14/2012	ELECTRONIC TOOL AND METHODS FOR MEETINGS
DE202012013297U1	03/24/2016	09/14/2012	Electronic Tool for meetings
DE12762258T1	01/14/2016		ELEKTRONISCHES MEETINGS WERKZEUG AND PROCEDURE IN
SG11201507377SA	10/29/2015	09/14/2012	ELECTRONIC TOOL AND METHODS WITH AUDIO FOR MEETINGS

Similar documents

The similarity check is done by matching this document to all documents in the database. Only the title and abstract text are matched, resulting in a score. The 10 highest scoring documents are shown here.

Score	Publication number	Publication date	Application date	Title	Abstract	PDF
26.75	US20150154126A2	06/04/2015	05/15/2014	ELECTRONIC TOOL AND METHODS FOR MEETINGS	An electronic meeting tool for communicating arbitrary media content from users at a meeting includes a node configuration operating a display node of a communications network that is coupled to a display. The node configuration receives user selected arbitrary media content and controls display of the user selected arbitrary media content on the display. At least one peripheral device communicates the user selected arbitrary media content via the communications network. The peripheral device is a connection unit including a connector that couples to a port of a processing device having a second display, a memory and an operating system; and a transmitter communicating with the communications network. A program is provided to run on the operating system of	

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					the processing device and obtains user selected arbitrary media content, while leaving a zero footprint on termination.	
26.67	US20170177511A1	06/22/2017	03/03/2017	ELECTRONIC TOOL AND METHODS FOR MEETINGS	An electronic meeting tool for communicating arbitrary media content from users at a meeting includes a node configuration operating a display node of a communications network that is coupled to a display. The node configuration receives user selected arbitrary media content and controls display of the user selected arbitrary media content on the display. At least one peripheral device communicates the user selected arbitrary media content via the communications network. The peripheral device is a connection unit including a connector that couples to a port of a processing device having a second display, a memory and an operating system; and a transmitter communicating with the communications network. A program is provided to run on the operating system of the processing device and obtains user selected arbitrary media content, while leaving a zero footprint on termination.	
24.70	US9083769B2	07/14/2015	03/14/2014	Electronic tool and methods for meetings	An electronic meeting tool and method for communicating arbitrary media content from users at a meeting comprises a node configuration means adapted to operate a display node of a communications network, the display node being coupled to a first display. The node configuration means is adapted to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display. A peripheral device adapted to communicate the user selected arbitrary media content via the communications network is a connection unit comprising a connector adapted to couple to a port of a processing device having a second display, a memory and an operating system, and a transmitter. A program is adapted to obtain user selected arbitrary media content, said program leaving a zero footprint on termination. The user may trigger a transfer of said user selected arbitrary media content to said transmitter.	
					An electronic meeting tool and method for communicating arbitrary media content from users at a meeting comprises a node configuration means adapted to operate a display node of a communications network,	

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					the display node being coupled to a first display. The node configuration means is adapted to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display. A peripheral device adapted to communicate the user selected arbitrary media content via the communications network is a connection unit comprising a connector adapted to couple to a port of a processing device having a second display, a memory and an operating system, and a transmitter. A program is adapted to obtain user selected arbitrary media content, said program leaving a zero footprint on termination. The user may trigger a transfer of said user selected arbitrary media content to said transmitter.
23.69	US20150263905A1	09/17/2015	05/29/2015	ELECTRONIC TOOL AND METHODS FOR MEETINGS	An electronic meeting tool and method for communicating arbitrary media content from users at a meeting comprises a node configuration means adapted to operate a display node of a communications network, the display node being coupled to a first display. The node configuration means is adapted to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display. A peripheral device adapted to communicate the user selected arbitrary media content via the communications network is a connection unit comprising a connector adapted to couple to a port of a processing device having a second display, a memory and an operating system, and a transmitter. A program is adapted to obtain user selected arbitrary media content, said program leaving a zero footprint on termination. The user may trigger transfer of said user selected arbitrary media content to said transmitter.
23.60	US20150089395A1	03/26/2015	09/14/2012	ELECTRONIC TOOL AND METHODS FOR MEETINGS	An electronic meeting tool and method for communicating arbitrary media content from users at a meeting. These can include a node configuration device adapted to operate a display node of a communications network, the display node being coupled to a first display. The node configuration device is adapted to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display. At least one peripheral device adapted to communicate
23.20	US9722986B2	08/01/2017	09/14/2012	Electronic tool and methods for meetings	

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					the user selected arbitrary media content via the communications network is provided, where the peripheral device is a connection unit including: (e) a connector adapted to couple to a port of a processing device having a second display, a memory and an operating system; and (f) a transmitter for communicating with the communications network.
23.20	US20140201400A1	07/17/2014	03/14/2014	ELECTRONIC TOOL AND METHODS FOR MEETINGS	An electronic meeting tool and method for communicating arbitrary media content from users at a meeting comprises a node configuration means adapted to operate a display node of a communications network, the display node being coupled to a first display. The node configuration means is adapted to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display. A peripheral device adapted to communicate the user selected arbitrary media content via the communications network is a connection unit comprising a connector adapted to couple to a port of a processing device having a second display, a memory and an operating system, and a transmitter. A program is adapted to obtain user selected arbitrary media content, said program leaving a zero footprint on termination. The user may trigger a transfer of said user selected arbitrary media content to said transmitter.
22.85	US20150169477A1	06/18/2015	09/14/2012	ELECTRONIC TOOL AND METHODS WITH AUDIO FOR MEETINGS	An electronic meeting tool and method for communicating arbitrary media content from users at a meeting comprises a node configuration means adapted to operate a display node of a communications network, the display node being coupled to a first display. The node configuration means is adapted to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display. A peripheral device adapted to communicate the user selected arbitrary media content via the communications network is a connection unit comprising a connector adapted to couple to a port of a processing device having a second display, a memory and an operating system, and a transmitter. A program is adapted to obtain user selected arbitrary media content, said program leaving a zero footprint on termination. The user may trigger transfer

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					of said user selected arbitrary media content to said transmitter.
22.54	US20170351621A9	12/07/2017	09/14/2012	ELECTRONIC TOOL AND METHODS WITH AUDIO FOR MEETINGS	An electronic meeting tool and method for communicating arbitrary media content from users at a meeting comprises a node configuration means adapted to operate a display node of a communications network, the display node being coupled to a first display. The node configuration means is adapted to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display. A peripheral device adapted to communicate the user selected arbitrary media content via the communications network is a connection unit comprising a connector adapted to couple to a port of a processing device having a second display, a memory and an operating system, and a transmitter. A program is adapted to obtain user selected arbitrary media content, said program leaving a zero footprint on termination. The user may trigger transfer of said user selected arbitrary media content to said transmitter.
21.66	US20150121466A1	04/30/2015	09/14/2012	ELECTRONIC TOOL AND METHODS FOR MEETINGS	An electronic meeting tool and method for communicating arbitrary media content from users at a meeting. These can include a node configuration device adapted to operate a display node of a communications network, the display node being coupled to a first display. The node configuration device is adapted to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display. At least one peripheral device adapted to communicate the user selected arbitrary media content via the communications network is provided, where the peripheral device is a connection unit including: (e) a connector adapted to couple to a port of a processing device having a second display, a memory and an operating system; and (f) a transmitter for communicating with the communications network.

Citations

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Citation	Authority	Normalized number	Application date	Publication number	Publication date
backward	US	6966035	09/19/2001	US6966035B1	11/15/2005
backward	US	8316138	09/07/2010	US8316138B2	11/20/2012

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backward US	20020196378	06/07/2001	US20020196378A1	12/26/2002
backward US	20040263636	06/26/2003	US20040263636A1	12/30/2004
backward US	20050036509	06/02/2004	US20050036509A1	02/17/2005
backward US	20060031779	05/26/2005	US20060031779A1	02/09/2006
backward US	20060095376	01/12/2005	US20060095376A1	05/04/2006
backward US	20070005809	09/13/2002	US20070005809A1	01/04/2007
backward US	20070244970	10/24/2006	US20070244970A1	10/18/2007
backward US	20090046139	08/13/2008	US20090046139A1	02/19/2009

Non-patent literature

- Examination Report of German Patent and Trademark Office regarding related German Patent Application 10 2011 055 443.2, May 30, 2012.
- International Search Report in PCT/EP2012/068166, Mar. 6, 2013.
- International Search Report in PCT/EP2012/068167, Mar. 19, 2013.
- International Search Report in PCT/EP2012/068168, Mar. 4, 2013.
- International Search Report in PCT/EP2012/068169, Jan. 28, 2013.
- Search Report in GB1206841.7, Aug. 28, 2012.
- Proc. 3rd International Conference on Ubiquitious Intelligence and Computing, Sep. 2006, pp. 688-697, Wenbing Jiang, et al.; "Free Speech: a novel wireless approach for conference projecting and cooperating".

Description

RELATED APPLICATIONS [0001] This benefit of provisional patent application No. 61/534,592 filed Sep. 14, 2011 is claimed and said application is incorporated herein by reference. FIELD [0002] The present invention relates to electronic tools for meetings including methods or devices for providing connection to a communications network, to networks or methods of operating the network, methods or devices for use in displaying media content as well as software for performing any of these methods. TECHNICAL BACKGROUND Tools for Collaboration [0003] Allowing ad hoc groups of persons to communicate with each other is one of the fundamental aspects of collaboration, problem solving, negotiation, teaching and education, etc. To assist in communication, there has been an explosion of electronic communication tools such as electronic conferencing tools, e.g. synchronous and asynchronous conferencing, online chat, Instant Messaging, audio conferencing, videoconferencing, data conferencing, application sharing, remote desktop sharing, electronic meeting systems, collaborative management (coordination) tools, project management systems, knowledge management systems, and social software systems. [0004] One classic approach is the lecture or seminar often involving a presentation using presentation software. To a large extent the traditional single person presentation or lecture has been maintained with the audience being in a rather passive mode as far as determining, constructing, augmenting or modifying the information to be presented is concerned. [0005] As with other business processes, meetings are going digital. Increasingly, people are using computer technology alone and in conjunction with broadband networks to support their meeting objectives prior to and during an actual meeting. For example, e-mail is used to pass around files for people to read prior to a meeting. [0006] Collaborative workspaces in corporate networks and on the Internet offer geographically distributed collaborators a virtual repository for documents related to a project or a meeting. Electronic meeting support systems, such as interactive network-connect white boards and

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videoconferencing appliances, are available for the benefit of those who share the same room as well as those who are in remote locations. [0007] The AMIDA Final Public Report describes the overall methodology behind the development of meeting support technologies. It reports that numerous studies confirm that meetings dominate the way people work. Namely, according to a study conducted by MCI Worldcom in 2003 a business person participates in 60 meetings per month. People meet in groups for a multitude of reasons. They interact in numerous predictable and unpredictable ways and the results of their interactions are as varied as the people who participate and the projects on which they are collaborating or communicating. Studies of business processes also reveal that approximately 80% of the "workload" associated with a project or process happens in preparation for a meeting. In other words, many people view the "live" meeting as a milestone or deadline by which they can pace and measure their productivity and that of their colleagues. Unfortunately, for many information managers, being in perpetual meetings has reduced their ability to prepare adequately for the next meeting, perpetuating a vicious and negative cycle. [0008] However, Marc Al-Hames et al. report in "Audio-Visual Processing in Meetings: Seven Questions and Current AMI Answers", that although large parts of working days are consumed by meetings and conferences, unfortunately a lot of them are neither efficient, nor especially successful. They report a study in which people were asked to select emotion terms that they thought would be frequently experienced in a meeting. The top answer—mentioned from more than two third of the participants—was "boring"; furthermore nearly one third mentioned "annoyed" as a frequently perceived emotion. [0009] The conclusion is that despite the plethora of electronic aids to meetings, fundamental problems in handling meetings have not been solved. In fact organising and conducting meetings in a business context involves a large number of factors. Participation [0010] A lack of efficiency of meetings is addressed in the article "Mood indicators on electronic meeting tools" IBM, IP.com number: IPCOM000011711D, Publication Date: Mar. 12, 2003. This article addresses the issue that the lack of direct feedback makes meetings clumsy, inefficient and often unproductive. It proposes a "mood indicator" as well as an "I want to ask a question" indicator which allow the presenter to choose an appropriate moment to pause, change track or field a question. It is argued that interrupting a presenter in full flow can be awkward; however, sometimes it is difficult to get an opportunity to ask a question or make a comment when many different people are trying to make their voices heard. In a similar vein, U.S. Pat. No. 6,966,035 suggests displaying a "murmur frame" for a participant to express a view. To increase user participation, US 2010/0087139 discloses a system for sending a selection to another computer, and US 2006/0095376 discloses a system for secure voting. Commenting, voting or selecting requires that a central authority provides the information that is to be selected or commented or voted on. Hence, these proposals still leave a central figure such as the presenter in a dominating position and the other members of the meeting are largely an audience with limited selection or voting or participation rights. [0011] A further problem with meetings is that someone is usually late or has to leave early. With the person arriving late one has to decide if the meeting is interrupted and a summary of the proceedings so far is given. For the person leaving early (often a senior person), subsequent discussions can go missing. If there is a notes taker, this provides a personal summary of the meeting—but not an objective one. [0012] Presents systems do not provide an optimal solution. Legal and Security Issues [0013] A legal requirement of a meeting is that presentations, comments and submissions need to be completely reproducible—in some circumstances, e.g. in a share holders' meeting, the events in the meeting should be subject to total recall. Computer-supported collaborative work technologies, particularly those which capture human verbal and non-verbal communications (audio and video interaction) in addition to text and graphics generated during a meeting, promise to have a long term impact on how people will prepare for and behave during and following meetings. In addition, connecting to a network brings the danger of virus, malware or spyware transfer in either direction, and there is danger of copying of confidential information. Practical Difficulties Scalability and Ease of Use [0014] There are even more fundamental problems with using electronic tools in meetings. If two persons want to make two presentations then usually either both presentations must be placed on one machine or there is a need to swap between the presenters' machines. To bring the display content of a computer to a projector, the most common ways are to use a cable that connects the display adapter of the graphics card to the video input of the projector [method 1] or to use a software that captures the display contents and sends it over a wired or wireless network to a remote base unit connected to the projector [method 2]. This is often called "remote desktop" and is mostly used for remote administration or remote IT assistance purposes. [0015] Less common but also practiced methods are to use a special device connected to the display adapter of the graphics card that captures, encodes and streams the display content over a wired or wireless network [method 3]. [0016] Method 1 has several practical problems and disadvantages. In meetings where people want to contribute content from their own computers, e.g. to project images on a display, typically a video cable such as a VGA cable is used to connect each PC one at a time to the projector. This is not only not scalable but also can be and often is quite a cumbersome process that typically wastes valuable meeting time and takes the dynamism out of the meeting. Connection can be made more difficult and time consuming for example if the computer has to be rebooted for

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it to detect the projector or when the format of the PC differs from the format of the projector. In addition changing format can leave the computer with a new format that is not compatible with its own screen so that on reboot of the PC alone, nothing is displayed on the computer screen. Without a visible screen image the necessary re-configuration can be difficult. These issues are aggravated by a number of elements: The use of many different video adapters, such as VGA, DVI, DP, HDMI, ... Reach depends on cable length: too long leaves a tangled cable "salad" in the meeting room, too short reduces flexibility, often necessitating people to move around in the meeting room when they want to present something. Cable connection is either point to point or requires tedious and extensive cabling and the use of complex and expensive video switches. It is often difficult and time consuming to find the right display resolution and refresh rate that both the computer and the display or projector support. [0021] Method 2 also has many drawbacks. If the connection is made to a corporate LAN there is a danger of virus, malware or spyware transfer in either direction, there is danger of copying of confidential information, and there is the difficulty of making the connection, e.g. entry of a user code and password, as well the administration of such passwords and user codes. [0022] The advantage of method 3 is that the computer does not need to use its own processing power to bring the display content in a form that is easily transported over a network. This advantage becomes less relevant as computers grow in processing power. A drawback of method 3 is that the same problems often encountered with method 1 of connecting to the display adapter remain. Another drawback is that the special device referred to requires significant processing power, which means that this device will consume much power, be relatively big and certainly be relatively expensive. [0023] An alternative method in the making today is to use the well known USB interface of the computer for extracting the display content of the computer. US 2009/0198839 discloses such a pluggable cable arrangement. US 2011/0115689 discloses a similar USB solution for wireless connection to a projector. Accordingly connecting a projector to a computer using the standard USB port might become commonplace with time. However, this usually requires special drivers and even special hardware. Connecting a projector to a computer using the standard USB port hence might become commonplace—but even when that happens there will be a mix of new and legacy machines for several years. Firewalls [0024] Additional problems can occur with firewalls. Typically a visitor to a meeting will bring a computer such as a laptop that is set up for a different corporate networking environment and hence has different or incompatible networking settings. The setting up of a firewall can be complicated and if this is not done correctly, telecommunication software that has to pass through a firewall may be blocked. In order to solve problems associated with firewalls it may be necessary to open ports or identify or even add programs in an exception list. If, besides a network (hardware) firewall and an operating system firewall, there is any software based third-party firewall like Zonealarm, Norton Systemworks, CA Internet Security Suite or McAfee Firewall, then it is necessary to follow that software developer's documentation to place programs on a safe list or adding exceptions to the firewall rules. Such activity is beyond the usual user. Fussing with computer settings, or having to call for IT support wastes valuable meeting time and takes the dynamism out of the meeting. Conclusion [0025] The following problems remain for holding a face-to-face meeting using advanced electronic tools at the present time: Complexity of the networking infrastructure. High demands on technical expertise of users in current systems that are supposed to be designed to support everyday use by the non-expert user. Barriers to the use of complicated technology in meetings. Great variety of possible collaborative software solutions—none of which seems to solve the fundamental problems of holding successful meetings. Meetings being boring or annoying for members of the meeting. Complexity of firewalls and other security measures employed in corporate networks. Lack of, or restriction of participation by members of a meeting. Time taken to prepare presentations for meetings. Need to record events in the proper time sequence at meetings without burdening a meeting more than necessary. [0035] Although some tools solve some of these problems effectively, no electronic meeting tool solves all of them. SUMMARY OF THE INVENTION [0036] An object of the present invention is to provide network solutions including electronic tools for meetings including devices for providing connection to a communications network, to methods of operating the network, methods of displaying media content as well as software for performing any of these methods or for implementing such systems. [0037] In an aspect the present invention provides an electronic meeting tool for communicating arbitrary media content from users at a meeting comprising: a node configuration means adapted to operate a display node of a communications network, the display node being coupled to a first display, the node configuration means being adapted to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display; and at least one peripheral device adapted to communicate the user selected arbitrary media content via the communications network, wherein the peripheral device is a connection unit comprising: (a) a connector adapted to couple to a port of a processing device having a second display, a memory and an operating system; and (b) a transmitter for communicating with the communications network, a program adapted to be loaded onto the processing device and to run on the operating system of the processing device, said program being adapted to obtain user selected arbitrary media content, said program leaving a zero footprint on termination, and an

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input device to allow the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port

Total of 16% of description loaded.

Classifications
IPC

- G06F13/38
- G06F3/00

CPC

- G06F13/102
- G06F3/16
- G06F9/44505
- H04L12/1813
- H04L65/4023
- H04L65/4038
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US Class

- 710/20
- 710/2
- 710/5
- 710/8
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Date from	Date to	Name	Standardized	Normalized
12/21/2011		BARCO N.V.	BARCO	

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10/11/2011	12/21/2011	BEEL, KOEN SIMON HERMAN	BEEL KOEN SIMON HERMAN
10/11/2011	12/22/2011	NIR, YOAV	NIR YOAV
10/11/2011	12/21/2011	LOUWET, FILIP JOSEPHINE JOHAN	LOUWET FILIP JOSEPHINE JOHAN
10/11/2011	12/21/2011	COEN, GUY	COEN GUY

Payment status

Date Payment status Description

Litigation

Date Docket number Comments Judgement

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Results for: 8756348 OR 8,756,348

Actions

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News (15)

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1. US Patent Issued to Barco on June 17 for "Electronic tool and methods for meetings" (Belgian Inventors)

US Fed News, 293 words — Date: Jun 17, 2014

... further information, including images, charts and tables, please visit: http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&p=1&u=%2Fnetahtml%2FPTO%2Fsearch-bool.html&r=1&f=G&l=50&co1=AND&d=PTXT&s1=**8756348**&OS=**8756348**&RS=**8756348** For any query with respect to this article or ... ... June 17 -- United States Patent no. **8,756,348** , issued on June 17, was assigned to Barco N.V. ...

2. Barco and KanexPro settle patent infringement dispute

Impact Financial News, 217 words — Date: Dec 03, 2017

... Presentation System. Barco also holds U.S Patent Nos. **8,756,348** and D699241 covering the ClickShare System. Under the agreement, KanexPro ...

3. Belgium : Barco and KanexPro settle patent infringement dispute

Tendersinfo, 142 words — Date: Oct 11, 2017

... Presentation System. Barco also holds U.S. Patent Nos. **8,756,348** and D699241 covering the ClickShare System. Under the agreement, KanexPro ...

4. Barco, KanexPro Settle Patent Infringement Dispute

Targeted News Service, 196 words — Date: Oct 10, 2017

... Presentation System. Barco also holds U.S. Patent Nos. **8,756,348** and D699241 covering the ClickShare System. Under the agreement, KanexPro .

5. Annual Report: CreditRiskMonitor.com Revenue up 2.6% Corporate Wire Date: 25 May 2017 07:29 EDT

News Sites US Markets, 734 words — Date: May 25, 2017

... Accrued expenses 1,282,126 1,241,317 Up 3.3 Total current liabilities 9,467,809 **8,756,348** Up 8.1 Deferred taxes on income net 762,403 759,454 Up ...

6. 2016 Operating Results

Market News Publishing, 869 words — Date: Mar 30, 2017

... 96,725 78,267 Accrued expenses 1,282,126 1,241,317 Total current liabilities 9,467,809 **8,756,348** Deferred taxes on income, net 762,403 759,454 Other liabilities 12,574 ...

7. CreditRiskMonitor 2016 Operating Results,CreditRiskMonitor reports operating results for the year ended December 31, 2016

Marketwired, 1434 words — Date: Mar 30, 2017

... 9,467,809 **8,756,348** Deferred taxes on income, net ...

8. 2q Results

Market News Publishing, 940 words

Date
Aug 08, 2018

... 132,985 78,267 Accrued expenses 1,159,658 1,241,317 Total current liabilities 9,250,962 **8,756,348** Deferred taxes on income 790,464 606,161 Other liabilities 9,490 4,314 ...

9. CreditRiskMonitor Announces 2Q Results

Marketwired, 1655 words

Date
Aug 08, 2018

... 9,250,962 **8,756,348** Deferred taxes on income ..

10. 1Q Results

Market News Publishing, 821 words

Date
May 11, 2018

... 80,786 78,267 Accrued expenses 1,185,154 1,241,317 Total current liabilities 9,272,491 **8,756,348** Deferred taxes on income 806,161 606,161 Other liabilities 6,902 4,314 ...

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Citing References (16)

Treatment	Title	Date	Type	Depth	Headnote(s)
—	1. ELECTRONIC CONFERENCING TOOL FOR COMMUNICATING ARBITRARY MEDIA CONTENT FROM USERS DURING E.G. AUDIO CONFERENCING, HAS PROCESSING DEVICE WITH OPERATING SYSTEM THAT IS INSTALLED WITH PROGRAM TO OBTAIN USER ARBITRARY MEDIA CONTENT Out Of Plan DWPI 2013-D44996+	Sep. 14, 2011	DWPI	—	—
—	2. METHOD FOR DISPLAYING IMAGES TO E.G. PROJECTOR SCREENS, BY USER FOR COMMUNICATING ARBITRARY MEDIA CONTENT IN MEETING ROOM VIA E.G. LOCAL AREA NETWORK, INVOLVES PROVIDING APPROPRIATE SCALING SIDE BY SIDE Out Of Plan DWPI 2013-E09642	Sep. 14, 2011	DWPI	—	—
—	3. METHOD OF CONNECTING PROCESSING DEVICE E.G. LAPTOP TO COMMUNICATIONS NETWORK E.G. WIRELESS LOCAL AREA NETWORK, INVOLVES TRANSFERRING AUDIO DATA BETWEEN PROCESSING DEVICE AND PERIPHERAL DEVICE Out Of Plan DWPI 2013-E10260+	Sep. 14, 2011	DWPI	—	—
—	4. METHOD FOR CONNECTING PROCESSING DEVICE TO COMMUNICATION NETWORK FOR COMMUNICATING ARBITRARY MEDIA CONTENT FROM USERS AT MEETING, INVOLVES TRANSFERRING SCREEN SCRAPED DATA BETWEEN PROCESSING AND PERIPHERAL DEVICES BY GENERIC PROTOCOL Out Of Plan DWPI 2014-N50178+	Sep. 14, 2011	DWPI	—	—
—	5. RF 027439/0644 Out Of Plan	Dec. 23, 2011	Assignments	—	—
—	6. METHOD AND SYSTEM FOR LOCATING RESOURCES AND COMMUNICATING WITHIN AN ENTERPRISE Out Of Plan US PAT 9852388 , U.S. PTO Utility An algorithm formulating system for use with a sensing ecosystem for identifying enterprise space states, the sensing ecosystem including a plurality of sensor devices mounted...	Dec. 26, 2017	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**7. METHOD AND SYSTEM FOR LOCATING RESOURCES AND COMMUNICATING WITHIN AN ENTERPRISE** Out Of Plan US PAT 9766079 , U.S. PTO Utility A method and system of tracking and reporting locations of entity employees, the method for use with at least a first interface device including a display screen, the method...	Sep. 19, 2017	Patents	—	—
—	**8. METHOD AND SYSTEM FOR FACILITATING COLLABORATION SESSIONS** Out Of Plan US PAT 9716861 , U.S. PTO Utility A method and system of facilitating a collaboration session among a plurality of conferees including at least first and second conferees using first and second different interface...	July 25, 2017	Patents	—	—
—	**9. ENVIRONMENT OPTIMIZATION FOR SPACE BASED ON PRESENCE AND ACTIVITIES** Out Of Plan US PAT 9642219 , U.S. PTO Utility A method for facilitating space experiences for at least a first space user and for at least first and second different spaces, the method comprising the steps of storing first and...	May 02, 2017	Patents	—	—
—	**10. ELECTRONIC TOOL AND METHODS FOR MEETINGS** Out Of Plan US PAT 9083769+ , U.S. PTO Utility An electronic meeting tool and method for communicating arbitrary media content from users at a meeting comprises a node configuration means adapted to operate a display node of a...	July 14, 2015	Patents	—	—
—	**11. ELECTRONIC TOOL AND METHODS WITH AUDIO FOR MEETINGS** Out Of Plan US PAT APP 20170351621 , U.S. PTO Application An electronic meeting tool and method for communicating arbitrary media content from users at a meeting comprises a node configuration means adapted to operate a display node of a...	Dec. 07, 2017	Patents	—	—
—	**12. ELECTRONIC TOOL AND METHODS FOR MEETINGS** Out Of Plan US PAT APP 20170177511 , U.S. PTO Application An electronic meeting tool for communicating arbitrary media content from users at a meeting includes a node configuration operating a display node of a communications network that...	June 22, 2017	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**13. ELECTRONIC TOOL AND METHODS FOR MEETINGS** Out Of Plac US PAT APP 20150263905+ , U.S. PTO Application An electronic meeting tool and method for communicating arbitrary media content from users at a meeting comprises a node configuration means adapted to operate a display node of a...	Sep. 17, 2015	Patents	—	—
—	**14. ELECTRONIC TOOL AND METHODS WITH AUDIO FOR MEETINGS** Out Of Plac US PAT APP 20150169477 , U.S. PTO Application An electronic meeting tool and method for communicating arbitrary media content from users at a meeting comprises a node configuration means adapted to operate a display node of a...	June 18, 2015	Patents	—	—
—	**15. ELECTRONIC TOOL AND METHODS FOR MEETINGS** Out Of Plac US PAT APP 20150089395 , U.S. PTO Application An electronic meeting tool and method for communicating arbitrary media content from users at a meeting comprises a node configuration means adapted to operate a display node of a...	Mar. 26, 2015	Patents	—	—
—	**16. ELECTRONIC TOOL AND METHODS FOR MEETINGS** Out Of Plac US PAT APP 20140351462 , U.S. PTO Application An electronic meeting tool and method for communicating arbitrary media content from users at a meeting is described. These can include a node configuration means adapted to...	Nov. 27, 2014	Patents	—	—

Attorney docket no. 6700-001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Reexamination of:	)	Examiner: Unassigned
	)	
Koen Simon Herman Beel et al.	)	Art Unit: Unassigned
	)	
U.S. Patent No. 8,756,348	)	Confirmation No.:
Filed: October 11, 2011	)	
Issued: June 17, 2014	)	**CERTIFICATE OF ELECTRONIC FILING**
	)	I hereby certify that this correspondence is being
For: ELECTRONIC TOOL AND METHODS FOR MEETINGS	)	submitted electronically via EFS Web on the date shown below.
	)	
	)	/Stanley Liang / February 9, 2018 Date

REQUEST FOR EX PARTE REEXAMINATION OF U.S. PATENT NO. 8,756,348 PURSUANT TO 37 C.F.R. §1.510

E-Filed via EFS-Web
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir/Madam:

This is a request for *ex parte* reexamination pursuant to 37 C.F.R. §1.510 *et seq.* of claims 1-20 of U.S. Patent 8,756,348 (hereinafter "the '348 patent"), entitled "Electronic Tool Methods For Meetings," which issued June 17, 2014 from U.S. Application Serial No. 13/270,659, filed October 11, 2011 (the '659 application). The '659 application claims priority to U.S. Provisional Application Serial No. 61/534,592 filed September 14, 2011. The patent owner is purportedly Barco N.V., as recorded on Reel/Frame 027439 / 0644 on December 11, 2011, and therefore, Barco N.V. is the owner of 100 percent interest of the '348 patent.

The ex parte reexamination fee of $12,000.00 is paid herein by credit card. The Director is hereby authorized to charge any shortage to our Deposit Account No.600114.

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Dependent claim 2 25

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B. (SNQ2) Claim 12-20 of the '348 patent are obvious under pre-AIA 35 U.S.C. §103(a) over Kita in view of Banerjee and Epstein 32

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Dependent claim 14 43

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Dependent claim 17 46

Dependent claim 18 47

Dependent claim 19 48

Dependent claim 20 49

C. (SNQ3). Claims 1-11 of the '348 patent are obvious under pre-AIA 35 U.S.C. §103(a) over Banerjee in view of Epstein 50

Independent claim 1 51

Dependent claim 2 60

Dependent claim 3 60

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D. (SNQ4) Claims 12-20 of the '348 patent are obvious under pre-AIA 35 U.S.C. §103(a) over Banerjee in view of Epstein 67

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VII. Proposed Rejections 83

A. Proposed Rejection 1. Claims 1-20 should be rejected under pre-AIA 35 U.S.C. §103(a) over Kita in view of Banerjee and Epstein 83

B. Proposed Rejection 2. Claims 1-20 should be rejected under pre-AIA 35 U.S.C. §103(a) over Banerjee in view of Epstein 84

VIII. Conclusion 85

I. List of Exhibits

Exhibit No.	Description
Exhibit 1	U.S. Patent 8,756,348 (patent to be reexamined)
Exhibit 2	International Patent App. Pub. No. WO 2001/089156 to Kita et al ("Kita")
Exhibit 3	International Patent App. Pub. No. WO 2010/105335 to Banerjee et al ("Banerjee")
Exhibit 4	U.S. Patent App. Pub. No. 2010/0302454 to Epstein et al ("Epstein")
Exhibit 5	U.S. Patent App. Pub. No. 2002/0196378 to Slobodin et al ("Slobodin")
Exhibit 6	Claim charts mapping the teachings of Kita, Banerjee, and Epstein to the elements of claims 1-11 of the '348 patent
Exhibit 7	Claim charts mapping the teachings of Kita, Banerjee, and Epstein to the elements of claims 12-20 of the '348 patent
Exhibit 8	Claim charts mapping the teachings of Banerjee and Epstein to the elements of claims 1-11 of the '348 patent
Exhibit 9	Claim charts mapping the teachings of Banerjee and Epstein to the elements of claims 12-20 of the '348 patent

II. Identification of Claims for Which Reexamination is Requested

Ex parte reexamination of claims 1-20 of U.S. Patent 8,756,348 is requested pursuant to 37 CFR 1.510.

III. Summary of Substantial New Questions of Patentability and Proposed Rejections

In this request, four substantial new questions of patentability are set forth, as summarized below in Table I. The substantial new questions of patentability listed in Table I are based on the references cited herein. The proposed rejections for each substantial new question of patentability are summarized in Table III below.

A. Table I – Summary of Substantial New Questions of Patentability

Substantial New Question (SNQ) of Patentability	Page Number
SNQ1. Claims 1-11 of the '348 patent are obvious under pre-AIA 35 U.S.C. §103(a) over Kita in view of Banerjee and Epstein	13
SNQ2. Claim 12-20 of the '348 patent are obvious under pre-AIA 35 U.S.C. §103(a) over Kita in view of Banerjee and Epstein	32
SNQ3. Claims 1-11 of the '348 patent are obvious under pre-AIA 35 U.S.C. §103(a) over Banerjee in view of Epstein	50
SNQ4. Claims 12-20 of the '348 patent are obvious under pre-AIA 35 U.S.C. §103(a) over Banerjee in view of Epstein	67

B. Table II – Summary of References that Raise Substantial New Questions of Patentability

Reference	Short Name	Previously Discussed in Office Actions?	Previously Considered On The Record?
International Patent Application Pub. No. WO 2001/089156 to Kita et al	Kita	No	No
International Patent Application Pub. No. WO 2010/105335 to Banerjee et al.	Banerjee	No	Yes

U.S. Patent Application Pub. No. 2010/0302454 to Epstein et al.	Epstein	No	No
U.S. Patent Application Pub. No. 2002/019378 to Slobodin et. al	Slobodin	No	Yes

IV. Table III – Summary of Proposed Rejections

Proposed Rejection	Detailed Discussion Page
Claims 1-20 should be rejected under pre-AIA 35 U.S.C. §103(a) over Kita in view of Banerjee and Epstein	83
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V. Summary of the Prosecution History of the '348 patent

The '348 patent was issued from U.S. Application No. 13/270,659 ("the '659 application") filed October 11, 2011. The '659 application claims priority to U.S. Provisional Patent Application No. 61/534,592 filed September 14, 2011. Thus, the earliest priority date of the '348 patent is September 14, 2011.

At the time of filing, the '659 application included 19 claims among which claims 1, 8, 12, 15, and 19 were independent claims. In a Preliminary Amendment filed on December 23, 2011, the abstract of the '659 application was replaced with a new abstract. The Preliminary Amendment did not include other changes to the application.

The Examiner issued the first Office Action dated June 12, 2013. The first Office Action included a Restriction Requirement which indicated that claims 1 - 19 were directed to three independent inventions including:

I. Claims 1-7, 12-14, and 16-18, drawn to IO command process;

II. Claims 8-11 and 19, drawn to peripheral configuration;

III. Claim 15, drawn to peripheral adapting.

The Examiner further rejected claims 16-18 as unpatentable over U.S. Patent Application Publication No. 2013/0050254 ("the Tran reference") in view of U.S. Patent Application Publication No. 2012/0331509 ("the Laksono reference"). The Examiner further, in an Allowable Subject Matter section, indicated that claims 1-7 and 12-14 were allowable.

Applicant of the '659 application submitted a response dated December 12, 2013 to the first Office Action. The December 12, 2013 response elected claims 1-7 and 12-14, canceled claims 8-11 and 15-19, and added claims 20-29 (in which claims 20-22 depend from claim 1 and claims 23-29 depend from claim 12).

The PTO issued a Notice of Allowance dated February 4, 2014 in which claims 1-7, 12-14, and 20-29 were allowed. The applicant submitted the Issue Fee on May 2, 2014. The '348 patent was issued June 17, 2014.

VI. Detailed Explanation of Substantial New Questions of Patentability

Kita and Epstein were not considered by the Examiner during the prosecution of the '348 patent. Banerjee is listed as a reference considered by the Examiner during the prosecution of the '348 patent, but Banerjee was not substantively relied upon or otherwise addressed by the Examiner. As explained herein below, various combinations of the cited references raise substantial new questions (SNQ) of patentability with respect to all claims of the '348 patent.

A. (SNQ1) Claims 1-11 of the '348 patent are obvious under pre-AIA 35 U.S.C. §103(a) over Kita in view of Banerjee and Epstein

Kita, Banerjee, and Epstein raise a substantial new question of patentability with respect to claims 1-11 of the '348 patent because Kita, Banerjee, and Epstein, while pertaining to the same technical field, teach all of the elements of each of claims 1-11. The motivation to combine the references may be found in and/or inferred from the teachings of Kita, Banerjee, and/or Epstein.

"The rationale to modify or combine the prior art does not have to be expressly stated in the prior art; **the rationale may be expressly or impliedly contained in the prior art** or it may be reasoned from knowledge generally available to one of ordinary skill in the art, established scientific principles, or legal precedent established by prior case law. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992) quoted by MPEP §2144 (emphasis added).

Kita is concerned with "a card type network interface, network conference terminal device and network conference system." (See e.g., Kita at Title.) Kita teaches that "presentation data can be displayed on a personal computer connected to the LAN at each seat in the conference hall," and "if the conference is held by effectively utilizing the LAN, then

participants on all seats become able to watch presentation data satisfactorily." (See e.g., Kita page 4, lines 2-6.)

In the same technical field of display sharing, Banerjee is concerned with a plug-and-play interface device for sharing screen display data among computers. (See e.g., Banerjee at paragraph [0009].)

In the same technical field of display sharing, Epstein is concerned with "sharing information in a collaborative workspace." (See e.g., Epstein at Title.)

Therefore, it is obvious for a person of ordinary skill in the art to combine Kita, Banerjee, and Epstein. The combination of Kita with the similar function of Banerjee and Epstein, which all are in the field of sharing computer displays and information, is a "predictable variation" or a "combination of familiar elements according to known methods .... [that] does no more than yield predictable results," and such combination is obvious under *KSR International Co. v. Teleflex Inc.,* 550 U.S. 398, 415-16, 82.

Claim charts mapping the teachings of the applied references to the elements of claims 1-11 are attached hereto as Exhibit 6 and incorporated herein by reference.

Independent claim 1

- **An electronic meeting tool for communicating arbitrary media content from users at a meeting comprising:**

With respect to the substantial new question of patentability of the '348 patent, Kita teaches the preamble of "[a]n electronic meeting tool for communicating arbitrary media content from users at a meeting comprising," as recited by independent claim 1 of the '348 patent.

For example, Kita teaches "CARD TYPE NETWORK INTERFACE, ***NETWORK CONFERENCE TERMINAL DEVICE AND NETWORK CONFERENCE SYSTEM***." (*Kita* at the Title) (emphasis added)

- **a node configuration arranged to operate a display node of a communications network, the display node being coupled to a first display**

Further with respect to the substantial new question of patentability of the '348 patent, Kita teaches "a node configuration arranged to operate a display node of a communications network, the display node being coupled to a first display," as recited by independent claim 1 of the '348 patent.

For example, Figure 5 of Kita shows:

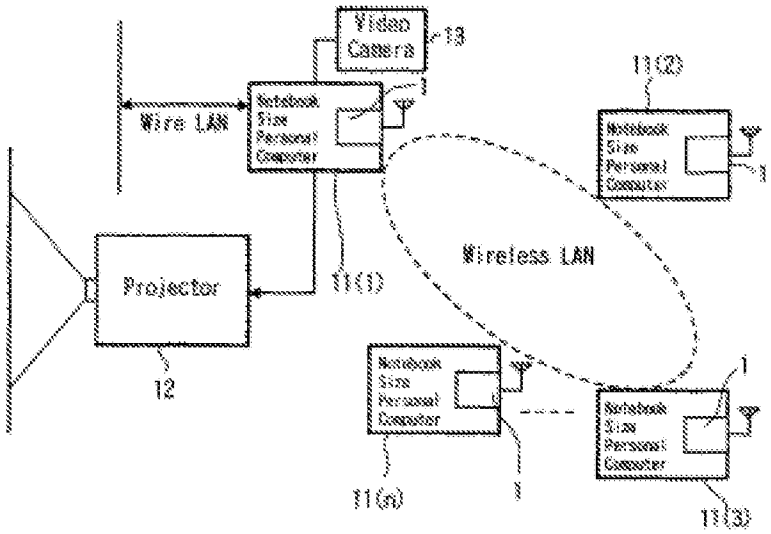


FIG. 5 shows an example of an arrangement of ***a network conference terminal device (wireless LAN conference terminal device)*** according to the present invention and an example of an overall arrangement of a network conference system (wireless LAN conference system) according to the present invention.

This wireless LAN conference system is comprised of a plurality of (e.g., about 30 to 50) wireless LAN conference terminal devices 11 (11 (1) to 11 (n)), ***a***

projector 12 and a video camera 13. (*Kita* at page 23, lines 19 – 26) (emphasis added).

As such, Kita teaches a network configuration (see Figure 5), and a display node (see e.g., wireless LAN conference terminal device 11(1)) being coupled to a first display (see e.g., projector 12).

- **the node configuration further being arranged to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display**

Further with respect to the substantial new question of patentability of the '348 patent, Kita teaches "the node configuration further being arranged to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display," as recited by independent claim 1 of the '348 patent.

For example, Kita teaches:

> FIG. 4 shows an example of a circuit arrangement of this network interface card 1. The network interface card 1 includes a PCMCIA interface 3, a network interface 4, an RF modulator 5, an RF demodulator 6, an antenna 7, a CPU 8, a flash ROM 9 and a RAM 10.
>
> The PCMCIA interface 3 is an interface section which interacts with a personal computer having a PC card slot like the notebook size persona computer 2 shown in FIG. 3. Through this PCMCIA interface 3, ***data and commands are transmitted and received between the personal computer having the network interface card 1 and the network interface card 1***. (*Kita* at page 21, lines 10 – 19) (emphasis added).
>
> If such operation is carried out (i.e., if the presentation data is displayed on the notebook size personal computer of the client concerned) , then ***the same presentation data is transmitted to the host 11 (1)*** and other clients, and the command for displaying the presentation data by using the presentation application software corresponding to that presentation data and the command for displaying that presentation data in synchronism with the client concerned are transmitted to the host 11 (1) and other clients (step S48). (*Kita* at page 38, lines 4 – 12) (emphasis added).

As such, Kita teaches the node configuration further being arranged to receive user selected arbitrary media content (see e.g., *data and commands are transmitted and received between the personal computer having the network interface card 1 and the network interface card 1*) and to control display of the user selected arbitrary media content on the first display (see, e.g., *displaying that presentation data*).

- **at least one peripheral device configured to communicate the user selected arbitrary media content via the communications network, wherein the peripheral device is a connection unit comprising:**

  (a) a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system; and

  (b) a transmitter arranged to communicate with the communications network,

Further with respect to the substantial new question of patentability of the '348 patent, Kita teaches "at least one peripheral device configured to communicate the user selected arbitrary media content via the communications network, wherein the peripheral device is a connection unit comprising: (a) a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system; and (b) a transmitter arranged to communicate with the communications network," as recited by independent claim 1 of the '348 patent.

For example, Kita further teaches:

> FIG. 4 shows an example of a circuit arrangement of this network interface card 1. The ***network interface card 1 includes a PCMCIA interface 3, a network interface 4, an RF modulator 5, an RF demodulator 6, an antenna 7,*** a CPU 8, a flash ROM 9 and a RAM 10.
>
> The ***PCMCIA interface 3 is an interface section which interacts with a personal computer having a PC card slot like the notebook size persona computer 2 shown in FIG. 3.*** Through this PCMCIA interface 3, data and

commands are transmitted and received between the personal computer having the network interface card 1 and the network interface card 1. (*Kita* at page 21, lines 10 – 19) (emphasis added).

As such, Kita teaches peripheral device (see e.g., *network interface card 1*, data and commands are transmitted and received between the personal computer having the network interface card 1 and the network interface card 1) configured to communicate the user selected arbitrary media content via the communications network: (a) a connector (see, e.g., *a PCMCIA interface 3*) arranged to couple to a port of a processing device (see e.g., a personal computer) having a second display, a memory and an operating system (Note: a personal computer is commonly known to have a display, a memory, and an operating system); and (b) a transmitter (see e.g., *an RF modulator 5, an RF demodulator 6, an antenna 7*) arranged to communicate with the communications network.

- **a program configured to be loaded onto the processing device and to run on the operating system of the processing device,**

  said program being arranged to obtain user selected arbitrary media content, said program leaving a zero footprint on termination,

Further with respect to the substantial new question of patentability of the '348 patent, Kita teaches "a program configured to be loaded onto the processing device and to run on the operating system of the processing device, said program being arranged to obtain user selected arbitrary media content," as recited by independent claim 1 of the '348 patent.

For example, Kita teaches:

> As the features of the present invention, ***the flash ROM 9 stores therein the following microprograms (1) to (4).*** Contents processed by the programs. (1) to (3) will be described in the examples of operations of a host and a client of a network conference system as will be described later on.

(1): A program which has described processing for enabling the personal computer having the network interface card 1 to function as a host for managing the wireless LAN (hereinafter referred to as a "host program") .

(2): A program which has described processing for enabling the personal computer having the network interface card 1 to function as a client using the wireless LAN under management of the host (hereinafter referred to as a "client program").

(3): A program which has described processing for deciding whether the host program or the client program should be executed (hereinafter referred to as a "host/client decision program).

(4): *Presentation application software (program which has described processing for displaying and controlling presentation data such as images and graphical. This application software contains graphic viewer which is software for displaying images, software for creating, displaying and controlling graphica*l (e.g., "Microsoft PowerPoint" manufactured by Microsoft, "Microsoft" and "PowerPoint" are registered trademarks of Microsoft) and WWW browser which is software used to access WWW server on the Internet to display images of Web pages and the like. (*Kita* at page 22, line 19 – page 23, line 17) (emphasis added).

"FIG. 12 shows a procedure of operations that should be executed by the participants of the conference in order to execute the network setting of the clients 11 (2) to 11 (n). ***When the network interface card 1 is attached to the notebook size personal computer and the operating system of the notebook size personal computer is*** activated (the network interface card 1 may be attached to the notebook size personal computer after the operating system of the notebook size personal computer has been activated), the network setting is automatically executed by the processings shown in FIGS. 7 and ***8***. Accordingly, ,as is clear from the contrast with FIG. 2 which shows the conventional network interface card, the network setting of the clients 11 (2) to 11 (n) as the assumption that the participants are to attend the wireless LAN can be carried out without imposing a burden on the participants of the conference." (*Kita* at page 33, lines 19 – line 23)(emphasis added).

As such, Kita teaches a program (see e.g., microprograms (1) – (4)) configured to be loaded onto the processing device and to run on the operating system of the processing device (see, e.g., the operating system of the notebook size personal computer), said program being arranged to obtain user selected arbitrary media content (see e.g., (4): [p]resentation application

software (program which has described processing for displaying and controlling presentation data such as images and graphical.)

To the extent that Kita does not explicitly teach *said program leaving a zero footprint on termination,* Banerjee teaches "a program configured to be loaded onto the processing device and to run on the operating system of the processing device, said program being arranged to obtain user selected arbitrary media content, said program leaving a zero footprint on termination," as recited by independent claim 1 of the '348 patent.

For example, Banerjee teaches:

> The autorun.inf file contains a pointer to the executable launcher application, LinQLauncher.exe stored in the storage 276. Upon parsing the autorun.inf file, ***the remote computer 240 uses the pointer to load a LinQ software application from the storage 276 (step 328). The LinQI_auncher.exe application directs the remote computer 240 to copy all necessary files of the LinQ software application from storage 276 to a temporary directory on the remote computer 240 and then start the LinQ software application (step 332). The LinQ software application is used for setting up and managing the peer-to-peer wireless connection on the remote computer 240, screen sharing and communications between the remote computer 240 and the master computer 238***.
>
> Upon launch, ***the LinQ software application loads the necessary driver for the wireless transceiver 260, configures the wireless transceiver 260, finds the master computer 238 and establishes the peer-to-peer wireless connection between the LinQ software application and the mobile device manager application running on the master computer 238 (step 337).*** The LinQ software application, which manages the peer-to-peer wireless connection on the remote computer 240, then reads the access codes, biometrics or keys from the storage 276. The access codes, biometrics or keys are in turn exchanged with the master computer 238 and used as a parameter to create a secure authenticated and encrypted peer-to-peer wireless connection. The mobile device manager application running on the master computer 238 manages the peer-to-peer wireless connection on the master computer 238. In cases where multiple systems 220 may be operating, an ad-hoc network identifier may be necessary to allow the plug-and-play device 236 to determine the appropriate network to which to connect. In such cases, the ad-hoc network identifier is configured to be read from storage 276 in similar manner to the access codes, biometrics or keys.

> Once the remote computer 240 is connected to the master computer 238 over the peer-to-peer wireless connection, ***the remote computer 240 may send a request to share the screen display data of the remote computer 240 to the master computer 238.*** If a request to share the screen display data is sent to the master computer 238 and accepted, the screen display data displayed on the remote computer 240 is compressed using a suitable compression algorithm such as for example MJPEG compression. The compressed screen display data is then compared with previous screen display data sent to the master computer 238 in the same peer-to-peer wireless connection session to detect differences in the screen display data. The detected differences are then sent to the master computer 238 via the peer-to-peer wireless connection and displayed on the screen of the master computer 238. The master computer 238 passes input events, such as keyboard, mouse, trackball and/or pen-touch events, that it receives to the remote computer 240 thereby to remotely control the remote computer 240 (step 339). As will be appreciated, by compressing the screen display data of the remote computer 240, the time required to transmit the screen display data to the master computer 238 is reduced. Also, compressing the screen display data and only transmitting differences between screen display data, reduces the amount of screen display data that needs to be transmitted to the master computer 238 during screen sharing. This of course reduces the required transmission bandwidth required for screen sharing and thus, decreases latency. (*Banerjee* at paragraphs [0046-0048]) (emphasis added).
>
> Upon termination of the session between the remote computer 240 and the master computer 238, the plug-and-play device 236 can be unplugged from the remote computer 240 and removed. When the plug-and-play device 236 is disconnected from the remote computer 240, the remote computer 240 notifies the LinQLauncher.exe application (step 344). ***The LinQLauncher.exe application in turn stops the screen sharing, disconnects the peer-to-peer wireless connection with the master computer 238, terminates the execution of the LJnQ software application, deletes the files in the temporary directory on the remote computer 240 that were copied from the storage 276***, and then terminates the execution of itself (step 348). Those skilled in the art will appreciate that other clean up tasks, such as removing items in the system registry that were written by the LJnQ software application when it was launched may also be performed upon the disconnection of the plug-and-play device 236 from the remote computer 240. (*Banerjee* at paragraph [0051]) (emphasis added).

As such, Banerjee teaches a program configured to be loaded onto the processing device (see e.g., the remote computer 240 uses the pointer to load a LinQ software application from the storage 276 (step 328)) and to run on the operating system of the processing device (see e.g., the LinQ software application loads the necessary driver for the wireless transceiver 260, configures

the wireless transceiver 260, finds the master computer 238 and establishes the peer-to-peer wireless connection between the LinQ software application and the mobile device manager application running on the master computer 238 (step 337)), said program being arranged to obtain user selected arbitrary media content (see e.g., the remote computer 240 may send a request to share the screen display data of the remote computer 240 to the master computer 238), said program leaving a zero footprint on termination (see e.g., the LinQLauncher.exe application in turn, . . ., deletes the files in the temporary directory on the remote computer 240 that were copied from the storage 276), as recited in independent claim 1.

- **an input device enabling the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port.**

Further with respect to the substantial new question of patentability of the '348 patent, Kita teaches "an input device enabling the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port," as recited by independent claim 1 of the '348 patent.

For example, Kita teaches:

> FIG. 1 shows a personal computer to which a conventional network interface card is connected and to which reference will be made in explaining a function of a portion used to execute this network setting. In the operating system (e.g., Windows 95 or Windows 98 ("Windows" is a registered trademark)) of personal computer, there is supported a network function. *This network function contains a function which displays a network setting picture to execute a network setting* ***based on user's input operations***. (Kita at page 1, line 23 – page 2, line 7) (emphasis added). See also Kita (at FIG. 3) shows a notebook computer including input devices (e.g., keyboard and touch pad) for carrying out user input actions.
>
> FIG. 4 shows an example of a circuit arrangement of this network interface card 1. The *network interface card 1 includes a PCMCIA interface 3*, a network interface 4, an RF modulator 5, an RF demodulator 6, an antenna 7, a CPU 8, a flash ROM 9 and a RAM 10.

> The PCMCIA interface 3 is an interface section which interacts with a personal computer having a PC card slot like the notebook size persona computer 2 shown in FIG. 3. *Through this PCMCIA interface 3,* ***data and commands are transmitted and received between the personal computer having the network interface card 1 and the network interface card 1***. (*Kita* at page 21, lines 10 – 19) (emphasis added).

As such, Kita teaches an input device (see, e.g., keyboard and touch pad of the notebook computer) enabling the user to carry out a user action (see e.g. to execute a network setting based on user's input operations), that triggers transfer of said user selected arbitrary media content to said transmitter through said port (see, e.g., "[t]hrough this PCMCIA interface 3, data and commands are transmitted and received between the personal computer having the network interface card 1 and the network interface card 1")

To the extent that Kita in view of Banerjee does not explicitly teach an input device coupled to the peripheral device enabling the user to carry out a user action, that triggers transfer of said user selected arbitrary media content to said transmitter through said port, Epstein teaches:

> Referring also to FIG. 4, exemplary puck assembly 20 includes ***a puck 48*** *and first and second video/audio cables 50 and 52, respectively. Cable 50 is used to link puck 48 to a computer/laptop audio/video output port or other video source* while cable 52 links puck 48 through a circuitous path to one of the six input ports 17 shown in FIGS. 2 and 3. In at least some embodiments, each cable 52 can be taken up by a take up assembly (not shown) below deck member 21 as an associated puck 48 is moved from a use position on top of top member 26 (see FIG. 4) to a storage position as shown in FIG. 2. For more detail regarding one possible take up assembly, see US patent application Ser. No. 12/250,192 referenced above. As seen in FIG. 4, when a puck 48 is pulled into a use position on top of member 26, cable 52 can pass through gap 43 when door 39 is closed.
>
> Referring still to FIG. 4 and also to FIG. 5, *exemplary* ***puck 48 includes*** *a disc or puck shaped housing 49 that supports a plurality of components including a processor 71, an on/off button 58,* ***first through fourth selectable controls or control buttons 60a-60d***, four illumination devices 73a through 73d and an illumination ring 56. Processor 71 may be a programmable microprocessor or may be configured via digital components. Processor 71 is linked to each of cables 50 and 52 and can sense when cabled 50 is linked to a video/audio source.

Processor 50 is also linked to each of buttons 56 and 60a-60d to sense when any of those buttons are selected. Processor 50 is further linked to each of illumination devices 73a through 73d and ring 56 for providing power to and cutting power from each of those devices." (*Epstein* at paragraphs [0051 – 0052]) (emphasis added).

"Following the instructions, as shown in FIG. 10, *a user pulls one of the pucks 48 from the cavity below a door 39 or 41 and links a laptop 69 to the puck 48 via cable 50 (see also FIG. 1). Once a laptop 69 is linked to cable 50, ring 59 as well as selectable buttons 60a-60d are illuminated white (see double crosshatch in FIG. 9) to indicate to the laptop user that the user is linked and can opt to present information from the user's laptop screen via any one or combination of displays 22a-22d corresponding to illuminated buttons 60a-60d*, respectively. Here, the white light ring 56 also indicates that currently the user of puck 48 is not presenting via any of displays 22a-22d.

Referring to FIG. 11, *when a puck user wants to present information from her laptop 69 display via display screen 22a,* ***the user presses button 60a*** *to indicate intention to drive display 22a. Once button 60a is selected, four things happen. First, information currently displayed via display 22a is replaced by the information from the user's laptop 69 display*. Second, if a different laptop was previously presenting information via display 22a when button 60a is selected, the other user's puck illumination may change. For instance, if the other user was only displaying via display 22a when displaced, the other user's puck's ring 56 will change from green back to white illumination indicating the user is no longer driving any of displays 22a-22d. As another instance, where another user was driving each of displays 22a and 22c when button 60a is selected, the other user's puck ring will remain green after displacement from screen 22a to indicate that the other user is still driving display 22c despite being displaced from display 22a. In addition, in this case, the other user's puck button 60a will be illuminated white after displacement from screen 22a while button 60c will remain green indicating that the other user is still driving display 22c. (*Epstein* at paragraphs [0065 – 0066]) (emphasis added).

As such, Epstein teaches an input device (see, e.g., "*first through fourth selectable controls or control buttons 60a-60d*" coupled to a peripheral device "puck 48") enabling the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port (see, e.g., "when a puck user wants to present information from her laptop 69 display via display screen 22a, the user presses button 60a to indicate intention to

drive display 22a. Once button 60a is selected, four things happen. First, information currently displayed via display 22a is replaced by the information from the user's laptop 69 display.")

Therefore, Kita in view of Banerjee and Epstein teaches all features as recited in claim 1. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the above-described teachings of Kita (a network conference system for sharing display) with the above-described teachings of Banerjee (a plug-and-play interface device for sharing computer displays) with the above-describe teachings of Epstein (personal control apparatus and method for sharing information in a collaborative workspace) because Kita, Banerjee, and Epstein all pertain to the field of apparatus and methods for sharing computer displays and information.

The combination of Kita with the similar function of Banerjee and Epstein, which all are in the field of sharing computer displays and information, is a "predictable variation" or a "combination of familiar elements according to known methods .... [that] does no more than yield predictable results," and such combination is obvious under *KSR International Co. v. Teleflex Inc.,* 550 U.S. 398, 415-16, 82. Therefore, claim 1 of the '348 patent is unpatentable over Kita in view of Banerjee further in view of Epstein.

Dependent claim 2

- **wherein the program is stored on the peripheral device.**

Claim 2 depends from claim 1. As explained herein above, Kita, Banerjee, and Epstein teach all elements of independent claim 1. Kita further teaches that the program is stored on the peripheral device. (See e.g., *Kita* at page 22, lines 20-24, "*the flash ROM 9 stores therein the following microprograms (1) to (4).*")

Dependent claim 3

- **wherein the transmitter is a wireless transmitter or transceiver**

Claim 3 depends from claim 1. As explained herein above, Kita, Banerjee, and Epstein teach all elements of independent claim 1. Kita further teaches that the transmitter is a wireless transmitter or transceiver. (See e.g., *Kita* at page 21, line 10 – page 22, line 1, "The network interface card 1 includes a PCMCIA interface 3, ***a network interface 4, an RF modulator 5, an RF demodulator 6, an antenna 7***, a CPU 8, a flash ROM 9 and a RAM 10.") (emphasis added).

Dependent claim 4

- **wherein the peripheral device is a plug-and-play device**

Claim 4 depends from claim 1. As explained herein above, Kita, Banerjee, and Epstein teach all elements of independent claim 1. Kita further teaches that the peripheral device is a plug-and-play device. (See e.g., *Kita* at page 5, lines 14 -17, "when the card type network interface is attached to the information terminal device, since *the network is* ***automatically set by this setting means****, the network can be set without troubling users*.") (emphasis added).

Dependent claim 5

- **wherein the program is arranged to screen scrape content of the second display**

Claim 5 depends from claim 1. As explained herein above, Kita, Banerjee, and Epstein teach all elements of independent claim 1. Banerjee further teaches that the program is arranged to screen scrape content of the second display. (See e.g., *Banerjee* at paragraph [0039], "*plug-and-play device 236* ***captures and compresses screen display data generated at the remote computer 240 and allows screen sharing*** *between the remote computer 240 and the master computer 238* by automatically launching software stored on the plug-and-play device 236.") (emphasis added).

Further, the applicant of the '348 patent admitted that Slobodin (*US 2002/0196378*) teaches screen scraping, (see, the '348 patent at col. 11, lines 32-36, "`Screen scraping' in our sense refers to reading the video frame buffers and processing them, rather than just rendering them on a display. Screen scraping for presentations is described in US2002/0196378 to Slobodin et al which is included herein by reference.")

Dependent claim 6

- **wherein the input device is physical actuator coupled to the peripheral device.**

Claim 6 depends from claim 1. As explained herein above, Kita, Banerjee, and Epstein teach all elements of independent claim 1. Epstein further teaches that the input device is physical actuator coupled to the peripheral device. (See e.g., *Epstein* at paragraphs [0051-0052], "*exemplary **puck 48 includes** a disc or puck shaped housing 49 that supports a plurality of components including a processor 71, an on/off button 58, **first through fourth selectable controls or control buttons 60a-60d**,*.") (emphasis added).

Dependent claim 7

- **wherein the physical actuator has a surface area of between 100 and 14,400 square mm**

Claim 7 depends from claim 6. As explained herein above, Kita, Banerjee, and Epstein teach all elements of claim 6. Claim 7 is obvious because claim 7 merely recites relative dimensions of the claimed device. (See MPEP 2144.04 (IV)(A) "Changes in Size/Proportion" (In *Gardner v.TEC Syst., Inc.,* 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied,* 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device

and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.)

Dependent claim 8

- **wherein the input device is a key displayed on the second display**

Claim 8 depends from claim 1. As explained herein above, Kita, Banerjee, and Epstein teach all elements of independent claim 1. Banerjee further teaches that the input device is a key displayed on the second display. (See e.g., *Banerjee* at paragraph [0035], "*[t]hese applets provide* ***a floating window of toolbuttons for accessing various functionality, an on-screen keyboard***.") (emphasis added). Epstein further teaches that the input device is a key displayed on the second display. (See e.g., Epstein at paragraph [0072], "*the widget 48a will have an appearance similar to the appearance of interface 60 and button 58 where* ***different widget areas corresponding to buttons 60a-60d and 58 will be selectable via a mouse controlled cursor or touch (in the case of a touch sensitive display) for selection***.") (emphasis added).

Dependent claim 9

- **wherein the key displayed on the second display is not screen scraped by the program**

Claim 9 depends from claim 8. As explained herein above, Kita, Banerjee, and Epstein teach all elements of claim 8. Banerjee further teaches that the key displayed on the second display is not screen scraped by the program. (See e.g., *Banerjee* at paragraph [0035], *"[t]hese applets provide a floating window of toolbuttons for accessing various functionality, an on-screen keyboard, etc. These* ***layout and menu settings are stored in XML files*** *in the storage 76 of the plug-and-play device 24, and are loaded and saved in a directory*.") (emphasis added). As

the floating window of toolbuttons is generated from XML files, these toolbuttons are not screen scraped.

Dependent claim 10

- **wherein the peripheral device comprises a memory in which executable software code is stored for execution on the processing device, said executable software code comprising:**

Claim 10 depends from independent claim 1. As explained herein above, Kita, Banerjee, and Epstein teach all elements of claim 1. Kita further teaches that the peripheral device comprises a memory in which executable software code is stored for execution on the processing device. (See e.g., *Kita* at page 22, lines 19 – line 24, "***the flash ROM 9 stores therein the following microprograms*** *(1) to (4)*.") (emphasis added).

- **a first software code portion for setting up, by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device and the processing device;**

Banerjee further teaches a first software code portion for setting up, by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device and the processing device. (See e.g., *Banerjee* at paragraph [0004], "Many ***operating systems possess a number of pre-loaded drivers for generic plug-and-play device classes***, such as USB mass storage, a two-button mouse, etc. ***If the operating system is in possession of a driver for the device class of the plug-and-play device connected to the computer, the computer loads the driver so that the functionality of the plug-and-play device can be accessed by the computer***. If the operating system does not possess a driver corresponding to the device class of the plug-and-play device, the operating system typically

prompts the user to install the appropriate software to enable the computer to access the functionality of the plug-and-play device") (emphasis added).

- **a second software code portion for connecting the processing device to the communications network via the peripheral device, the peripheral device having a transceiver;**

Kita further teaches a second software code portion for connecting the processing device to the communications network via the peripheral device, the peripheral device having a transceiver. (See e.g., *Kita* at page 26, lines 15 – 19, " '***client program***' contains processings ***used to execute the network setting to connect the clients 11 (2) to 11 (n) to the wireless LAN***. The network interface cards 1 of the clients 11 (2) to 11 (n) whose "client programs" were activated immediately start this network setting processing;" at page 21, line 10 – page 22, line 1, "network interface card 1 includes a PCMCIA interface 3, ***a network interface 4, an RF modulator 5, an RF demodulator 6, an antenna 7***," and "network interface 4 transforms data and commands, transmitted thereto from the personal computer through the *PCMCIA interface 3, into data and commands conforming to the format of predetermined* ***wireless LAN standards***.") (emphasis added).

- **a third software code portion for screen scraping data from the processing device; and**

Banerjee further teaches a third software code portion for screen scraping data from the processing device. (See e.g., *Banerjee* at paragraph [0039], "*plug-and-play device 236* ***captures and compresses screen display data generated at the remote computer 240 and allows screen sharing*** *between the remote computer 240 and the master computer 238* by automatically launching software stored on the plug-and-play device 236.") (emphasis added).

Further, the applicant of the '348 patent admitted that Slobodin (*US 2002/0196378*) teaches screen scraping, (see, the '348 patent at col. 11, lines 32-36, "`Screen scraping' in our sense refers to reading the video frame buffers and processing them, rather than just rendering them on a display. Screen scraping for presentations is described in US2002/0196378 to Slobodin et al which is included herein by reference.")

- **a fourth software code for routing screen scraped data between the processing device and the communications network over the means for communication;**

Kita further teaches a fourth software code for routing screen scraped data between the processing device and the communications network over the means for communication. (See e.g., *Kita* at page 21, lines 20 – page 22, line 1, "*network interface 4 transforms data and commands, transmitted thereto from the personal computer through the PCMCIA interface 3, into data and commands conforming to the format of* ***predetermined wireless LAN standards (e. g., the standards of 11 works groups in 802 of the IEEE 802), transmits the data and commands thus transformed into the RF modulator 5***") (emphasis added).

Banerjee further teaches a fourth software code for routing screen scraped data between the processing device and the communications network over the means for communication. (See e.g., *Banerjee* at paragraph [0048], "*The compressed screen display data is then compared with previous screen display data sent to the master computer 238 in the same peer-to-peer wireless connection session to detect differences in the screen display data. The* ***detected differences are then sent to the master computer 238 via the peer-to-peer wireless connection and displayed on the screen of the master computer 238***.) (emphasis added).

- **wherein the first software code portion is adapted to use a generic communication protocol for transferring the screen scraped data between the processing device and the peripheral device.**

Kita further teaches that the first software code portion is adapted to use a generic communication protocol for transferring the screen scraped data between the processing device and the peripheral device. (See e.g., *Kita* at page 21, lines 20 – page 22, line 1, "*network interface 4 transforms data and commands, transmitted thereto from the personal computer through the PCMCIA interface 3, into data and commands conforming to the format of* ***predetermined wireless LAN standards (e. g., the standards of 11 works groups in 802 of the IEEE 802), transmits the data and commands thus transformed into the RF modulator 5***") (emphasis added).

Dependent claim 11

- **A non-transitory storage medium storing the first to fourth software code portion of claim 10.**

Claim 11 is obvious for the same reasons as noted above with respect t to claim 10.

B. (SNQ2) Claim 12-20 of the '348 patent are obvious under pre-AIA 35 U.S.C. §103(a) over Kita in view of Banerjee and Epstein

Kita, Banerjee, and Epstein raise a substantial new question of patentability with respect to claims 12-20 of the '348 patent because Kita, Banerjee, and Epstein, while pertaining to the same technical field, teach all of the elements of each of claims 12-20. The motivation to combine the references may be found in and/or inferred from the teachings of Kita, Banerjee, and/or Epstein.

"The rationale to modify or combine the prior art does not have to be expressly stated in the prior art; **the rationale may be expressly or impliedly contained in the prior art** or it may be reasoned from knowledge generally available to one of ordinary skill in the art, established scientific principles, or legal precedent established by prior case law. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992) quoted by MPEP §2144 (emphasis added).

Kita is concerned with "a card type network interface, network conference terminal device and network conference system." (See e.g., Kita at Title.) Kita teaches that "presentation data can be displayed on a personal computer connected to the LAN at each seat in the conference hall," and "if the conference is held by effectively utilizing the LAN, then participants on all seats become able to watch presentation data satisfactorily." (See e.g., Kita page 4, lines 2-6.)

In the same technical field of display sharing, Banerjee is concerned with a plug-and-play interface device for sharing screen display data among computers. (See e.g., Banerjee at paragraph [0009].)

In the same technical field of display sharing, Epstein is concerned with "sharing information in a collaborative workspace." (See e.g., Epstein at Title.)

Therefore, it is obvious for a person of ordinary skill in the art to combine Kita, Banerjee, and Epstein. The combination of Kita with the similar function of Banerjee and Epstein, which all are in the field of sharing computer displays and information, is a "predictable variation" or a "combination of familiar elements according to known methods .... [that] does no more than yield predictable results," and such combination is obvious under *KSR International Co. v. Teleflex Inc.,* 550 U.S. 398, 415-16, 82.

Claim charts mapping the teachings of the applied references to the elements of claims 12-20 are attached hereto as Exhibit 7 and incorporated herein by reference.

Independent claim 12

- **A method for communicating arbitrary media content from users at a meeting comprising:**

  operating a display node of a communications network, the display node being coupled to a first display, to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display; and

With respect to the substantial new question of patentability of the '348 patent, Kita teaches "operating a display node of a communications network, the display node being coupled to a first display, to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display" as recited by independent claim 12 of the '348 patent.

For example, Kita teaches "CARD TYPE NETWORK INTERFACE, ***NETWORK CONFERENCE TERMINAL DEVICE AND NETWORK CONFERENCE SYSTEM***." (*Kita* at the Title) (emphasis added). Figure 5 of Kita shows:

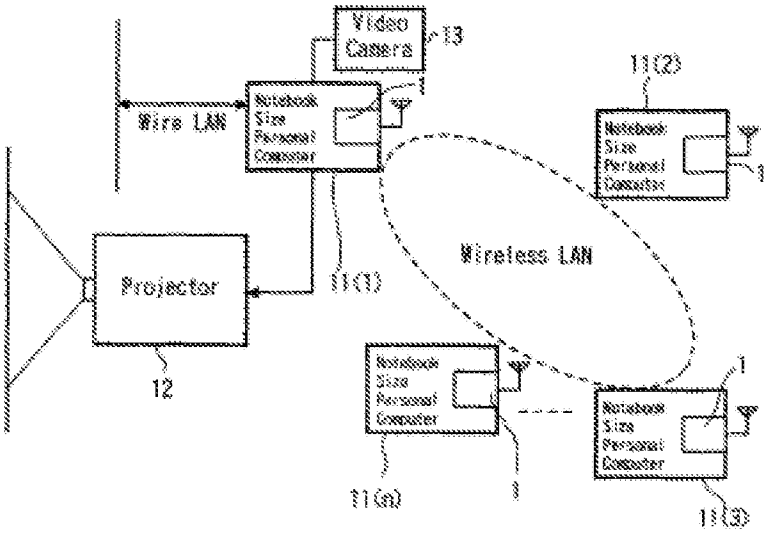


FIG. 5 shows an example of an arrangement of ***a network conference terminal device (wireless LAN conference terminal device)*** according to the present invention and an example of an overall arrangement of a network conference system (wireless LAN conference system) according to the present invention.

This wireless LAN conference system is comprised of a plurality of (e.g., about 30 to 50) wireless LAN conference terminal devices 11 (11 (1) to 11 (n)), ***a projector*** 12 and a video camera 13. (*Kita* at page 23, lines 19 – 26)(emphasis added).

As such, Kita teaches a communication network (see Figure 5), and a display node (see e.g., wireless LAN conference terminal device 11(1)) being coupled to a first display (see e.g., projector 12).

- **connecting a peripheral device to a port of a processing device and communicating the user selected arbitrary media content via the communications network**

Further with respect to the substantial new question of patentability of the '348 patent, Kita teaches "connecting a peripheral device to a port of a processing device and communicating the user selected arbitrary media content via the communications network," as recited by independent claim 12 of the '348 patent.

For example, Kita further teaches:

> FIG. 3 shows an example of an outward appearance and an arrangement of a network interface card, to which the present invention is applied, together with a notebook size personal computer to which this network interface card can be attached. This network interface card 1 has a shape and a dimension based on a type 2 or a type 3 of the standards of the PCMCIA. *A notebook size personal computer 2 includes a personal computer* ***card slot 2a into which there can be inserted the network interface card 1.*** (*Kita* at page 21, lines 1 – 8) (emphasis added).

As such, Kita teaches connecting a peripheral device to a port of a processing device (see e.g., "*a personal computer* ***card slot 2a***") and communicating the user selected arbitrary media content via the communications network.

- **loading a program onto the processing device and running the program on the operating system of the processing device to obtain user selected arbitrary media content, said program leaving a zero footprint on termination**

Further with respect to the substantial new question of patentability of the '348 patent, Kita teaches "loading a program onto the processing device and running the program on the operating system of the processing device to obtain user selected arbitrary media content," as recited by independent claim 12 of the '348 patent.

For example, Kita teaches:

> As the features of the present invention, ***the flash ROM 9 stores therein the following microprograms (1) to (4).*** Contents processed by the programs. (1) to (3) will be described in the examples of operations of a host and a client of a network conference system as will be described later on.
>
> (1): A program which has described processing for enabling the personal computer having the network interface card 1 to function as a host for managing the wireless LAN (hereinafter referred to as a "host program") .
>
> (2): A program which has described processing for enabling the personal computer having the network interface card 1 to function as a client using the wireless LAN under management of the host (hereinafter referred to as a "client program").

(3): A program which has described processing for deciding whether the host program or the client program should be executed (hereinafter referred to as a "host/client decision program).

(4): *Presentation application software (program which has described processing for displaying and controlling presentation data such as images and graphical. This application software contains graphic viewer which is software for displaying images, software for creating, displaying and controlling graphica*l (e.g., "Microsoft PowerPoint" manufactured by Microsoft, "Microsoft" and "PowerPoint" are registered trademarks of Microsoft) and WWW browser which is software used to access WWW server on the Internet to display images of Web pages and the like. Kita at page 22, line 19 – page 23, line 17 (emphasis added).

"FIG. 12 shows a procedure of operations that should be executed by the participants of the conference in order to execute the network setting of the clients 11 (2) to 11 (n). ***When the network interface card 1 is attached to the notebook size personal computer and the operating system of the notebook size personal computer is*** activated (the network interface card 1 may be attached to the notebook size personal computer after the operating system of the notebook size personal computer has been activated), the network setting is automatically executed by the processings shown in FIGS. 7 and ***8***. Accordingly, ,as is clear from the contrast with FIG. 2 which shows the conventional network interface card, the network setting of the clients 11 (2) to 11 (n) as the assumption that the participants are to attend the wireless LAN can be carried out without imposing a burden on the participants of the conference." (*Kita* at page 33, lines 19 – line 23) (emphasis added).

As such, Kita teaches loading a program (see e.g., microprograms (1) – (4)) onto the processing device and running the program on the operating system of the processing device to obtain user selected arbitrary media content (see, e.g., "the operating system of the notebook size personal computer"; "(4): [p]resentation application software (program which has described processing for displaying and controlling presentation data such as images and graphical.")

To the extent that Kita does not explicitly teach *said program leaving a zero footprint on termination,* Banerjee teaches "loading a program onto the processing device and running the program on the operating system of the processing device to obtain user selected arbitrary media

content, said program leaving a zero footprint on termination," as recited by independent claim 1 of the '348 patent.

For example, Banerjee teaches:

> The autorun.inf file contains a pointer to the executable launcher application, LinQLauncher.exe stored in the storage 276. Upon parsing the autorun.inf file, ***the remote computer 240 uses the pointer to load a LinQ software application from the storage 276 (step 328). The LinQI_auncher.exe application directs the remote computer 240 to copy all necessary files of the LinQ software application from storage 276 to a temporary directory on the remote computer 240 and then start the LinQ software application (step 332). The LinQ software application is used for setting up and managing the peer-to-peer wireless connection on the remote computer 240, screen sharing and communications between the remote computer 240 and the master computer 238***.
>
> Upon launch, ***the LinQ software application loads the necessary driver for the wireless transceiver 260, configures the wireless transceiver 260, finds the master computer 238 and establishes the peer-to-peer wireless connection between the LinQ software application and the mobile device manager application running on the master computer 238 (step 337).*** The LinQ software application, which manages the peer-to-peer wireless connection on the remote computer 240, then reads the access codes, biometrics or keys from the storage 276. The access codes, biometrics or keys are in turn exchanged with the master computer 238 and used as a parameter to create a secure authenticated and encrypted peer-to-peer wireless connection. The mobile device manager application running on the master computer 238 manages the peer-to-peer wireless connection on the master computer 238. In cases where multiple systems 220 may be operating, an ad-hoc network identifier may be necessary to allow the plug-and-play device 236 to determine the appropriate network to which to connect. In such cases, the ad-hoc network identifier is configured to be read from storage 276 in similar manner to the access codes, biometrics or keys.
>
> Once the remote computer 240 is connected to the master computer 238 over the peer-to-peer wireless connection, ***the remote computer 240 may send a request to share the screen display data of the remote computer 240 to the master computer 238.*** If a request to share the screen display data is sent to the master computer 238 and accepted, the screen display data displayed on the remote computer 240 is compressed using a suitable compression algorithm such as for example MJPEG compression. The compressed screen display data is then compared with previous screen display data sent to the master computer 238 in the same peer-to-peer wireless connection session to detect differences in the screen display data. The detected differences are then sent to the master computer 238 via the peer-to-peer wireless connection and displayed on the screen of the

> master computer 238. The master computer 238 passes input events, such as keyboard, mouse, trackball and/or pen-touch events, that it receives to the remote computer 240 thereby to remotely control the remote computer 240 (step 339). As will be appreciated, by compressing the screen display data of the remote computer 240, the time required to transmit the screen display data to the master computer 238 is reduced. Also, compressing the screen display data and only transmitting differences between screen display data, reduces the amount of screen display data that needs to be transmitted to the master computer 238 during screen sharing. This of course reduces the required transmission bandwidth required for screen sharing and thus, decreases latency. (*Banerjee* at paragraphs [0046-0048]) (emphasis added).
>
> Upon termination of the session between the remote computer 240 and the master computer 238, the plug-and-play device 236 can be unplugged from the remote computer 240 and removed. When the plug-and-play device 236 is disconnected from the remote computer 240, the remote computer 240 notifies the LinQLauncher.exe application (step 344). ***The LinQLauncher.exe application in turn stops the screen sharing, disconnects the peer-to-peer wireless connection with the master computer 238, terminates the execution of the LJnQ software application, deletes the files in the temporary directory on the remote computer 240 that were copied from the storage 276***, and then terminates the execution of itself (step 348). Those skilled in the art will appreciate that other clean up tasks, such as removing items in the system registry that were written by the LJnQ software application when it was launched may also be performed upon the disconnection of the plug-and-play device 236 from the remote computer 240. (*Banerjee* at paragraph [0051]) (emphasis added).

As such, Banerjee teaches loading a program onto the processing device (see e.g., "the remote computer 240 uses the pointer to load a LinQ software application from the storage 276 (step 328)") and running the program on the operating system of the processing device to obtain user selected arbitrary media content (see e.g., "the LinQ software application loads the necessary driver for the wireless transceiver 260, configures the wireless transceiver 260, finds the master computer 238 and establishes the peer-to-peer wireless connection between the LinQ software application and the mobile device manager application running on the master computer 238 (step 337)", "the remote computer 240 may send a request to share the screen display data of the remote computer 240 to the master computer 238), said program leaving a zero footprint on termination (see e.g., "the LinQLauncher.exe application in turn, . . ., deletes the files in the

temporary directory on the remote computer 240 that were copied from the storage 276"), as recited in independent claim 1.

- **triggering transfer of said user selected arbitrary media content to said transmitter through said port after a user action on an input device.**

Further with respect to the substantial new question of patentability of the '348 patent, Kita teaches "triggering transfer of said user selected arbitrary media content to said transmitter through said port after a user action on an input device," as recited by independent claim 12 of the '348 patent.

For example, Kita teaches:

> FIG. 1 shows a personal computer to which a conventional network interface card is connected and to which reference will be made in explaining a function of a portion used to execute this network setting. In the operating system (e.g., Windows 95 or Windows 98 ("Windows" is a registered trademark)) of personal computer, there is supported a network function. *This network function contains a function which displays a network setting picture to execute a network setting* ***based on user's input operations***. (Kita at page 1, line 23 – page 2, line 7) (emphasis added). See also Kita (at FIG. 3) shows a notebook computer including input devices (e.g., keyboard and touch pad) for carrying out user input actions.
>
> FIG. 4 shows an example of a circuit arrangement of this network interface card 1. The *network interface card 1 includes a PCMCIA interface 3*, a network interface 4, an RF modulator 5, an RF demodulator 6, an antenna 7, a CPU 8, a flash ROM 9 and a RAM 10.
>
> The PCMCIA interface 3 is an interface section which interacts with a personal computer having a PC card slot like the notebook size persona computer 2 shown in FIG. 3. *Through this PCMCIA interface 3,* ***data and commands are transmitted and received between the personal computer having the network interface card 1 and the network interface card 1***. (*Kita* at page 21, lines 10 – 19) (emphasis added).

As such, Kita teaches triggering (see e.g. "to execute a network setting based on user's input operations") transfer of said user selected arbitrary media content to said transmitter through said port (see, e.g., "[t]hrough this PCMCIA interface 3, data and commands are

transmitted and received between the personal computer having the network interface card 1 and the network interface card 1") after a user action on an input device (see, e.g., keyboard and touch pad of the notebook computer, "to execute a network setting based on user's input operations").

To the extent that Kita does not explicitly teach an input device on the peripheral device enabling the user to carry out a user action, Epstein teaches:

> Referring also to FIG. 4, exemplary puck assembly 20 includes ***a puck 48*** *and first and second video/audio cables 50 and 52, respectively. Cable 50 is used to link puck 48 to a computer/laptop audio/video output port or other video source* while cable 52 links puck 48 through a circuitous path to one of the six input ports 17 shown in FIGS. 2 and 3. In at least some embodiments, each cable 52 can be taken up by a take up assembly (not shown) below deck member 21 as an associated puck 48 is moved from a use position on top of top member 26 (see FIG. 4) to a storage position as shown in FIG. 2. For more detail regarding one possible take up assembly, see US patent application Ser. No. 12/250,192 referenced above. As seen in FIG. 4, when a puck 48 is pulled into a use position on top of member 26, cable 52 can pass through gap 43 when door 39 is closed.
>
> Referring still to FIG. 4 and also to FIG. 5, *exemplary* ***puck 48 includes*** *a disc or puck shaped housing 49 that supports a plurality of components including a processor 71, an on/off button 58,* ***first through fourth selectable controls or control buttons 60a-60d***, four illumination devices 73a through 73d and an illumination ring 56. Processor 71 may be a programmable microprocessor or may be configured via digital components. Processor 71 is linked to each of cables 50 and 52 and can sense when cabled 50 is linked to a video/audio source. Processor 50 is also linked to each of buttons 56 and 60a-60d to sense when any of those buttons are selected. Processor 50 is further linked to each of illumination devices 73a through 73d and ring 56 for providing power to and cutting power from each of those devices." (*Epstein* at paragraphs [0051 – 0052]) (emphasis added).
>
> "Following the instructions, as shown in FIG. 10, *a user pulls one of the pucks 48 from the cavity below a door 39 or 41 and links a laptop 69 to the puck 48 via cable 50 (see also FIG. 1). Once a laptop 69 is linked to cable 50, ring 59 as well as selectable buttons 60a-60d are illuminated white (see double crosshatch in FIG. 9) to indicate to the laptop user that the user is linked and can opt to present information from the user's laptop screen via any one or combination of displays 22a-22d corresponding to illuminated buttons 60a-60d,* respectively. Here, the white light ring 56 also indicates that currently the user of puck 48 is not presenting via any of displays 22a-22d.

> Referring to FIG. 11, *when a puck user wants to present information from her laptop 69 display via display screen 22a,* ***the user presses button 60a*** *to indicate intention to drive display 22a. Once button 60a is selected, four things happen. First, information currently displayed via display 22a is replaced by the information from the user's laptop 69 display*. Second, if a different laptop was previously presenting information via display 22a when button 60a is selected, the other user's puck illumination may change. For instance, if the other user was only displaying via display 22a when displaced, the other user's puck's ring 56 will change from green back to white illumination indicating the user is no longer driving any of displays 22a-22d. As another instance, where another user was driving each of displays 22a and 22c when button 60a is selected, the other user's puck ring will remain green after displacement from screen 22a to indicate that the other user is still driving display 22c despite being displaced from display 22a. In addition, in this case, the other user's puck button 60a will be illuminated white after displacement from screen 22a while button 60c will remain green indicating that the other user is still driving display 22c. (*Epstein* at paragraphs [0065 – 0066]) (emphasis added).

As such, Epstein teaches triggering transfer of said user selected arbitrary media content to said transmitter through said port after a user action on an input device (see, e.g., "*first through fourth selectable controls or control buttons 60a-60d*" on a peripheral device "puck 48", "when a puck user wants to present information from her laptop 69 display via display screen 22a, the user presses button 60a to indicate intention to drive display 22a. Once button 60a is selected, four things happen. First, information currently displayed via display 22a is replaced by the information from the user's laptop 69 display.")

Therefore, Kita in view of Banerjee and Epstein teaches all features as recited in claim 1. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the above-described teachings of Kita (a network conference system for sharing display) with the above-described teachings of Banerjee (a plug-and-play interface device for sharing computer displays) with the above-describe teachings of Epstein (personal control apparatus and method for sharing information in a collaborative workspace) because Kita,

Banerjee, and Epstein all pertain to the field of apparatus and methods for sharing computer displays and information.

The combination of Kita with the similar function of Banerjee and Epstein, which all are in the field of sharing computer displays and information, is a "predictable variation" or a "combination of familiar elements according to known methods .... [that] does no more than yield predictable results," and such combination is obvious under *KSR International Co. v. Teleflex Inc.,* 550 U.S. 398, 415-16, 82. Therefore, claim 1 of the '348 patent is unpatentable over Kita in view of Banerjee further in view of Epstein.

Dependent claim 13

- **configuring the peripheral device to connect to the communications network by pairing the peripheral device with the display node**

Claim 13 depends from claim 12. As explained herein above, Kita, Banerjee, and Epstein teach all elements of independent claim 12. Kita further teaches configuring the peripheral device to connect to the communications network by pairing the peripheral device with the display node. (See e.g., *Kita* at page 12, line 14 to page 13, line 21," ***a setting means for requesting a host of this wireless LAN to transmit setting information necessary for setting the network to connect this information terminal device to this wireless LAN based on the fact that the card type network interface is attached to this information terminal device and setting the network by using the setting information transmitted from the host. The host transmits the setting information to the client based on this setting information request and also transmits the presentation data to the client in which the setting of the network was completed***.") (emphasis added).

Dependent claim 14

- **wherein the pairing is performed by plugging the peripheral device into the display node**

Claim 14 depends from claim 13. As explained herein above, Kita, Banerjee, and Epstein teach all elements of claim 13. Kita further teaches that the pairing is performed by plugging the peripheral device into the display node. (See, e.g., Kita page 12, line 14 to page 13, line 21, "*the client is constructed such that* ***a card type network interface is attached to an information terminal device*** *and includes a presentation processing means for displaying and controlling presentation data. This card type network interface includes a connecting means for connecting this information terminal device to the wireless LAN and a setting means for requesting a host of this wireless LAN to transmit setting information necessary for setting the network to connect this information terminal device to this wireless LAN based on the fact that the card type network interface is attached to this information terminal device and setting the network by using the setting information transmitted from the host. The host transmits the setting information to the client based on this setting information request and also transmits the presentation data to the client in which the setting of the network was completed.*") (emphasis added).

Banerjee further teaches that the pairing is performed by plugging the peripheral device into the display node. (See, e.g., Banerjee at paragraph [0041], "[t]he ***wireless communication device 238a and wireless transceiver 260 are paired to enable a peer-to-peer wireless connection between the master computer 238 and the remote computer 240 to be established***. ***The plug-and-play device 236 also comprises an interface 264 in the form of a USB interface to computing device adapter. The interface 264 comprises a port (not shown) to receive a cable segment 268 thereby to enable the physical connection to the remote computer 240 to be made***. Both interfaces 256 and 264 are also in communication with a controller 272 in the form of a USB hub.") (emphasis added).

Dependent claim 15

- **setting up by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device and the processing device**

Claim 15 depends from independent claim 12. As explained herein above, Kita, Banerjee, and Epstein teach all elements of claim 12. Kita further teaches setting up by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device and the processing device. (See e.g., *Kita* at page 8, lines 15 – line 23, "*the card type network interface allows the information terminal device to recognize the card type network interface as the hard disk so that the presentation application software may be automatically activated in the information terminal device*.") (emphasis added).

Banerjee further teaches teaches setting up by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device and the processing device. (See e.g., *Banerjee* at paragraphs [0004], "[m]any ***operating systems possess a number of pre-loaded drivers for generic plug-and-play device classes***, such as USB mass storage, a two-button mouse, etc. ***If the operating system is in possession of a driver for the device class of the plug-and-play device connected to the computer, the computer loads the driver so that the functionality of the plug-and-play device can be accessed by the computer***.") (emphasis added).

Dependent claim 16

- **wherein a pre-installed generic driver is selected from a human interface device driver and a mass storage device driver**

Claim 16 depends from independent claim 12. As explained herein above, Kita, Banerjee, and Epstein teach all elements of claim 12. Kita further teaches that a pre-installed

generic driver is selected from a human interface device driver and a mass storage device driver. (See e.g., *Kita* at page 32, line 24 – page 33, line 3, "*device driver (microprogram stored within the flash ROM 9 shown in FIG. 4) for controlling the network interface card 1 contains the network setting function (the "host program" and the "client program")*) (emphasis added). Thus, Kita teaches a device driver and a mass storage device driver. It is well known at the time of the filing date of the '348 patent that pre-installed drivers of a computer system include a mass storage driver to read a mass storage (e.g., a hard driver, a USB device).

Banerjee further teaches that that a pre-installed generic driver is selected from a human interface device driver and a mass storage device driver. (See e.g., *Banerjee* at paragraph [0028], "the firmware causes the controller 32 to operate in one of two operational modes. In an initial mode, the controller 32 operates two USB profiles, ***namely an absolute mouse human interface device ("HID") profile and a SMARTBoard HID profile***.") (emphasis added).

Dependent claim 17

- **presenting the peripheral device to the processing device as a human interface device,**

Claim 17 depends from independent claim 12. As explained herein above, Kita, Banerjee, and Epstein teach all elements of claim 12. Kita further teaches presenting the peripheral device to the processing device as a human interface device. (See e.g., *Kita* at page 1, line 24 – page 2, line 7, "[i]n the operating system (e.g., Windows 95 or Windows 98 ("Windows" is a registered trademark)) of personal computer, there is supported a network function. *This network function contains a function which displays a network setting picture to execute a network setting* ***based on user's input operations***.") (emphasis added).

- **presenting the peripheral device to the processing device as a mass storage device; and**

Kita teaches presenting the peripheral device to the processing device as a mass storage device. (See e.g., *Kita* at page 8, lines 5 – 7, "[p]resentation application software (program in which a processing for displaying and controlling ***presentation data is written) is stored in this card type network interface***.") (emphasis added).

Banerjee further teaches presenting the peripheral device to the processing device as a mass storage device. (See e.g., *Banerjee* at paragraph [0042], "***The storage 276 is configured to operate in accordance with a mass storage device and defines itself as compact disk read only memory (CD-ROM)***.") (emphasis added).

- **presenting the peripheral device to the processing device as a composite device**

Banerjee further teaches presenting the peripheral device to the processing device as a composite device. (See e.g., *Banerjee* at paragraphs [0035 – 0036], "[t]he calibration settings enable the SMARTBoardTools.exe user application to map touch input generated by ***the touch panel 28 in response to pointer contacts with the touch surface 46 to the display coordinate system of the computer 40***," "*the user is able to interact effectively with the image projected onto the touch surface 46 of the touch panel 28 by the LCD projector 44*," and *Banerjee* at FIG. 5 shows composite interfaces including USB interface to touch panel 256 and storage interface 278, where the USB interface to touch panel is independent from storage interface) (emphasis added).

Dependent claim 18

- **wherein the program is stored on the peripheral device, and which obtains screen scraped data when run on the processing device**

Claim 18 depends from independent claim 12. As explained herein above, Kita, Banerjee, and Epstein teach all elements of claim 12. Kita teaches that the program is stored on the peripheral device. (See e.g., *Kita* at page 8, lines 5 – 7, "[p]resentation application software (program in which a processing for displaying and controlling ***presentation data is written) is stored in this card type network interface***.") (emphasis added).

Banerjee teaches which obtains screen scraped data when run on the processing device. (See e.g., *Banerjee* at paragraph [0046], "***LinQLauncher.exe stored in the storage 276***," and "LinQ software application is used for setting up and managing the peer-to-peer wireless connection on the remote computer 240, *screen sharing and communications between the remote computer 240 and the master computer 238*.") (emphasis added).

Dependent claim 19

- **wherein a generic communication protocol is used for transferring screen scraped data between the processing device and the peripheral device**

Claim 19 depends from claim 17. As explained herein above, Kita, Banerjee, and Epstein teach all elements of claim 17. Banerjee further teaches that a generic communication protocol is used for transferring screen scraped data between the processing device and the peripheral device. (See e.g., *Banerjee* at paragraph [0004], "Many ***operating systems possess a number of pre-loaded drivers for generic plug-and-play device classes***, such as USB mass storage, a two-button mouse, etc. ***If the operating system is in possession of a driver for the device class of the plug-and-play device connected to the computer, the computer loads the driver so that the functionality of the plug-and-play device can be accessed by the computer***. If the operating system does not possess a driver corresponding to the device class of the plug-and-play device,

the operating system typically prompts the user to install the appropriate software to enable the computer to access the functionality of the plug-and-play device")(emphasis added).

Dependent claim 20

- **displaying the user selected arbitrary media content on the first display in accordance with a set of rules**

Claim 20 depends from independent claim 12. As explained herein above, Kita, Banerjee, and Epstein teach all elements of claim 12. Kita further teaches displaying the user selected arbitrary media content on the first display in accordance with a set of rules. (See e.g., *Kita* at page 12, line 14 – page 13, line 4, "*a presentation processing means for* ***displaying and controlling presentation data***.") (emphasis added). Thus, Kita teaches *displaying and controlling presentation data* on a display. Epstein further teaches displaying in accordance with a set of rules. (See e.g., *Epstein* at paragraphs [0066 – 0067], teaches a set of four rules, "***First****, information currently displayed via display 22a is replaced by the information from the user's laptop 69 display.* ***Second****, if a different laptop was previously presenting information via display 22a when button 60a is selected, the other user's puck illumination may change.*" "***Third****, to indicate that the user of puck 48 in FIG. 10 is now driving at least one of displays 22a-22d, ring 56 on puck 48 changes from white to green (see single cross hatch ring in FIG. 10).* ***Fourth****, to let the puck user know which displays 22a-22d she is currently driving, button 60a illumination changes from white to green. Here, other buttons 60b-60d that were not selected remain white (i.e., they are shown as double cross hatched).*") (emphasis added).

C. (SNQ3). Claims 1-11 of the '348 patent are obvious under pre-AIA 35 U.S.C. §103(a) over Banerjee in view of Epstein

Banerjee and Epstein raise a substantial new question of patentability with respect to claims 1-11 of the '348 patent because Banerjee and Epstein, while pertaining to the same technical field, teach all of the elements of each of claims 1-11. The motivation to combine the references may be found in and/or inferred from the teachings of Banerjee and/or Epstein.

"The rationale to modify or combine the prior art does not have to be expressly stated in the prior art; **the rationale may be expressly or impliedly contained in the prior art** or it may be reasoned from knowledge generally available to one of ordinary skill in the art, established scientific principles, or legal precedent established by prior case law. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992) quoted by MPEP §2144 (emphasis added).

Banerjee is concerned with a plug-and-play interface device for sharing screen display data among computers. (See e.g., Banerjee at paragraph [0009].)

In the same technical field of display sharing, Epstein is concerned with "sharing information in a collaborative workspace." (See e.g., Epstein at Title.)

Therefore, it is obvious for a person of ordinary skill in the art to combine Banerjee and Epstein. The combination of Banerjee with the similar function of Epstein, which all are in the field of sharing computer displays and information, is a "predictable variation" or a "combination of familiar elements according to known methods .... [that] does no more than yield predictable results," and such combination is obvious under *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398, 415-16, 82.

Claim charts mapping the teachings of the applied references to the elements of claims 1-11 are attached hereto as Exhibit 8 and incorporated herein by reference.

Independent claim 1

- **An electronic meeting tool for communicating arbitrary media content from users at a meeting comprising:**

  a node configuration arranged to operate a display node of a communications network, the display node being coupled to a first display

With respect to the substantial new question of patentability of the '348 patent, Banerjee teaches "a node configuration arranged to operate a display node of a communications network, the display node being coupled to a first display," as recited by independent claim 1 of the '348 patent.

For example, Banerjee states:

> Turning now to Figure 4, another system or network 220 of operatively connected components is shown. As can be seen, *system 220 comprises a plug-and-play device 236, **a master computer 238*** and at least one remote computer 240. *The plug-and-play device 236 is physically connected to the remote computer 240 and **communicates with the master computer 238 over a wireless communications link***. In this embodiment, plug-and-play device 236 captures and compresses screen display data generated at the remote computer 240 and allows screen sharing between the remote computer 240 and the master computer 238 by automatically launching software stored on the plug-and-play device 236. (*Banerjee* at paragraph [0039]) (emphasis added).

> Similar to the embodiment of Figure 3, if desired, the master computer 238 can be connected to an interactive input system 228 of one of the types described previously as shown in Figure 7. In this case, *shared screen display data received by the master computer 238 can be presented on the touch surface 246 of the interactive input system 228 via a **projection device 244*** that is connected to the master computer 238 by a physical cable 248 allowing a user to interact with the shared screen display data through pointer contacts with the touch surface 246. (*Banerjee* at paragraph [0054]) (emphasis added).

As such, Banerjee teaches a network configuration ("network 220"), and a display node (see e.g., "master computer 238") being coupled to a first display (see e.g., "a projection device 214").

- **the node configuration further being arranged to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display**

Further with respect to the substantial new question of patentability of the '348 patent, Banerjee teaches "the node configuration further being arranged to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display," as recited by independent claim 1 of the '348 patent.

For example, Banerjee teaches:

> Similar to the embodiment of Figure 3, if desired, the master computer 238 can be connected to an interactive input system 228 of one of the types described previously as shown in Figure 7. In this case, *shared screen display data received by the master computer 238 can be presented on the touch surface 246 of the interactive input system 228 via a* ***projection device 244*** that is connected to the master computer 238 by a physical cable 248 allowing a user to interact with the shared screen display data through pointer contacts with the touch surface 246. (*Banerjee* at paragraph [0054]) (emphasis added).

As such, Banerjee the node configuration further being arranged to receive user selected arbitrary media content (see e.g., *"shared screen display data received by the master computer 238*") and to control display of the user selected arbitrary media content on the first display (see, e.g., "allowing a user to interact with the shared screen display data through pointer contacts with the touch surface 246") (emphasis added).

- **at least one peripheral device configured to communicate the user selected arbitrary media content via the communications network, wherein the peripheral device is a connection unit comprising:**

  (a) a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system; and

  (b) a transmitter arranged to communicate with the communications network,

Further with respect to the substantial new question of patentability of the '348 patent, Banerjee teaches "at least one peripheral device configured to communicate the user selected arbitrary media content via the communications network, wherein the peripheral device is a connection unit comprising: (a) a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system; and (b) a transmitter arranged to communicate with the communications network," as recited by independent claim 1 of the '348 patent.

For example, Banerjee further teaches:

> The components of the plug-and-play device 236 are better illustrated in Figure 5. As can be seen, *the plug-and-play device 236 comprises an interface 256 in the form of a USB interface to wireless communication device adapter connected to* ***a wireless transceiver 260***. Similar to wireless communication device 238a, the wireless *transceiver 260 is, for example, an RF communication device such as a Bluetooth™, WiFi or other RF adapter, or an infrared (IR) communication device. The wireless communication device 238a and wireless transceiver 260 are paired to enable a peer-to-peer wireless connection between the master computer 238 and the remote computer 240 to be established.* The plug-and-play device 236 also comprises an interface 264 in the form of a USB interface to computing device adapter. *The interface 264 comprises a port (not shown) to receive a* ***cable segment 268 thereby to enable the physical connection to the remote computer 240 to be made***. Both interfaces 256 and 264 are also in communication with a controller 272 in the form of a USB hub. (*Banerjee* at paragraph [0041]) (emphasis added).

As such, Banerjee teaches peripheral device (see e.g., "the plug-and-play device 236") arranged to couple to a port of a processing device (see e.g., "***cable segment 268 thereby to enable the physical connection to the remote computer 240 to be made***") having a second display, a memory and an operating system (Note: a personal computer is commonly known to have a display, a memory, and an operating system); and (b) a transmitter (see e.g., ***"a wireless transceiver 260***") arranged to communicate with the communications network.

- **a program configured to be loaded onto the processing device and to run on the operating system of the processing device,**

  said program being arranged to obtain user selected arbitrary media content, said program leaving a zero footprint on termination,

Further with respect to the substantial new question of patentability of the '348 patent, Banerjee teaches "a program configured to be loaded onto the processing device and to run on the operating system of the processing device, said program being arranged to obtain user selected arbitrary media content, said program leaving a zero footprint on termination," as recited by independent claim 1 of the '348 patent.

For example, Banerjee teaches:

> Controller 272 also communicates with ***storage 276 that is configured to store and automatically launch software applications thereon via an autorun feature that the operating system of the remote computer 240 supports***. Similar to the previous embodiment, storage 276 is flash memory, solid-state memory or other non-volatile computer memory. The storage 276 is configured to operate in accordance with a mass storage device and defines itself as compact disk read only memory (CD-ROM). *Storage 276 stores an executable launcher application, LinQLauncher.exe and may also store one or more access codes, biometrics or keys to automatically form a secure encrypted and authenticated wireless network connection with the master computer 238.*
>
> The operation of the system 220, when a peer-to-peer wireless connection between the master computer 238 and the remote computer 240 is established, will now be described with particular reference to Figure 6. *When the plug-and-*

play device 236 is physically connected to the remote computer 240 via the cable segment 268 (step 304) and the connection of the plug-and-play device 236 is detected by the operating system of the remote computer 240, the remote computer 240 queries the plug-and-play device 236 to determine what functionality is provided by the plug-and-play device 236 (step 308). In particular, the controller 272 queries the wireless transceiver 260 and the storage 276 to determine what profiles or connections are available. In this embodiment, the storage 276 responds by indicating that it supports the mass storage device and the wireless transceiver 260 responds by indicating its device type, interface profile and other parameters such as for example wireless network protocol, wireless network speed, encryption keys, biometrics, etc. The plug-and-play device 236 then returns the determined functionality information to the remote computer 240. (*Banerjee* at paragraphs [0041-0042]) (emphasis added).

The autorun.inf file contains a pointer to the executable launcher application, LinQLauncher.exe stored in the storage 276. Upon parsing the autorun.inf file, ***the remote computer 240 uses the pointer to load a LinQ software application from the storage 276 (step 328). The LinQI_auncher.exe application directs the remote computer 240 to copy all necessary files of the LinQ software application from storage 276 to a temporary directory on the remote computer 240 and then start the LinQ software application (step 332). The LinQ software application is used for setting up and managing the peer-to-peer wireless connection on the remote computer 240, screen sharing and communications between the remote computer 240 and the master computer 238***.

Upon launch, ***the LinQ software application loads the necessary driver for the wireless transceiver 260, configures the wireless transceiver 260, finds the master computer 238 and establishes the peer-to-peer wireless connection between the LinQ software application and the mobile device manager application running on the master computer 238 (step 337).*** The LinQ software application, which manages the peer-to-peer wireless connection on the remote computer 240, then reads the access codes, biometrics or keys from the storage 276. The access codes, biometrics or keys are in turn exchanged with the master computer 238 and used as a parameter to create a secure authenticated and encrypted peer-to-peer wireless connection. The mobile device manager application running on the master computer 238 manages the peer-to-peer wireless connection on the master computer 238. In cases where multiple systems 220 may be operating, an ad-hoc network identifier may be necessary to allow the plug-and-play device 236 to determine the appropriate network to which to connect. In such cases, the ad-hoc network identifier is configured to be read from storage 276 in similar manner to the access codes, biometrics or keys.

Once the remote computer 240 is connected to the master computer 238 over the peer-to-peer wireless connection, ***the remote computer 240 may send a request to share the screen display data of the remote computer 240 to the***

master computer 238. If a request to share the screen display data is sent to the master computer 238 and accepted, the screen display data displayed on the remote computer 240 is compressed using a suitable compression algorithm such as for example MJPEG compression. The compressed screen display data is then compared with previous screen display data sent to the master computer 238 in the same peer-to-peer wireless connection session to detect differences in the screen display data. The detected differences are then sent to the master computer 238 via the peer-to-peer wireless connection and displayed on the screen of the master computer 238. The master computer 238 passes input events, such as keyboard, mouse, trackball and/or pen-touch events, that it receives to the remote computer 240 thereby to remotely control the remote computer 240 (step 339). As will be appreciated, by compressing the screen display data of the remote computer 240, the time required to transmit the screen display data to the master computer 238 is reduced. Also, compressing the screen display data and only transmitting differences between screen display data, reduces the amount of screen display data that needs to be transmitted to the master computer 238 during screen sharing. This of course reduces the required transmission bandwidth required for screen sharing and thus, decreases latency. (*Banerjee* at paragraphs [0046-0048]) (emphasis added).

Upon termination of the session between the remote computer 240 and the master computer 238, the plug-and-play device 236 can be unplugged from the remote computer 240 and removed. When the plug-and-play device 236 is disconnected from the remote computer 240, the remote computer 240 notifies the LinQLauncher.exe application (step 344). ***The LinQLauncher.exe application in turn stops the screen sharing, disconnects the peer-to-peer wireless connection with the master computer 238, terminates the execution of the LJnQ software application, deletes the files in the temporary directory on the remote computer 240 that were copied from the storage 276***, and then terminates the execution of itself (step 348). Those skilled in the art will appreciate that other clean up tasks, such as removing items in the system registry that were written by the LJnQ software application when it was launched may also be performed upon the disconnection of the plug-and-play device 236 from the remote computer 240. (*Banerjee* at paragraph [0051]) (emphasis added).

As such, Banerjee teaches a program configured to be loaded onto the processing device (see e.g., "the remote computer 240 uses the pointer to load a LinQ software application from the storage 276 (step 328)") and to run on the operating system of the processing device (see e.g., "the LinQ software application loads the necessary driver for the wireless transceiver 260, configures the wireless transceiver 260, finds the master computer 238 and establishes the peer-to-peer wireless connection between the LinQ software application and the mobile device

manager application running on the master computer 238 (step 337)"), said program being arranged to obtain user selected arbitrary media content (see e.g., "the remote computer 240 may send a request to share the screen display data of the remote computer 240 to the master computer 238"), said program leaving a zero footprint on termination (see e.g., "the LinQLauncher.exe application in turn, . . ., deletes the files in the temporary directory on the remote computer 240 that were copied from the storage 276"), as recited in independent claim 1.

- **an input device enabling the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port.**

Further with respect to the substantial new question of patentability of the '348 patent, Banerjee teaches "an input device enabling the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port," as recited by independent claim 1 of the '348 patent.

For example, Banerjee teaches:

> Turning now to Figure 1, a system or network 20 of operatively connected components is illustrated. As can be seen, system 20 comprises a plug-and-play (PnP) device 24 for receiving and digitizing input. In this embodiment, the *plug-and-play device 24 comprises an interactive input system that includes* ***a touch panel 28***, a controller 32 and a cable 36. *Touch panel 28 may be of the type employing analog resistive* or machine vision technology to register pointer input such as those disclosed in U.S. Patent Nos. 5,448,263; 6,141,000; 6,337,681; 6,747,636; 6,803,906; 7,232,986; 7,236,162; and 7,274,356 and in U.S. Patent Application Publication No. 2004/0179001 assigned to SMART Technologies ULC of Calgary, Alberta, Canada, assignee of the subject application, the contents of which are incorporated by reference. *Alternatively, touch panel 28 may be of the type employing electromagnetic, capacitive, acoustic or other technologies to register pointer input*. The controller 32 controls the operation of the touch panel 28 and is in communication with a computer 40 via the cable 36. The computer 40 is also connected to a projection unit 44 such as for example, a liquid crystal display (LCD) projector, via a video graphics array (VGA) cable 48 and controls the LCD projector 44. In response to image data received from the computer 40, the LCD projector 44 projects images onto a touch surface 46 of the touch panel 28. The LCD projector 44 may be positioned in front of or behind the touch panel 28.

> ***The touch panel 28 provides a user with the ability to interact with the image projected onto the touch surface 46 of the touch panel 28 and inject input into an application program running on the computer 40 using an active pointer*** *(e.g. a pointer that emits light, sound or other signal) or a passive pointer (e.g. a finger, cylinder or other object).* Although the touch panel 28 requires no extra software other than that provided by the operating system of the computer 40 in order to work as a mouse, the functionality of the touch panel 28 can be greatly enhanced by additional software not available on the operating system of the computer 40, as will be described below. (*Banerjee* at paragraphs [0026-0027]) (emphasis added).

As such, Banerjee teaches an input device (see, e.g., "a touch panel 28") enabling the user to carry out a user action, that triggers transfer of said user selected arbitrary media content to said transmitter through said port (see e.g. "***The touch panel 28 provides a user with the ability to interact with the image projected onto the touch surface 46 of the touch panel 28 and inject input into an application program running on the computer 40 using an active pointer***")

To the extent that Banerjee does not explicitly teach an input device coupled to the peripheral device enabling the user to carry out a user action, that triggers transfer of said user selected arbitrary media content to said transmitter through said port, Epstein teaches:

> Referring also to FIG. 4, exemplary puck assembly 20 includes ***a puck 48*** *and first and second video/audio cables 50 and 52, respectively. Cable 50 is used to link puck 48 to a computer/laptop audio/video output port or other video source* while cable 52 links puck 48 through a circuitous path to one of the six input ports 17 shown in FIGS. 2 and 3. In at least some embodiments, each cable 52 can be taken up by a take up assembly (not shown) below deck member 21 as an associated puck 48 is moved from a use position on top of top member 26 (see FIG. 4) to a storage position as shown in FIG. 2. For more detail regarding one possible take up assembly, see US patent application Ser. No. 12/250,192 referenced above. As seen in FIG. 4, when a puck 48 is pulled into a use position on top of member 26, cable 52 can pass through gap 43 when door 39 is closed.
>
> Referring still to FIG. 4 and also to FIG. 5, *exemplary* ***puck 48 includes*** *a disc or puck shaped housing 49 that supports a plurality of components including a processor 71, an on/off button 58,* ***first through fourth selectable controls or control buttons 60a-60d***, four illumination devices 73a through 73d and an illumination ring 56. Processor 71 may be a programmable microprocessor or may be configured via digital components. Processor 71 is linked to each of

cables 50 and 52 and can sense when cabled 50 is linked to a video/audio source. Processor 50 is also linked to each of buttons 56 and 60a-60d to sense when any of those buttons are selected. Processor 50 is further linked to each of illumination devices 73a through 73d and ring 56 for providing power to and cutting power from each of those devices." (*Epstein* at paragraphs [0051 – 0052]) (emphasis added).

"Following the instructions, as shown in FIG. 10, *a user pulls one of the pucks 48 from the cavity below a door 39 or 41 and links a laptop 69 to the puck 48 via cable 50 (see also FIG. 1). Once a laptop 69 is linked to cable 50, ring 59 as well as selectable buttons 60a-60d are illuminated white (see double crosshatch in FIG. 9) to indicate to the laptop user that the user is linked and can opt to present information from the user's laptop screen via any one or combination of displays 22a-22d corresponding to illuminated buttons 60a-60d*, respectively. Here, the white light ring 56 also indicates that currently the user of puck 48 is not presenting via any of displays 22a-22d.

Referring to FIG. 11, *when a puck user wants to present information from her laptop 69 display via display screen 22a,* ***the user presses button 60a*** *to indicate intention to drive display 22a. Once button 60a is selected, four things happen. First, information currently displayed via display 22a is replaced by the information from the user's laptop 69 display*. Second, if a different laptop was previously presenting information via display 22a when button 60a is selected, the other user's puck illumination may change. For instance, if the other user was only displaying via display 22a when displaced, the other user's puck's ring 56 will change from green back to white illumination indicating the user is no longer driving any of displays 22a-22d. As another instance, where another user was driving each of displays 22a and 22c when button 60a is selected, the other user's puck ring will remain green after displacement from screen 22a to indicate that the other user is still driving display 22c despite being displaced from display 22a. In addition, in this case, the other user's puck button 60a will be illuminated white after displacement from screen 22a while button 60c will remain green indicating that the other user is still driving display 22c. (*Epstein* at paragraphs [0065 – 0066]) (emphasis added).

As such, Epstein teaches an input device (see, e.g., "*first through fourth selectable controls or control buttons 60a-60d*" on a peripheral device "puck 48") enabling the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port (see, e.g., "when a puck user wants to present information from her laptop 69 display via display screen 22a, the user presses button 60a to indicate intention to drive

display 22a. Once button 60a is selected, four things happen. First, information currently displayed via display 22a is replaced by the information from the user's laptop 69 display.")

Therefore, Banerjee in view of Epstein teaches all features as recited in claim 1. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the above-described teachings of Banerjee (a plug-and-play interface device for sharing computer displays) with the above-describe teachings of Epstein (personal control apparatus and method for sharing information in a collaborative workspace) because Banerjee and Epstein all pertain to the field of apparatus and methods for sharing computer displays and information.

Dependent claim 2

- **wherein the program is stored on the peripheral device.**

Claim 2 depends from claim 1. As explained herein above, Banerjee and Epstein teach all elements of independent claim 1. Banerjee further teaches that the program is stored on the peripheral device. (See e.g., *Banerjee* at paragraph [0042], "***storage 276 that is configured to store and automatically launch software applications thereon via an autorun feature that the operating system of the remote computer 240 supports***.") (emphasis added).

Dependent claim 3

- **wherein the transmitter is a wireless transmitter or transceiver**

Claim 3 depends from claim 1. As explained herein above, Banerjee and Epstein teach all elements of independent claim 1. Banerjee further teaches that the transmitter is a wireless transmitter or transceiver. (See e.g., *Banerjee* at paragraph [0042], "***a wireless transceiver 260***.") (emphasis added).

Dependent claim 4

- **wherein the peripheral device is a plug-and-play device.**

Claim 4 depends from claim 1. As explained herein above, Banerjee and Epstein teach all elements of independent claim 1. Banerjee further teaches that the peripheral device is a plug-and-play device. (See e.g., *Banerjee* at Title, "***PLUG-AND-PLAY*** INTERFACE DEVICE") (emphasis added).

Dependent claim 5

- **wherein the program is arranged to screen scrape content of the second display.**

Claim 5 depends from claim 1. As explained herein above, Banerjee and Epstein teach all elements of independent claim 1. Banerjee further teaches that the program is arranged to screen scrape content of the second display. (See e.g., *Banerjee* at paragraph [0039], "*plug-and-play device 236* ***captures and compresses screen display data generated at the remote computer 240 and allows screen sharing*** *between the remote computer 240 and the master computer 238* by automatically launching software stored on the plug-and-play device 236.") (emphasis added).

Further, the applicant of the '348 patent admitted that Slobodin (*US 2002/0196378*) teaches screen scraping, (see, the '348 patent at col. 11, lines 32-36, "`Screen scraping' in our sense refers to reading the video frame buffers and processing them, rather than just rendering them on a display. Screen scraping for presentations is described in US2002/0196378 to Slobodin et al which is included herein by reference.")

Dependent claim 6

- **wherein the input device is physical actuator coupled to the peripheral device.**

Claim 6 depends from claim 1. As explained herein above, Banerjee and Epstein teach all elements of independent claim 1. Epstein further teaches that the input device is physical actuator coupled to the peripheral device. (See e.g., *Epstein* at paragraphs [0051-0052], "*exemplary **puck 48 includes** a disc or puck shaped housing 49 that supports a plurality of components including a processor 71, an on/off button 58, **first through fourth selectable controls or control buttons 60a-60d***,.") (emphasis added).

Dependent claim 7

- **wherein the physical actuator has a surface area of between 100 and 14,400 square mm.**

Claim 7 depends from claim 6. As explained herein above, Banerjee and Epstein teach all elements of claim 6. Claim 7 is obvious because claim 7 merely recites relative dimensions of the claimed device. (See MPEP 2144.04 (IV)(A) "Changes in Size/Proportion" (In *Gardnerv.TEC Syst., Inc.,* 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied,* 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.)

Dependent claim 8

- **wherein the input device is a key displayed on the second display.**

Claim 8 depends from claim 1. As explained herein above, Banerjee and Epstein teach all elements of independent claim 1. Banerjee further teaches that the input device is a key displayed on the second display. (See e.g., *Banerjee* at paragraph [0035], "*[t]hese applets provide **a floating window of toolbuttons for accessing various functionality, an on-screen keyboard***.") (emphasis

added). Epstein further teaches that the input device is a key displayed on the second display. (See e.g., Epstein at paragraph [0072], "*the widget 48a will have an appearance similar to the appearance of interface 60 and button 58 where* ***different widget areas corresponding to buttons 60a-60d and 58 will be selectable via a mouse controlled cursor or touch (in the case of a touch sensitive display) for selection***.")(emphasis added).

Dependent claim 9

- **wherein the key displayed on the second display is not screen scraped by the program.**

Claim 9 depends from claim 8. As explained herein above, Banerjee and Epstein teach all elements of claim 8. Banerjee further teaches that the key displayed on the second display is not screen scraped by the program. (See e.g., *Banerjee* at paragraph [0035], *"[t]hese applets provide a floating window of toolbuttons for accessing various functionality, an on-screen keyboard, etc. These* ***layout and menu settings are stored in XML files*** *in the storage 76 of the plug-and-play device 24, and are loaded and saved in a directory*.") (emphasis added). As the floating window of toolbuttons is generated from XML files, these toolbuttons are not screen scraped.

Dependent claim 10

- **wherein the peripheral device comprises a memory in which executable software code is stored for execution on the processing device, said executable software code comprising:**

Claim 10 depends from independent claim 1. As explained herein above, Banerjee and Epstein teach all elements of claim 1. Banerjee further teaches that the peripheral device comprises a memory in which executable software code is stored for execution on the processing

device. (See e.g., *Banerjee* at paragraph [0035], "Controller 272 also communicates with ***storage 276 that is configured to store and automatically launch software applications thereon via an autorun feature that the operating system of the remote computer 240 supports***. Similar to the previous embodiment, storage 276 is flash memory, solid-state memory or other non-volatile computer memory.") (emphasis added).

- **a first software code portion for setting up, by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device and the processing device;**

Banerjee further teaches a first software code portion for setting up, by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device and the processing device. (See e.g., *Banerjee* at paragraph [0004], "Many ***operating systems possess a number of pre-loaded drivers for generic plug-and-play device classes***, such as USB mass storage, a two-button mouse, etc. ***If the operating system is in possession of a driver for the device class of the plug-and-play device connected to the computer, the computer loads the driver so that the functionality of the plug-and-play device can be accessed by the computer***. If the operating system does not possess a driver corresponding to the device class of the plug-and-play device, the operating system typically prompts the user to install the appropriate software to enable the computer to access the functionality of the plug-and-play device")(emphasis added).

- **a second software code portion for connecting the processing device to the communications network via the peripheral device, the peripheral device having a transceiver;**

Banerjee further teaches a second software code portion for connecting the processing device to the communications network via the peripheral device, the peripheral device having a transceiver. (See e.g., *Banerjee* at paragraph [0010], "***the storage further stores at least one of at least one key, at least one biometric and at least one code that is used to establish the secure wireless connection***") (emphasis added).

- **a third software code portion for screen scraping data from the processing device; and**

Banerjee further teaches a third software code portion for screen scraping data from the processing device. (See e.g., *Banerjee* at paragraph [0039], "*plug-and-play device 236* ***captures and compresses screen display data generated at the remote computer 240 and allows screen sharing*** *between the remote computer 240 and the master computer 238* by automatically launching software stored on the plug-and-play device 236.") (emphasis added).

Further, the applicant of the '348 patent admitted that Slobodin (*US 2002/0196378*) teaches screen scraping, (see, the '348 patent at col. 11, lines 32-36, "`Screen scraping' in our sense refers to reading the video frame buffers and processing them, rather than just rendering them on a display. Screen scraping for presentations is described in US2002/0196378 to Slobodin et al which is included herein by reference.")

- **a fourth software code for routing screen scraped data between the processing device and the communications network over the means for communication;**

Banerjee further teaches a fourth software code for routing screen scraped data between the processing device and the communications network over the means for communication. (See e.g., *Banerjee* at paragraphs [0048], "*The compressed screen display data is then compared with previous screen display data sent to the master computer 238 in the same peer-to-peer wireless*

connection session to detect differences in the screen display data. The ***detected differences are then sent to the master computer 238 via the peer-to-peer wireless connection and displayed on the screen of the master computer 238***," ")(emphasis added).

Banerjee further teaches a fourth software code for routing screen scraped data between the processing device and the communications network over the means for communication. (See e.g., *Banerjee* at paragraph [0043], "The operation of the system 220, when a peer-to-peer wireless connection between the master computer 238 and the remote computer 240 is established, will now be described with particular reference to Figure 6. When the plug-and-play device 236 is physically connected to the remote computer 240 via the cable segment 268 (step 304) and the connection of the plug-and-play device 236 is detected by the operating system of the remote computer 240, the remote computer 240 queries the plug-and-play device 236 to determine what functionality is provided by the plug-and-play device 236 (step 308). In particular, the controller 272 queries the wireless transceiver 260 and the storage 276 to determine what profiles or connections are available. In this embodiment, the storage 276 responds by indicating that it supports the mass storage device and *the wireless transceiver 260 responds by indicating its device type, interface profile and other parameters such as for example* ***wireless network protocol****, wireless network speed, encryption keys, biometrics, etc.* The plug-and-play device 236 then returns the determined functionality information to the remote computer 240.") (emphasis added).

- **wherein the first software code portion is adapted to use a generic communication protocol for transferring the screen scraped data between the processing device and the peripheral device.**

Banerjee further teaches that the first software code portion is adapted to use a generic communication protocol for transferring the screen scraped data between the processing device and the peripheral device. (See e.g., *Banerjee* at paragraph [0048], "*the wireless transceiver 260 responds by indicating its device type, interface profile and other parameters such as for example* ***wireless network protocol****, wireless network speed, encryption keys, biometrics, etc.*")(emphasis added).

Dependent claim 11

- **A non-transitory storage medium storing the first to fourth software code portion of claim 10.**

Claim 11 is obvious for the same reasons as noted above with respect t to claim 10.

D. (SNQ4) Claims 12-20 of the '348 patent are obvious under pre-AIA 35 U.S.C. §103(a) over Banerjee in view of Epstein

Independent claim 12

- **A method for communicating arbitrary media content from users at a meeting comprising:**

operating a display node of a communications network, the display node being coupled to a first display, to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display; and

With respect to the substantial new question of patentability of the '348 patent, Banerjee teaches "operating a display node of a communications network, the display node being coupled to a first display, to receive user selected arbitrary media content and to control display of the

user selected arbitrary media content on the first display" as recited by independent claim 12 of the '348 patent.

Banerjee teaches:

> Turning now to Figure 4, another system or network 220 of operatively connected components is shown. As can be seen, *system 220 comprises a plug-and-play device 236,* ***a master computer 238*** and at least one remote computer 240. *The plug-and-play device 236 is physically connected to the remote computer 240 and* ***communicates with the master computer 238 over a wireless communications link***. In this embodiment, plug-and-play device 236 captures and compresses screen display data generated at the remote computer 240 and allows screen sharing between the remote computer 240 and the master computer 238 by automatically launching software stored on the plug-and-play device 236. (*Banerjee* at paragraph [0039]) (emphasis added).

> Similar to the embodiment of Figure 3, if desired, the master computer 238 can be connected to an interactive input system 228 of one of the types described previously as shown in Figure 7. In this case, *shared screen display data received by the master computer 238 can be presented on the touch surface 246 of the interactive input system 228 via a* ***projection device 244*** that is connected to the master computer 238 by a physical cable 248 allowing a user to interact with the shared screen display data through pointer contacts with the touch surface 246. (*Banerjee* at paragraph [0054]) (emphasis added).

As such, Banerjee teaches a communication network ("***a wireless communications link***"), and a display node ("***a master computer 238***") being coupled to a first display ("*a* ***projection device 244***").

- **connecting a peripheral device to a port of a processing device and communicating the user selected arbitrary media content via the communications network**

Further with respect to the substantial new question of patentability of the '348 patent, Banerjee teaches "connecting a peripheral device to a port of a processing device and communicating the user selected arbitrary media content via the communications network," as recited by independent claim 12 of the '348 patent.

For example, Banerjee further teaches:

In this embodiment, *the master computer 238 comprises a wireless communication device 238a*, for example a radio frequency (RF) communication device such as a Bluetooth™, WiFi or other RF adapter, or an infrared (IR) communication device. The master computer 238 also runs a mobile device manager software application to accept and manage connections from the remote computer 240, provide screen sharing functionality, allow remote control from the remote computer 240, and optionally, provide the remote computer 240 with Internet access.

The components of the plug-and-play device 236 are better illustrated in Figure 5. As can be seen, *the plug-and-play device 236 comprises an interface 256 in the form of a USB interface to wireless communication device adapter connected to a wireless transceiver 260*. Similar to wireless communication device 238a, the wireless *transceiver 260 is, for example, an RF communication device such as a Bluetooth™, WiFi or other RF adapter, or an infrared (IR) communication device*. ***The wireless communication device 238a and wireless transceiver 260 are paired to enable a peer-to-peer wireless connection between the master computer 238 and the remote computer 240 to be established***. *The plug-and-play device 236 also comprises an interface 264 in the form of* ***a USB interface to computing device adapter***. *The interface 264 comprises a port (not shown) to receive a cable segment 268 thereby to enable the physical connection to the remote computer 240 to be made*. Both interfaces 256 and 264 are also in communication with a controller 272 in the form of a USB hub. (*Banerjee* at paragraphs [0040 - 0041]) (emphasis added).

As such, Banerjee teaches connecting a peripheral device to a port of a processing device (see e.g., "[t]*he plug-and-play device 236 also comprises an interface 264 in the form of* ***a USB interface to computing device adapter***. *The interface 264 comprises a port (not shown) to receive a cable segment 268 thereby to enable the physical connection to the remote computer 240 to be made*.") and communicating the user selected arbitrary media content via the communications network (see e.g., "***The wireless communication device 238a and wireless transceiver 260 are paired to enable a peer-to-peer wireless connection between the master computer 238 and the remote computer 240 to be established***.") (emphasis added).

- **loading a program onto the processing device and running the program on the operating system of the processing device to obtain user selected arbitrary media content, said program leaving a zero footprint on termination**

Further with respect to the substantial new question of patentability of the '348 patent, Banerjee teaches "loading a program onto the processing device and running the program on the operating system of the processing device to obtain user selected arbitrary media content," as recited by independent claim 12 of the '348 patent.

For example, Banerjee teaches:

> Controller 272 also communicates with ***storage 276 that is configured to store and automatically launch software applications thereon via an autorun feature that the operating system of the remote computer 240 supports***. Similar to the previous embodiment, storage 276 is flash memory, solid-state memory or other non-volatile computer memory. The storage 276 is configured to operate in accordance with a mass storage device and defines itself as compact disk read only memory (CD-ROM). *Storage 276 stores an executable launcher application, LinQLauncher.exe and may also store one or more access codes, biometrics or keys to automatically form a secure encrypted and authenticated wireless network connection with the master computer 238.*
>
> The operation of the system 220, when a peer-to-peer wireless connection between the master computer 238 and the remote computer 240 is established, will now be described with particular reference to Figure 6. *When the plug-and-play device 236 is physically connected to the remote computer 240 via the cable segment 268 (step 304) and the connection of the plug-and-play device 236 is detected by the operating system of the remote computer 240, the remote computer 240 queries the plug-and-play device 236 to determine what functionality is provided by the plug-and-play device 236 (step 308).* In particular, the controller 272 queries the wireless transceiver 260 and the storage 276 to determine what profiles or connections are available. In this embodiment, the storage 276 responds by indicating that it supports the mass storage device and the wireless transceiver 260 responds by indicating its device type, interface profile and other parameters such as for example wireless network protocol, wireless network speed, encryption keys, biometrics, etc. The plug-and-play device 236 then returns the determined functionality information to the remote computer 240. (*Banerjee* at paragraphs [0042-0043]) (emphasis added).
>
> The autorun.inf file contains a pointer to the executable launcher application, LinQLauncher.exe stored in the storage 276. Upon parsing the autorun.inf file, *the remote computer 240 uses the pointer to load a LinQ software application from the storage 276 (step 328). The LinQ_auncher.exe application directs the remote computer 240 to* ***copy all necessary files of the LinQ software application from storage 276 to a temporary directory on the remote computer 240 and then start the LinQ software application*** *(step 332). The LinQ software application is used for setting up and managing the peer-to-peer wireless*

connection on the remote computer 240, screen sharing and communications between the remote computer 240 and the master computer 238.

Upon launch, ***the LinQ software application loads the necessary driver for the wireless transceiver 260, configures the wireless transceiver 260, finds the master computer 238 and establishes the peer-to-peer wireless connection between the LinQ software application and the mobile device manager application running on the master computer 238 (step 337)***. The LinQ software application, which manages the peer-to-peer wireless connection on the remote computer 240, then reads the access codes, biometrics or keys from the storage 276. The access codes, biometrics or keys are in turn exchanged with the master computer 238 and used as a parameter to create a secure authenticated and encrypted peer-to-peer wireless connection. The mobile device manager application running on the master computer 238 manages the peer-to-peer wireless connection on the master computer 238. In cases where multiple systems 220 may be operating, an ad-hoc network identifier may be necessary to allow the plug-and-play device 236 to determine the appropriate network to which to connect. In such cases, the ad-hoc network identifier is configured to be read from storage 276 in similar manner to the access codes, biometrics or keys.

Once the remote computer 240 is connected to the master computer 238 over the peer-to-peer wireless connection, the remote computer 240 may send a request to share the screen display data of the remote computer 240 to the master computer 238. If a request to share the screen display data is sent to the master computer 238 and accepted, the screen display data displayed on the remote computer 240 is compressed using a suitable compression algorithm such as for example MJPEG compression. The compressed screen display data is then compared with previous screen display data sent to the master computer 238 in the same peer-to-peer wireless connection session to detect differences in the screen display data. The detected differences are then sent to the master computer 238 via the peer-to-peer wireless connection and displayed on the screen of the master computer 238. The master computer 238 passes input events, such as keyboard, mouse, trackball and/or pen-touch events, that it receives to the remote computer 240 thereby to remotely control the remote computer 240 (step 339). As will be appreciated, by compressing the screen display data of the remote computer 240, the time required to transmit the screen display data to the master computer 238 is reduced. Also, compressing the screen display data and only transmitting differences between screen display data, reduces the amount of screen display data that needs to be transmitted to the master computer 238 during screen sharing. This of course reduces the required transmission bandwidth required for screen sharing and thus, decreases latency. (*Banerjee* at paragraphs [0046-0048]) (emphasis added).

Upon termination of the session between the remote computer 240 and the master computer 238, the plug-and-play device 236 can be unplugged from the remote computer 240 and removed. *When the plug-and-play device 236 is*

> *disconnected from the remote computer 240, the remote computer 240 notifies the LinQLauncher.exe application (step 344). The LinQLauncher.exe application in turn stops the screen sharing, disconnects the peer-to-peer wireless connection with the master computer 238, terminates the execution of the LJnQ software application,* ***deletes the files in the temporary directory on the remote computer 240 that were copied from the storage 276****, and then terminates the execution of itself (step 348).* Those skilled in the art will appreciate that other clean up tasks, such as removing items in the system registry that were written by the LJnQ software application when it was launched may also be performed upon the disconnection of the plug-and-play device 236 from the remote computer 240. (*Banerjee* at paragraph [0051]) (emphasis added).
>
> Turning now to Figure 4, another system or network 220 of operatively connected components is shown. As can be seen, system 220 comprises a plug-and-play device 236, a master computer 238 and at least one remote computer 240 The plug-and-play device 236 is physically connected to the remote computer 240 and communicates with the master computer 238 over a wireless communications link. In this embodiment, *plug-and-play device 236* ***captures and compresses screen display data generated at the remote computer 240 and allows screen sharing*** *between the remote computer 240 and the master computer 238* by automatically launching software stored on the plug-and-play device 236. (*Banerjee* at paragraph [0039]) (emphasis added).

As such, Banerjee teaches loading a program onto the processing device (see e.g., "the remote computer 240 uses the pointer to load a LinQ software application from the storage 276 (step 328)") and running the program on the operating system of the processing device to obtain user selected arbitrary media content (see e.g., "the LinQ software application loads the necessary driver for the wireless transceiver 260, configures the wireless transceiver 260, finds the master computer 238 and establishes the peer-to-peer wireless connection between the LinQ software application and the mobile device manager application running on the master computer 238 (step 337)", "the remote computer 240 may send a request to share the screen display data of the remote computer 240 to the master computer 238), said program leaving a zero footprint on termination (see e.g., "the LinQLauncher.exe application in turn, . . ., deletes the files in the

temporary directory on the remote computer 240 that were copied from the storage 276"), as recited in independent claim 1.

- **triggering transfer of said user selected arbitrary media content to said transmitter through said port after a user action on an input device.**

Further with respect to the substantial new question of patentability of the '348 patent, Banerjee teaches "triggering transfer of said user selected arbitrary media content to said transmitter through said port after a user action on an input device," as recited by independent claim 12 of the '348 patent.

For example, Banerjee teaches:

> In this embodiment, ***the master computer 238 comprises a wireless communication device 238a***, for example a radio frequency (RF) communication device such as a Bluetooth™, WiFi or other RF adapter, or an infrared (IR) communication device. The master computer 238 also runs a mobile device manager software application to accept and manage connections from the remote computer 240, provide screen sharing functionality, allow remote control from the remote computer 240, and optionally, provide the remote computer 240 with Internet access.
>
> The components of the plug-and-play device 236 are better illustrated in Figure 5. As can be seen, the plug-and-play device 236 comprises an interface 256 in the form of a USB interface to wireless communication device adapter connected to a wireless transceiver 260. Similar to wireless communication device 238a, the wireless transceiver 260 is, for example, an RF communication device such as a Bluetooth™, WiFi or other RF adapter, or an infrared (IR) communication device. ***The wireless communication device 238a and wireless transceiver 260 are paired to enable a peer-to-peer wireless connection between the master computer 238 and the remote computer 240 to be established. The plug-and-play device 236 also comprises an interface 264 in the form of a USB interface to computing device adapter***. The interface 264 comprises a port (not shown) to receive a cable segment 268 thereby to enable the physical connection to the remote computer 240 to be made. Both interfaces 256 and 264 are also in communication with a controller 272 in the form of a USB hub. (*Banerjee* at paragraphs [0040 – 0041]) (emphasis added).
>
> Turning now to Figure 1, a system or network 20 of operatively connected components is illustrated. As can be seen, system 20 comprises a plug-and-play (PnP) device 24 for receiving and digitizing input. In this embodiment, the *plug-*

and-play device 24 comprises an interactive input system that includes ***a touch panel 28***, a controller 32 and a cable 36. Touch panel 28 may be of the type employing analog resistive or machine vision technology to register pointer input such as those disclosed in U.S. Patent Nos. 5,448,263; 6,141 ,000; 6,337,681 ; 6,747,636; 6,803,906; 7,232,986; 7,236,162; and 7,274,356 and in U.S. Patent Application Publication No. 2004/0179001 assigned to SMART Technologies ULC of Calgary, Alberta, Canada, assignee of the subject application, the contents of which are incorporated by reference. Alternatively, touch panel 28 may be of the type employing electromagnetic, capacitive, acoustic or other technologies to register pointer input. The controller 32 controls the operation of the touch panel 28 and is in communication with a computer 40 via the cable 36. The computer 40 is also connected to a projection unit 44 such as for example, a liquid crystal display (LCD) projector, via a video graphics array (VGA) cable 48 and controls the LCD projector 44. In response to image data received from the computer 40, the LCD projector 44 projects images onto a touch surface 46 of the touch panel 28. The LCD projector 44 may be positioned in front of or behind the touch panel 28.

The touch panel 28 provides a user with the ability to interact with the image projected onto the touch surface 46 of the touch panel 28 and inject input into an application program running on the computer 40 using an active pointer (e.g. a pointer that emits light, sound or other signal) or a passive pointer (e.g. a finger, cylinder or other object). Although the touch panel 28 requires no extra software other than that provided by the operating system of the computer 40 in order to work as a mouse, the functionality of the touch panel 28 can be greatly enhanced by additional software not available on the operating system of the computer 40, as will be described below. (*Banerjee* at paragraphs [0026 – 0027]) (emphasis added).

As such, Banerjee teaches triggering (see e.g. "[t]***he touch panel 28 provides a user with the ability to interact with the image projected onto the touch surface 46 of the touch panel 28 and inject input into an application program running on the computer 40 using an active pointer***") transfer of said user selected arbitrary media content to said transmitter through said port (see, e.g., ***"[t]he wireless communication device 238a and wireless transceiver 260 are paired to enable a peer-to-peer wireless connection between the master computer 238 and the remote computer 240 to be established. The plug-and-play device 236 also comprises an interface 264 in the form of a USB interface to computing device adapter***.") after a user action

on an input device (see, e.g., "***touch panel 28 provides a user with the ability to interact with the image***").

To the extent that Banerjee does not explicitly teach an input device coupled to the peripheral device enabling the user to carry out a user action, Epstein teaches:

> Referring also to FIG. 4, exemplary puck assembly 20 includes ***a puck 48*** *and first and second video/audio cables 50 and 52, respectively. Cable 50 is used to link puck 48 to a computer/laptop audio/video output port or other video source* while cable 52 links puck 48 through a circuitous path to one of the six input ports 17 shown in FIGS. 2 and 3. In at least some embodiments, each cable 52 can be taken up by a take up assembly (not shown) below deck member 21 as an associated puck 48 is moved from a use position on top of top member 26 (see FIG. 4) to a storage position as shown in FIG. 2. For more detail regarding one possible take up assembly, see US patent application Ser. No. 12/250,192 referenced above. As seen in FIG. 4, when a puck 48 is pulled into a use position on top of member 26, cable 52 can pass through gap 43 when door 39 is closed.
>
> Referring still to FIG. 4 and also to FIG. 5, *exemplary* ***puck 48 includes*** *a disc or puck shaped housing 49 that supports a plurality of components including a processor 71, an on/off button 58,* ***first through fourth selectable controls or control buttons 60a-60d***, four illumination devices 73a through 73d and an illumination ring 56. Processor 71 may be a programmable microprocessor or may be configured via digital components. Processor 71 is linked to each of cables 50 and 52 and can sense when cabled 50 is linked to a video/audio source. Processor 50 is also linked to each of buttons 56 and 60a-60d to sense when any of those buttons are selected. Processor 50 is further linked to each of illumination devices 73a through 73d and ring 56 for providing power to and cutting power from each of those devices." (*Epstein* at paragraphs [0051 – 0052]) (emphasis added).
>
> "Following the instructions, as shown in FIG. 10, *a user pulls one of the pucks 48 from the cavity below a door 39 or 41 and links a laptop 69 to the puck 48 via cable 50 (see also FIG. 1). Once a laptop 69 is linked to cable 50, ring 59 as well as selectable buttons 60a-60d are illuminated white (see double crosshatch in FIG. 9) to indicate to the laptop user that the user is linked and can opt to present information from the user's laptop screen via any one or combination of displays 22a-22d corresponding to illuminated buttons 60a-60d*, respectively. Here, the white light ring 56 also indicates that currently the user of puck 48 is not presenting via any of displays 22a-22d.
>
> Referring to FIG. 11, *when a puck user wants to present information from her laptop 69 display via display screen 22a,* ***the user presses button 60a*** *to indicate intention to drive display 22a. Once button 60a is selected, four things happen.*

> *First, information currently displayed via display 22a is replaced by the information from the user's laptop 69 display*. Second, if a different laptop was previously presenting information via display 22a when button 60a is selected, the other user's puck illumination may change. For instance, if the other user was only displaying via display 22a when displaced, the other user's puck's ring 56 will change from green back to white illumination indicating the user is no longer driving any of displays 22a-22d. As another instance, where another user was driving each of displays 22a and 22c when button 60a is selected, the other user's puck ring will remain green after displacement from screen 22a to indicate that the other user is still driving display 22c despite being displaced from display 22a. In addition, in this case, the other user's puck button 60a will be illuminated white after displacement from screen 22a while button 60c will remain green indicating that the other user is still driving display 22c. (*Epstein* at paragraphs [0065 – 0066]) (emphasis added).

As such, Epstein teaches triggering transfer of said user selected arbitrary media content to said transmitter through said port after a user action on an input device (see, e.g., "*first through fourth selectable controls or control buttons 60a-60d*" on a peripheral device "puck 48", "when a puck user wants to present information from her laptop 69 display via display screen 22a, the user presses button 60a to indicate intention to drive display 22a. Once button 60a is selected, four things happen. First, information currently displayed via display 22a is replaced by the information from the user's laptop 69 display.")

Therefore, Banerjee in view of Epstein teaches all features as recited in claim 1. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the above-described teachings of Banerjee (a plug-and-play interface device for sharing computer displays) with the above-describe teachings of Epstein (personal control apparatus and method for sharing information in a collaborative workspace) because Banerjee and Epstein all pertain to the field of apparatus and methods for sharing computer displays and information.

The combination of Banerjee and Epstein, which all are in the field of sharing computer displays and information, is a "predictable variation" or a "combination of familiar elements

according to known methods .... [that] does no more than yield predictable results," and such combination is obvious under *KSR International Co. v. Teleflex Inc.,* 550 U.S. 398, 415-16, 82. Therefore, claim 1 of the '348 patent is unpatentable over Kita in view of Banerjee further in view of Epstein.

Dependent claim 13

- **configuring the peripheral device to connect to the communications network by pairing the peripheral device with the display node**

Claim 13 depends from claim 12. As explained herein above, Banerjee and Epstein teach all elements of independent claim 12. Banerjee further teaches configuring the peripheral device to connect to the communications network by pairing the peripheral device with the display node. (See e.g., *Banerjee* at paragraph [0041], "***wireless communication device 238a and wireless transceiver 260 are paired to enable a peer-to-peer wireless connection between the master computer 238 and the remote computer 240 to be established***.") (emphasis added).

Dependent claim 14

- **wherein the pairing is performed by plugging the peripheral device into the display node**

Claim 14 depends from claim 13. As explained herein above, Banerjee and Epstein teach all elements of claim 13. Banerjee further teaches that the pairing is performed by plugging the peripheral device into the display node. (See, e.g., Banerjee at paragraph [0041], "[t]he ***wireless communication device 238a and wireless transceiver 260 are paired to enable a peer-to-peer wireless connection between the master computer 238 and the remote computer 240 to be established. The plug-and-play device 236 also comprises an interface 264 in the form of a USB interface to computing device adapter. The interface 264 comprises a port (not shown) to***

receive a cable segment 268 thereby to enable the physical connection to the remote computer 240 to be made. Both interfaces 256 and 264 are also in communication with a controller 272 in the form of a USB hub.") (emphasis added).

Dependent claim 15

- **setting up by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device and the processing device**

Claim 15 depends from independent claim 12. As explained herein above, Banerjee and Epstein teach all elements of claim 12. Banerjee further teaches setting up by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device and the processing device. (See e.g., *Banerjee* at paragraphs [0004], "[m]any ***operating systems possess a number of pre-loaded drivers for generic plug-and-play device classes***, such as USB mass storage, a two-button mouse, etc. ***If the operating system is in possession of a driver for the device class of the plug-and-play device connected to the computer, the computer loads the driver so that the functionality of the plug-and-play device can be accessed by the computer***.") (emphasis added).

Dependent claim 16

- **wherein a pre-installed generic driver is selected from a human interface device driver and a mass storage device driver**

Claim 16 depends from independent claim 12. As explained herein above, Banerjee and Epstein teach all elements of claim 12. Banerjee further teaches that that a pre-installed generic driver is selected from a human interface device driver and a mass storage device driver. (See e.g., *Banerjee* at paragraphs [0028], [0042], "the firmware causes the controller 32 to operate in one of two operational modes. In an initial mode, the controller 32 operates two USB profiles,

namely an absolute mouse human interface device ("HID") profile and a SMARTBoard HID profile," and "***The storage 276 is configured to operate in accordance with a mass storage device and defines itself as compact disk read only memory (CD-ROM)***.") (emphasis added).

Dependent claim 17

- **presenting the peripheral device to the processing device as a human interface device,**

Claim 17 depends from independent claim 12. As explained herein above, Banerjee and Epstein teach all elements of claim 12. Banerjee teaches presenting the peripheral device to the processing device as a human interface device. (See e.g., *Banerjee* at paragraph [0028], "the firmware causes the controller 32 to operate in one of two operational modes. In an initial mode, the controller 32 operates two USB profiles, ***namely an absolute mouse human interface device ("HID") profile and a SMARTBoard HID profile***.") (emphasis added).

- **presenting the peripheral device to the processing device as a mass storage device; and**

Banerjee further teaches presenting the peripheral device to the processing device as a mass storage device. (See e.g., *Banerjee* at paragraph [0042], "***The storage 276 is configured to operate in accordance with a mass storage device and defines itself as compact disk read only memory (CD-ROM)***.") (emphasis added).

- **presenting the peripheral device to the processing device as a composite device**

Banerjee further teaches presenting the peripheral device to the processing device as a composite device. (See e.g., *Banerjee* at paragraphs [0035 – 0036], "[t]he calibration settings enable the SMARTBoardTools.exe user application to map touch input generated by ***the touch***

panel 28 in response to pointer contacts with the touch surface 46 to the display coordinate system of the computer 40," "*the user is able to interact effectively with the image projected onto the touch surface 46 of the touch panel 28 by the LCD projector 44.*") (emphasis added).

Banerjee at FIG. 5 (reproduced below) shows composite interfaces including USB interface to touch panel 256 and storage interface 278, where the USB interface to touch panel is independent from storage interface.

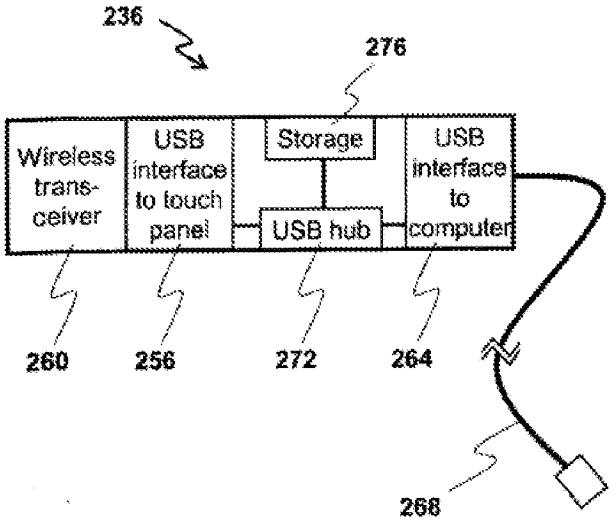


FIG. 5

Dependent claim 18

- **wherein the program is stored on the peripheral device, and which obtains screen scraped data when run on the processing device**

Claim 18 depends from independent claim 12. As explained herein above, Banerjee and Epstein teach all elements of claim 12. Banerjee teaches which obtains screen scraped data when run on the processing device. (See e.g., *Banerjee* at paragraph [0046], "***LinQLauncher.exe stored in the storage 276***," and "LinQ software application is used for setting up and managing the peer-to-peer wireless connection on the remote computer 240, *screen sharing and*

communications between the remote computer 240 and the master computer 238.") (emphasis added).

Dependent claim 19

- **wherein a generic communication protocol is used for transferring screen scraped data between the processing device and the peripheral device**

Claim 19 depends from claim 17. As explained herein above, Banerjee and Epstein teach all elements of claim 17. Banerjee further teaches that a generic communication protocol is used for transferring screen scraped data between the processing device and the peripheral device. (See e.g., *Banerjee* at paragraph [0004], "Many ***operating systems possess a number of pre-loaded drivers for generic plug-and-play device classes***, such as USB mass storage, a two-button mouse, etc. ***If the operating system is in possession of a driver for the device class of the plug-and-play device connected to the computer, the computer loads the driver so that the functionality of the plug-and-play device can be accessed by the computer***. If the operating system does not possess a driver corresponding to the device class of the plug-and-play device, the operating system typically prompts the user to install the appropriate software to enable the computer to access the functionality of the plug-and-play device")(emphasis added).

Dependent claim 20

- **displaying the user selected arbitrary media content on the first display in accordance with a set of rules**

Claim 20 depends from independent claim 12. As explained herein above, Banerjee and Epstein teach all elements of claim 12. Epstein further teaches displaying in accordance with a set of rules. (See e.g., *Epstein* at paragraphs [0066 – 0067], teaches a set of four rules, "***First,*** *information currently displayed via display 22a is replaced by the information from the user's*

laptop 69 display. ***Second****, if a different laptop was previously presenting information via display 22a when button 60a is selected, the other user's puck illumination may change.*" "***Third****, to indicate that the user of puck 48 in FIG. 10 is now driving at least one of displays 22a-22d, ring 56 on puck 48 changes from white to green (see single cross hatch ring in FIG. 10).* ***Fourth****, to let the puck user know which displays 22a-22d she is currently driving, button 60a illumination changes from white to green. Here, other buttons 60b-60d that were not selected remain white (i.e., they are shown as double cross hatched).*") (emphasis added).

VII. Proposed Rejections

A. Proposed Rejection 1. Claims 1-20 should be rejected under pre-AIA 35 U.S.C. §103(a) over Kita in view of Banerjee and Epstein

Claims 1-20 should be rejected under pre-AIA 35 U.S.C. §103(a) over Kita in view of Banerjee and Epstein.

Kita was published on November 22, 2001. Since Kita was published more than one year before the priority date of the '348 patent, Kita is a pre-AIA 35 U.S.C. §102(b) prior art reference with respect to the '348 patent.

The corresponding U.S. Application (U.S. Pub. No. 2009/0198839) of Banerjee was published on August 6, 2009. Since earliest disclosure date of Banerjee was more than one year before the priority date of the '348 patent, Banerjee is a pre-AIA 35 U.S.C. §102(b) prior art reference with respect to the '348 patent.

Epstein was published on December 2, 2010. Since Epstein was published before the priority date of the '348 patent, Epstein is a pre-AIA 35 U.S.C. §102(a) prior art reference with respect to the '348 patent.

Kita in view of Banerjee and Epstein raises a substantial new question of patentability with respect to claims 1-20 as discussed above.

Elements of the above-referenced claims are item-mapped to the teachings of Kita, Banerjee, and Epstein in the claim chart attached as Exhibits 6-7, which are incorporated herein by reference.

B. Proposed Rejection 2. Claims 1-20 should be rejected under pre-AIA 35 U.S.C. §103(a) over Banerjee in view of Epstein

Claims 1-20 should be rejected under pre-AIA 35 U.S.C. §103(a) over Banerjee in view of Epstein.

Banerjee in view of Epstein raises a substantial new question of patentability with respect to claims 1-20 as discussed above.

Elements of the above-referenced claims are item-mapped to the teachings of Banerjee and Epstein in the claim chart attached as Exhibits 8-9, which are incorporated herein by reference.

VIII. Conclusion

For the foregoing reasons, Requester respectfully submits that reexamination should be ordered, and claims 1-20 of the '348 patent should be rejected.

Respectfully submitted,

Liang, Frank & King LLP
Stanley Liang Reg. Mo. 43,753
520 White Plains Road, Suite 500
Tarrytown, NY 10591
(646) 930-4470
sdliang@liangfrankking.com

Date: February 9, 2018 /Stanley Liang /

CERTIFICATE OF SERVICE

The undersigned hereby certifies that this *ex parte* reexamination request with all appendices and certificates was served on the patent owner by placing a copy in FedEx with sufficient postage addressed to counsel of record for U.S. Pat. No. 8,756,348:

Barco N.V.

c/o Bacon & Thomas, PLLC

625 Slaters Lane, Fourth Floor

Alexandria, VA 22314-1176

Date: February 9, 2018 /Stanley Liang /

PTO/SB/57 (01-18)
Approved for use through 09/30/2018. OMB 0651-0064
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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

(Also referred to as FORM PTO-1465)

REQUEST FOR *EX PARTE* REEXAMINATION TRANSMITTAL FORM

Address to:
Mail Stop *Ex Parte* Reexam
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Attorney Docket No.: 6700-001

Date: February 9, 2018

1. ☒ This is a request for *ex parte* reexamination pursuant to 37 CFR 1.510 of patent number 8,756,348 issued June 17, 2014. The request is made by:
   ☐ patent owner. ☒ third party requester.

2. ☒ The name and address of the person requesting reexamination is:
   Stanley Liang
   520 White Plains Road, Suite 500
   Tarrytown, NY 10591

3. Requester ☐ asserts small entity status (37 CFR 1.27) or ☐ certifies micro entity status (37 CFR 1.29). Only a patent owner requester can certify micro entity status. Form PTO/SB/15A or B must be attached to certify micro entity status.

4. This request is accompanied by payment of the reexamination fee as set forth in:
   ☒ 37 CFR 1.20(c)(2); **or**
   ☐ 37 CFR 1.20(c)(1). **In checking this box for payment of the fee set forth in 37 CFR 1.20(c)(1), requester asserts that this request has forty (40) or fewer pages and complies with all other requirements of 37 CFR 1.20(c)(1).**

   Payment of the reexamination fee is made by the method set forth below.
   a. ☐ A check in the amount of $_____ is enclosed to cover the reexamination fee;
   b. ☐ The Director is hereby authorized to charge the reexamination fee to Deposit Account No. _____;
   c. ☐ Payment by credit card. Form PTO-2038 is attached; **or**
   d. ☒ Payment made via EFS-Web.

   ☒ In addition, the Director is hereby authorized to charge any fee deficiencies to Deposit Account No. 600114.

5. ☒ Any refund should be made by ☐ check or ☐ credit to Deposit Account No._____. 37 CFR 1.26(c). If payment is made by credit card, refund must be to credit card account.

6. ☒ A copy of the patent to be reexamined having a double column format on one side of a separate paper is enclosed. 37 CFR 1.510(b)(4).

7. ☐ CD-ROM or CD-R in duplicate, Computer Program (Appendix) or large table
   ☐ Landscape Table on CD

This collection of information is required by 37 CFR 1.510. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) a request for reexamination. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 18 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Mail Stop *Ex Parte* Reexam, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**
If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

8. ☐ Nucleotide and/or Amino Acid Sequence Submission
If applicable, items a. – c. are required.
   a. ☐ Computer Readable Form (CRF)
   b. Specification Sequence Listing on:
      i. ☐ CD-ROM (2 copies) or CD-R (2 copies) **or**
      ii. ☐ paper
   c. ☐ Statements verifying identity of above copies.

9. ■ A copy of any disclaimer, certificate of correction or reexamination certificate issued in the patent is included.

10. ■ Reexamination of claim(s) 1-20 is requested.

11. ■ A copy of every patent or printed publication relied upon is submitted herewith including a listing thereof on Form PTO/SB/08, PTO-1449, or equivalent.

12. ☐ An English language translation of all necessary and pertinent non-English language patents and/or printed publications is attached.

13. ■ The attached detailed request includes at least the following items:
   a. A statement identifying each substantial new question of patentability based on prior patents and printed publications. 37 CFR 1.510(b)(1).
   b. An identification of every claim for which reexamination is requested, and a detailed explanation of the pertinency and manner of applying the cited art to every claim for which reexamination is requested. 37 CFR1.510(b)(2).

14. ☐ A proposed amendment is included (only where the patent owner is the requester). 37 CFR 1.510(e).

15. ■ It is certified that the statutory estoppel provisions of 35 U.S.C. 315(e)(1) or 35 U.S.C. 325(e)(1) do not prohibit requester from filing this *ex parte* reexamination request. 37 CFR 1.510(b)(6).

16. Service
   a. ■ It is certified that a copy of this request (if filed by other than the patent owner) has been served in its entirety on the patent owner as provided in 37 CFR 1.33(c).

      The name and address of the party served are:

      Barco N.V. c/o Bacon & Thomas, PLLC
      625 Slaters Lane, Fourth Floor
      Alexandria, VA 22314-1176

      Date of Service: _____

   OR

   b. ☐ A duplicate copy is enclosed since service on patent owner was not possible. An explanation of the efforts made to serve patent owner **is attached**. See MPEP 2220.

17. Correspondence Address: Direct all communication about the reexamination to:

☒ The address associated with Customer Number: 112702

OR

☐ Firm or Individual Name _____
(at the address identified below)

Address

City	State	Zip

Country

Telephone	Email

18. ☐ The patent is currently the subject of the following concurrent proceeding(s):

a. ☐ Copending reissue Application No. _____

b. ☐ Copending reexamination Control No. _____

c. ☐ Copending Interference No. _____

d. ☐ Copending litigation styled:

_____

_____

WARNING : Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

/Stanley Liang/ — Authorized Signature

2018-02-09 — Date

Stanley Liang — Typed/Printed Name

43753 — Registration No.

☐ For Patent Owner Requester ☒ For Third Party Requester

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

PTO/SB/08a (03-15)
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	13270659
Filing Date	2011-10-11
First Named Inventor	Koen Simon Herman Beel
Art Unit	2181
Examiner Name	Sun, Scott C.
Attorney Docket Number	6700-001

U.S.PATENTS

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1					

If you wish to add additional U.S. Patent citation information please click the Add button.

U.S.PATENT APPLICATION PUBLICATIONS

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20100302454	A1	2010-12-02	Epstein, et al.	

If you wish to add additional U.S. Published Application citation information please click the Add button.

FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1	2001/089156	WO	A2	2001-11-22	KITA, et al.		☐

If you wish to add additional Foreign Patent Document citation information please click the Add button

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	Art Unit	2181
	Examiner Name	Sun, Scott C.
	Attorney Docket Number	6700-001

	1		☐

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EXAMINER SIGNATURE

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	13270659
	Filing Date	2011-10-11
	First Named Inventor	Koen Simon Herman Beel
	Art Unit	2181
	Examiner Name	Sun, Scott C.
	Attorney Docket Number	6700-001

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☐ See attached certification statement.

☐ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Stanley Liang/	Date (YYYY-MM-DD)	2018-02-09
Name/Print	Stanley Liang	Registration Number	43753

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

US 20100302454A1

(19) **United States**

(12) **Patent Application Publication**

Epstein et al.

(10) **Pub. No.: US 2010/0302454 A1**

(43) **Pub. Date: Dec. 2, 2010**

(54) **PERSONAL CONTROL APPARATUS AND METHOD FOR SHARING INFORMATION IN A COLLABORATIVE WORKSPACE**

(76) Inventors: **Lewis Epstein**, San Mateo, CA (US); **Brett Kincaid**, Lowell, MI (US); **Hyun Yoo**, Grand Rapids, MI (US); **Suzanne Stage**, San Francisco, CA (US); **Lukas Scherrer**, San Francisco, CA (US); **Larry Cheng**, Palo Alto, CA (US)

Correspondence Address:
QUARLES & BRADY LLP
411 E. WISCONSIN AVENUE, SUITE 2040
MILWAUKEE, WI 53202-4497 (US)

(21) Appl. No.: **12/474,670**

(22) Filed: **May 29, 2009**

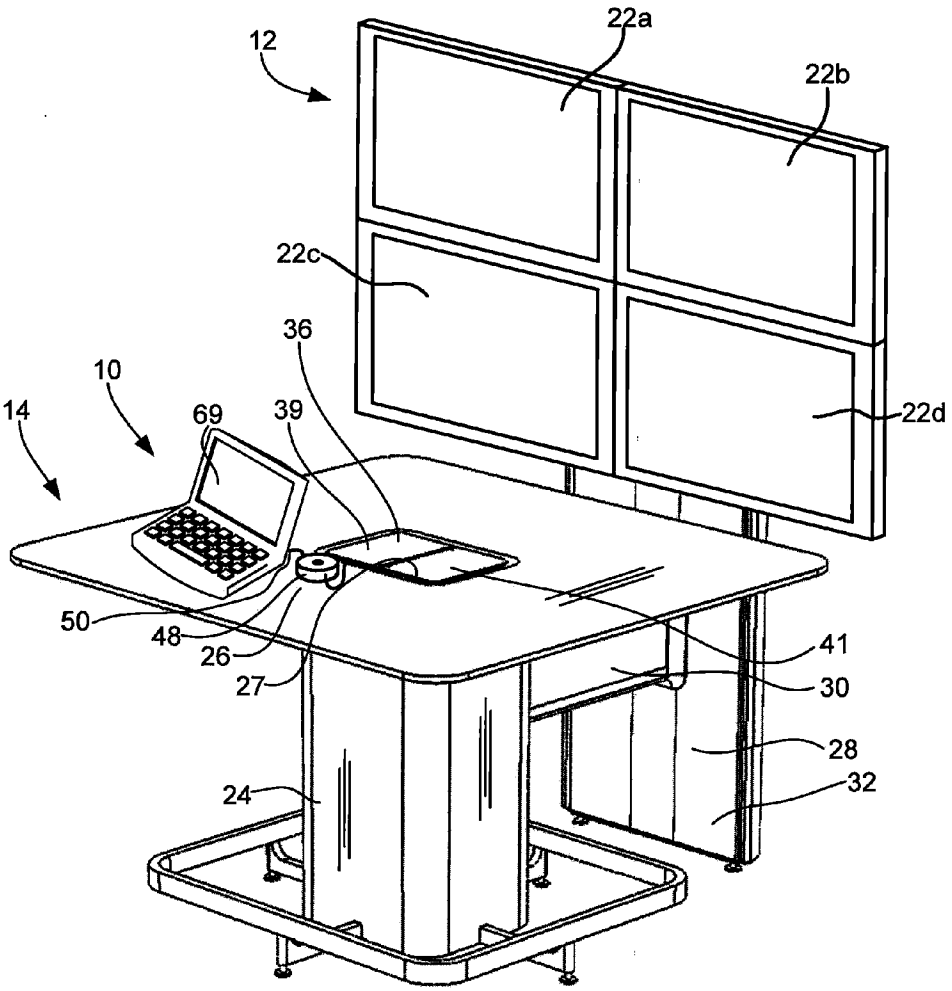
Publication Classification

(51) **Int. Cl.**
H04N 5/268 (2006.01)

(52) **U.S. Cl.** **348/705**; 348/E05.057

(57) **ABSTRACT**

A method and apparatus for selecting information from a video source to be displayed on at least a first common display screen in a collaborative workspace having a switching device, the method comprising the steps of providing a selectable control interface that includes at least one indicator that can indicate at least first and second different states, associating a video source with the switching device so that video information from the video source is presented to the switching device, when the video source is associated with the switching device, causing the at least one indicator to indicate a first state and when the selectable control interface is selected, causing the at least one indicator to indicate the second state and providing the video information from the video source to the common display screen via the switching device.



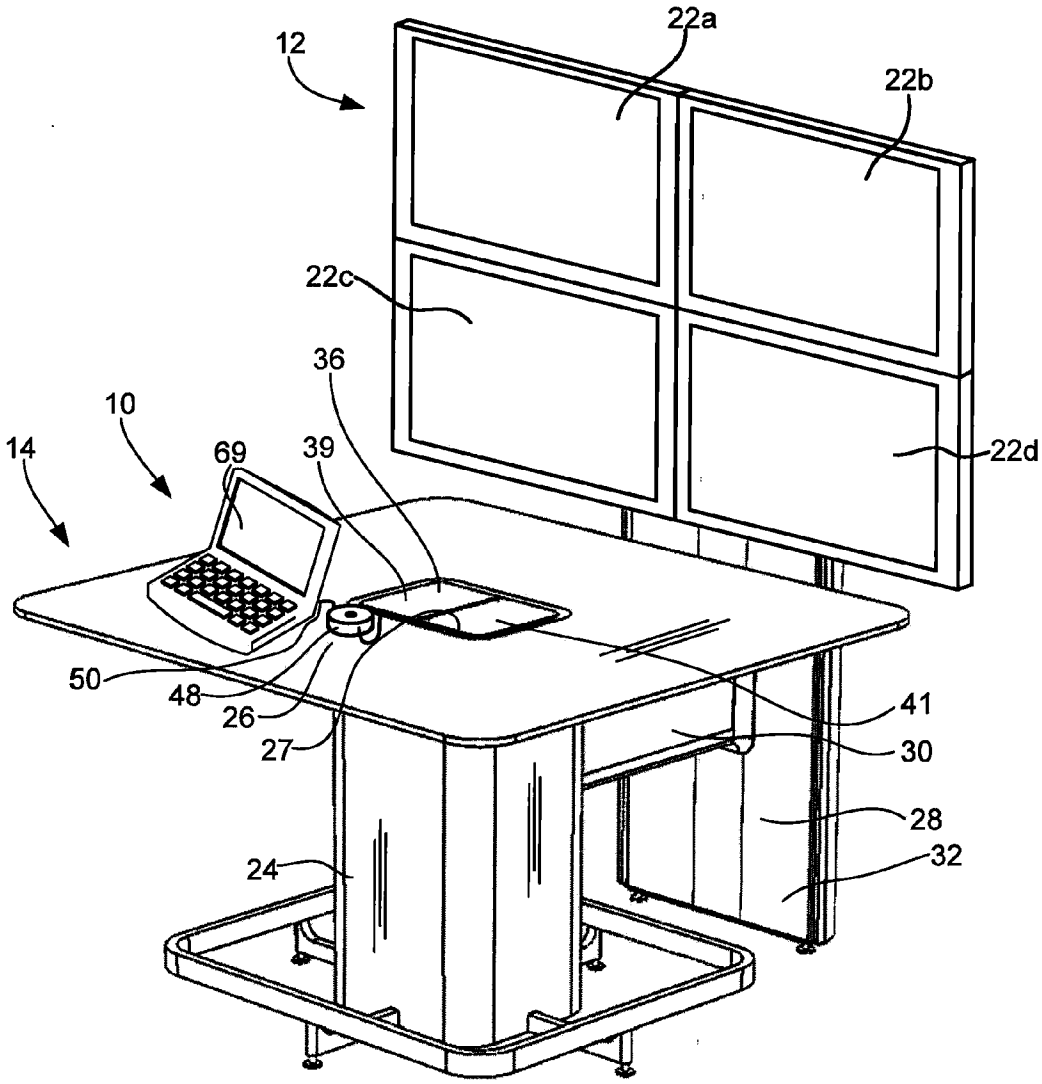


Fig. 1

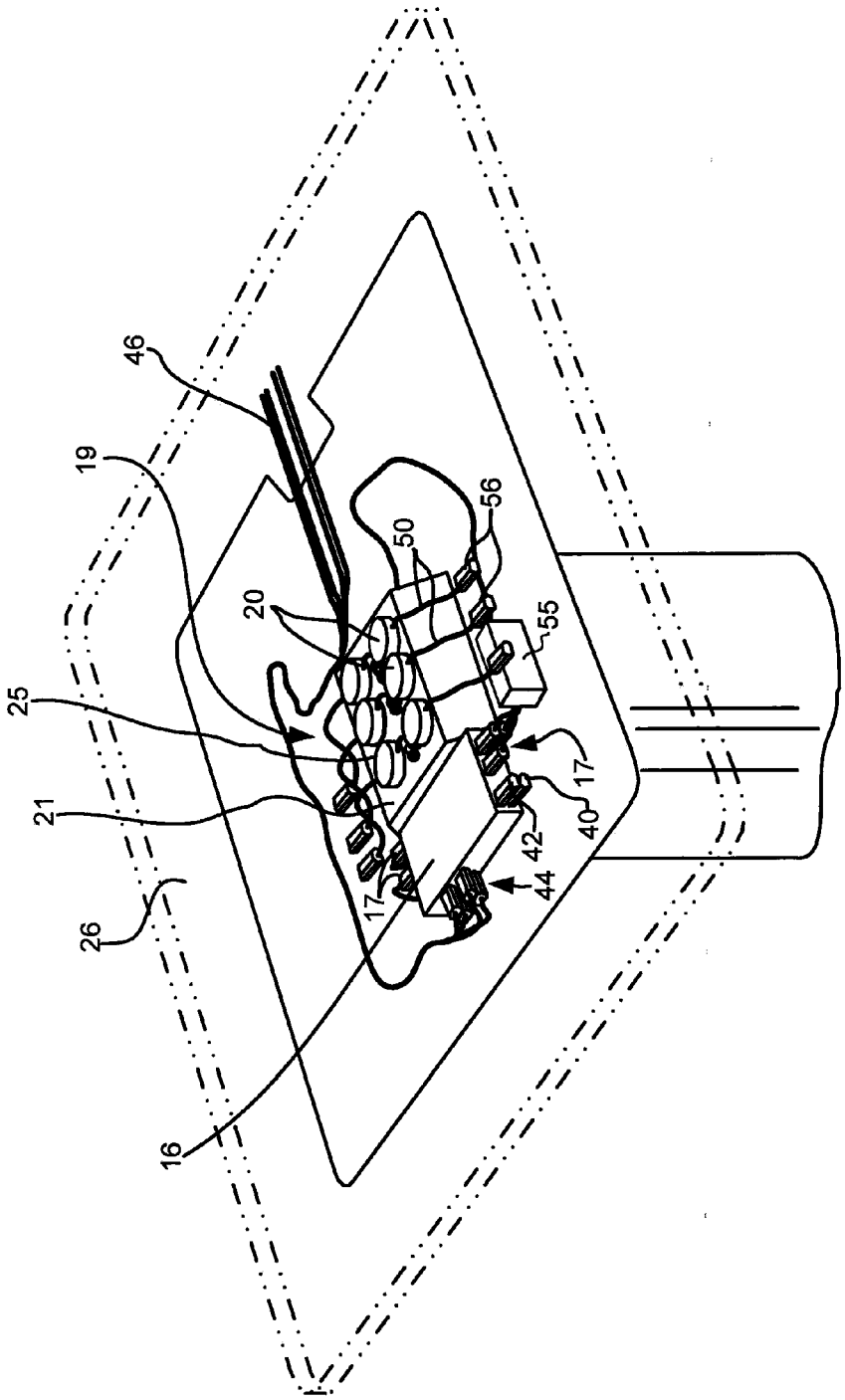


Fig. 2

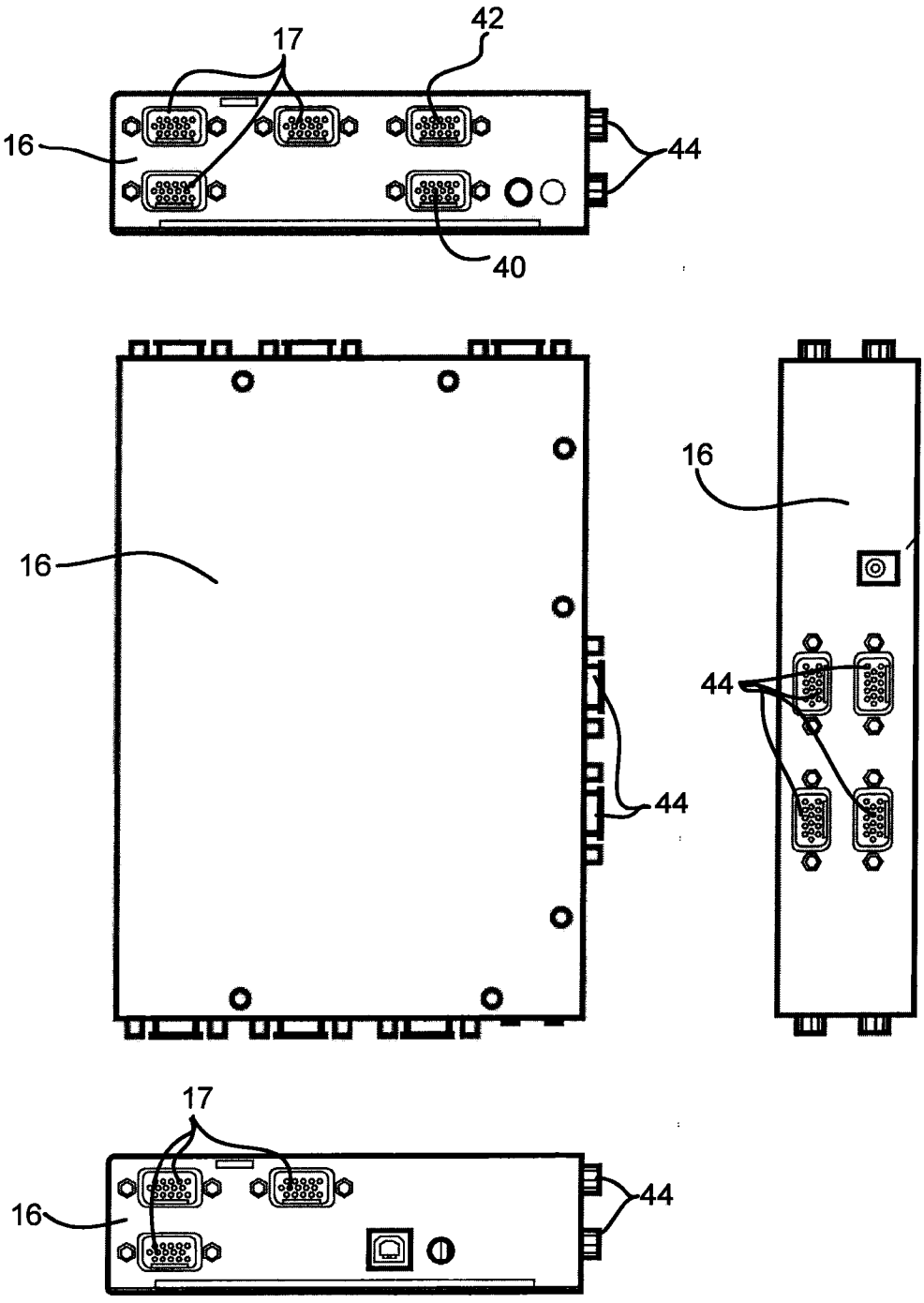


Fig. 3

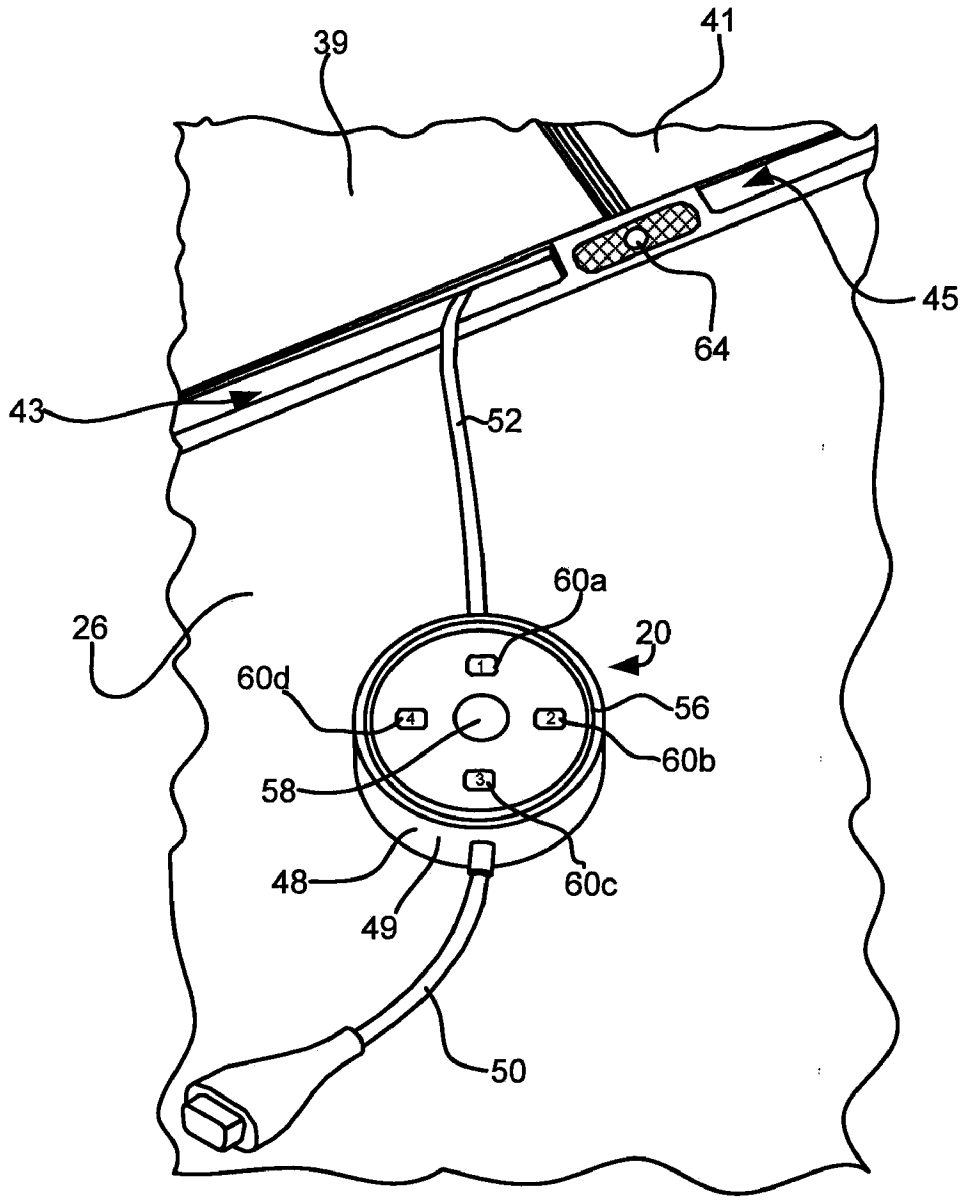


Fig. 4

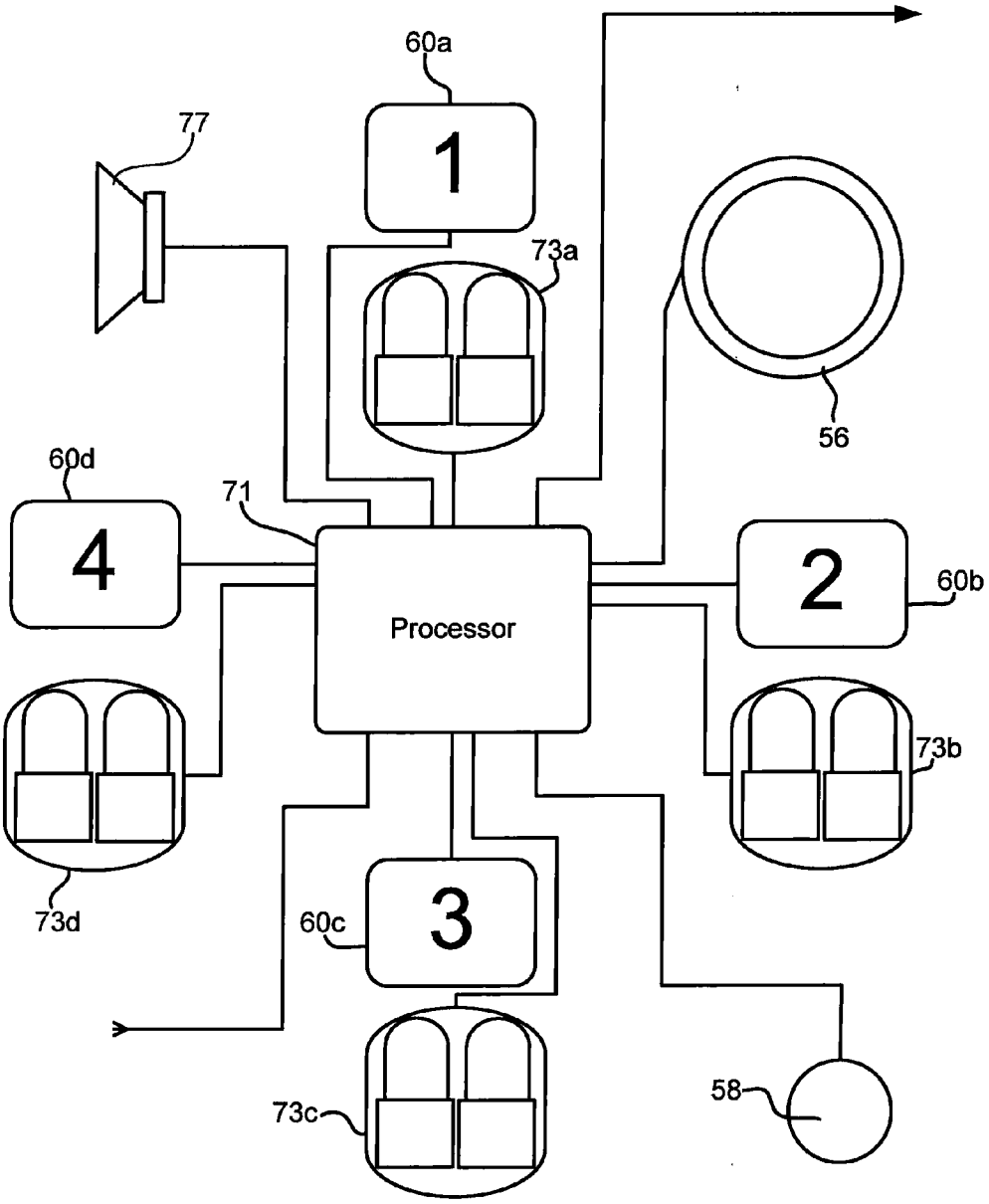


Fig. 5

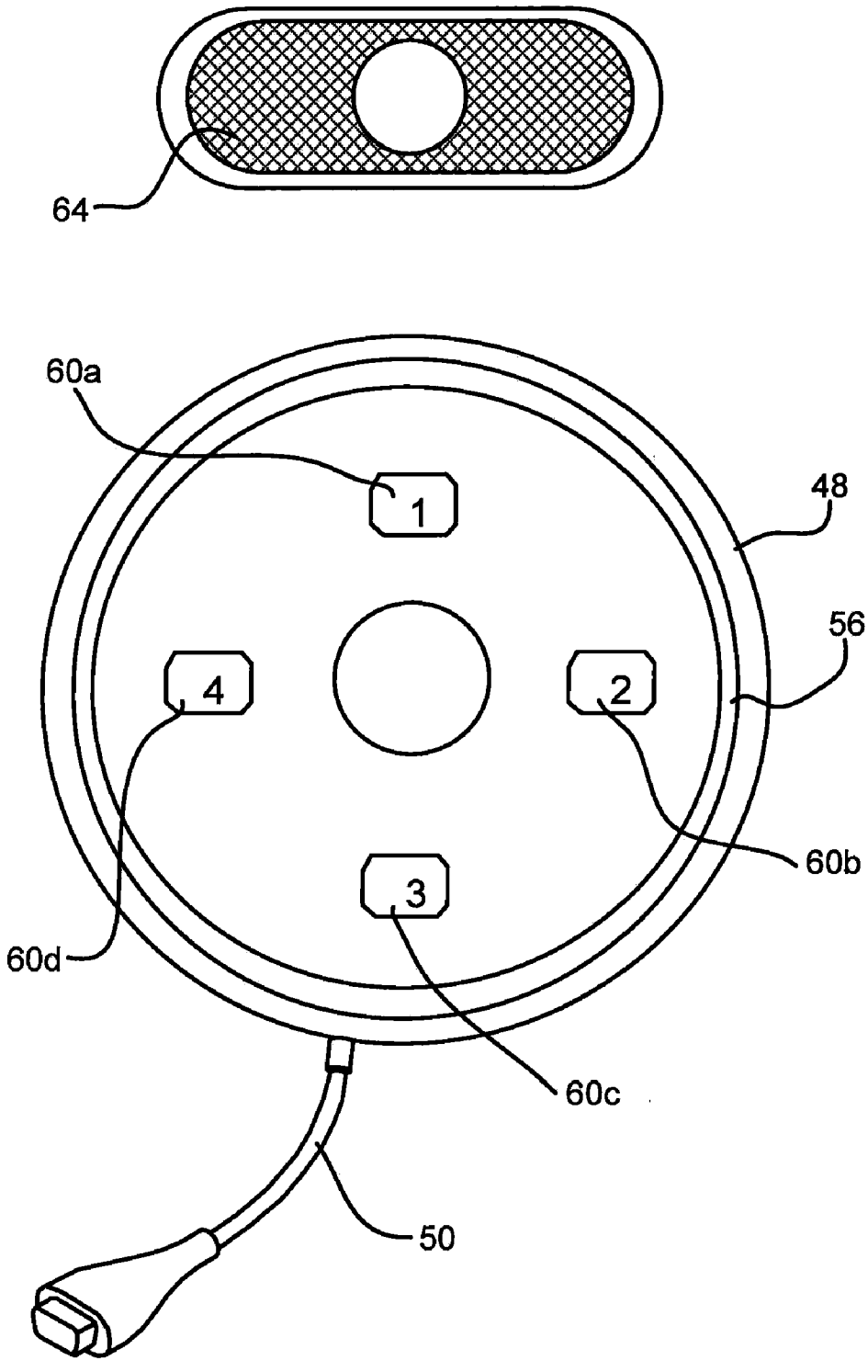


Fig. 6

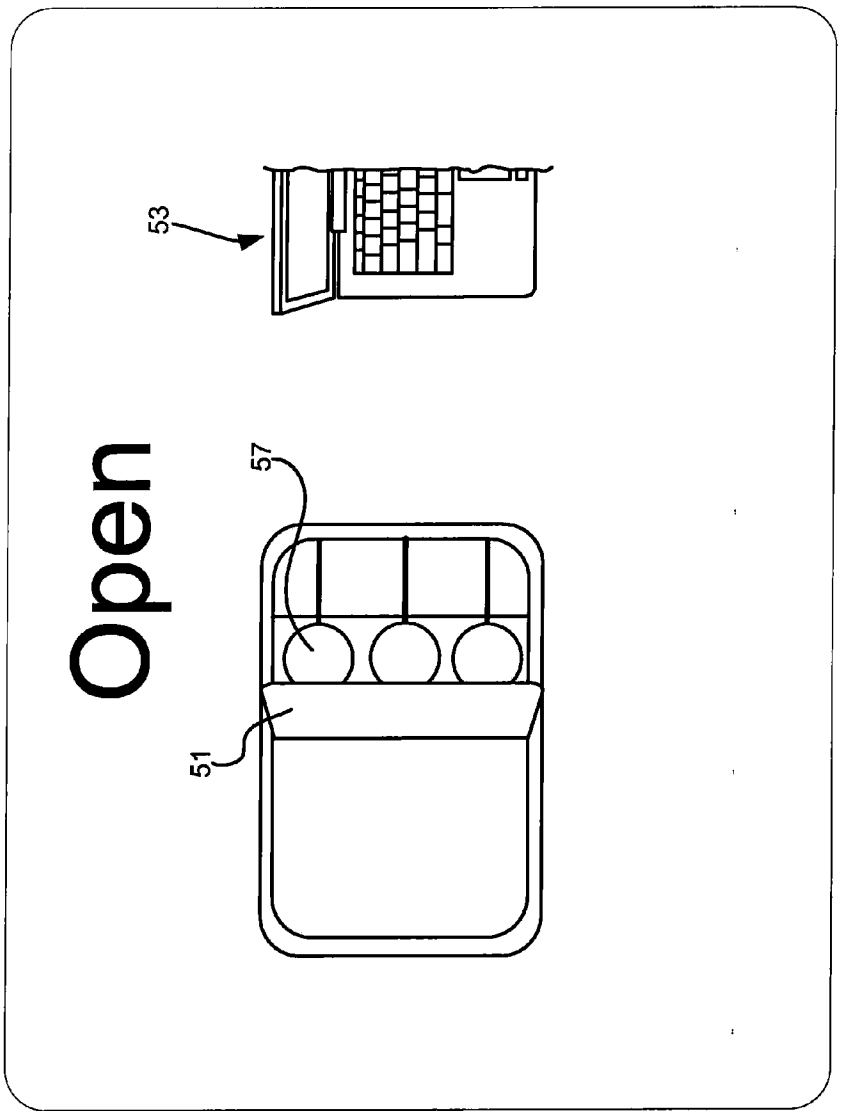


Fig. 7

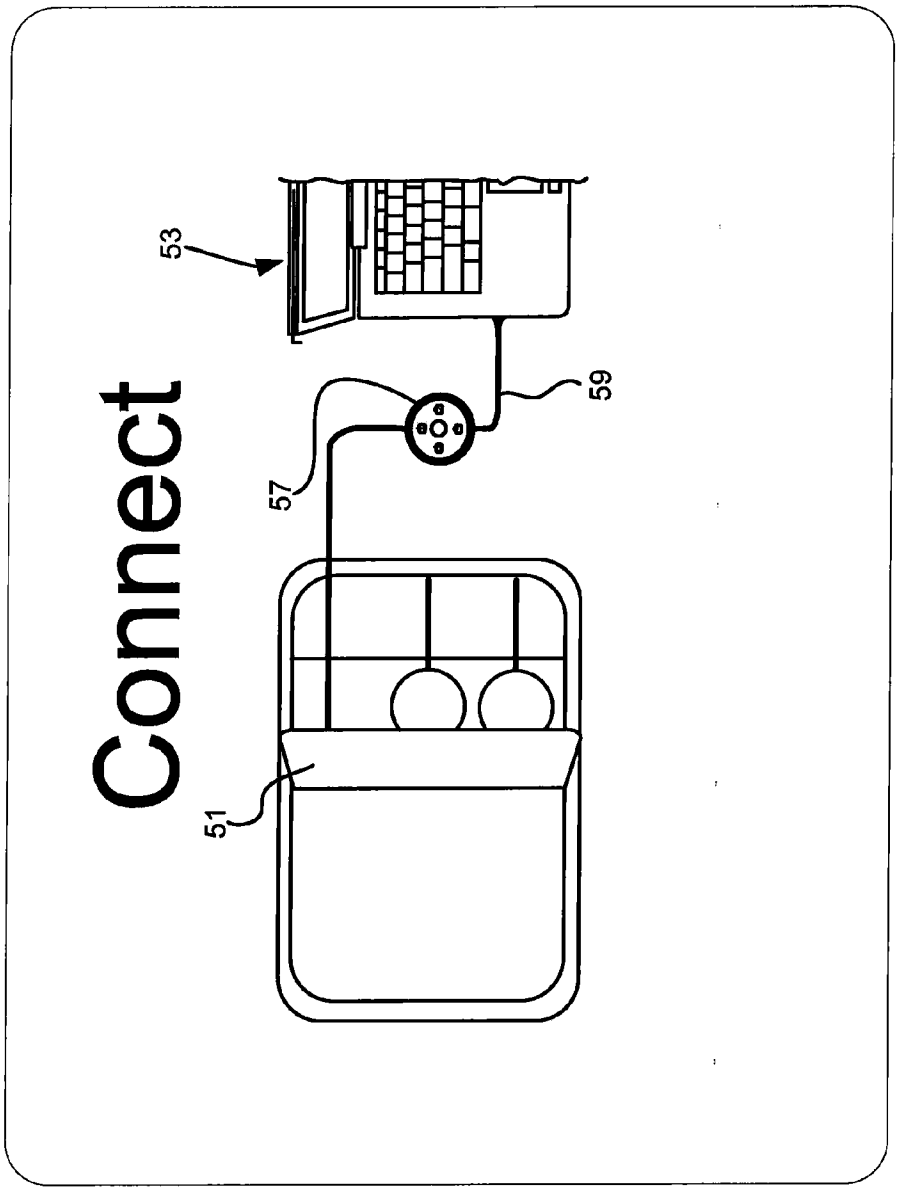


Fig. 8

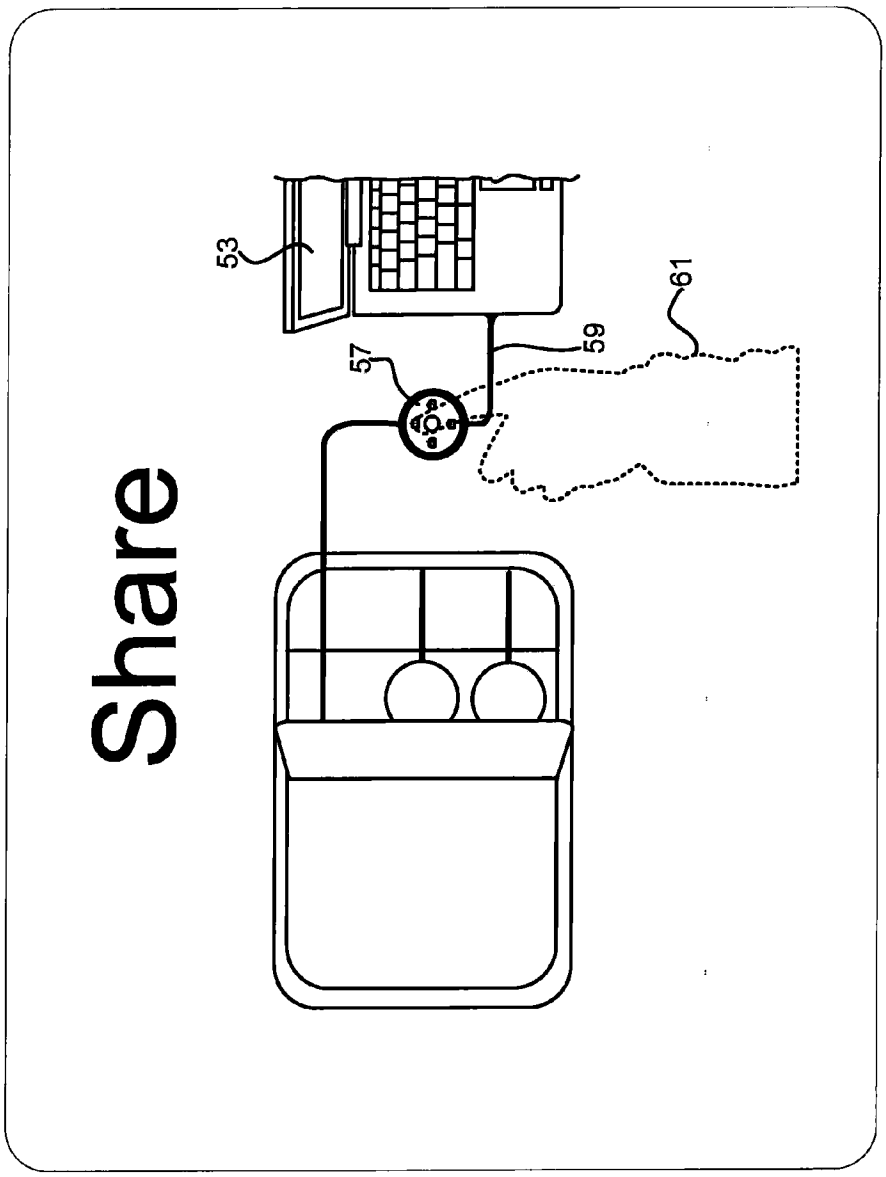


Fig. 9

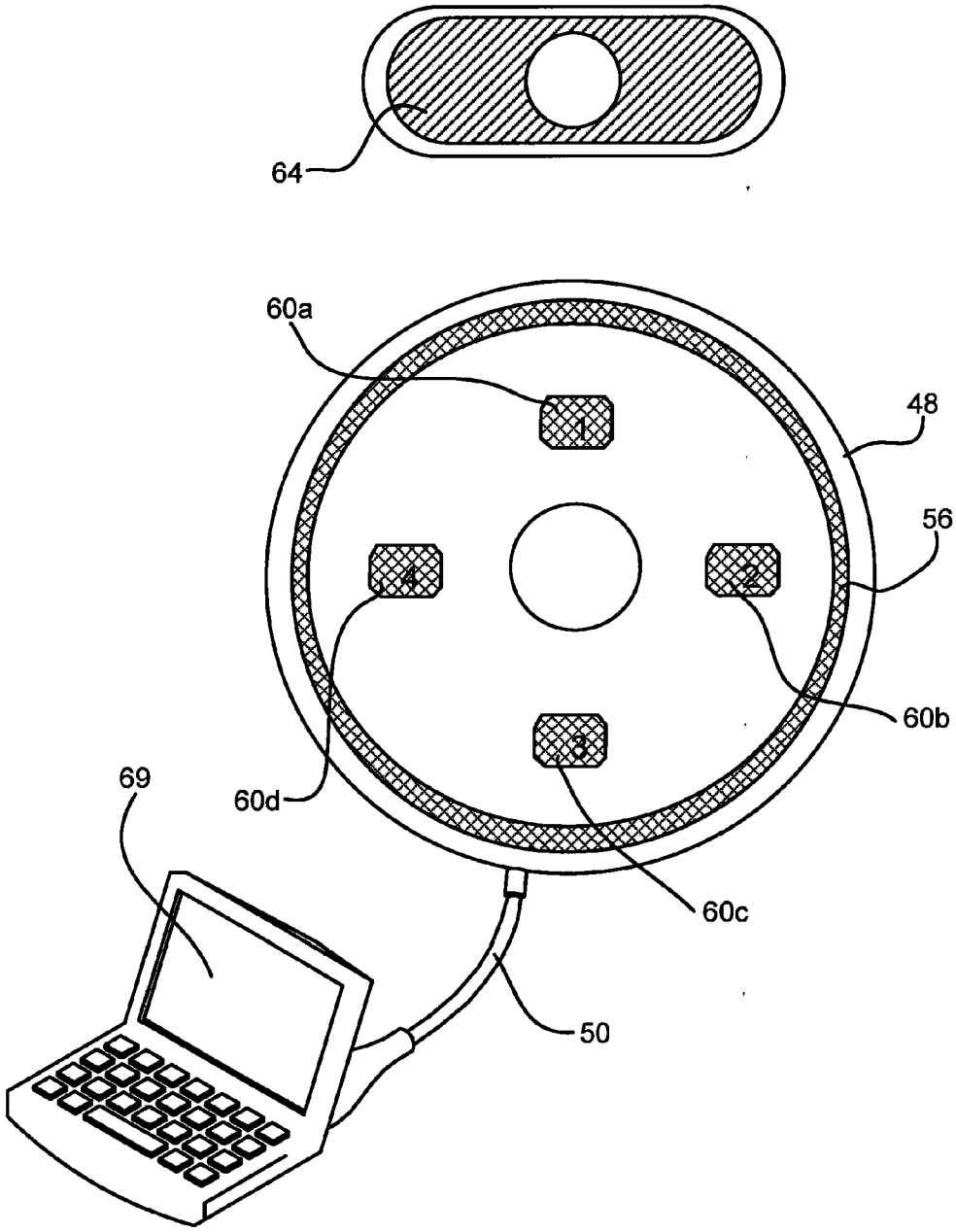


Fig. 10

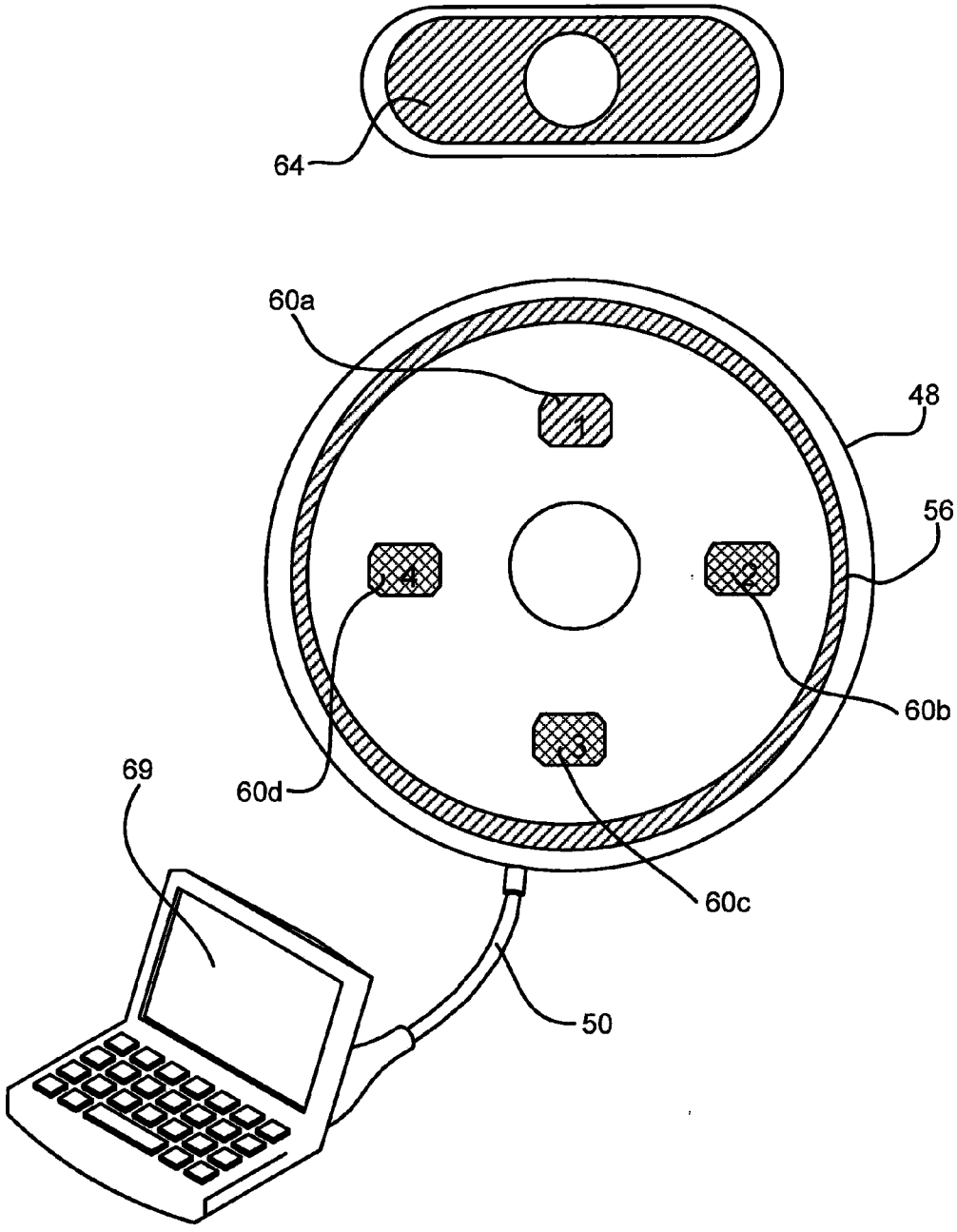


Fig. 11

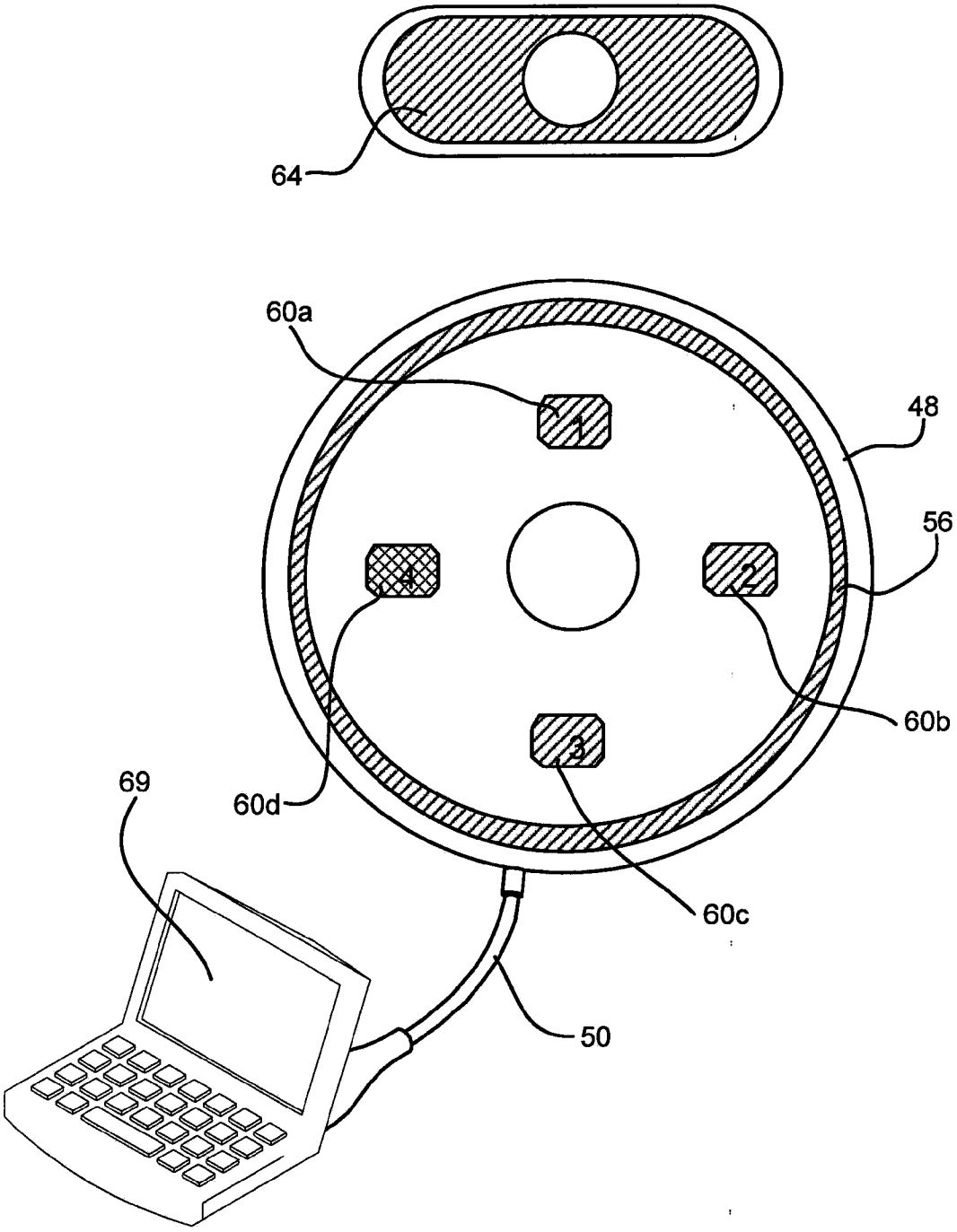


Fig. 12

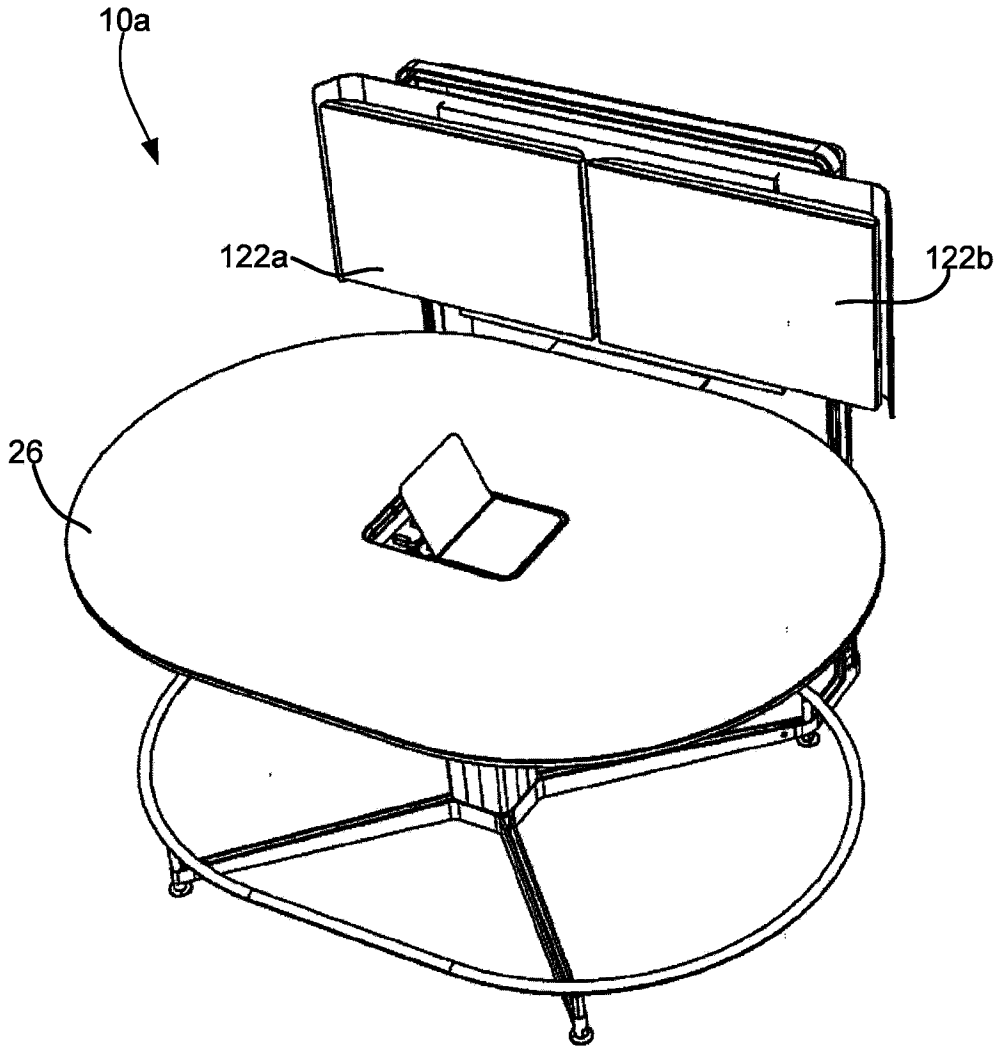


Fig. 13

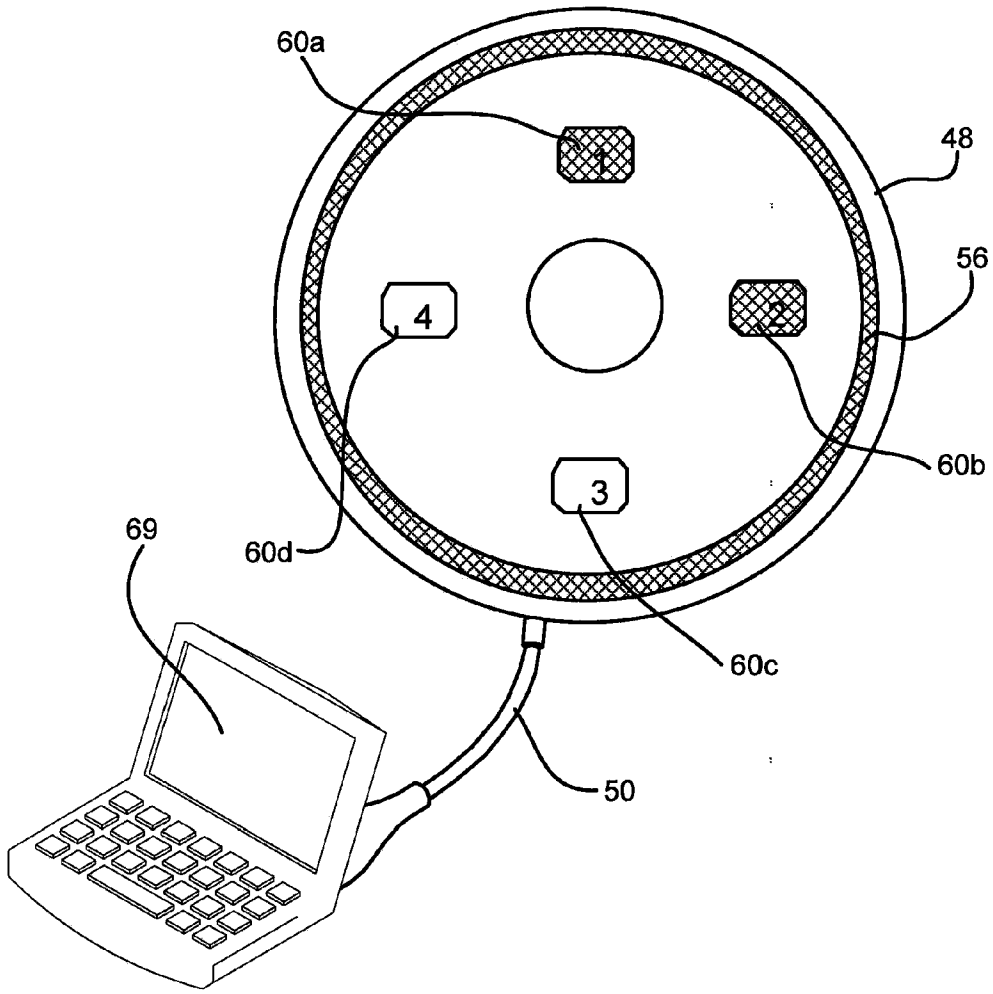


Fig. 14

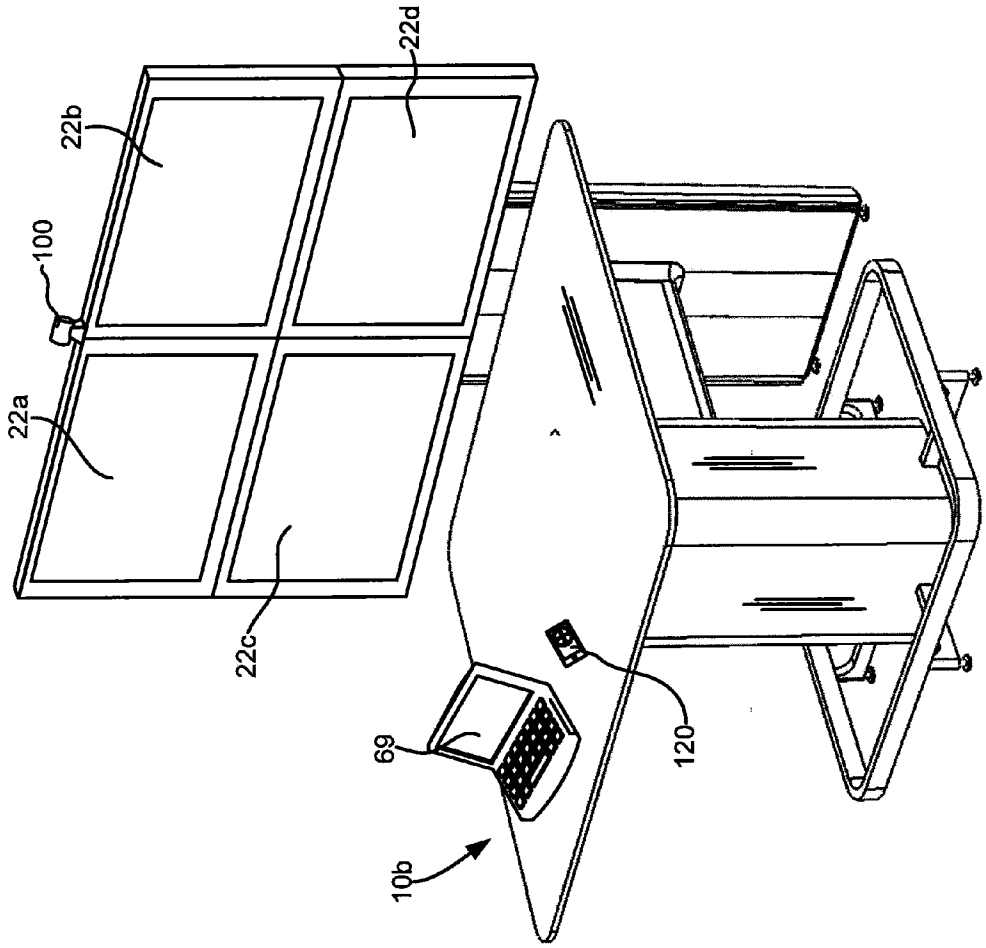


Fig. 15

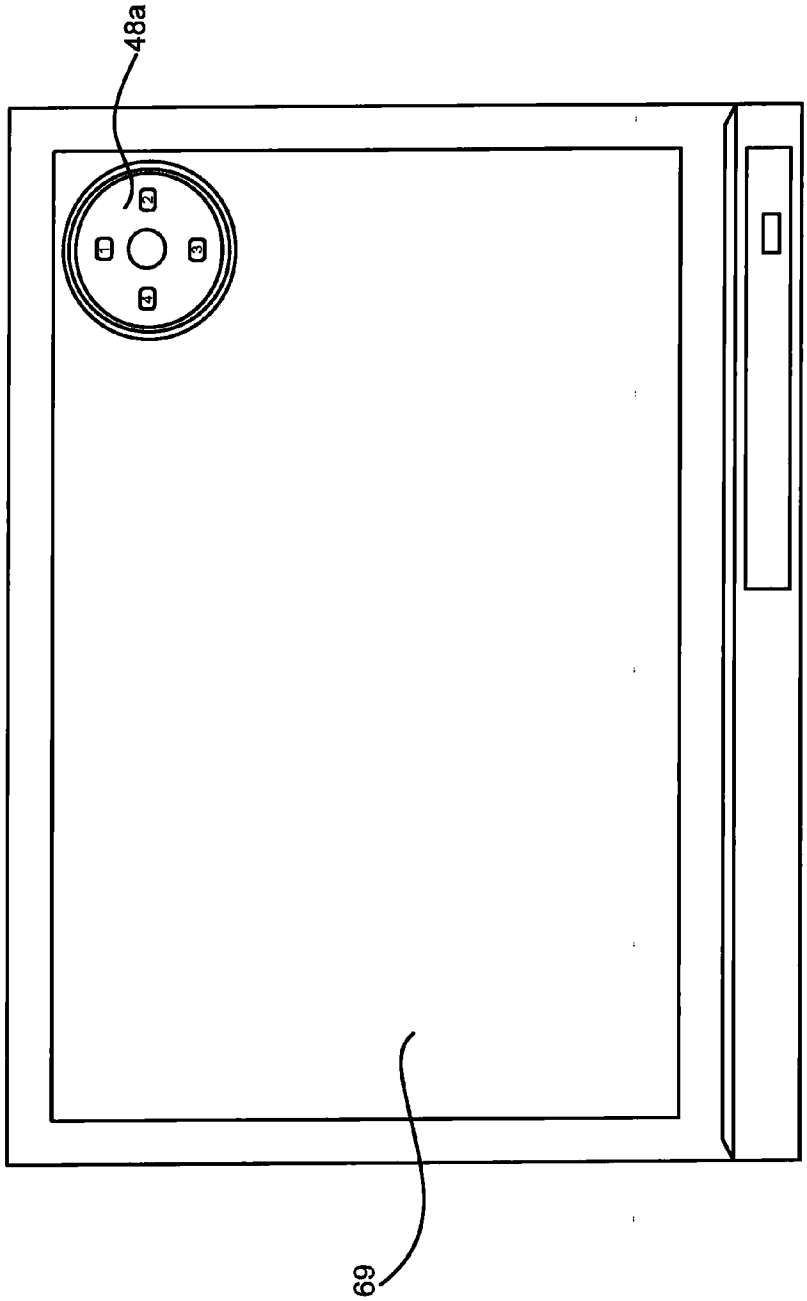


Fig. 16

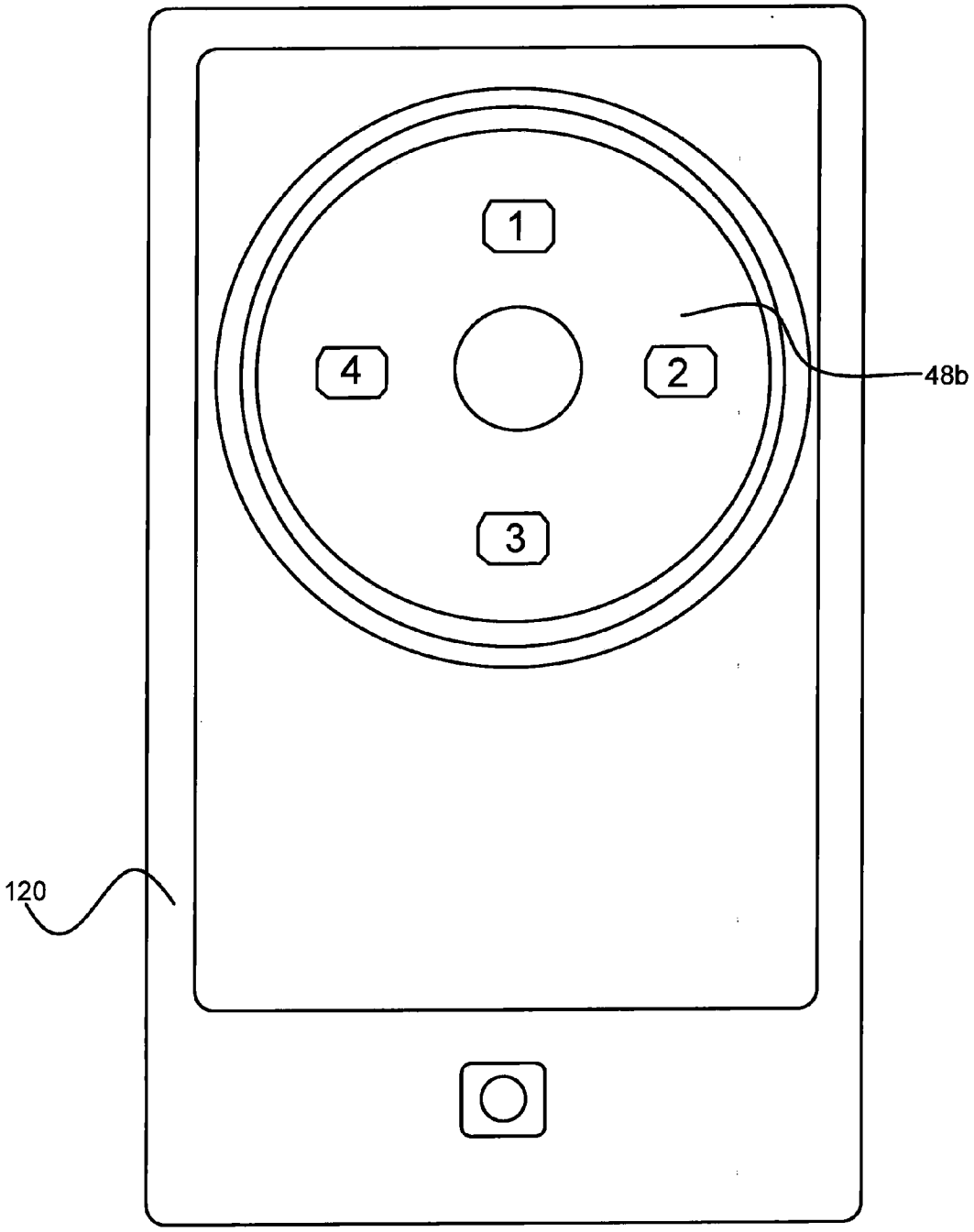


Fig. 17

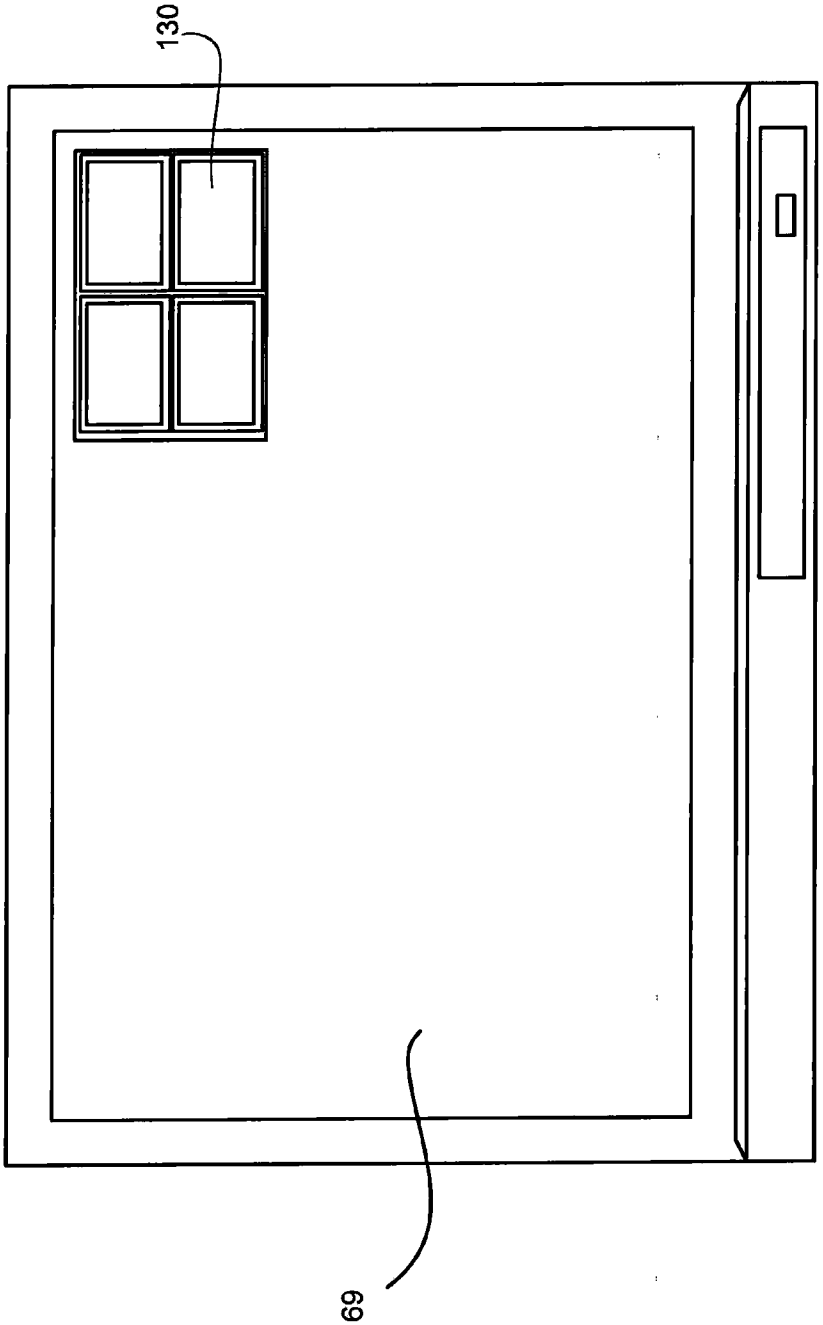


Fig. 18

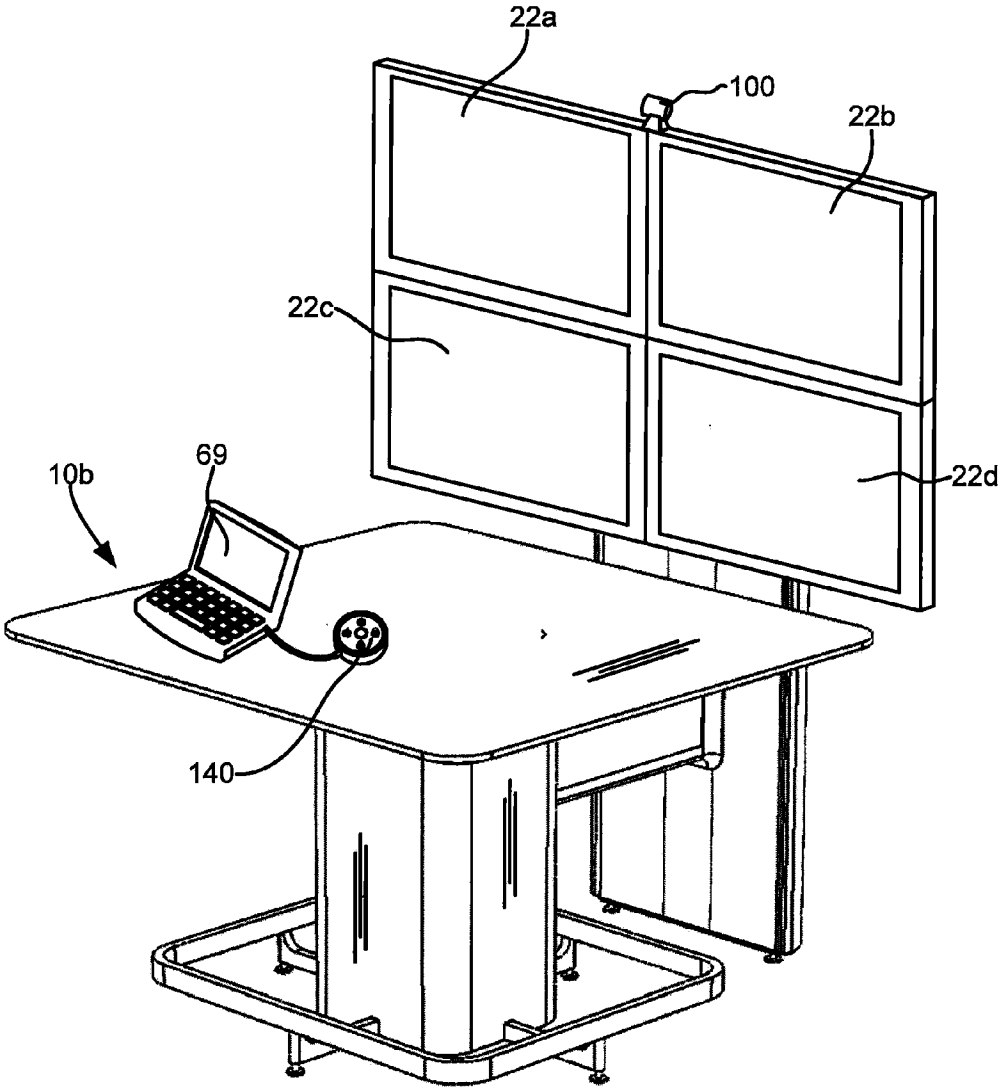


Fig. 19

PERSONAL CONTROL APPARATUS AND METHOD FOR SHARING INFORMATION IN A COLLABORATIVE WORKSPACE

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] Not applicable

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

[0002] Not applicable.

BACKGROUND OF THE INVENTION

[0003] The present invention relates to the presentation of audiovisual information via one or more large format common displays in a collaborative workspace and more specifically to a fast and intuitive controller allowing a meeting participant with a laptop computer to quickly and easily control the presentation of laptop information on common displays.

[0004] Small group conference tables usable as collaborative workspaces have been designed with one or more large video displays such as a LCD flat-panel monitor or a wall suitable for having images projected thereon, connected to or adjacent the conference table. The basic intent behind such workspace designs is to provide information at or near a table edge for attendees to refer to during discussions and presentations. In many cases, the video display is connected to and driven by a dedicated computer.

[0005] Oftentimes, more than one attendee needs to be able to control the information presented on the video display at different times during a conference. One way to allow several attendees to present information on a video display screen is to have each presenter sequentially connect their laptop computer directly to the display or projector with a dedicated audio/video cable. Though straightforward and simple, having to repeatedly disconnect and connect the cable from one laptop computer to another takes time and is disruptive.

[0006] Another way of enabling several attendees to share audiovisual information from their own laptop computers via a common large video display screen is to provide separate audio/video cables for each presenter and connect each of the laptops to an audiovisual switching device that enables the attendees to take control of the common display screen via selection of a button associated with each of the audio/video cables.

[0007] While such an arrangement provide a relatively quick transition between presenters, such arrangements typically require a separate controller or control program and a number of less-than-intuitive steps that must be followed to transition from one presenter to another. Further, known such arrangements do not provide a quick and intuitive indication as to which presenter is sharing their information via the video display screen. As a result, meeting presenters and participants may experience confusion and delay between transitions. Such user experiences may result in a loss of productivity and in general, can be significant impediments to the successful collaboration between conference participants and willingness of participants to use the system.

[0008] Thus, while solutions for managing and controlling the flow of information from interconnected computing devices have been developed, known solutions do not provide simple and intuitive steps for selecting which information is shared via the video display and for indicating which of several video/audio resources currently control presented information.

BRIEF SUMMARY OF THE INVENTION

[0009] It has been recognized that a simple control interface may be provided where the interface provides feedback to configuration users indicating which of several different conference attendees is presenting information via one or more common display screens or presentation spaces. To this end, a separate control interface is provided for each of a plurality of attendees where each interface includes control buttons or the like and indicators that can indicate visually distinguished states. For instance, when a laptop or other video/audio source is linked to one of the control interfaces, the interface may visually indicate that the laptop is in a state wherein the laptop may be used to present information via one or more common displays but that the laptop is not currently presenting. When a user selects one of the buttons on the interface to present information on the common display, the indicator may change appearance to visually indicate to attendees that the laptop linked to the interface is presenting.

[0010] It has also been recognized that where a configuration includes more than one common display, it would be useful to provide an indication to each configuration user as to common display options which can be selected and which common displays are currently being driven via a user's laptop or other source. To this end, in at least some cases each control interface is configured to include a separate selectable buttons for each common display where, when a button is selected so that a source associated with the interface is to drive an associated display, the appearance of the button or an indicator associated therewith is modified to indicate to the user which of the common displays is currently being driven. In particularly advantageous embodiments the indicators include illumination devices wherein different illumination colors indicate different states or conditions.

[0011] Consistent with the above, at least some inventive embodiments include a method of selecting information from a video source to be displayed on at least a first common display screen in a collaborative workspace having a switching device, the method comprising the steps of providing a selectable control interface that includes at least one indicator that can indicate at least first and second different states, associating a video source with the switching device so that video information from the video source is presented to the switching device, when the video source is associated with the switching device, causing the at least one indicator to indicate a first state and, when the selectable control interface is selected, causing the at least one indicator to indicate the second state and providing the video information from the video source to the common display screen via the switching device.

[0012] In at least some cases the step of providing a selectable control interface includes providing a mechanical interface that includes at least one selectable button. In at least some cases the mechanical interface includes a first cable linkable to the video source and a second cable which links to the switching device and wherein the step of associating a video source with the switching device includes linking the first cable to the video source. In at least some cases the indicator includes at least a first illumination device wherein the steps of causing the at least one indicator to indicate the

first and second states includes causing the illumination device to light up first and second different colors, respectively.

[0013] In at least some cases the control interface forms a substantially flat upper surface and wherein the at least a first illumination device transmits light around a periphery of the flat upper surface. In at least some embodiments the method further includes the step of, while the video information from the video source is provided to the shared display screen via the switching device, when the selectable control interface is selected a second time, causing the at least one indicator to indicate the first state and blocking the video information from the video source to the shared display screen via the switching device.

[0014] In at least some cases the method is for use with a system that includes a plurality of common display screens wherein the selectable control interface includes a separate selectable control for each of the plurality of display screens and wherein the at least one indicator includes a separate illumination device for each of the separate selectable controls, the step of causing the at least one indicator to indicate the first state including causing each illumination device associated with a common display screen to generate light of a first color indicating the first state and wherein, when any one of the control interfaces is selected, the method further includes the steps of causing the illumination device associated with the selected control to indicate the second state and providing the video information from the video source to the common display screen associated with the selected control.

[0015] In at least some embodiments the method further includes the steps of providing a second selectable control interface that includes at least one indicator that can indicate at least first and second different states, associating a second video source with the switching device so that video information from the second video source is presented to the switching device, when the second video source is associated with the switching device, causing the at least one indicator on the second control interface to indicate the first state and when the second selectable control interface is selected, causing the at least one indicator on the second control interface to indicate the second state and providing the video information from the second video source to the common display screen via the switching device irrespective of which source was providing video information to the common display screen prior to selection of the second selectable control interface device.

[0016] In some embodiments the video source is a computer including a display screen and wherein the control interface appears on the computer display screen for selection. In some embodiments communication between the computer and the switching device is wireless.

[0017] Other embodiments include a method of selecting information from a video source to be displayed on a subset of M common display screens in a collaborative workspace having a switching device, the method comprising the steps of providing a control interface that includes N selectable controls wherein N is at least as great as M and wherein each control is associated with a separate indicator and each indicator may assume at least first and second visually distinguishable states, associating a video source with the switching device so that video information from the video source is presented to the switching device and when the video source is associated with the switching device, causing a separate indicator for each of the M common display screens to assume the second visual state while the other N-M indicators remain in the first visual state.

[0018] In some embodiments each control includes a separate illumination device which may be illuminated to indicate at least one of the first and second states. In some embodiments each control indicates the second state by exciting an associated illumination device and indicates the first state by cutting off power to the illumination device. In some embodiments each of the indicators may assume a third visually distinguishable state, the method further including the steps of, when any of the selectable controls is selected, causing the indicator associated with the selected control to indicate the third state and providing the video information from the video source to the common display screen via the switching device.

[0019] In some embodiments the control interface is provided via a representation on a computer display screen. In some embodiments the step of providing a control interface includes providing a mechanical interface that includes a cable and wherein the step of associating a video source with the switching device includes linking the video source to the mechanical interface via a cable.

[0020] Still other embodiments include an apparatus for selecting information from a video source to be displayed on at least a first common display screen in a collaborative workspace having a switching device, the apparatus comprising a control interface that includes at least a first indicator that can visually indicate at least first, second and third visually distinguished states wherein the control interface indicates the first state when a video source is disassociated with the switching device, the second state when the video source is associated with the switching device and video information from the video source is not presented via the common display and the third state when the video source is associated with the switching device and video information from the video source is presented via the common display.

[0021] In some embodiments the at least a first indicator includes an illumination device and wherein the first state is indicated by cutting power to the illumination device, the second state is indicated via illumination of a first color and the second state is indicated via illumination of a second color. In some embodiments the control interface includes at least a first selectable control which, when selected, causes the video information from the video source to be presented via the common display and causes the indicator to change from the first state to the second state.

[0022] Other embodiments include an apparatus for selecting information from a video source to be displayed on a subset of M common display screens in a collaborative workspace having a switching device, the apparatus comprising a control interface that includes N selectable controls wherein N is at least as great as M and wherein each control is associated with a separate indicator and each indicator may assume at least first and second visually distinguishable states, wherein, when a video source is not associated with the switching device, each indicator indicates the first state and, when a video source is associated with the switching device, a separate indicator for each of the M common display screens assumes the second state while the other N-M indicators remain in the first state.

[0023] To the accomplishment of the foregoing and related ends, the invention, then, comprises the features hereinafter fully described. The following description and the annexed drawings set forth in detail certain illustrative aspects of the

invention. However, these aspects are indicative of but a few of the various ways in which the principles of the invention can be employed. Other aspects, advantages and novel features of the invention will become apparent from the following detailed description of the invention when considered in conjunction with the drawings.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

[0024] FIG. **1** is a perspective view of a collaborative conference table configuration having four display screens in accordance with at least some aspects of the present invention;

[0025] FIG. **2** is a view of a portion of the configuration shown in FIG. **1**, albeit where a switcher and other components and cables that are typically hidden under the top surface of FIG. **1** are shown in perspective views;

[0026] FIG. **3** includes a top plan view, end views and a side view of the switcher shown in FIG. **2**;

[0027] FIG. **4** is an enlarged perspective view showing one of the puck control assemblies that comprises a portion of the configurations shown in FIG. **1**;

[0028] FIG. **5** is a schematic illustrating components of an exemplary control interface/puck;

[0029] FIG. **6** is a schematic illustrating the puck control assembly of FIG. **4** and a power on button in the first state after the power on button has been selected to cause the system to begin operation;

[0030] FIG. **7** is a schematic illustrating an exemplary screen shot corresponding to a portion of an instructional video that may be presented via one or more of the displays shown in FIG. **1** after the power on button is selected;

[0031] FIG. **8** is similar to FIG. **7**, albeit illustrating a different portion of the instructional video;

[0032] FIG. **9** is similar to FIG. **7**, albeit illustrating yet a different portion of the instructional video;

[0033] FIG. **10** is similar to FIG. **6**, albeit illustrating the state of the puck when a laptop is initially connected thereto;

[0034] FIG. **11** is similar to FIG. **10**, albeit illustrating the state of the puck after a selection button corresponding to one of the display screens of FIG. **1** has been selected;

[0035] FIG. **12** is similar to FIG. **11**, albeit illustrating the puck condition after three buttons corresponding to three of the display screens shown in FIG. **1** have been selected;

[0036] FIG. **13** is similar to FIG. **1**, albeit illustrating another configuration embodiment as consistent with at least some aspects of the present invention;

[0037] FIG. **14** is similar to FIG. **10**, albeit illustrating the puck condition for the system of FIG. **12** where the system only includes two displays;

[0038] FIG. **15** is similar to FIG. **1**, albeit illustrating a system that includes a wireless access device so that laptops and other video/audio sources can link provide data to the displays wirelessly;

[0039] FIG. **16** shows a puck "widget" that may be presented via a laptop display screen;

[0040] FIG. **17** shows a puck "widget" provided on a touch sensitive palm type computing device;

[0041] FIG. **18** is similar to FIG. **16**, albeit showing a different appearing virtual control interface; and

[0042] FIG. **19** is similar to FIG. **15**, albeit where a mechanical interface is included for use with a source.

DETAILED DESCRIPTION OF THE INVENTION

[0043] Referring now to the figures wherein like reference numerals correspond to similar elements throughout the several views and more specifically, referring to FIGS. **1** through **4**, one embodiment of a collaborative workspace configuration **10** that is consistent with at least some aspects of the present invention is illustrated. Workspace configuration **10** includes a display system **12** and a conference table assembly **14**. Various mechanical aspects of configuration **10** are described in co-pending U.S. patent application Ser. No. 12/250,192 that was filed on Oct. 13, 2008 and is titled "Conference Display Configuration" and which is incorporated herein by reference. Hereafter, general mechanical features of the configuration **10** are described that are useful in understanding operation of the current invention. The prior application referenced above should be referred to for more detail regarding the mechanical aspects of configuration **10**.

[0044] Display system **12** includes a totem or stand support structure **28** and four relatively large flat panel displays **22***a*, **22***b*, **22***c* and **22***d*. Totem **28** is vertically oriented and includes a front facing surface **32** to which displays **22***a* through **22***d* are mounted. Displays **22***a* through **22***d* are arranged so that viewing or presentation surfaces face in the same direction and generally away from totem **28**. Displays **22***a* through **22***d* are arranged in a two row and two column arrangement. Although not illustrated, totem **28** includes a housing that forms a cavity in which power and data cables can be received to provide power/data to display **22***a* through **22***d*.

[0045] Conference table assembly **14** includes a support structure **24**, a table top member **26** and a bridge assembly **30**. Support structure **24** generally forms a vertical leg to support top member **26** in a horizontal orientation. Structure **24** also forms an internal cavity for receiving various power, data and communication components as well as other mechanical components such as cable take up subassemblies described in the co-pending patent application referenced above.

[0046] Bridge assembly **30** secures totem **28** to support structure **24** to stabilize totem in a vertical orientation. In addition, although not illustrated, bridge assembly **30** forms an internal channel or cavity for passing power and/or data cables between structure **24** and totem **28**.

[0047] Top member **26** is generally a rigid square flat member that forms a top work surface and a central rectilinear opening. A dual door assembly **36** is mounted within the central opening that includes two door members **39**, **41** that have top surfaces that are flush with the top surface of member **26** when the doors are closed. Each door in hinged to open to allow access to table components there below. Together the doors are dimensioned so that when closed as best seen in FIG. **4**, each door **39** and **41** forms a gap (see **43** and **45**) with the opening around a peripheral edge for passing cables.

[0048] Referring still to FIG. **4**, adjacent the doors **39** and **41** at the edge of the central opening an illuminated button **64** is provided. Although not illustrated, button **64** is linked to a power source. Button **64** is a dual state push button and, in at lease some embodiments, is illuminated all the time. In some embodiments, button **64** may include a universal power indicator symbol indicating to users that the table is powered. By illuminating button **64** even when the table configuration **10** is not being used, the button invites users to start up a conferencing session and is an indicator that the configuration **10** is

operable and ready to use. When not in use button **64** will have a first illuminated color (e.g., white) and when button **64** is selected, the button will be illuminated in a second color (e.g., green) confirming for the user that the button has been selected.

[0049] Referring specifically to FIG. **2**, components mounted within structure **24** below top member **26** include a switching device **16**, a user interface assembly **19** and a power source **55**. Referring also to FIG. **3**, where switching device **16** is shown in four different views, switching device **16**, as the label implies, can be used to switch different input video/audio sources at different input ports to change which input is feeding video/audio output ports. To this end, exemplary switching device **16** includes six input ports collectively identified by numeral **17** (three on either end of device **16**), a video conference input port **42**, and a PC input port **40**. Device **16** includes four video/audio output ports collectively labeled **44**. In operation, switching device **16** can be controlled to output video/audio from any one of the input ports **17**, **40** or **42** to any one or more of output ports **44**. In addition, switching device **16** is controllable so that input from two, three or four of the different inputs **17**, **40** or **42** can be output simultaneously to different ones of the output ports **44**.

[0050] Referring again to FIG. **2**, interface assembly **19** includes a deck member **21** and six selectable control interfaces referred to as "puck" assemblies, two of which are labeled **20**. Deck member **21** forms a top surface **25** for receiving and supporting the puck assemblies **20** when the puck assemblies are in stored positions below covers **39** and **41** (see again FIG. **1**). Each puck assembly **20** is similarly constructed and operated in a similar fashion and therefore, in the interest of simplifying this explanation, only one puck assembly **20** will be described here in detail.

[0051] Referring also to FIG. **4**, exemplary puck assembly **20** includes a puck **48** and first and second video/audio cables **50** and **52**, respectively. Cable **50** is used to link puck **48** to a computer/laptop audio/video output port or other video source while cable **52** links puck **48** through a circuitous path to one of the six input ports **17** shown in FIGS. **2** and **3**. In at least some embodiments, each cable **52** can be taken up by a take up assembly (not shown) below deck member **21** as an associated puck **48** is moved from a use position on top of top member **26** (see FIG. **4**) to a storage position as shown in FIG. **2**. For more detail regarding one possible take up assembly, see US patent application Ser. No. 12/250,192 referenced above. As seen in FIG. **4**, when a puck **48** is pulled into a use position on top of member **26**, cable **52** can pass through gap **43** when door **39** is closed.

[0052] Referring still to FIG. **4** and also to FIG. **5**, exemplary puck **48** includes a disc or puck shaped housing **49** that supports a plurality of components including a processor **71**, an on/off button **58**, first through fourth selectable controls or control buttons **60***a*-**60***d*, four illumination devices **73***a* through **73***d* and an illumination ring **56**. Processor **71** may be a programmable microprocessor or may be configured via digital components. Processor **71** is linked to each of cables **50** and **52** and can sense when cabled **50** is linked to a video/audio source. Processor **50** is also linked to each of buttons **56** and **60***a*-**60***d* to sense when any of those buttons are selected. Processor **50** is further linked to each of illumination devices **73***a* through **73***d* and ring **56** for providing power to and cutting power from each of those devices.

[0053] In at least some embodiments each of illumination devices **73***a*-**73***d* and ring **56** can be controlled to generate light in two different colors such as white and green or can be dark so that at least two or three different states can be indicated in visually distinguished ways.

[0054] As seen in FIG. **4**, each button **60***a*-**60***d* has a different number 1, 2, 3 or 4 indicated thereon. Here, each number 1, 2, 3 or 4 corresponds to a different one of the display screens **22***a* through **22***d* in FIG. **1**. For instance, button **60***a* labeled "**1**" may correspond to screen **22***a*, button **60***b* labeled "**2**" may correspond to screen **22***b*, and so on.

[0055] Referring again to FIGS. **4** and **5**, processor **71** is programmed or configured to determine when a video source is linked to cable **50** as well as when any of buttons **58** or **60***a*-**60***d* is selected and to indicate a current state of the puck and associated video source via the illumination devices **73***a*-**73***d* and ring **56** for the benefit of both the puck user and others gathered around configuration **10**. In addition, processor **71** provides an indication of the display configuration **12** to the puck user. In this regard, in a system including four displays (e.g., the number of common displays is M) as in FIG. **1**, all four screen selection buttons **60***a*-**60***d* (where N is the number of selection buttons) may be illuminated prior to selection to indicate four options that can be selected by the puck user. Where another configuration includes less than four displays, only a subset of buttons **60***a*-**60***d* would be illuminated prior to selection. For instance, in FIG. **2**, where the configuration only includes two displays and hence there are only two display options, only buttons **60***a* and **60***b* would be illuminated prior to selection to indicate only two options to select from. Here, switching device **16** may be configured to sense the number of output ports **44** to which display screens **22***a*-**22***d* or other output devices (e.g., projectors) are linked and provide a feedback signal via cable **52** to processor **71** to indicate the number of buttons **60***a*-**60***d* to illuminate.

[0056] In at least some embodiments the top surface of puck **48** may be formed of a black plastic where, when a button **60***a*-**60***d* is not illuminated, the number 1, 2, 3 or 4 appears dark and blends in with the top puck surface so that the number 1, 2, 3 or 4 is essentially unnoticeable.

[0057] By providing a puck **48** that includes four screen selection buttons **60***a*-**60***d*, a single puck type may be manufactured that can be used with any conferencing configuration including one, two, three or four common displays which reduces design and manufacturing costs appreciably.

[0058] Referring again to FIG. **4**, ring **56** is a ring shaped member disposed generally along a circumferential edge of the top surface of the puck **48**. because puck **48** has a generally low profile, light from ring **56** is relatively easily viewable from all directions above top member **26**. Thus, from any vantage point above top member **26** conference participants can see the visual state of ring **56**.

[0059] While controls **60***a*-**60***d* are described here as buttons, it should be appreciated that controls **60***a*-**60***d* may take any of several different forms. For instance, controls **60***a*-**60***d* may be provided via a touch sensitive interface surface including a separately selectable location or area associated with each button **60***a* through **60***d*.

[0060] In at least some embodiments ring **56** is not illuminated until a video/audio source (e.g., a laptop) is linked to cable **50**. Once a source is linked to cable **50**, if the linked source is supplying video/audio to one or more of displays **22***a*-**22***d* (see FIG. **1**), ring **56** is illuminated in one color (e.g., white) and if the linked source is not currently driving any of displays **22***a*-**22***d*, ring **56** is illuminated in a second color (e.g., green). Thus, ring **56** is useful as an indicator to confer-

ence participants around table top **26** that identifies the person or persons that are currently displaying information on one or more of the common displays **22***a*-**22***d*.

[0061] Referring again to FIGS. **1** and **4**, after a laptop or other video/audio source is linked to cable **50** to provide video via cable **50** to display **22***a*, button **60***a* is selected, to provide video to display **22***b*, button **60***b* is selected, and so on. Prior to each of buttons **60***a*-**60***d* being selected, in at least some embodiments, the buttons **60***a*-**60***d* are not illuminated. In other embodiments, prior to selection, each button **60***a*-**60***d* may be illuminated, like ring **56**, in one color and after selections, each selected button may change to a second illuminated color to distinguish selected from unselected buttons **60***a*-**60***d*.

[0062] Referring again to FIGS. **4** and **5**, central button **58** is provided as an on/off button which may be selected by a puck user to effectively cut off the user's linked laptop or other source from driving displays **22***a*-**22***d*. Thus, where a laptop is linked to cable **50** but a user does not want to inadvertently present laptop information via the common displays, the user can simply press button **58** to render puck **48** ineffective at passing on video/audio to the displays. Here, when button **58** is selected to "turn off" the puck **48**, ring **56** and buttons **60***a*-**60***d*, in at lease some cases, are no longer illuminated.

[0063] Referring now to FIGS. **1** and **4**, prior to any laptop or other source being linked to configuration **10** to drive displays **22***a*-**22***d*, indicator button **64** may be illuminated with a white color to indicate to persons in the vicinity that configuration **10** is powered and ready for use. Hereinafter, a white light will be indicated in the figures via a double hatch (see **64** in FIG. **4**) and a green light will be indicated via a single hatch (see **64** in FIG. **6**). When a person wants to use configuration **10**, the person presses button **64** which causes button **64** to change from white to green as shown in FIG. **6** to signal to the person that the system is powering up.

[0064] In addition, when button **64** is pressed, in at least some embodiments, a short video clip is presented via one or more of displays **22***a*-**22***d* providing simple instructions to the person who pressed button **64** regarding how to use configuration **10**. Referring to FIGS. **7**-**9**, exemplary screen shots showing images consistent with a simple instruction video are illustrated. In FIG. **7**, a graphic of the utility bay door **39** opening **51** adjacent a laptop image **53** (i.e., a source image) is shown to indicate that one of the doors **37** or **41** (see FIG. **1**) should be opened. In FIG. **8** a puck **57** is shown moving out of the cavity under the door **51** and onto the work surface where the cable **59** associated with the puck is linked to the laptop **53**. In FIG. **9** a phantom user's hand image **61** is shown moving toward and over the puck image **57** to select one of the buttons provided thereby. Here, the instructional video clip is intentionally extremely simplified and includes only three steps "open", "connect" and "share." In at least some embodiments the instructions are only provided once and the duration is extremely short (e.g., approximately **15** seconds) which gives a user a sense that configuration **10** is particularly easy to use.

[0065] Following the instructions, as shown in FIG. **10**, a user pulls one of the pucks **48** from the cavity below a door **39** or **41** and links a laptop **69** to the puck **48** via cable **50** (see also FIG. **1**). Once a laptop **69** is linked to cable **50**, ring **59** as well as selectable buttons **60***a*-**60***d* are illuminated white (see double crosshatch in FIG. **9**) to indicate to the laptop user that the user is linked and can opt to present information from the user's laptop screen via any one or combination of displays **22***a*-**22***d* corresponding to illuminated buttons **60***a*-**60***d*, respectively. Here, the white light ring **56** also indicates that currently the user of puck **48** is not presenting via any of displays **22***a*-**22***d*.

[0066] Referring to FIG. **11**, when a puck user wants to present information from her laptop **69** display via display screen **22***a*, the user presses button **60***a* to indicate intention to drive display **22***a*. Once button **60***a* is selected, four things happen. First, information currently displayed via display **22***a* is replaced by the information from the user's laptop **69** display. Second, if a different laptop was previously presenting information via display **22***a* when button **60***a* is selected, the other user's puck illumination may change. For instance, if the other user was only displaying via display **22***a* when displaced, the other user's puck's ring **56** will change from green back to white illumination indicating the user is no longer driving any of displays **22***a*-**22***d*. As another instance, where another user was driving each of displays **22***a* and **22***c* when button **60***a* is selected, the other user's puck ring will remain green after displacement from screen **22***a* to indicate that the other user is still driving display **22***c* despite being displaced from display **22***a*. In addition, in this case, the other user's puck button **60***a* will be illuminated white after displacement from screen **22***a* while button **60***c* will remain green indicating that the other user is still driving display **22***c*.

[0067] Third, to indicate that the user of puck **48** in FIG. **10** is now driving at least one of displays **22***a*-**22***d*, ring **56** on puck **48** changes from white to green (see single cross hatch ring in FIG. **10**). Fourth, to let the puck user know which displays **22***a*-**22***d* she is currently driving, button **60***a* illumination changes from white to green. Here, other buttons **60***b*-**60***d* that were not selected remain white (i.e., they are shown as double cross hatched).

[0068] If the user next wants to display her laptop information via displays **22***a*-**22***c*, referring to FIG. **12**, the user selects button **60***b* and **60***c* which cause information from the user's laptop screen to replace any existing information on displays **22***b* and **22***c*, causes other puck illumination to change accordingly and causes buttons **60***b* and **60***c* to change from white to green illumination. At this point, as shown in FIG. **12**, each of buttons **60***a*-**60***c* and ring **56** are illuminated green while button **60***d* remains white.

[0069] To relinquish control of a display **22***a*-**22***d* currently controlled, in at least some embodiments, the button **22***a*-**22***d* corresponding to a display **22***a*-**22***d* can be selected a second time. In the iterative, to relinquish control of displays **22***a*-**22***d*, on/off button **58** may be selected. Once display control is relinquished, puck **48** illumination is updated accordingly.

[0070] After a configuration session is over and all sources have been disconnected from cables **50**, the system will eventually time out (e.g., approximately 15 minutes) and will power down so that button **64** returns to its white illuminated state (see again FIG. **4**).

[0071] Referring now to FIG. **13**, a second configuration **10***a* that is consistent with at least some aspects of the present invention is illustrated. Configuration **10***a* is different than configuration **10** in two general ways. First, configuration **10** has an oval table shape top member **260** as opposed to rectangular. Second, configuration **10** includes only two displays **122***a* and **122***d* instead of four. Here, referring also to FIG. **14**, in at least some embodiments, it is contemplated that when a laptop **69** is linked to a puck **48** initially so ring **56** is illuminated white, only buttons **60***a* and **60***b* would illuminate white

thereby indicating to a user that there are only two display choices **122***a* and **122***b* instead of four. Other operation of configuration **10***a* is similar to that described above.

[0072] Referring now to FIG. **15**, in at least some embodiments it is contemplated that laptops **69** and other visual/audio sources may be able to wirelessly link up to a configuration **10***b* processor via a wireless access device **100** or the like. In this case the configuration **10***b* may not need a utility bay and will not require cable hookups or physical pucks. Here, where a source **69** is associated with the configuration for control purposes, referring also to FIG. **16**, a software "widget" puck representation or control interface representation (hereafter a "widget") **48***a* may be provided on screen. In this case it is contemplated that the widget **48***a* will have an appearance similar to the appearance of interface **60** and button **58** where different widget areas corresponding to buttons **60***a*-**60***d* and **58** will be selectable via a mouse controlled cursor or touch (in the case of a touch sensitive display) for selection. In this case it is contemplated that when a virtual button on the widget is selected, the functionality and illumination described above with respect to puck **48** would occur. When the widget ring **56** is illuminated, the laptop could beep or buzz (i.e., create an audible signal of some type) to indicate which laptop has taken control.

[0073] In yet another embodiment where a laptop source user has a touch screen phone or other palm type computing device in addition to the laptop/source, a widget may be provided via the palm type device where the widget size can be enlarged to include much of the display. To this end see FIG. **17** that shows a palm type device **120** that includes a large touch screen where a virtual puck palm device **120** and laptop **69** would have to be associated in some way so that palm device control would cause the correct/associated laptop information to drive appropriate displays **22***a*-**22***d*.

[0074] In a wireless system where a widget or virtual control interface is presented via a display screen, the control interface may take any of several different forms. For instance, where a configuration includes four common displays (see FIG. **1**), the control interface **130** may have an appearance as in FIG. **18** that shows screen selections in a pattern that mimics the pattern of the four display screens **22***a*-**22***d*. Where a system includes only two displays (see FIG. **13**), the virtual control interface may only include an image of two selectable displays, and so on.

[0075] Referring to FIG. **19**, in wireless embodiments, a mechanical control interface **140** akin to puck **48** described above may be provided where the interface **140** links to a USB port or the like on a laptop **69**. Here, interface **140** operates in the same fashion as puck **48** described above except that control signals from interface **140** are provided to a switching device wirelessly through the laptop. In this case interface **140** still provides a visual queue to conference participants using configuration **10***b* indicating which laptop(s)/source(s) is being used to drive the displays.

[0076] In some embodiments one or more projectors (not illustrated) may replace the displays **22***a*-**22***d*. Where a system includes a single projector, the projected image may be divided into two, four, etc., separate presentation spaces where each switching device output **44** drives a different one of the presentation spaces so that multiple sources can be used to display in different spaces simultaneously.

[0077] Several specific embodiments of the present invention have been described above. It should be appreciated that in the development of any such actual implementation, as in any engineering or design project, numerous implementation-specific decisions must be made to achieve the developers' specific goals, such as compliance with system-related and business related constraints, which may vary from one implementation to another. Moreover, it should be appreciated that such a development effort might be complex and time consuming, but would nevertheless be a routine undertaking of design, fabrication, and manufacture for those of ordinary skill having the benefit of this disclosure.

[0078] For example, while the pucks **48** described above include illumination devices controllable to indicate different states, it should be appreciated that other indicators that can visually distinguish states are contemplated. For instance, each button **60***a*-**60***d* in FIG. **4** may include a liquid crystal display type device where different cross hatching indicates different statuses. As another example, in at least some embodiments it is contemplated that each time a presentation state changes, a puck or other system component may generate an audible signal to indicate a state change (see audio generator **77** in FIG. **5**). In addition, while the embodiments illustrated include two or four displays supported by a totem, it should be appreciated that the illustrated embodiments are only exemplary and that other numbers of displays may be supported by a totem or that displays may in some cases be mounted to a wall or other supporting structure proximate a conferencing table.

[0079] Thus, the invention is to cover all modifications, equivalents, and alternatives falling within the spirit and scope of the invention as defined by the following appended claims.

What is claimed is:

1. A method of selecting information from a video source to be displayed on at least a first common display screen in a collaborative workspace having a switching device, the method comprising the steps of:

providing a selectable control interface that includes at least one indicator that can indicate at least first and second different states;

associating a video source with the switching device so that video information from the video source is presented to the switching device;

when the video source is associated with the switching device, causing the at least one indicator to indicate a first state; and

when the selectable control interface is selected, causing the at least one indicator to indicate the second state and providing the video information from the video source to the common display screen via the switching device.

2. The method of claim **1** wherein the step of providing a selectable control interface includes providing a mechanical interface that includes at least one selectable button.

3. The method of claim **2** wherein the mechanical interface includes a first cable linkable to the video source and a second cable which links to the switching device and wherein the step of associating a video source with the switching device includes linking the first cable to the video source.

4. The method of claim **3** wherein the indicator includes at least a first illumination device wherein the steps of causing the at least one indicator to indicate the first and second states includes causing the illumination device to light up first and second different colors, respectively.

5. The method of claim **4** wherein the control interface forms a substantially flat upper surface and wherein the at

least a first illumination device transmits light around a periphery of the flat upper surface.

6. The method of claim **1** further including the step of, while the video information from the video source is provided to the shared display screen via the switching device, when the selectable control interface is selected a second time, causing the at least one indicator to indicate the first state and blocking the video information from the video source to the shared display screen via the switching device.

7. The method of claim **1** for use with a system that includes a plurality of common display screens wherein the selectable control interface includes a separate selectable control for each of the plurality of display screens and wherein the at least one indicator includes a separate illumination device for each of the separate selectable controls, the step of causing the at least one indicator to indicate the first state including causing each illumination device associated with a common display screen to generate light of a first color indicating the first state and wherein, when any one of the control interfaces is selected, the method further includes the steps of:

causing the illumination device associated with the selected control to indicate the second state; and

providing the video information from the video source to the common display screen associated with the selected control.

8. The method of claim **1** further including the steps of providing a second selectable control interface that includes at least one indicator that can indicate at least first and second different states;

associating a second video source with the switching device so that video information from the second video source is presented to the switching device;

when the second video source is associated with the switching device, causing the at least one indicator on the second control interface to indicate the first state; and

when the second selectable control interface is selected, causing the at least one indicator on the second control interface to indicate the second state and providing the video information from the second video source to the common display screen via the switching device irrespective of which source was providing video information to the common display screen prior to selection of the second selectable control interface device.

9. The method of claim **1** wherein the video source is a computer including a display screen and wherein the control interface appears on the computer display screen for selection.

10. The method of claim **9** wherein communication between the computer and the switching device is wireless.

11. A method of selecting information from a video source to be displayed on a subset of M common display screens in a collaborative workspace having a switching device, the method comprising the steps of:

providing a control interface that includes N selectable controls wherein N is at least as great as M and wherein each control is associated with a separate indicator and each indicator may assume at least first and second visually distinguishable states;

associating a video source with the switching device so that video information from the video source is presented to the switching device; and

when the video source is associated with the switching device, causing a separate indicator for each of the M common display screens to assume the second visual state while the other N-M indicators remain in the first visual state.

12. The method of claim **11** wherein each control includes a separate illumination device which may be illuminated to indicate at least one of the first and second states.

13. The method of claim **12** wherein each control indicates the second state by exciting an associated illumination device and indicates the first state by cutting off power to the illumination device.

14. The method of claim **11** wherein each of the indicators may assume a third visually distinguishable state, the method further including the steps of, when any of the selectable controls is selected, causing the indicator associated with the selected control to indicate the third state and providing the video information from the video source to the common display screen via the switching device.

15. The method of claim **11** wherein the control interface is provided via a representation on a computer display screen.

16. The method of claim **11** wherein the step of providing a control interface includes providing a mechanical interface that includes a cable and wherein the step of associating a video source with the switching device includes linking the video source to the mechanical interface via a cable.

17. An apparatus for selecting information from a video source to be displayed on at least a first common display screen in a collaborative workspace having a switching device, the apparatus comprising:

a control interface that includes at least a first indicator that can visually indicate at least first, second and third visually distinguished states wherein the control interface indicates the first state when a video source is disassociated with the switching device, the second state when the video source is associated with the switching device and video information from the video source is not presented via the common display and the third state when the video source is associated with the switching device and video information from the video source is presented via the common display.

18. The apparatus of claim **17** wherein the at least a first indicator includes an illumination device and wherein the first state is indicated by cutting power to the illumination device, the second state is indicated via illumination of a first color and the second state is indicated via illumination of a second color.

19. The apparatus of claim **17** wherein the control interface includes at least a first selectable control which, when selected, causes the video information from the video source to be presented via the common display and causes the indicator to change from the first state to the second state.

20. An apparatus for selecting information from a video source to be displayed on a subset of M common display screens in a collaborative workspace having a switching device, the apparatus comprising:

a control interface that includes N selectable controls wherein N is at least as great as M and wherein each control is associated with a separate indicator and each indicator may assume at least first and second visually distinguishable states, wherein, when a video source is not associated with the switching device, each indicator indicates the first state and, when a video source is associated with the switching device, a separate indicator for each of the M common display screens assumes the second state while the other N-M indicators remain in the first state.

* * * * *

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(54) **METHOD AND APPARATUS FOR WIRELESS IMAGE TRANSMISSION TO A PROJECTOR**

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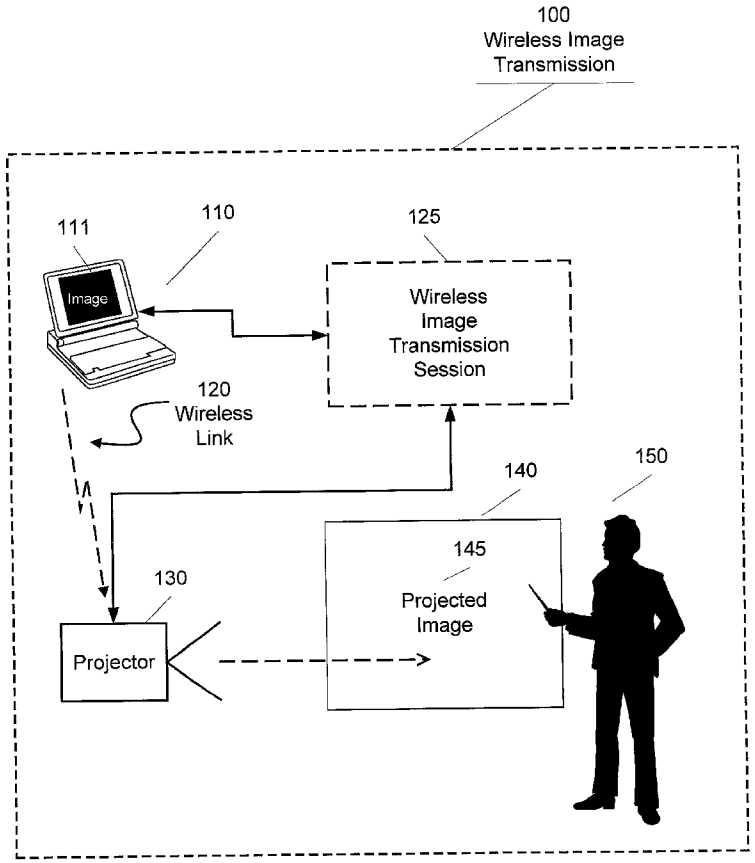
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(52) **U.S. Cl.** **348/744**; 725/143

(57) **ABSTRACT**

A method and apparatus is provided in which a digital image is transmitted to a presentation projector resource over a wireless transmission medium using a reduced amount of transmission bandwidth by transmitting a subset of the digital image data. The subset image data may be a delta subset that represents those areas of the image that have changed since the previous transmission. The subset image data may also be a scalable vector graphics representation of the subset of the digital image. Header data is provided to further describe the subset image data. A projector discovery logic selects a suitable projector resource based on the order or signal strength of the discovery replies. A wireless image transmission session is established with the selected projector resource during which the projector is unavailable to other devices. The subset image data may be compressed and transmission coordinated with the projector resource so that the data is sent only when it is ready to be received. A wireless to digital visual interface (DVI) graphics engine decompresses and renders the image for output to a DVI connector receptacle. The rendered image is projected by the projector resource in accordance with the associated header data so that the exact image that appears on the image generation device also appears on the projected display.



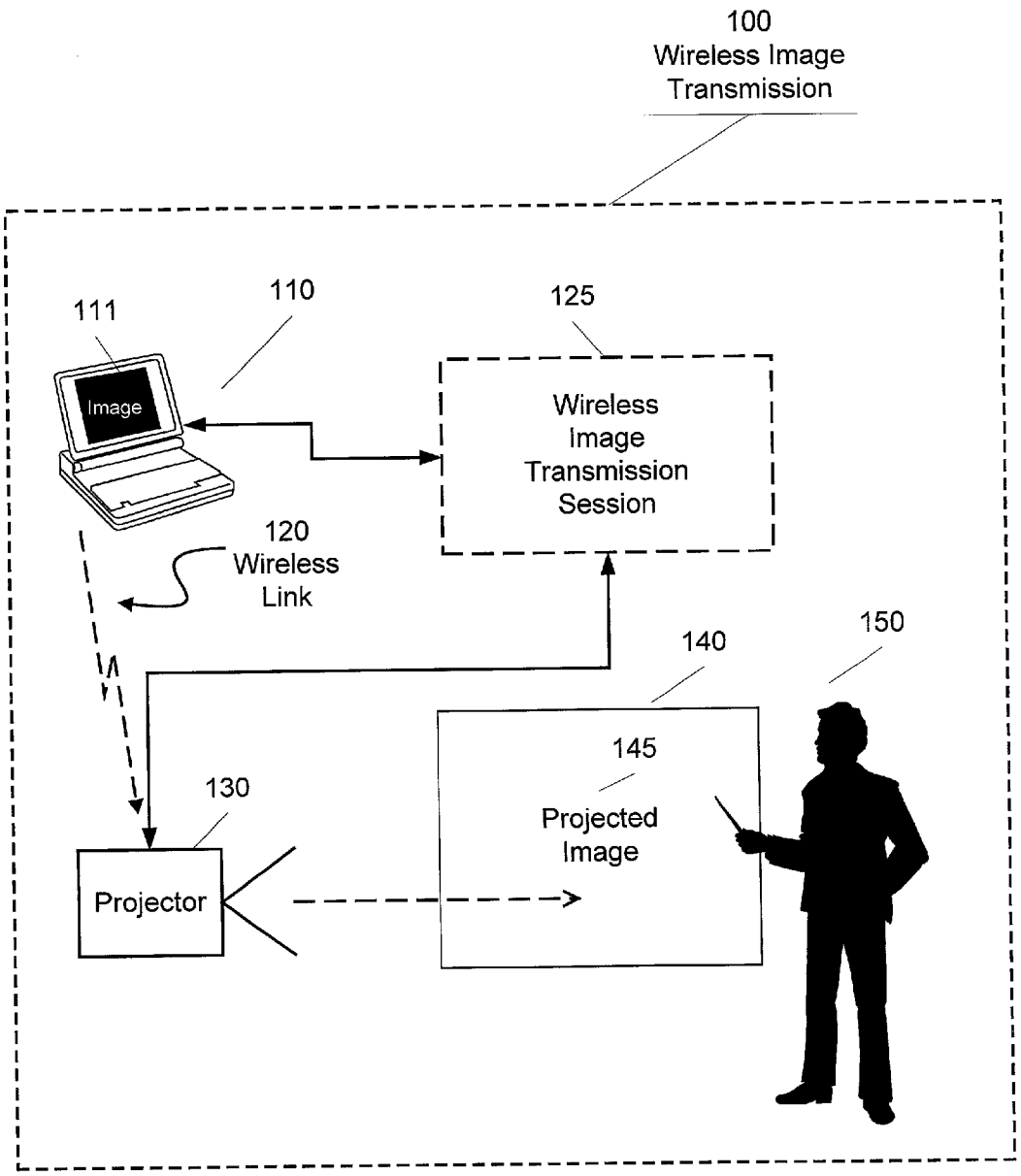

100
Wireless Image
Transmission
111
110
125
Image
Wireless
Image
Transmission
Session
120
Wireless
Link
140
150
145
130
Projected
Image
Projector

FIG. 1

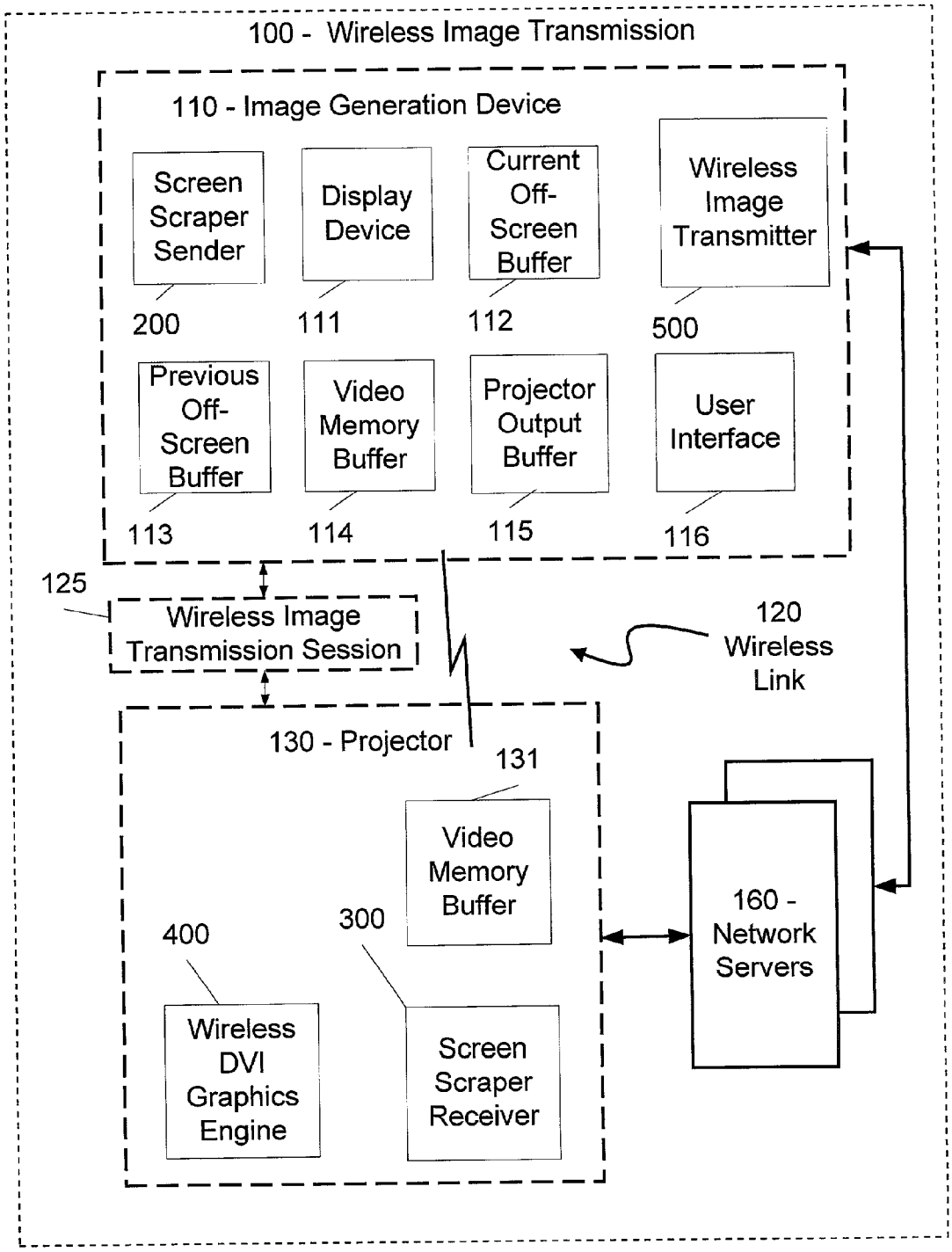

100 - Wireless Image Transmission
110 - Image Generation Device
Screen Scraper Sender
Display Device
Current Off-Screen Buffer
Wireless Image Transmitter
200
111
112
500
Previous Off-Screen Buffer
Video Memory Buffer
Projector Output Buffer
User Interface
113
114
115
116
125
Wireless Image Transmission Session
120 Wireless Link
130 - Projector
131
Video Memory Buffer
300
400
Wireless DVI Graphics Engine
Screen Scraper Receiver
160 - Network Servers

FIG. 2

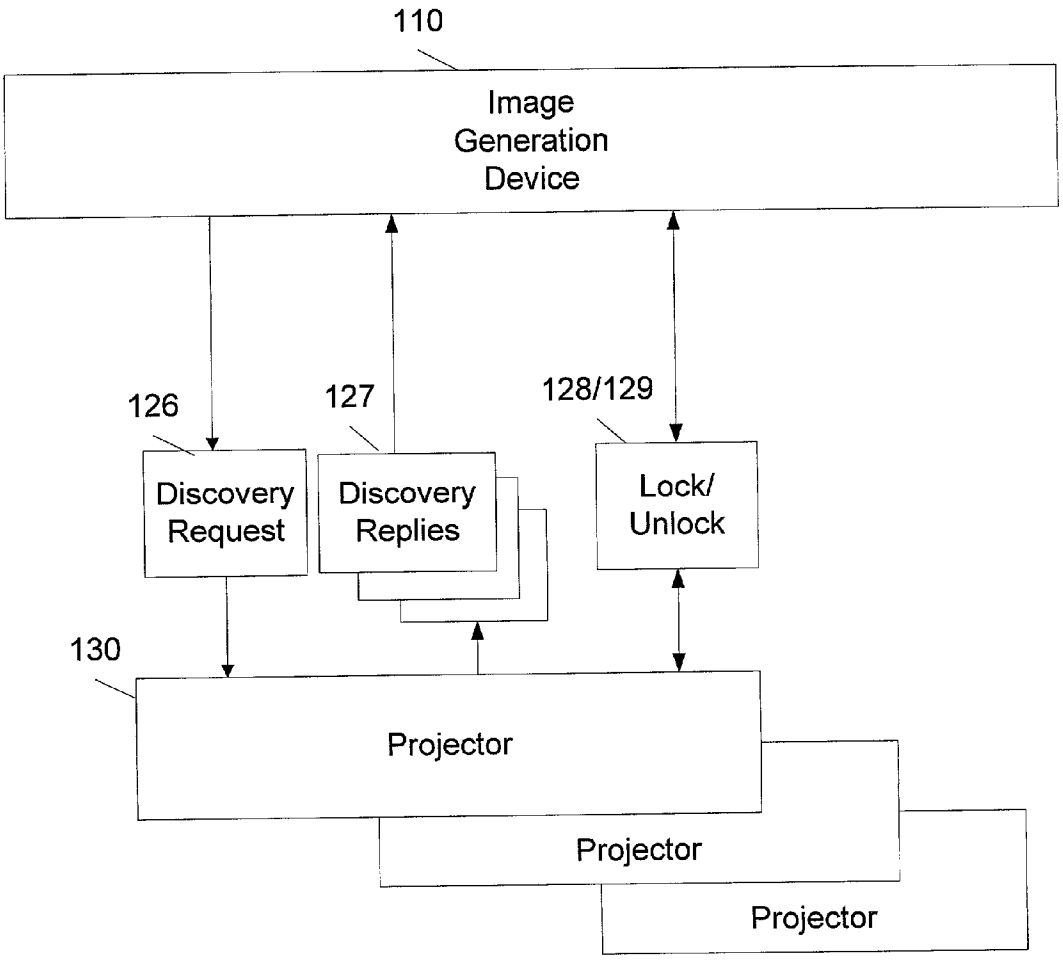

110
Image Generation Device
126
127
128/129
Discovery Request
Discovery Replies
Lock/ Unlock
130
Projector
Projector
Projector

FIG. 3

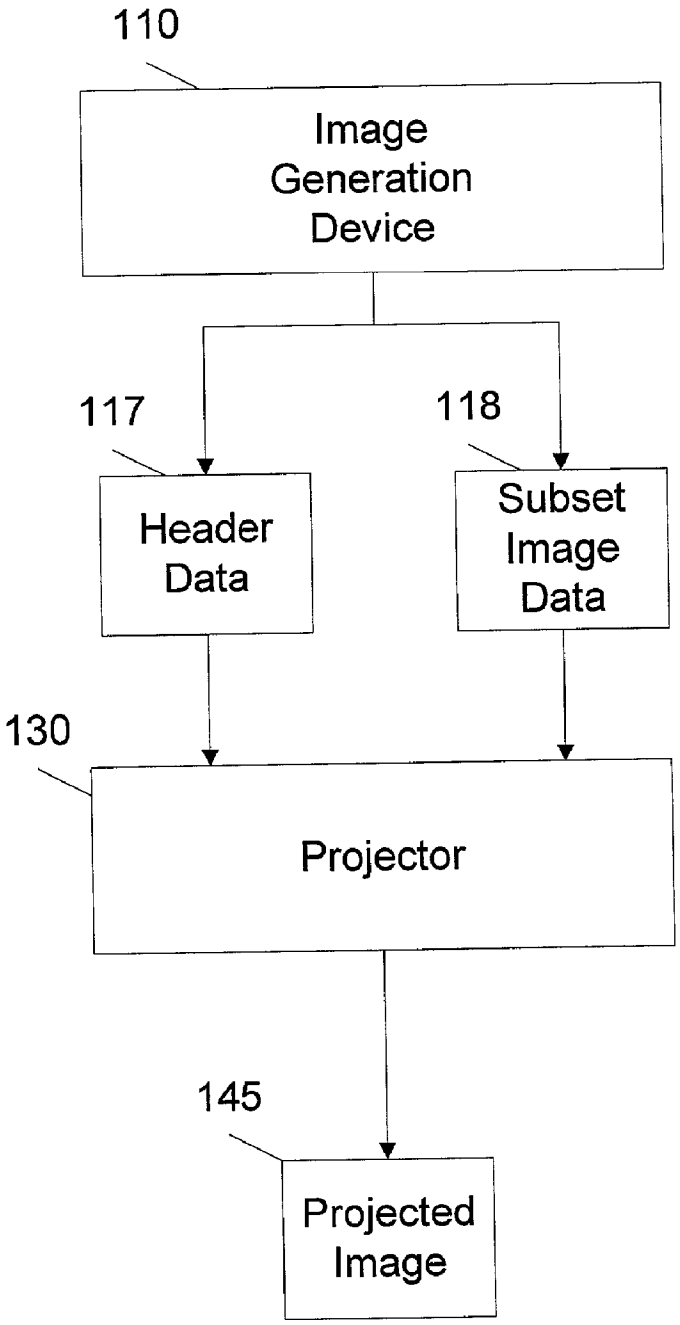

110
Image Generation Device
117
118
Header Data
Subset Image Data
130
Projector
145
Projected Image

FIG. 4

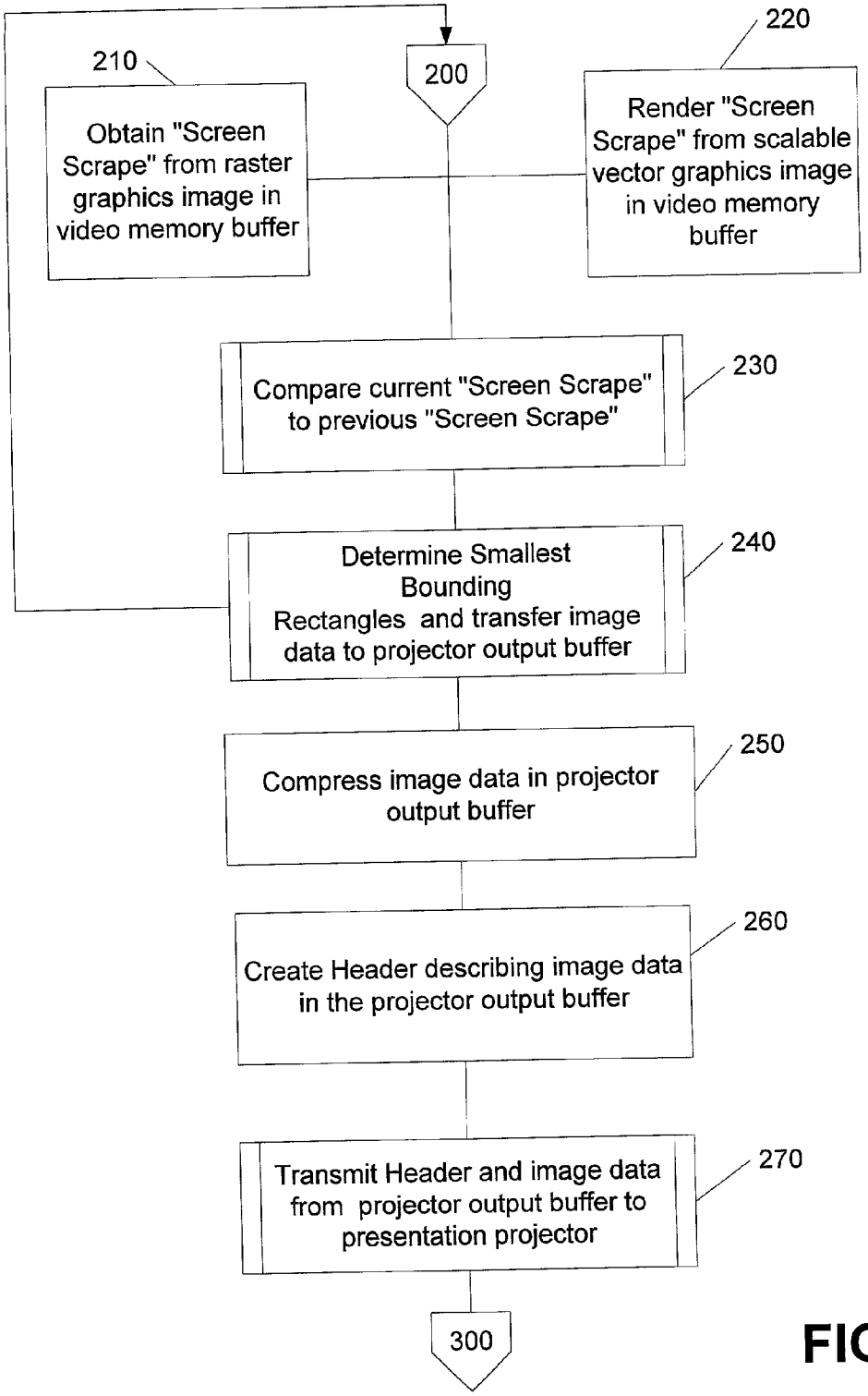

200
210
Obtain "Screen Scrape" from raster graphics image in video memory buffer
220
Render "Screen Scrape" from scalable vector graphics image in video memory buffer
Compare current "Screen Scrape" to previous "Screen Scrape"
230
Determine Smallest Bounding Rectangles and transfer image data to projector output buffer
240
Compress image data in projector output buffer
250
Create Header describing image data in the projector output buffer
260
Transmit Header and image data from projector output buffer to presentation projector
270
300

FIG. 5

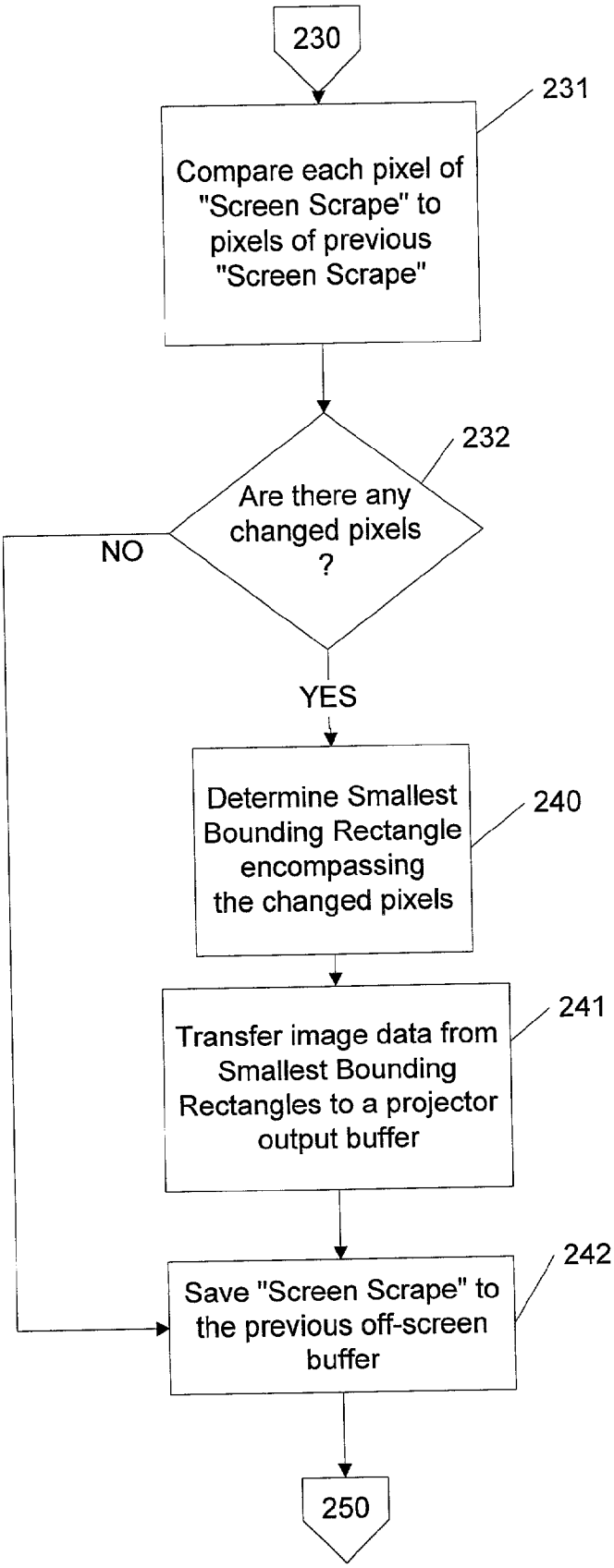

230
231
Compare each pixel of "Screen Scrape" to pixels of previous "Screen Scrape"
232
Are there any changed pixels ?
NO
YES
Determine Smallest Bounding Rectangle encompassing the changed pixels
240
Transfer image data from Smallest Bounding Rectangles to a projector output buffer
241
Save "Screen Scrape" to the previous off-screen buffer
242
250

FIG. 6

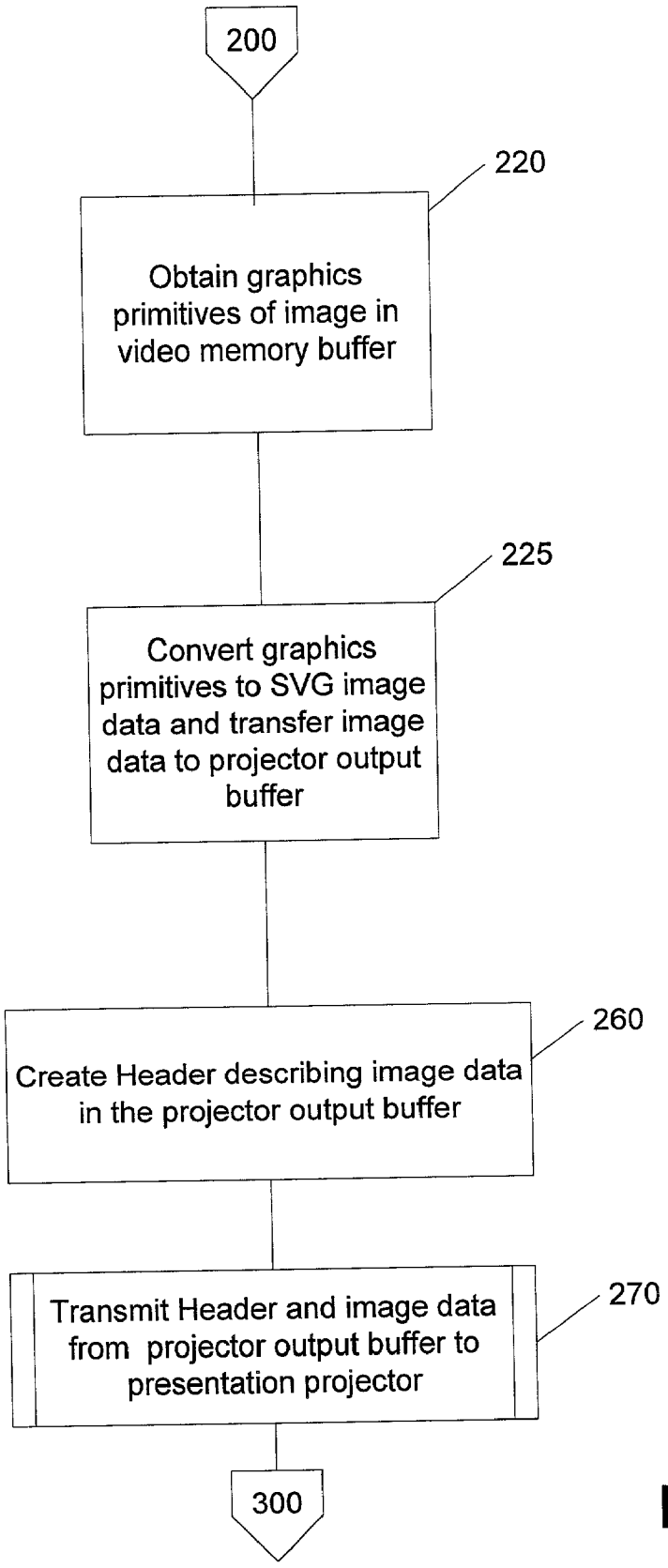

200
220
Obtain graphics primitives of image in video memory buffer
225
Convert graphics primitives to SVG image data and transfer image data to projector output buffer
260
Create Header describing image data in the projector output buffer
270
Transmit Header and image data from projector output buffer to presentation projector
300

FIG. 7

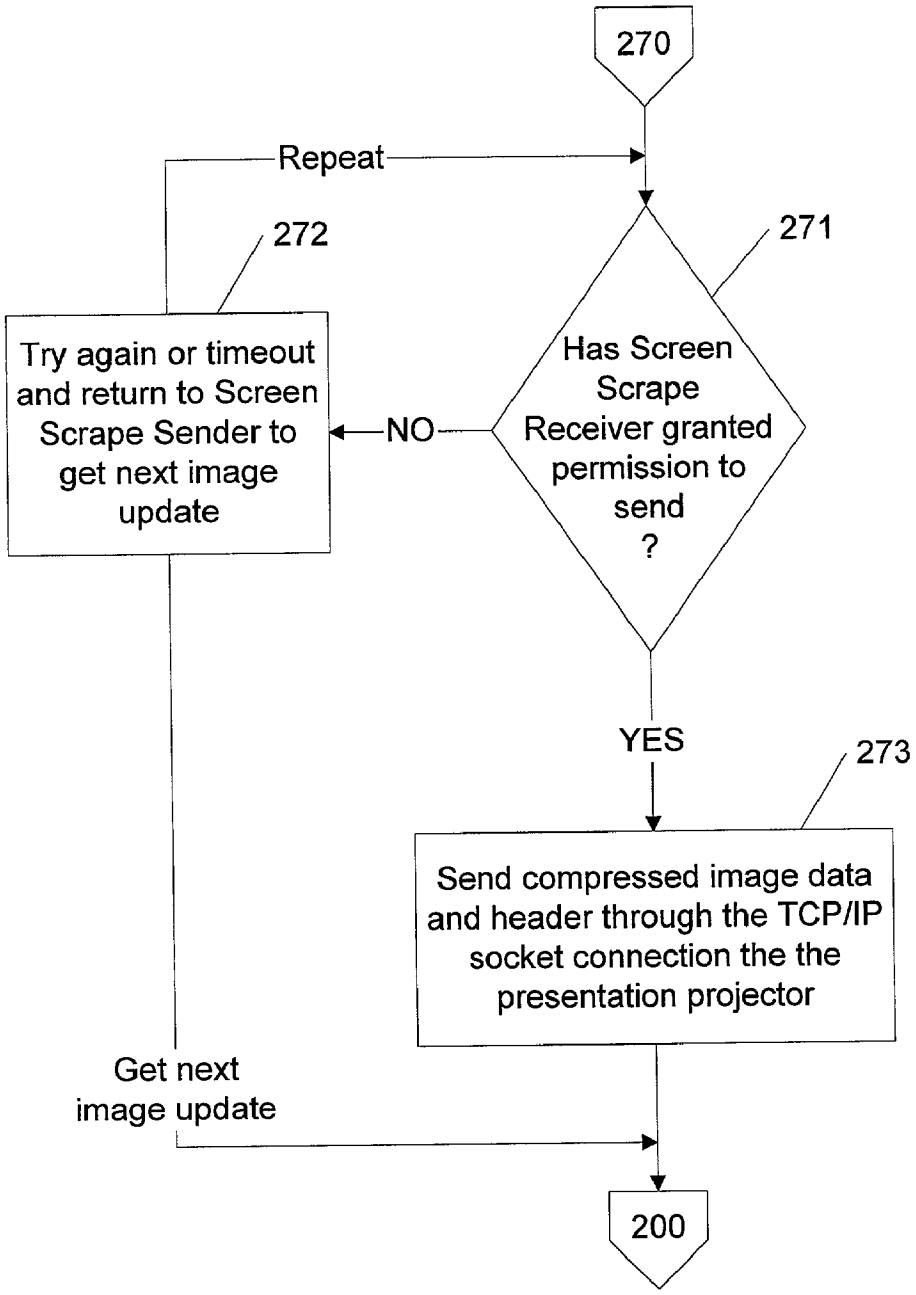

270
Repeat
272
271
Try again or timeout and return to Screen Scrape Sender to get next image update
NO
Has Screen Scrape Receiver granted permission to send ?
YES
273
Send compressed image data and header through the TCP/IP socket connection the the presentation projector
Get next image update
200

FIG. 8

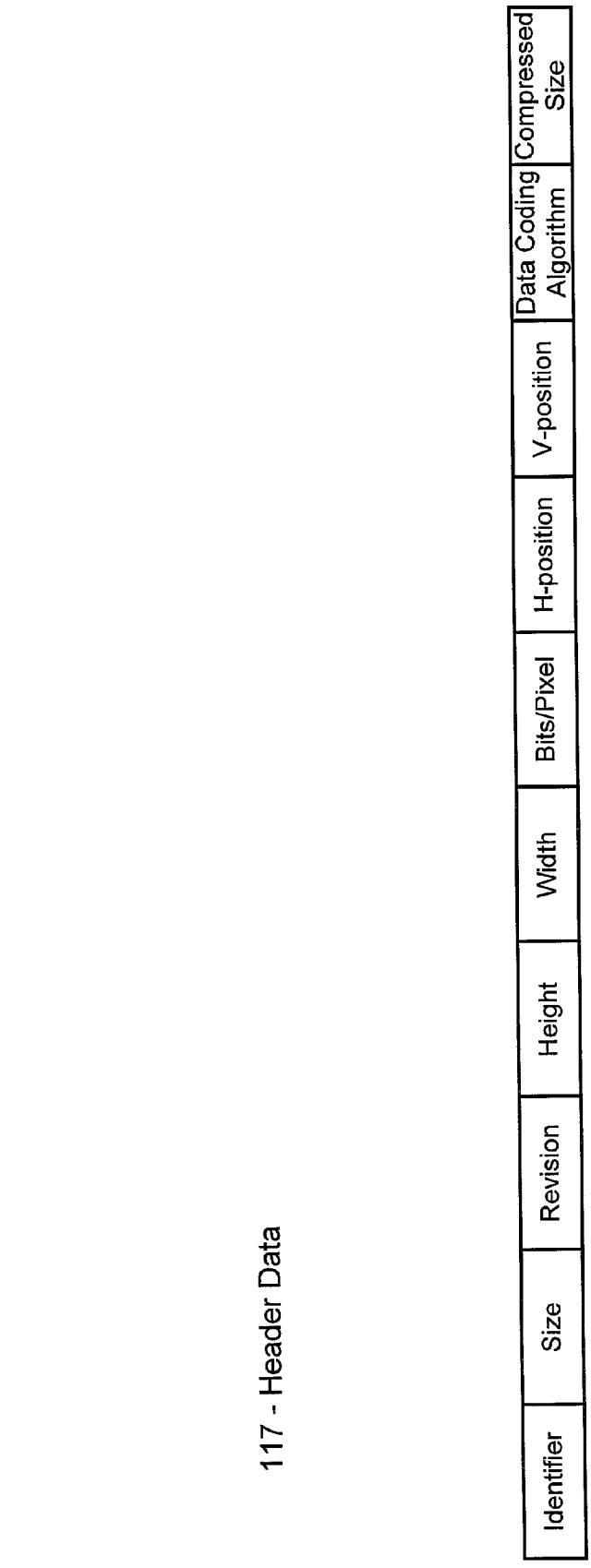

117 - Header Data
Identifier
Size
Revision
Height
Width
Bits/Pixel
H-position
V-position
Data Coding Algorithm
Compressed Size

FIG. 9

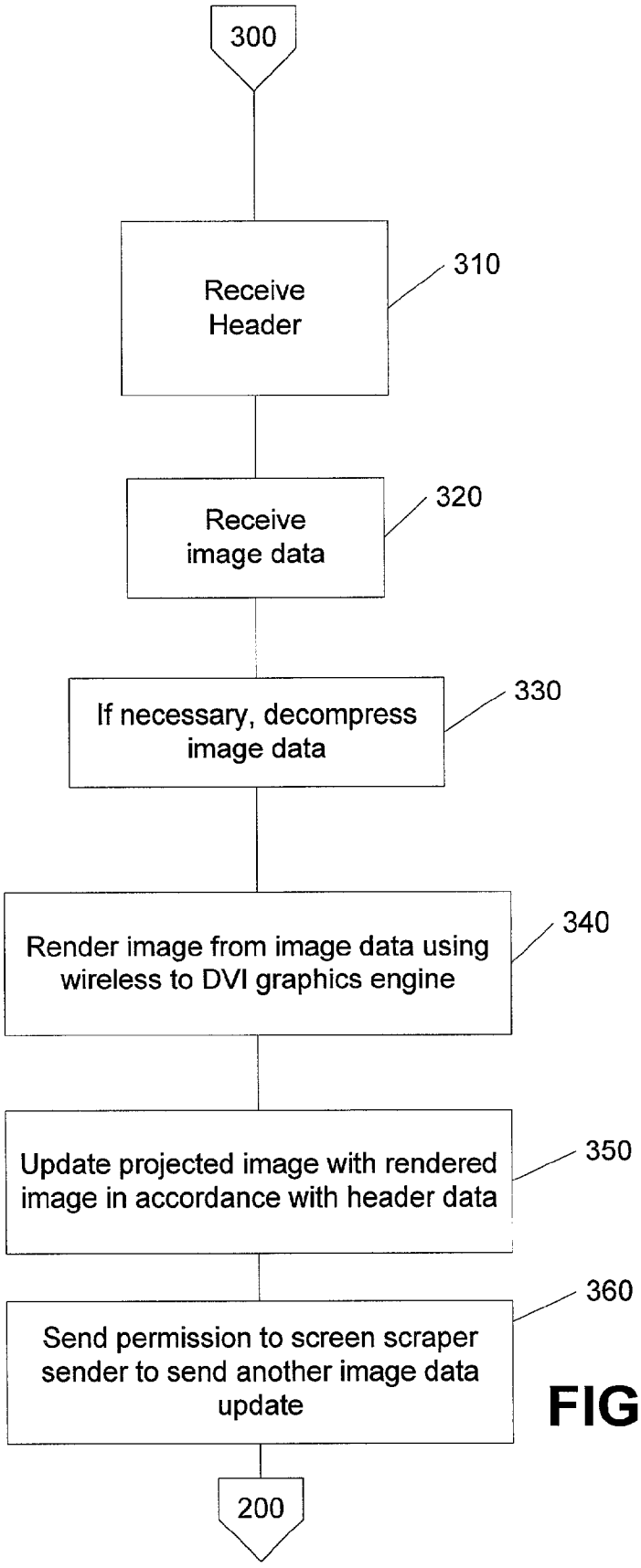

300
Receive Header
310
Receive image data
320
If necessary, decompress image data
330
Render image from image data using wireless to DVI graphics engine
340
Update projected image with rendered image in accordance with header data
350
Send permission to screen scraper sender to send another image data update
360
200

FIG. 10

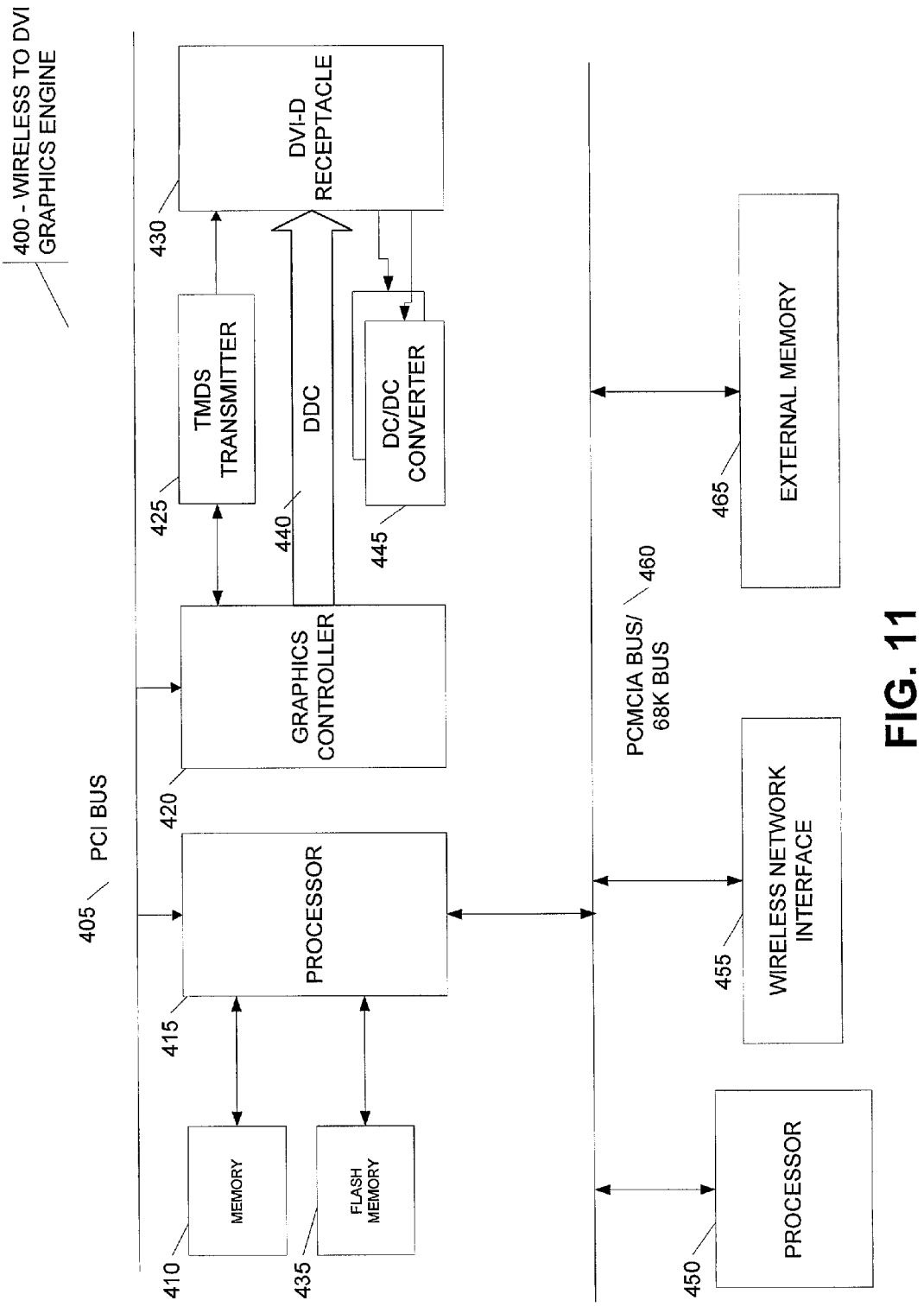

400 - WIRELESS TO DVI GRAPHICS ENGINE
DVI-D RECEPTACLE
430
TMDS TRANSMITTER
425
DDC
440
DC/DC CONVERTER
445
GRAPHICS CONTROLLER
420
PCI BUS
405
PROCESSOR
415
MEMORY
410
FLASH MEMORY
435
PCMCIA BUS/ 68K BUS
460
EXTERNAL MEMORY
465
WIRELESS NETWORK INTERFACE
455
PROCESSOR
450

FIG. 11

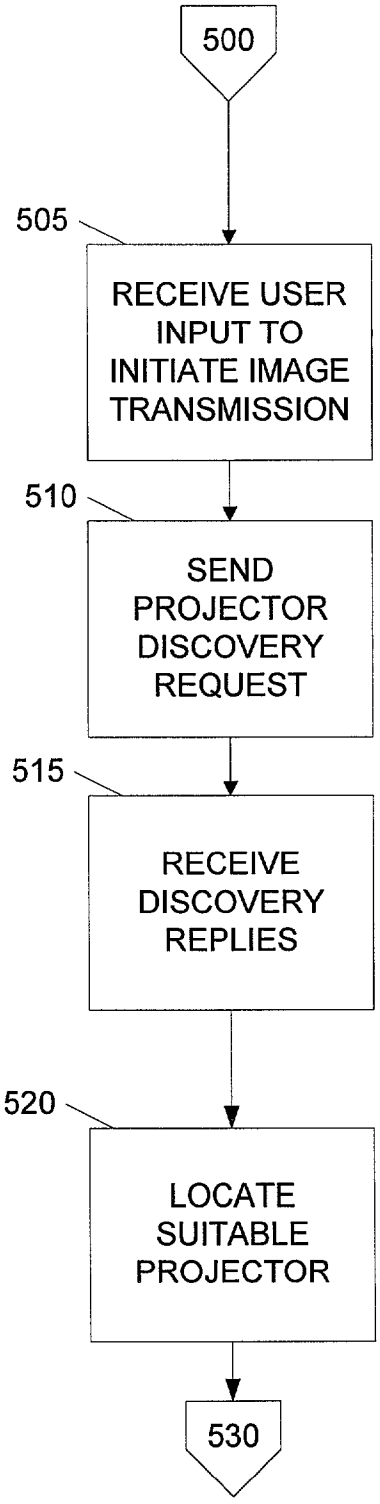

500
505
RECEIVE USER INPUT TO INITIATE IMAGE TRANSMISSION
510
SEND PROJECTOR DISCOVERY REQUEST
515
RECEIVE DISCOVERY REPLIES
520
LOCATE SUITABLE PROJECTOR
530

FIG. 12

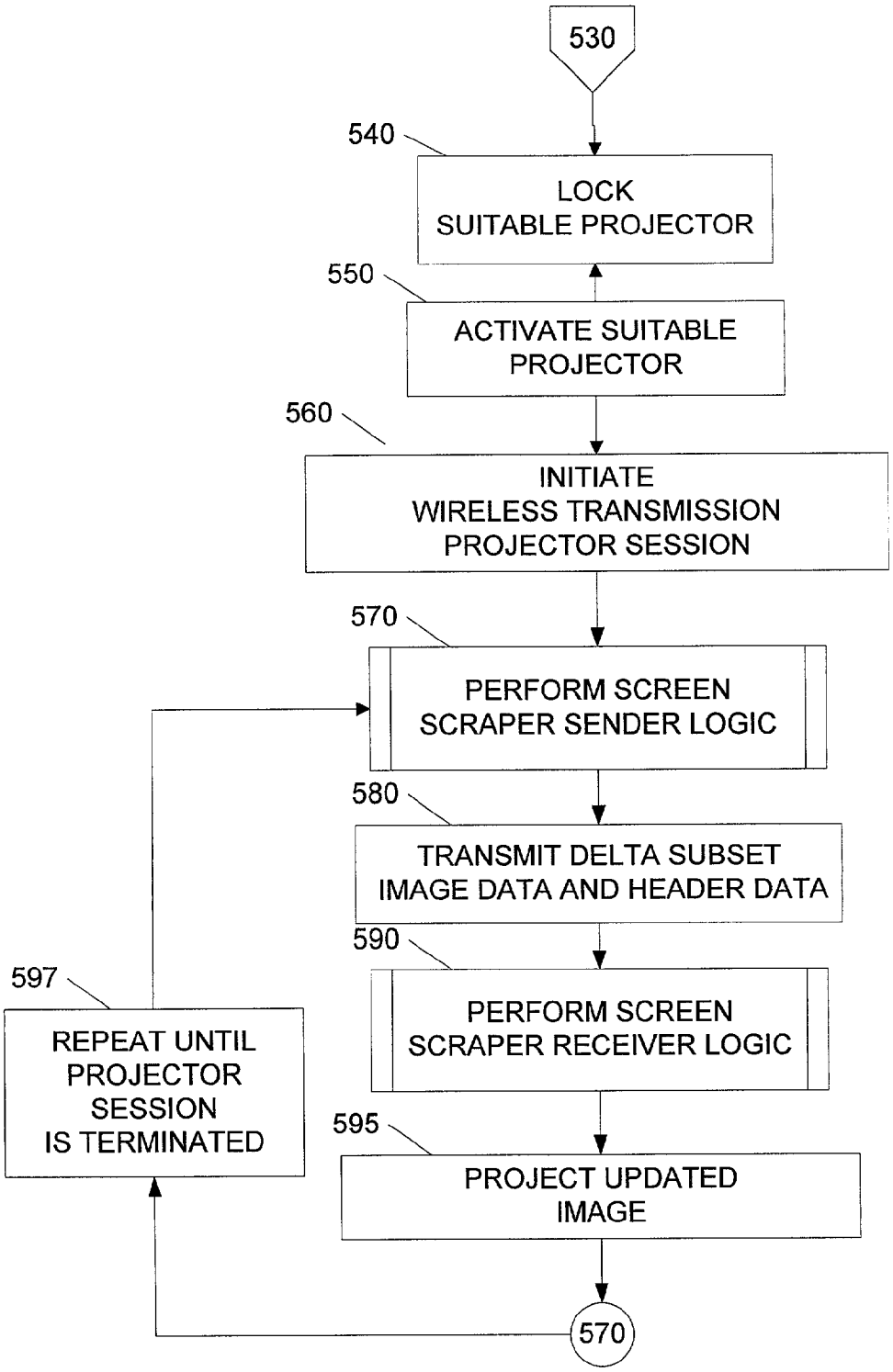

530
540
LOCK SUITABLE PROJECTOR
550
ACTIVATE SUITABLE PROJECTOR
560
INITIATE WIRELESS TRANSMISSION PROJECTOR SESSION
570
PERFORM SCREEN SCRAPER SENDER LOGIC
580
TRANSMIT DELTA SUBSET IMAGE DATA AND HEADER DATA
590
PERFORM SCREEN SCRAPER RECEIVER LOGIC
595
PROJECT UPDATED IMAGE
597
REPEAT UNTIL PROJECTOR SESSION IS TERMINATED
570

FIG. 13

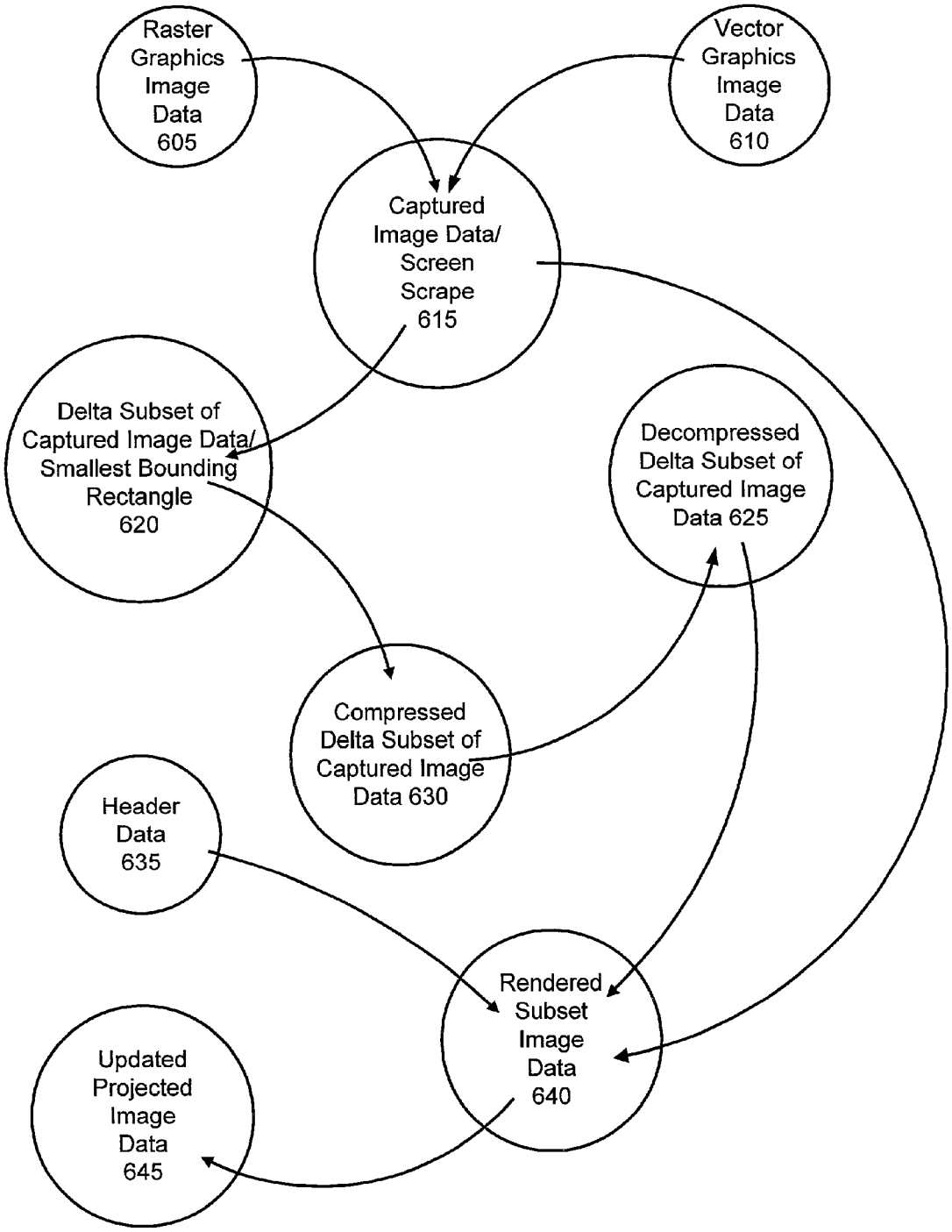

Raster Graphics Image Data 605
Vector Graphics Image Data 610
Captured Image Data/ Screen Scrape 615
Delta Subset of Captured Image Data/ Smallest Bounding Rectangle 620
Decompressed Delta Subset of Captured Image Data 625
Compressed Delta Subset of Captured Image Data 630
Header Data 635
Rendered Subset Image Data 640
Updated Projected Image Data 645

FIG. 14

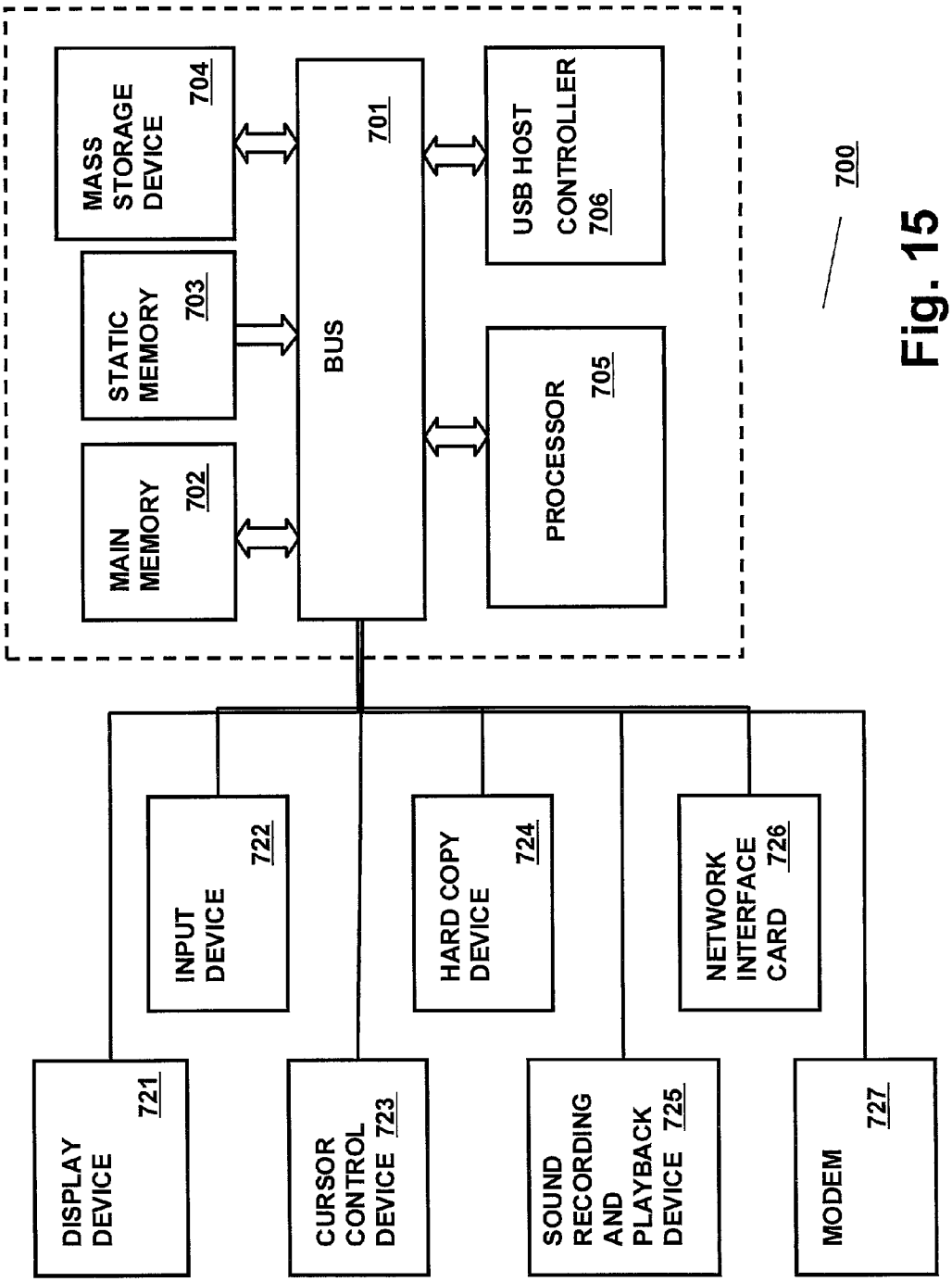

MASS STORAGE DEVICE 704
STATIC MEMORY 703
MAIN MEMORY 702
BUS 701
USB HOST CONTROLLER 706
PROCESSOR 705
700
INPUT DEVICE 722
HARD COPY DEVICE 724
NETWORK INTERFACE CARD 726
DISPLAY DEVICE 721
CURSOR CONTROL DEVICE 723
SOUND RECORDING AND PLAYBACK DEVICE 725
MODEM 727

Fig. 15

METHOD AND APPARATUS FOR WIRELESS IMAGE TRANSMISSION TO A PROJECTOR

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates generally to presentation projectors for projecting computer generated presentations and other images to a viewing surface. In particular, the present invention relates to technology that enables the wireless transmission of an image to a presentation projector.

[0003] 2. Background Information

[0004] The widespread acceptance of using computers to facilitate group communications has created a large demand for devices that project computer displays. As a result, corporate enterprises have installed multimedia projection systems in many workplace conference rooms, or provide access to portable presentation equipment that can be used in conference rooms as needed. In a typical operating mode, multimedia projection systems receive analog video signals from a personal computer ("PC"). The video signals may represent still, partial, or full-motion display images of a type rendered by the PC. The analog video signals are typically converted in the projection system into digital video signals, and the signals are electronically conditioned and processed to control an image-forming device, such as a liquid crystal display ("LCD") or a digital micro-mirror device ("DMD").

[0005] A popular type of multimedia projection system employs a broad-spectrum light source and optical path components upstream and downstream of the image-forming device to project the image onto a display screen. An example of a DMD-based multimedia projector is the model LP420 manufactured by InFocus Corporation., of Wilsonville, Oreg., the assignee of the present application.

[0006] To display their presentations, users tote portable computers such as laptops into the conference room, and attach the computer to the projector using a connecting cable. The necessity of carrying heavy cabling to attach the computer to the projector is inconvenient, especially when giving mobile presentations. Issues of cable compatibility or malfunction may occur and the set-up time is increased. Moreover, if more than one presenter uses the projection equipment, each with their own laptops, then each successive presenter needs to repeat the cabling set-up procedure, which results in a delay between presentations.

[0007] One way to eliminate the cabling problem is to transmit the image over a wireless communications link instead of a cable connection. Wireless transmission of an image to a projector is known in the art. For example, U.S. Pat. No. 5,847,748, Multimedia Projection System, which issued on Dec. 8, 1998, to David P. Laughlin, (the "'748 patent") discloses a multimedia projection system that includes a notebook computer that has an integral projector. The projector described in the 748 patent is capable of receiving information from the computer's central processing unit through a cable or a wireless communication circuit, including an infrared communication circuit.

[0008] An example of a prior art wireless presentation projector is the Notevision5 Liquid Crystal Display (LCD) projector manufactured by the Sharp Electronics Corporation of Mahwah, N.J. The Notevision5 LCD projector features an infrared communication capability, which allows users to transfer digital images from a laptop or a compatible device directly to the projector. The Sharp Notevision5 LCD projector relies on an Infrared Data Association (IrDA) data communication standard to transmit the image from the computer to the projector. One of the drawbacks to using the IrDA data communication standard is the bandwidth limitation inherent in infrared communications. Transmission data rates are low, with a maximum data transmission speed of up to 4 Mb/s (megabytes per second). This results in a very slow image update, typically up to at least 15 seconds per screen. The slow image update rate is unacceptable to most presentation system users.

[0009] In an effort to overcome the low data transmission rates, the IrDA data communication standards provide for converting and storing images in a compressed format in order to reduce the amount of data that is transmitted. The Sharp Notevision5 projector uses the Joint Photographic Experts Group (JPEG) image compression format, which is documented by the International Organization for Standards (ISO) in ISO standard 10918, *Information technology—Digital compression and coding of continuous-tone still images*, first published in 1994. However, the conversion and storage of the image using the JPEG image compression format is a process that is computationally intensive and necessarily delays the transmission of the image from the computer to the projector. Moreover, the size of the compressed JPEG images of a typical presentation is still unacceptably large, which does not allow for satisfactory update rates for displaying a wireless projected image.

[0010] Yet another drawback inherent in the use of the IrDA data communication standard is that infrared communication is a short-range technology limited to about a 30-50 foot radius. In addition, infrared communication is highly directional because the infrared signals cannot penetrate solid objects. Thus, interference is common and the signals can even be affected by indoor lighting (e.g. the use of fluorescent lights) and air quality (e.g. the presence of dust or smoke).

[0011] What is needed, therefore, is an improved method of wireless image transmission between a computer and a projector. In particular, the wireless transmission of an image that is independent of the wireless transmission medium and that provides for faster updates of the projected image in an efficient and user-friendly way presents a unique set of challenges, requiring a new and novel solution.

SUMMARY

[0012] According to one aspect of the invention, a method is provided in which a digital image is transmitted to a presentation projector resource over a wireless transmission medium using a reduced amount of transmission bandwidth. The method transmits a subset of the digital image and header data that describes the subset of the digital image. The subset of the digital image may comprise one or more blocks of image data that represent the smallest bounding rectangle that encompasses those areas of the digital image that have changed since the previous transmission, referred to herein as delta image data. The smallest bounding rectangle encompassing the delta image data is determined

using a screen scraper sender logic that obtains the screen scrape from a raster graphics image in a video memory buffer Alternatively, the subset of the digital image may comprise graphic primitives which the screen scraper sender logic encodes in a scalable vector graphics (SVG) format, referred to herein as SVG image data. The screen scraper sender logic creates the header data to identify which type of subset of the digital image is being transmitted, as well as certain details about the transmitted image, including the image size, height, width, and position.

[0013] According to one aspect of the invention, the image transmission is initiated using a projector discovery logic which is activated in response to a single user action, to automatically discover and select suitable presentation projector resources that are available to receive the subset image data and header data over the wireless transmission medium. A wireless image transmission session is established with the selected presentation projector resource during which the selected presentation projector is unavailable to other devices. The screen scraper sender logic compresses the delta image data and coordinates transmission of the subset of the digital image data and header data with a screen scraper receiver logic on the presentation projector resource so that data is sent only when ready to be received.

[0014] According to one aspect of the invention, the presentation projector resource is further equipped with a wireless to digital visual interface (DVI) graphics engine to decompress and render the transmitted subset of the digital image data for output to a DVI connector receptacle on the presentation projector resource in accordance with the Digital Display Working Group's DVI specification. The screen scraper receiver logic further applies the rendered image to the projected image in accordance with the associated header data so that the exact image that appears on the image generation device also appears on the projected display.

[0015] In accordance with other aspects of the present invention, apparatus are provided for carrying out the above and other methods.

BRIEF DESCRIPTION OF DRAWINGS

[0016] The present invention will be described by way of exemplary embodiments, but not limitations, illustrated in the accompanying drawings in which like references denote similar elements, and in which:

[0017] **FIG. 1** illustrates an overview of the method and apparatus for wireless image transmission to a projector in accordance with one embodiment;

[0018] **FIG. 2** illustrates a block diagram of selected components of the method and apparatus for wireless image transmission to a projector illustrated in **FIG. 1**, in accordance with one embodiment;

[0019] **FIG. 3** illustrates a simplified block diagram overview of the initiation and administration of a wireless image transmission session illustrated in **FIG. 1**, in accordance with one embodiment;

[0020] **FIG. 4** illustrates a simplified block diagram overview of the transmission of data during the wireless image transmission session illustrated in **FIG. 1**, in accordance with one embodiment;

[0021] **FIG. 5** illustrates a flow diagram of the operation of the method and apparatus for wireless image transmission to a projector screen scraper sender logic illustrated in **FIG. 2** in accordance with one embodiment;

[0022] **FIG. 6** illustrates in further detail selected aspects of the screen scraper sender logic illustrated in **FIG. 2** in accordance with one embodiment;

[0023] **FIG. 7** illustrates in further detail selected aspects of the screen scraper sender logic illustrated in **FIG. 2** in accordance with one embodiment;

[0024] **FIG. 8** illustrates in further detail selected aspects of the screen scraper sender logic illustrated in **FIG. 2** in accordance with one embodiment;

[0025] **FIG. 9** illustrates a data layout of a header data in accordance with one embodiment;

[0026] **FIG. 10** illustrates a flow diagram of the operation of the method and apparatus for wireless image transmission to a projector screen scraper receiver logic illustrated in **FIG. 2** in accordance with one embodiment;

[0027] **FIG. 11** illustrates in further detail selected aspects of the wireless to DVI graphics engine illustrated in **FIG. 2** in accordance with one embodiment;

[0028] FIGS. **12-13** illustrate a flow diagram of the operation of the method and apparatus for wireless image transmission to a projector illustrated in FIGS. **1-4** in accordance with one embodiment;

[0029] **FIG. 14** illustrates a data flow diagram of the method and apparatus for wireless image transmission to a projector illustrated in FIGS. **1-4** in accordance with one embodiment; and

[0030] **FIG. 15** illustrates a general-purpose computer system upon which an embodiment of the wireless image transmission to a projector method and apparatus may be implemented.

DETAILED DESCRIPTION OF THE INVENTION

[0031] In the following description various aspects of the method and apparatus for wireless image transmission to a projector will be described. Specific details will be set forth in order to provide a thorough understanding of the present invention. However, it will be apparent to those skilled in the art that the present invention may be practiced with only some or all of the described aspects of the present invention, and with or without some or all of the specific details. In some instances, well-known features may be omitted or simplified in order not to obscure the present invention.

[0032] Various operations will be described as multiple discrete steps performed in turn in a manner that is most helpful in understanding the present invention. However, the order of description should not be construed as to imply that these operations are necessarily performed in the order they are presented, or even order dependent. Lastly, repeated usage of the phrase "in one embodiment" does not necessarily refer to the same embodiment, although it may.

[0033] **FIG. 1** illustrates an overview of the method and apparatus for wireless image transmission to a projector **100** in accordance with one embodiment. As illustrated, an

image-generating device **110** such as a laptop computer generates a digital image on a display device **111** that is transmitted over a wireless link **120** to a remote presentation projector **130** for projection **145** to a presentation display surface **140** by a presenter **150** during a wireless image transmission session **125** established between the image-generating device **110** and the remote presentation projector **130**.

[**0034**] In one embodiment, the image generation device **110** may be any desktop personal computer, laptop computer, personal digital assistant (PDA), or other type of computer appliance capable of running an operating system platform with a graphical user interface such as Microsoft's Windows 98, Windows 2000, and Windows CE platforms. The image generation device **110** generates a digital image for a display device **111** that may be an LCD screen as illustrated or any type of display monitor that is capable of displaying the image generated by the image generation device **110**. In one embodiment the display device **111** may be eliminated, in which case the presenter **150** would rely solely on the projected image **145** for display of the digital image. The image-generation device **110** establishes a wireless image transmission session **125** with a remote presentation projector **130** that is accessible over the wireless link **120**. During the wireless image transmission session 125, the image generation device **110** functions as a projector server host that serves the generated digital image data via the wireless link **120** to the presentation projector **130**.

[**0035**] In one embodiment, the wireless link **120** may be any wireless transmission medium for a wireless network environment, including wireless networks designed in accordance with the IEEE 802.11 Wireless LAN Standard, or the Draft Specification of Bluetooth: A Global Specification for Wireless Connectivity, promulgated by the Bluetooth Special Interest Group.

[**0036**] In one embodiment, the remote presentation projector **130** is network-enabled and accessible over wireless link **120** and typically operates using a real-time operating system (RTOS) such as Wind River VX Works or Microsoft's Windows CE. The presentation projector **130** is further capable of receiving digital image data using the Digital Visual Interface version 1.0 (DVI), published by the Digital Display Working Group on Apr. 2, 1999. The presentation projector **130** may be a liquid crystal display (LCD), digital mirror device (DMD), liquid crystal on silicon (LCOS) projector or the like that include a light source and transmissive or reflective projection optics to form and project display images on a display surface **140** in both rear and front display applications. Examples of such presentation projectors are sold under the trademark LIGHTPORT by InFocus Corporation of Wilsonville, Oreg., the assignee of the present application.

[**0037**] **FIG. 2** illustrates a block diagram of selected components of the method and apparatus for wireless image transmission to a projector illustrated in **FIG. 1**, in accordance with one embodiment. The wireless image transmission **100** comprises the image-generating device **110** that is capable of running a wireless image transmitter logic **500** and a screen scraper sender logic **200**. The wireless image transmitter logic **500** initiates and administers the wireless image transmission session **125** between the image generating device **110** and the presentation projector **130**. The screen scraper sender logic **200** captures and generates a subset of the digital image data that was generated by the image generating device **110** for display to the display device **111**, and prepares the subset of the digital image data for transmission over the wireless link **120** to a presentation projector **130**.

[**0038**] In one embodiment, the presentation projector **130** is capable of running a screen scraper receiver logic **300** as well as a wireless DVI graphics engine **400**, which together enable the presentation projector **130** to receive the subset of the digital image data from the screen scraper sender logic **200** of the image generating device **110** and to render a continuously updated image to the projector's video memory buffer **131** for display to the projector display **140** with a minimal delay, regardless of the wireless transmission medium of the wireless link **120**.

[**0039**] The screen scraper sender logic **200**, screen scraper receiver logic **300**, wireless to DVI graphics engine **400**, and wireless image transmitter logic **500**, operate together with other selected components of the image generation device **110** and projector **130**, including the display device **111**, a current off-screen buffer **112**, a previous off-screen buffer **113**, a image generator device video memory buffer **114**, a projector output buffer **115**, a user interface **116**, and a projector video memory buffer **131**, the manner of which operation is described in further detail in FIGS. **3-13**. In one embodiment the screen scraper sender logic **200**, the wireless transmitter logic **500**, or any of the other components of the image generation device **110** may reside externally to the image generation device **110** as, for example, in another network server computer **160** in communication with the image generation device **110**, or other computer device, including a storage medium that is machine-accessible. Similarly, although illustrated as part of the presentation projector **130**, in one embodiment the components of the screen scraper receiver logic **300** or the wireless to DVI graphics engine **400** may reside externally to the presentation projector **130**. For example, portions or all of those components may be resident in a network server computer **160** functioning as a projector server computer in communication with the presentation projector **130**.

[**0040**] **FIG. 3** illustrates a simplified block diagram overview of the initiation and administration of the wireless image transmission session **125** by the wireless image transmitter logic **500** of image generation device **110**. In response to a single user action via user interface **116** on the image generation device **110**, the wireless image transmitter logic **500** sends a discovery request **126** to all projectors **130** accessible over wireless link **120**. Those projectors that can respond to the request do so by returning a projector discovery reply **127**. Depending on certain characteristics of the discovery replies **127**, the wireless image transmitter logic **500** automatically determines which projectors **130** are most suitable. The wireless image transmitter logic **500** selects one of the suitable projectors, either automatically or in response to a further user selection on user interface **116**, and initiates the wireless image transmission session **125** by sending a lock command **128** to lock the selected projector **130** for exclusive use. Upon termination of the wireless image transmission session **125**, the wireless image transmitter logic **500** sends an unlock command **129** to release the projector **130** so that it is available for use by others.

[0041] **FIG. 4** illustrates a simplified block diagram overview of the transmission of data during the wireless image transmission session **125**. The screen scraper sender logic **200** of the image generation device **110** generates a subset of the image generated for the display device **111** and transmits to the selected projector **130**, not only the subset of the digital image data **118**, but also an associated header data **117**. The subset of the digital image data **118** may comprise a delta image data that represents those areas of the image generated by the image generation device **110** that have changed since the last transmission. Alternatively, the subset of the digital image data **118** may comprise an SVG formatted image data that represents certain graphics primitives of the image generated by the image generation device **110**. The associated header data **117** identifies the type of digital image data being transmitted as well as certain characteristics of the digital image data, including the size, height, width, and position of the image, and whether and which type of compression was used.

[0042] It should be noted that in FIGS. **5-8**, **10**, **12-13**, the particular methods of the invention are described in terms of computer software logic with reference to a series of flowcharts. The methods to be performed by a computer constitute computer programs made up of computer-executable instructions. Describing the methods by reference to a flowchart enables one skilled in the art to develop such programs including such instructions to carry out the methods on suitably configured computers (the processor of the computer executing the instructions from computer-readable media). The computer-executable instructions may be written in a computer programming language or may be embodied in firmware logic, or even application specific integrated circuits (ASICs). If written in a programming language conforming to a recognized standard, such instructions can be executed on a variety of hardware platforms and for interface to a variety of operating systems. In addition, the present invention is not described with reference to any particular programming language. It will be appreciated that a variety of programming languages may be used to implement the teachings of the invention as described herein. Furthermore, it is common in the art to speak of software, in one form or another (e.g., program, procedure, process, application, etc.), as taking an action or causing a result. Such expressions are merely a shorthand way of saying that execution of the software by a computer causes the processor of the computer to perform an action or a produce a result.

[0043] The invention may be described by reference to different high-level software logic modules such as computer program modules, and/or low-level hardware contexts. Those skilled in the art will realize that program module references can be interchanged with low-level hardware instructions. Program modules include procedures, functions, programs, components, data structures, and the like, that perform particular tasks or implement particular abstract data types. The modules may be incorporated into single and multi-processor computing systems, as well as hand-held devices and controllable consumer devices (e.g., Personal Digital Assistants (PDAs), cellular telephones, etc.). It is understood that modules may be implemented on a single computing device, or processed over a distributed network environment, where modules can be located in both local and remote memory storage devices.

[0044] **FIG. 5** illustrates in further detail selected functional components of the screen scraper sender logic **200** illustrated in **FIG. 2** in accordance with one embodiment. At block **210** the screen scraper sender logic **200** obtains a copy of the raster graphics image from the video memory buffer **114** in the image generation device **110**. The raster graphics image in the video memory buffer **114** is the binary data that represents the image on the image generation device's display device **111** (e.g. a computer monitor or a laptop LCD as illustrated in **FIG. 1**). The screen scraper sender logic **200** obtains the binary data by directly accessing the contents of the video memory buffer **114** using a display control interface such as, for example, the Microsoft Windows operating system's DirectDraw facility. The contents of the video memory buffer **114** are copied into the current off-screen buffer **112**, and are referred to as a "screen scrape."

[0045] At block **230**, the screen scrape sender logic compares the "screen scrape" in the current off-screen buffer **112** with the "screen scrape" that was previously saved in the previous off-screen buffer **113**. If there are no changes, then the screen scraper sender logic **200** repeats the processes in blocks **210**, **220**, and **230** until a change in the digital image occurs. If there are changes, then the screen scraper sender logic continues at block **240** to determine the smallest bounding rectangle that encompasses the changes in the digital image. Depending on the changes, there may be several bounding rectangles that encompass the changes in the image.

[0046] **FIG. 6** illustrates in further detail the screen scrape comparison at block **230** and the determination of the smallest bounding rectangle at block **240** of the screen scraper sender logic **200** illustrated in **FIG. 3** in accordance with one embodiment. At block **231**, the screen scraper sender logic compares each pixel of the screen scrape in the current off-screen buffer **112** to each corresponding pixel of the previous screen scrape in the previous off-screen buffer **113**. At block **232**, the screen scraper sender logic **200** determines whether there are any changed pixels. If there are changed pixels at block **232**-YES branch, then processing continues at block **240** to determine the smallest bounding rectangle that encompasses those pixels of the screen scrape in the current off-screen buffer **112** that have changed since the previous screen scrape in the previous off-screen buffer **113** was obtained. It should be noted that, in one embodiment, each pixel may be comprised of digital image data for each of the color, shades of gray, and/or intensity components that represent the optical state of the pixel. In determining whether the pixel value has changed, any one or all of these color, grayscale, or intensity components may be compared.

[0047] At block **241**, processing continues to transfer the pixels encompassed by the smallest bounding rectangle, i.e. the delta image data, to the projector output buffer **115** in preparation for transmission over the wireless link **120** to the presentation projector **130**. The delta image data in the projector output buffer **115** is the subset image data **118** which is transmitted to the projector **130**. When received by the screen scraper receiver logic **300**, this delta image data will be used to update the projected image **145** using the wireless DVI graphics engine **400**.

[0048] Returning now to **FIG. 5**, processing continues at block **250** where the screen scraper sender logic **200** com-

presses the subset image data **118** in the projector output buffer **115** in further preparation for transmission over the wireless link **120** to the presentation projector **130**. In one embodiment, the compression is performed using a standard compression technique such as the LZO compression method of Franz Xavier Johannes Oberhumer. However, other compression techniques that provide lossless (or acceptably lossy) and efficient compression may be employed without departing from the principles of the present invention.

[**0049**] **FIG. 7** illustrates in further detail selected functional components of the screen scraper sender logic **200** illustrated in **FIG. 2** in accordance with an alternate embodiment. Instead of using a raster graphics image as described in detail in **FIGS. 5 and 6**, **FIG. 7** illustrates the use of scalable vector graphics (SVG) images. An SVG image is a description of a digital image using mathematical equations called vector graphics, instead of the bit-pattern description of the image itself as used in raster graphics images. One advantage to using vector graphics is that the image can easily be made scalable, whereas an image specified in raster graphics is a fixed-size bitmap. In one embodiment, at block **220**, the "screen scrape" is rendered into the current off-screen buffer **112** by first obtaining the operating system dependent graphics primitives that comprise the image from the video memory buffer **114** instead of the raster graphics image. At block **225**, the screen scraper sender **200** converts the graphics primitives to an SVG image data and transfers the SVG image data to the projector output buffer **115** in preparation for transmission over the wireless link **120** to the presentation projector **130**. The SVG image data in the projector output buffer **115** is the subset image data **118** which is transmitted to the projector **130**. When received by the screen scraper receiver logic **300**, this SVG image data will be used to update the projected image **145** using the wireless DVI graphics engine **400**.

[**0050**] The SVG description of the image may be implemented as an application of the Extensible Markup Language (XML), but other types of vector graphic descriptions may be employed without departing from the principles of the present invention. When SVG is used to describe the image, then the delta image data determination and special image compression described in FIGS. **5-6** would not be used. Rather, the SVG image data itself represents a highly compressed image representation. Thus determination of a delta image data and additional compression would not be needed.

[**0051**] Returning again to **FIG. 5**, at block **260**, the screen scraper sender logic **200** creates a header data **117** that contains data describing the subset image data **118** in the projector output buffer **115**. In one embodiment, the data fields that comprise the header data **117** are illustrated in **FIG. 9**. As shown, the header data **117** is comprised of numerous data fields that are described in further detail below in Table 1.

TABLE 1

Identifier	A value that identifies which type of subset image data 118 is being transmitted
Size	A value that represents the size of the image represented by the subset image data 118

TABLE 1-continued

Revision number	A number that indicates which revision of the image is being transmitted since the initiation of the wireless image transmission session 125.
Image height	The height of the image represented in the subset image data 118
Image width	The width of the image represented in the subset image data 118
Bits per pixel	The number of bits per pixel of the image represented in the subset image data 118
Horizontal position (x-coordinate)	The horizontal position of the image represented in the subset image data 118
Vertical position (y-coordinate)	The vertical position of the image represented in the subset image data 118
Data Coding Algorithm	A value indicating which algorithm has been used to encode or compress the subset image data 118, e.g. in the case of SVG image data, the SVG encoding algorithm (XML, etc.), or in the case of delta image data, the compression encoding algorithm (GIF, JPEG, LZO, etc.).
Compressed Size	A value that represents the size of the subset image data 118 after compression or encoding.

[**0052**] In one embodiment, the header data **117** and subset image data **118** may be sent as a single packet of data across the wireless link **120**. Upon receiving the single packet of data, the projector **130** parses the packet into header data **117** and subset image data **118**.

[**0053**] Returning again to **FIG. 5**, the screen scrape sender logic **200** continues at block **270** by initiating the transmission of the header data **117** and the subset image data **118** from the output buffer **115** of the image generating device **110** to the input video memory buffer **131** of the presentation projector **130**. **FIG. 8** illustrates in further detail, at block **270**, the screen scrape transmission portion of the screen scrape sender logic **200** illustrated in **FIG. 3** in accordance with one embodiment. At block **271**, the screen scrape sender logic **200** determines whether the screen scrape receiver **300** has granted permission to send the subset image data **118**. The permission may be communicated using any proprietary or standardized mechanism that is capable of negotiating permission between the image generator device **110** and the projector **130**. For example, a Universal Plug and Play method could be used to communication permission. If permission has not been granted, then at block **272**, the screen scraper sender logic **200** returns to block **271** to try again until succeeding in either sending the subset image data **118** or timing out. If there is a time out, then the screen scraper sender logic **200** returns to the beginning at block **200** to start the screen scrape process over again.

[**0054**] In one embodiment, if the screen scrape receiver **300** grants permission to the screen scrape sender to send the subset image data **118**, then the header data **117** and the subset image data **118** from the output buffer **115** of the image generation device **110** are sent over the wireless link **120** through a Transmission Control Protocol/Internet Protocol (TCP/IP) socket connection to the presentation projector **130**. Other types of transport protocols other than TCP/IP that guarantee delivery so that no data is lost through the connection may also be used to transmit the header and delta subset image data without departing from the principles of the present invention.

[0055] The entire process embodied in the screen scraper sender logic **200** is repeated continually throughout the duration of the wireless image transmission **100**, until the transmission is terminated by a user input by the presenter **150** through the user interface **116** of the image generation device **110** or by some other terminating event, such as a network or power failure. The end result is that the amount of image data transmitted over the wireless communication link **120** during the wireless image transmission session **125** is significantly reduced since the screen scraper sender logic **200** only sends the a subset image data **118** that represents either a delta image data or an SVG-encoded image data of the digital image data captured by the screen scraper sender logic **200**.

[0056] **FIG. 10** illustrates in further detail selected components of the screen scraper receive logic **300** illustrated in **FIG. 2** in accordance with one embodiment. At blocks **310**/**320** the screen scraper receive logic **300** receives the header data **117** and subset image data **118**. In the case where a delta image data has been transmitted, at block **330**, the screen scraper receiver logic **300** decompresses the subset image data **118** in accordance with the header data **117** data fields that describe the subset image data **118**, including the type of data coding algorithm used to compress the data. Using the wireless to DVI graphics engine **400**, at block **340** the screen scraper receiver logic **300** initiates the rendering of the subset image data **118**. The wireless to DVI graphics engine **400** is described in detail in **FIG. 11** below. At block **350**, the screen scraper receiver logic **300** updates the projected image **145** displayed by the projector **140** with the rendered subset image in accordance with the image description in the data fields of the header data **117**. For example, by using the corresponding values in header data **117** data fields, image height, width, horizontal position and vertical position, the screen scraper receiver logic **300** can substitute, in the proper location, the pixels in the previous projected image with the pixels rendered from the subset image data **118**. Other techniques for updating the projected image **145** with the rendered subset image data **118** may be employed without departing from the principles of the present invention. Finally, at block **360**, the screen scraper receiver logic **300** grants permission to the screen scraper sender logic **200** to send another subset image data **118** of the next image captured by the screen scraper. Upon successful completion of each transmission, the screen scraper sender logic **200** returns to the beginning at block **210**/**220** to repeat the screen scrape sender and receiver processes **200**/**300** until the wireless image transmission to projector session **125** is terminated.

[0057] **FIG. 11** illustrates in further detail selected components of the wireless to DVI graphics engine **400** illustrated in **FIG. 2** in accordance with one embodiment. The wireless to DVI graphics engine **400** may be incorporated into the presentation projector **130** itself or in an external computing device, such as a network server **160** or other computing device, connected to the presentation projector **130**. As shown, wireless to DVI graphics engine **400** comprises a PCI (peripheral component interconnect) bus **405**, a PCMCIA (Personal Computer Memory Card International Association) bus or a 68K bus **460**, or other communications hardware and software for communicating information, a processor **415** coupled with buses **405**/**460** for processing information, a graphics controller **420** coupled to the PCI bus **405**. Wireless to DVI graphics engine **400** further comprises a main memory or other dynamic storage device **410** and a non-volatile flash memory **435** coupled to processor **415** for storing information and instructions to be executed by processor **415**. Wireless to DVI graphics engine **400** may also comprise processor **450** and an external memory **465**, coupled to bus **460**, for storing and processing information and instructions. Graphics controller **420** is coupled to DVI-D receptacle **430** via a Display Data Channel (DDC) **440**. The DVI-D receptacle **430** is equipped with a transmission minimized differential signaling (TMDS) link **425**, which is used to transmit the graphics data to the projector display in accordance with the DVI standard. The DVI-D receptacle **430** is further connected to one or more Direct Current (DC) converters. A wireless network interface **455** is coupled to PCMCIA or 68K bus to receive the subset image data **118** and header data **117** from the image generation device **110**.

[0058] In operation, the processor **415** decompresses the delta subset image data **118** that was received via wireless network interface **455**, when necessary and in accordance with the header data **117** data fields, and sends the decompressed image data to the graphics controller **420**. The graphics controller **420** receives the decompressed image data or the subset image data **118** directly and stores it in a frame buffer in memory **410**. Subsequently, the graphics controller **420** retrieves the image data from the frame buffer in memory **410** and sends the image data to the TMDS transmitter **425** which, in turn, outputs DVI-formatted image data for input to the DVI-D receptacle **430** connected to the presentation projector display **130**.

[0059] FIGS. **12**-**13** illustrate a flow diagram of the operation of the wireless image transmitter **500** illustrated in **FIG. 1** in accordance with one embodiment. At block **505** the operation of the wireless image transmitter **500** begins with receiving a user input via user interface **116** of image generation device **110** to initiate an image transmission. The user input is typically entered on the image generation device **110** using an input device connected to the image generation device **110**, either alone or in combination with a display graphical user interface **116** to indicate the user's desire to initiate the wireless image transmission session **125**. However, it should be understood that other techniques for receiving the user input may be employed without departing from the principles of the present invention. In one embodiment, the user input comprises a single action taken by the user to initiate the wireless image transmission session **125**.

[0060] At block **510**, the wireless image transmitter **500** sends a projector discovery request **126** over the wireless link **120** in response to the user input entered at block **505**. At block **515**, the wireless image transmitter **500** receives projector discovery replies **127** from receivers (projectors) within radio frequency range of the image generation device **110**. At block **520**, the wireless image transmitter **500** automatically selects a suitable presentation projector **130** based on characteristics of the signal, such as the signal strength of the projector discovery replies or the signal's time displacement. In one embodiment, the identity of the projectors discovered would be displayed on the user interface **116** of the image generating device **110** and the presenter **150** would manually select the receiver projector **130** with which to initiate the wireless image transmission session **125**. For example, the discovered projectors might be

represented on the user interface **116** by various projector icons or other visual graphics symbols, and the user/presenter **150** would click on the desired projector icon to select the corresponding projector.

[**0061**] In one embodiment, the automatic selection of the projector may based on the characteristic of the elapsed time between sending of the discovery request **126** and the return of the discovery reply **127**, provided that the signal processing time at the projector **130** does not introduce unwanted variability from projector to projector. Since the speed of light is **108** meters/second, there is an inherent (one-way) signal delay of 10 nanoseconds per meter of distance between image generation device **110** and the projector **130**. The time it takes for the signal to go between the projector and image generation device need not be accurately measured, rather it is the order that the discovery replies **127** are received from the various projectors within discoverable range that is important. So projector-to-projector processing time variability should not exceed tens of nanoseconds for proper determination of the most suitable projector. In one embodiment, the automatic selection of the projector may be further based on the characteristic of the relative signal strength of the discovery replies **127**, with the strongest signal indicating which of the responding projectors is most suitable. In one embodiment a combination of the order and signal strength of the discovery replies **127** are used to select the most suitable projector.

[**0062**] Turning now to **FIG. 13**, once a suitable presentation projector **130** is selected, at block **540** the wireless image transmitter **500** locks the suitable projector so that no other requester can use it using a projector lock-out process. In the projector lock-out process at block **540**, the state of the projector **130** can be either "locked" or "unlocked". For example, the projector **130** is in a locked state if a wireless image transmission session **125** is already in progress or the projector is on and receiving images from one of its wired sources. When the wireless image transmitter **500** sends a query to the destination projector **130**, a "locked" or "unlocked" state reply is returned. If the projector **130** is locked, a "projector is busy" message is displayed on the user interface **116** of the image generation device **110**.. If the projector is "unlocked," then, once the wireless image transmitter **500** starts the session **125**, the projector's state changes to "locked." The state returns to "unlocked" when the session **125** concludes. In one embodiment, protocols such as Universal Plug and Play protocol are exploited to enable the projector states to be sent in response to queries. However, other proprietary methods could be employed without departing from the principles of the present invention.

[**0063**] At block **550**, if necessary, a command to activate the locked projector **130**, including turning on the projector light source, is issued by the wireless image transmitter **500**. Once the presentation projector **130** is locked and activated, the wireless image transmitter **500** can initiate the wireless image transmission session **125** at block **560** using a peer-to-peer connectivity protocol such as Universal Plug and Play or a client-server data protocol such as the Microsoft Remote Desktop Protocol (RDP), the Citrix Independent Computing Architecture (ICA) protocol, or the International Telecommunications Union (ITU) Protocol T.120 protocol, and a transport protocol such as TCP/IP.

[**0064**] In one embodiment, once the projector wireless image transmission session **125** has been established, the wireless image transmitter **500** triggers the performance of the screen scraper sender logic **200** at block **570**. At block **580**, the wireless image transmitter **500** initiates the transmission to the presentation projector **130**, using the above-described data and transport protocols, of the subset image data **118** and associated header data **117** as generated by the screen scraper sender logic **200**.

[**0065**] Once the header data **117** and subset image data **118** arrives at the presentation projector **130**, performance of the screen scraper receiver logic **300** is automatically triggered at block **590**. The screen scraper receiver logic **300** uses a wireless to DVI graphics engine **400** to render the transmitted subset image data **118** to a bitmap and update the video memory buffer **131** resident in the presentation projector **130** in accordance with the associated header data **117**. At block **595**, the presentation projector **130** projects the updated image **145** to the projection display surface **140**. At block **597**, the wireless image transmitter **500** continues to operate in the above-described fashion by returning to block **570** and repeating the functions of blocks **570**, **580**, **590**, and **595**, until the wireless image projection session is terminated by the user/presenter **150** via the user interface **116** of the image generation device **110**, or some other event that interrupts the session **125**.

[**0066**] Using the above-described method for wireless image transmission to a projector, the entire image served by the image generation device **110** is effectively "compressed," because, after the initial transmission of the image, only a subset of the digital image data generated by the image generating device **110** is actually transmitted over the wireless link **120**. Unlike prior art projector systems, where over 1 Gigabit/second data rate is required for transmission of a typical XGA image, even when that image is a still image, the wireless image transmission of the present invention requires only a fraction of that data rate. Even if every pixel in the XGA image suddenly changes, a worst case delay of only approximately 1.7 seconds is required to update the projected image **145** using the method and apparatus of the present invention. Since most presentations contain fairly static images, the typical delay time is significantly less so as to be imperceptible or nearly so to the user/viewer/presenter **150**. The performance of the method and apparatus for wireless image transmission to a projector **100** is therefore superior to prior art projection systems and is particularly well suited to transmitting images wirelessly. It should be noted, however, that the method and apparatus may also be applied to a conventional wired image transmission without departing from the principles of the present invention.

[**0067**] **FIG. 14** illustrates a data flow diagram of the method and apparatus for wireless image transmission to a projector illustrated in **FIG. 1** in accordance with one embodiment. As shown, a raster graphics image data **605** or vector graphics image data **610** is captured from a video memory buffer into a screen scrape **615**. In one embodiment, a delta subset of the captured image data from one screen scrape to the next, that can be encompassed by a smallest bounding rectangle **620** is saved in a projector output buffer. The delta subset of the captured image data is compressed **630** and sent over a wireless transmission link to a projector, where it is decompressed and rendered into a subset image

data **640** in the projector's video memory buffer using the projector's graphics rendering engine. In one embodiment, an SVG format of the captured image data **610** is sent over a wireless transmission link to the projector, where it is rendered into the subset image data **640** in the projector's video memory buffer using the projector's graphics rendering engine. The rendered image is updated to the projected image data **645** in accordance with a descriptive header data **635** associated with the subset image data **640**.

[**0068**] **FIG. 15** illustrates a general-purpose computer system upon which an embodiment of the wireless image transmission to a projector method and apparatus may be implemented. As shown, general-purpose computer system **700** comprises a bus **701**, or other communications hardware and software for communicating information, a processor **705** coupled with bus **701** for processing information, and a Universal Serial Bus (USB) host controller for controlling USB devices. Computer system **700** further comprises a random access memory (RAM) or other dynamic storage device **702** (referred to as main memory), coupled to bus **701** for storing information and instructions to be executed by processor **705**. Computer system **700** also comprises a read only memory (ROM) **703**, and/or other static storage device, coupled to bus **701** for storing static information and instructions for processor **702** (referred to as static memory). Mass storage device **704** is coupled to bus **701** for storing information and instructions. Furthermore, mass storage device **704**, such as a magnetic disk or optical disk, and its corresponding disk drive, can be coupled to computer system **700**. Computer system **700** can also be coupled via bus **701** to a display device **721** for displaying information to a computer user such as a network manager. Display device **721** is used to display windows containing a graphical user interface to the available electronic assets managed by the electronic asset lending library. Display device **721** can include a frame buffer, specialized graphics rendering devices, a cathode ray tube (CRT), and/or flat panel display. An input device **722**, including alphanumeric and other keyed devices, or even a audio voice input device, is typically coupled to bus **701** for communicating information and command selections to processor **705**. Another type of user input device is cursor control device **723**, such as a mouse, a trackball, a pen, a touch screen, or cursor direction keys for communicating direction information and command selections to processor **705**, and for controlling cursor movement on display device **721**. This input device typically has two degrees of freedom in two axes, a first axis (e.g., the x-axis) and a second axis (e.g., the y-axis), which allows the device to specify positions in a plane. However, this invention should not be limited to input devices with only two degrees of freedom.

[**0069**] Another device that may be coupled to bus **701** is a hard copy device **724** which may be used for printing instructions, data, or other information on a medium such as paper, film, or similar types of media. Additionally, computer system **700** can be coupled to a device for sound recording, and/or playback **725**, such as an audio digitizer coupled to a microphone for recording information. Further, the device may include a speaker that is coupled to a digital to analog (D/A) converter for playing back the digitized sounds.

[**0070**] Network interface card **726** is coupled to bus **701**. Network interface card **726** is further coupled to an external computer network such as a wireless local area network according to the IEEE 802.11, IEEE 802.11b, IrDA, and Bluetooth implementations. Network interface card **726** includes a wireless network interface card which, in conjunction with appropriate data communications protocols (e.g. Microsoft RDP, Citrix ICA, or the ITU T.120 protocols) and transport protocols (e.g. TCP/IP), provides the means by which the image generation device **10**, wireless image transmitter **500**, screen scrape sender **200**, **10** screen scrape receiver **300**, presentation projector **130**, and wireless to DVI graphics engine **400**, exchange information with each other as well as other devices or application logic coupled to the same computer network. Modem **727** is coupled to bus **701**, and provides an alternate means of exchanging information with other devices for which a modem connection to an external computer network or device (not shown) can be established.

[**0071**] Computer system **700** and the wireless image transmission application software logic or program modules, stored and executed therein as part of the method and apparatus for wireless image transmission to a projector, operate in conjunction with an operating system with graphics capability and a terminal server capability, such as the Microsoft Windows operating system with the graphics device interface (GDI) and terminal services advanced client (TSAC). Commercially available computer systems implementing the features of general-purpose computer system **700** include a broad range of operating system-based computers, including server computers, desktop computers, workstations, personal digital assistants, devices, or computer appliances.

[**0072**] Referring now to FIGS. **1-15** together, it should be apparent that some or all of the above-described functions of the wireless image transmission method and apparatus **100** may be performed by one or more of the image generation device **110**, the presentation projector **130**, or by associated server computers in a variety of network configurations. In particular, some of the components of the image generation device **110** and presentation projector **130** may reside in part on network servers **160** that communicate with the image generation device **110** or with the presentation projector **130** over an intranet or Internet, or over a local area or wide area network or combination of networks, or any other network configuration capable of connecting them.

[**0073**] Accordingly, a novel method and apparatus is described for a wireless image transmission to a projector, so as to enable the remote control of and image transmission to presentation projector resources in a wireless network enterprise environment. From the foregoing description, those skilled in the art will recognize that many other variations of the present invention are possible. In particular, while the present invention has been described as being comprised of a screen scraper sender logic **200**, screen scraper receiver logic **300**, wireless to DVI graphics engine **400**, and wireless transmitter logic **500** components, and being implemented on an image generation device **110** and a projector **130**, some of the functions of these components may be distributed in other components of one or more general-purpose computer systems **700**. Thus, the present invention is not limited by the details described. Instead, the present invention can be practiced with modifications and alterations within the spirit and scope of the appended claims.

What is claimed is:

1. A apparatus comprising:

an image generator to generate a subset image data;

an image transmitter to transmit the subset image data over a wireless link; and

a projector, coupled to the image generator via the wireless link, to project an updated image using the transmitted subset image data.

2. The apparatus of claim 1, wherein the subset image data is a delta between a first image data and a second image data, the first and second image data previously generated by the image generator.

3. The apparatus of claim 1, wherein the subset image data is a scalable vector graphics encoding of a graphic primitive previously generated by the image generator.

4. The apparatus of claim 1, further comprising:

a header data that describes the subset image data, wherein the projector projects the updated image in accordance with the header data.

5. The apparatus of claim 1, wherein the subset image data is transmitted only after receiving a permission from the projector.

6. The apparatus of claim 2, wherein the delta comprises a block of pixels in the second image data that include at least one pixel that is different from a corresponding pixel in the first image data.

7. The apparatus of claim 6, wherein the block of pixels is circumscribed by a smallest bounding rectangle that can encompass the at least one different pixel.

8. The apparatus of claim 1, wherein the image generator is a personal computer.

9. The apparatus of claim 2, wherein the image generator generates a first and second image data by capturing a screen scrape from a video memory buffer.

10. The apparatus of claim 2, wherein the screen scrape is a raster graphics image.

11. The apparatus of claim 6, wherein the delta between the first image data and the second image data is determined by a pixel-by-pixel comparison.

12. The apparatus of claim 11, wherein the pixel-by-pixel comparison includes comparing a value of a pixel that represents an optical state of the pixel.

13. The apparatus of claim 12, wherein the value is a color value.

14. The apparatus of claim 12, wherein the value is a grayscale value.

15. The apparatus of claim 12, wherein the value is an intensity value.

16. A method for transmission of an image comprising:

generating a subset image data; and

transmitting the subset image data to a projector to project an updated image using the subset image data.

17. The method of claim 16, wherein

generating the subset image data comprises determining a delta between a first image data and a second image data, the first and second image data previously generated by the image generator; and

the updated image comprises the projection of the first image data updated with the subset image data.

18. The method of claim 16, wherein transmitting the subset image data to the projector is over a wireless transmission medium.

19. The method of claim 16, wherein transmitting the subset image data to the projector comprises:

discovering the projector via a wireless transmission medium;

establishing a wireless transmission session with the projector; and

obtaining permission from the projector to send the subset image data.

20. The method of claim 19, wherein discovering comprises:

sending a discovery request to a plurality of projectors accessible over the wireless transmission medium;

receiving a discovery reply from at least one of the plurality of projectors; and

selecting a projector from the at least one projector based on a characteristic of the discovery reply.

21. The method of claim 20, wherein the characteristic is a signal strength of the discovery reply, the selected projector having the discovery reply with the strongest signal.

22. The method of claim 20, wherein the characteristic is an order of the discovery reply, the selected projector having sent the earliest discovery reply as compared to the discovery replies sent by the plurality of projectors.

23. The method of claim 17, wherein the delta comprises a block of pixels in the second image data that include at least one pixel that is different from a corresponding pixel in the first image data.

24. The method claim 23, wherein the block of pixels is circumscribed by a smallest bounding rectangle that can encompass the at least one different pixel.

25. The method of claim 16, wherein generating a subset image data is performed by a personal computer.

26. The method of claim 16, wherein generating a subset image data comprises encoding a previously generated graphics primitive into a scalable vector graphics (SVG) format.

27. The method of claim 17, wherein the first and second image data comprise a raster graphics image.

28. The method of claim 17, wherein the delta between the first image data and the second image data is determined by a pixel-by-pixel comparison of pixels in the first image data with pixels in the second image data.

29. The method of claim 28, wherein the pixel-by-pixel comparison includes comparing a value of a pixel that represents an optical state of the pixel.

30. The method of claim 29, wherein the value is a color value.

31. The method of claim 29, wherein the value is a grayscale value.

32. The method of claim 29, wherein the value is an intensity value.

33. An apparatus comprising:

a machine-accessible medium having stored thereon executable instructions to cause a computer to perform

generating a subset image data; and

transmitting the subset image data to a projector to project an updated image using the subset image data.

34. The apparatus of claim 33, wherein

the instructions for generating the subset image data comprises further instructions for determining a delta between a first image data and a second image data, the first and second image data previously generated by the image generator; and

the updated image comprises the projection of the first image data updated with the subset image data.

35. The apparatus of claim 33, wherein the instructions for transmitting the subset image data to the projector is include instructions for transmitting over a wireless transmission medium.

36. The apparatus of claim 33, wherein the instructions for transmitting the subset image data to the projector comprises further instructions for:

discovering the projector via a wireless transmission medium;

establishing a wireless transmission session with the projector; and

obtaining permission from the projector to send the subset image data.

37. The apparatus of claim 36, wherein the instructions for discovering comprises further instructions for:

sending a discovery request to a plurality of projectors accessible over the wireless transmission medium;

receiving a discovery reply from at least one of the plurality of projectors; and

selecting a projector from the at least one projector based on a characteristic of the discovery reply.

38. The apparatus of claim 37, wherein the characteristic is a signal strength of the discovery reply, the selected projector having the discovery reply with the strongest signal.

39. The apparatus of claim 37, wherein the characteristic is an order of the discovery reply, the selected projector having sent the earliest discovery reply as compared to the discovery replies sent by the plurality of projectors.

40. The apparatus of claim 34, wherein the instructions for determining the delta comprises determining that a block of pixels in the second image data that include at least one pixel that is different from a corresponding pixel in the first image data.

41. The apparatus of claim 40, wherein the instructions for determining the delta include circumscribing the block of pixels by a smallest bounding rectangle that can encompass the at least one different pixel.

42. The apparatus of claim 33, wherein the instructions for generating the subset image data is performed by a personal computer.

43. The apparatus of claim 33, wherein the instructions for generating the subset image data comprises encoding the subset image data from a previously generated graphics primitive in a scalable vector graphics (SVG) format.

44. The apparatus of claim 34, wherein the instructions for generating the first and second image data comprise capturing a raster graphics image.

45. The apparatus of claim 33, wherein the instructions for determining the delta between the first image data and the second image data comprise performing a pixel-by-pixel comparison of pixels in the first image data with pixels in the second image data.

46. The apparatus of claim 45, wherein the instructions for performing a pixel-by-pixel comparison includes comparing a value of a pixel that represents an optical state of the pixel.

47. The apparatus of claim 45, wherein the value is a color value.

48. The apparatus of claim 45, wherein the value is a grayscale value.

49. The apparatus of claim 45, wherein the value is an intensity value.

50. A method for transmitting an image to a projector over a wireless transmission medium comprising:

sending a discovery request to a plurality of projectors accessible over the wireless transmission medium;

receiving a discovery reply from at least one of the plurality of projectors; and

selecting a projector from the at least one of the plurality of projectors based on a characteristic of the discovery reply.

51. The method of claim 50, wherein the characteristic is a signal strength of the discovery reply, the selected projector having the discovery reply with the strongest signal.

52. The method of claim 50, wherein the characteristic is an order of the discovery reply, the selected projector having sent the earliest discovery reply as compared to the discovery replies sent by the plurality of projectors.

53. The method of claim 50, further comprising performing the sending, receiving, and selecting automatically in response to a single user action.

54. The method of claim 50, wherein selecting the projector is based on a manual selection made by a user.

55. The method of claim 54, wherein the manual selection is performed by clicking on a projector icon representing the selected projector.

56. An apparatus comprising:

a machine-accessible medium having stored thereon executable instructions to cause a computer to perform

sending a discovery request to a plurality of projectors accessible over the wireless transmission medium;

receiving a discovery reply from at least one of the plurality of projectors; and

selecting a projector from the at least one of the plurality of projectors based on a characteristic of the discovery reply.

57. The apparatus of claim 56, wherein the instructions for selecting a projector select the projector that sent the discovery reply having the characteristic of the strongest signal.

58. The apparatus of claim 56, wherein the instructions for selecting a projector select the projector that sent the discovery reply having the characteristic of the earliest reply as compared to the discovery replies sent by the plurality of projectors.

59. The apparatus of claim 56, wherein the instructions for sending, receiving, and selecting are performed automatically in response to a single user action.

60. An apparatus for rendering an image data into a digital video interface (DVI) format comprising:

a wireless receiver to receive an image data and a header data over a wireless transmission medium;

a decompresser to decompress the image data in accordance with the header data;

a controller to send the decompressed image data to a transistor minimized differential serial (TMDS) transmitter, the TMDS transmitter converting the decompressed image data into the DVI format in accordance with the header data.

61. The apparatus of claim 60, wherein the image data comprises a subset of a digital image data generated by a remote image generation device.

62. The apparatus of claim 60, wherein the header data comprises a plurality of data fields that describe the image data.

63. The apparatus of claim 60, wherein the image and header data are transmitted over the wireless transmission medium as a single packet of data.

64. The apparatus of claim 63, further comprising a parser to parse the single packet of data into the header data portion and the image data portion.

65. The apparatus of claim 60, further comprising a decoder to decode the image data in accordance with the header data, and wherein the controller sends the decoded image data to the TMDS transmitter, the TMDS transmitter converting the decompressed image data into the DVI format in accordance with the header data.

66. A projector for projecting images transmitted over a wireless transmission medium comprising:

a receiver to receive a digital image data representing an image transmitted over a wireless transmission medium in response to a remote request;

a graphics engine to generate a digital video image (DVI) format from the received digital image; and

a projector to project the DVI formatted digital image to a viewable surface.

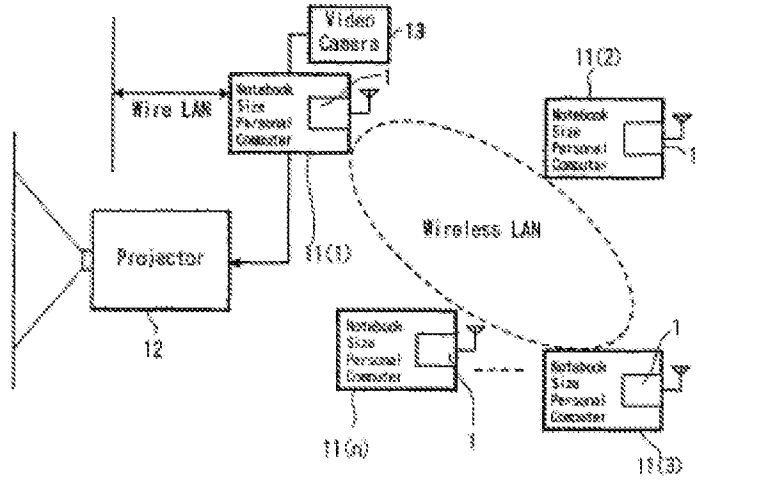
67. The projector of claim 66, wherein the received digital image data comprises a subset image data and a header data, the header data describing the subset image data.

68. The projector of claim 67, wherein the subset image data comprises a delta between a first image data and a second image data, the first and second image data previously generated by an image generator.

69. The projector of claim 67, and wherein the graphics engine generates the DVI format of the subset image data in accordance with the header data.

* * * * *

US 8,756,348 Claim Chart

Claim elements for U.S. Patent No. 8,756,348	Disclosure of *Kita*, *Banerjee*, and *Epstein*
1. An electronic meeting tool for communicating arbitrary media content from users at a meeting comprising:	*Kita* reaches: "CARD TYPE NETWORK INTERFACE, ***NETWORK CONFERENCE TERMINAL DEVICE AND NETWORK CONFERENCE SYSTEM***" *Kita* at the Title (emphasis added). "The present invention relates to *a card type network interface attached to an information terminal device such as a personal computer, a network conference terminal device using such card type network interface and a network conference system using this network conference terminal device*." *Kita* at page 1, lines 1 – 5 (emphasis added).
a node configuration arranged to operate a display node of a communications network, the display node being coupled to a first display,	*Kita* teaches:  FIG. 5 "***One (11 (1)) of the wireless LAN conference terminal devices 11 is served as a host of the wireless LAN***, and remaining (n-1) terminal devices (11 (2) to 11 (n)) are served as clients of the wireless LAN." *Kita* at page 24, lines 8 – 11 (emphasis added). "FIG. 5 shows an example of an arrangement of ***a network conference terminal device (wireless LAN conference terminal device)*** according to the present invention and an example of an overall arrangement of a network conference system (wireless LAN conference system) according to the present invention.

	This wireless LAN conference system is comprised of a plurality of (e.g., about 30 to 50) wireless LAN conference terminal devices 11 (11 (1) to 11 (n)), ***a projector*** 12 and a video camera 13." *Kita* at page 23, lines 19 – 26 (emphasis added). "As shown in FIG. 5, *the host 11 (1) is connected through an external display output terminal of the notebook size personal computer to the projector 12* located within the conference hall and is also connected through a DV terminal of the notebook size personal computer to the video camera 13." *Kita* at page 26, lines 5 – 9 (emphasis added).
the node configuration further being arranged to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display;	*Kita* reaches: "FIG. 4 shows an example of a circuit arrangement of this network interface card 1. The *network interface card 1 includes a PCMCIA interface 3*, a network interface 4, an RF modulator 5, an RF demodulator 6, an antenna 7, a CPU 8, a flash ROM 9 and a RAM 10. The PCMCIA interface 3 is an interface section which interacts with a personal computer having a PC card slot like the notebook size persona computer 2 shown in FIG. 3. *Through this PCMCIA interface 3, **data and commands are transmitted and received between the personal computer having the network interface card 1 and the network interface card 1**.*" *Kita* at page 21, lines 10 – 19 (emphasis added). "If such operation is carried out (i.e., if the presentation data is displayed on the notebook size personal computer of the client concerned) , then ***the same presentation data is transmitted to the host 11 (1)*** and other clients, and the command for displaying the presentation data by using the presentation application software corresponding to that presentation data and the command for displaying that presentation data in synchronism with the client concerned are transmitted to the host 11 (1) and other clients (step S48)." *Kita* at page 38, lines 4 – 12 (emphasis added).
at least one peripheral device configured to communicate the user selected arbitrary media content via the communications network, wherein the peripheral device is a connection unit comprising:	*Kita* reaches: "FIG. 4 shows an example of a circuit arrangement of this network interface card 1. The ***network interface card 1 includes a PCMCIA interface 3, a network interface 4, an RF modulator 5, an RF demodulator 6, an antenna 7,*** a CPU 8, a flash ROM 9 and a RAM 10.

(a) a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system; and (b) a transmitter arranged to communicate with the communications network,	The ***PCMCIA interface 3 is an interface section which interacts with a personal computer having a PC card slot like the notebook size persona computer 2 shown in FIG. 3.*** Through this PCMCIA interface 3, data and commands are transmitted and received between the personal computer having the network interface card 1 and the network interface card 1." *Kita* at page 21, lines 10 – 19 (emphasis added).
a program configured to be loaded onto the processing device and to run on the operating system of the processing device, said program being arranged to obtain user selected arbitrary media content, said program leaving a zero footprint on termination, and	*Kita* reaches: "As the features of the present invention, *the flash ROM 9 stores therein the following microprograms (1) to (4)*. Contents processed by the programs. (1) to (3) will be described in the examples of operations of a host and a client of a network conference system as will be described later on. (1): A program which ha[s] described processing for enabling the personal computer having the network interface card 1 to function as a host for managing the wireless LAN (hereinafter referred to as a "host program") . (2): *A program which has described processing for enabling the personal computer having the network interface card 1 to function as a client using the wireless LAN under management of the host* (hereinafter referred to as a "client program"). (3): A program which has described processing for deciding whether the host program or the client program should be executed (hereinafter referred to as a "host/client decision program). (4): *Presentation application software (program which has described processing for displaying and controlling presentation data such as images and graphical*. This application software contains graphic viewer which is software for displaying images, software for creating, displaying and controlling graphical (e.g., "Microsoft PowerPoint" manufactured by Microsoft, "Microsoft" and "PowerPoint" are registered trademarks of Microsoft) and WWW browser which is software used to access WWW server on the Internet to display images of Web pages and the like." *Kita* at page 22, line 19 – page 23, line 17 (emphasis added). "FIG. 12 shows a procedure of operations that should be

	executed by the participants of the conference in order to execute the network setting of the clients 11 (2) to 11 (n). *When the network interface card 1 is attached to the notebook size personal computer and the* ***operating system of the notebook size personal computer is activated*** (the network interface card 1 may be attached to the notebook size personal computer after the operating system of the notebook size personal computer has been activated), the network setting is automatically executed by the processings shown in FIGS. 7 and 8. Accordingly, ,as is clear from the contrast with FIG. 2 which shows the conventional network interface card, the network setting . of the clients 11 (2) to 11 (n) as the assumption that the participants are to attend the wireless LAN can be carried out without imposing a burden on the participants of the conference." *Kita* at page 33, lines 19 – line 23 (emphasis added). "As shown in FIG. 14, the network interface cards 1 of the clients 11 (2) to 11 (n) enable the notebook size personal computers of the clients 11 (2) to 11 (n) to recognize this network interface card 1 as a hard disk, respectively. At the same time, the above network interface cards set the automatic activating file (step S41). *Accordingly, the notebook size personal computers of the clients 11 (2) to 11 (n) recognize the network interface card 1 as the hard disk so that the presentation application software stored in the flash ROM 9 may be activated automatically.*" *Kita* at page 35, line 19 – page 36, line 1 (emphasis added). *Banerjee* teaches: "Controller 272 also communicates with ***storage 276 that is configured to store and automatically launch software applications thereon via an autorun feature that the operating system of the remote computer 240 supports***. Similar to the previous embodiment, storage 276 is flash memory, solid-state memory or other non-volatile computer memory. The storage 276 is configured to operate in accordance with a mass storage device and defines itself as compact disk read only memory (CD-ROM). *Storage 276 stores an executable launcher application, LinQLauncher.exe and may also store one or more access codes, biometrics or keys to automatically form a secure encrypted and authenticated wireless network connection with the master computer 238.*

	The operation of the system 220, when a peer-to-peer wireless connection between the master computer 238 and the remote computer 240 is established, will now be described with particular reference to Figure 6. *When the plug-and-play device 236 is physically connected to the remote computer 240 via the cable segment 268 (step 304) and the connection of the plug-and-play device 236 is detected by the operating system of the remote computer 240, the remote computer 240 queries the plug-and-play device 236 to determine what functionality is provided by the plug-and-play device 236 (step 308).* In particular, the controller 272 queries the wireless transceiver 260 and the storage 276 to determine what profiles or connections are available. In this embodiment, the storage 276 responds by indicating that it supports the mass storage device and the wireless transceiver 260 responds by indicating its device type, interface profile and other parameters such as for example wireless network protocol, wireless network speed, encryption keys, biometrics, etc. The plug-and-play device 236 then returns the determined functionality information to the remote computer 240." *Banerjee* at paragraphs [0041-0042] (emphasis added). "The autorun.inf file contains a pointer to the executable launcher application, LinQLauncher.exe stored in the storage 276. Upon parsing the autorun.inf file, *the remote computer 240 uses the pointer to load a LinQ software application from the storage 276 (step 328). The LinQ_auncher.exe application directs the remote computer 240 to* ***copy all necessary files of the LinQ software application from storage 276 to a temporary directory on the remote computer 240 and then start the LinQ software application*** *(step 332). The LinQ software application is used for setting up and managing the peer-to-peer wireless connection on the remote computer 240, screen sharing and communications between the remote computer 240 and the master computer 238.* Upon launch, ***the LinQ software application loads the necessary driver for the wireless transceiver 260, configures the wireless transceiver 260, finds the master computer 238 and establishes the peer-to-peer wireless connection between the LinQ software application and the mobile device manager application running on the master computer 238 (step 337).*** The LinQ software application, which manages the peer-to-peer wireless connection on the remote computer 240, then reads the access codes, biometrics or keys from the storage

	276. The access codes, biometrics or keys are in turn exchanged with the master computer 238 and used as a parameter to create a secure authenticated and encrypted peer-to-peer wireless connection. The mobile device manager application running on the master computer 238 manages the peer-to-peer wireless connection on the master computer 238. In cases where multiple systems 220 may be operating, an ad-hoc network identifier may be necessary to allow the plug-and-play device 236 to determine the appropriate network to which to connect. In such cases, the ad-hoc network identifier is configured to be read from storage 276 in similar manner to the access codes, biometrics or keys. *Once the remote computer 240 is connected to the master computer 238 over the peer-to-peer wireless connection, the remote computer 240 may send a request to share the screen display data of the remote computer 240 to the master computer 238*. If a request to share the screen display data is sent to the master computer 238 and accepted, the screen display data displayed on the remote computer 240 is compressed using a suitable compression algorithm such as for example MJPEG compression. The compressed screen display data is then compared with previous screen display data sent to the master computer 238 in the same peer-to-peer wireless connection session to detect differences in the screen display data. The detected differences are then sent to the master computer 238 via the peer-to-peer wireless connection and displayed on the screen of the master computer 238. The master computer 238 passes input events, such as keyboard, mouse, trackball and/or pen-touch events, that it receives to the remote computer 240 thereby to remotely control the remote computer 240 (step 339). As will be appreciated, by compressing the screen display data of the remote computer 240, the time required to transmit the screen display data to the master computer 238 is reduced. Also, compressing the screen display data and only transmitting differences between screen display data, reduces the amount of screen display data that needs to be transmitted to the master computer 238 during screen sharing. This of course reduces the required transmission bandwidth required for screen sharing and thus, decreases latency." *Banerjee* at paragraphs [0046-0048] (emphasis added). "Upon termination of the session between the remote computer 240 and the master computer 238, the plug-and-play device 236 can be unplugged from the remote computer 240 and

	removed. *When the plug-and-play device 236 is disconnected from the remote computer 240, the remote computer 240 notifies the LinQLauncher.exe application (step 344). The LinQLauncher.exe application in turn stops the screen sharing, disconnects the peer-to-peer wireless connection with the master computer 238, terminates the execution of the LJnQ software application,* ***deletes the files in the temporary directory on the remote computer 240 that were copied from the storage 276****, and then terminates the execution of itself (step 348).* Those skilled in the art will appreciate that other clean up tasks, such as removing items in the system registry that were written by the LJnQ software application when it was launched may also be performed upon the disconnection of the plug-and-play device 236 from the remote computer 240." *Banerjee* at paragraph [0051] (emphasis added).
an input device enabling the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port.	*Kita* reaches: "FIG. 1 shows a personal computer to which a conventional network interface card is connected and to which reference will be made in explaining a function of a portion used to execute this network setting. In the operating system (e.g., Windows 95 or Windows 98 ("Windows" is a registered trademark)) of personal computer, there is supported a network function. *This network function contains a function which displays a network setting picture to execute a network setting based on* ***user's input operations***." *Kita* at page 1, line 23 – page 2, line 7 (emphasis added). See also Kita (at FIG. 3) shows a notebook computer including input devices (e.g., keyboard and touch pad) for carrying out user actions. "FIG. 4 shows an example of a circuit arrangement of this network interface card 1. The *network interface card 1 includes a PCMCIA interface 3,* a network interface 4, an RF modulator 5, an RF demodulator 6, an antenna 7, a CPU 8, a flash ROM 9 and a RAM 10. The PCMCIA interface 3 is an interface section which interacts with a personal computer having a PC card slot like the notebook size persona computer 2 shown in FIG. 3. *Through this PCMCIA interface 3,* ***data and commands are transmitted and received between the personal computer having the network interface card 1 and the network interface card 1***." *Kita* at page 21, lines 10 – 19 (emphasis added). *Epstein* teaches:

	"Referring also to FIG. 4, exemplary puck assembly 20 includes ***a puck 48*** *and first and second video/audio cables 50 and 52, respectively. Cable 50 is used to link puck 48 to a computer/laptop audio/video output port or other video source* while cable 52 links puck 48 through a circuitous path to one of the six input ports 17 shown in FIGS. 2 and 3. In at least some embodiments, each cable 52 can be taken up by a take up assembly (not shown) below deck member 21 as an associated puck 48 is moved from a use position on top of top member 26 (see FIG. 4) to a storage position as shown in FIG. 2. For more detail regarding one possible take up assembly, see US patent application Ser. No. 12/250,192 referenced above. As seen in FIG. 4, when a puck 48 is pulled into a use position on top of member 26, cable 52 can pass through gap 43 when door 39 is closed. Referring still to FIG. 4 and also to FIG. 5, *exemplary* ***puck 48 includes*** *a disc or puck shaped housing 49 that supports a plurality of components including a processor 71, an on/off button 58,* ***first through fourth selectable controls or control buttons 60a-60d****,* four illumination devices 73a through 73d and an illumination ring 56. Processor 71 may be a programmable microprocessor or may be configured via digital components. Processor 71 is linked to each of cables 50 and 52 and can sense when cabled 50 is linked to a video/audio source. Processor 50 is also linked to each of buttons 56 and 60a-60d to sense when any of those buttons are selected. Processor 50 is further linked to each of illumination devices 73a through 73d and ring 56 for providing power to and cutting power from each of those devices." *Epstein* at paragraphs [0051 – 0052] (emphasis added). "Following the instructions, as shown in FIG. 10, *a user pulls one of the pucks 48 from the cavity below a door 39 or 41 and links a laptop 69 to the puck 48 via cable 50 (see also FIG. 1). Once a laptop 69 is linked to cable 50, ring 59 as well as selectable buttons 60a-60d are illuminated white (see double crosshatch in FIG. 9) to indicate to the laptop user that the user is linked and can opt to present information from the user's laptop screen via any one or combination of displays 22a-22d corresponding to illuminated buttons 60a-60d,* respectively. Here, the white light ring 56 also indicates that currently the user of puck 48 is not presenting via any of displays 22a-22d. Referring to FIG. 11, *when a puck user wants to present*

	information from her laptop 69 display via display screen 22a, ***the user presses button 60a*** *to indicate intention to drive display 22a. Once button 60a is selected, four things happen. First, information currently displayed via display 22a is replaced by the information from the user's laptop 69 display.* Second, if a different laptop was previously presenting information via display 22a when button 60a is selected, the other user's puck illumination may change. For instance, if the other user was only displaying via display 22a when displaced, the other user's puck's ring 56 will change from green back to white illumination indicating the user is no longer driving any of displays 22a-22d. As another instance, where another user was driving each of displays 22a and 22c when button 60a is selected, the other user's puck ring will remain green after displacement from screen 22a to indicate that the other user is still driving display 22c despite being displaced from display 22a. In addition, in this case, the other user's puck button 60a will be illuminated white after displacement from screen 22a while button 60c will remain green indicating that the other user is still driving display 22c." *Epstein* at paragraphs [0065 – 0066] (emphasis added).
2. The electronic meeting tool of claim 1, wherein the program is stored on the peripheral device.	*Kita* reaches: "As the features of the present invention, ***the flash ROM 9 stores therein the following microprograms*** *(1) to (4).* Contents processed by the programs. (1) to (3) will be described in the examples of operations of a host and a client of a network conference system as will be described later on." *Kita* at page 22, lines 20-24 (emphasis added).
3. The electronic meeting tool of claim 1, wherein the transmitter is a wireless transmitter or transceiver.	*Kita* reaches: "FIG. 4 shows an example of a circuit arrangement of this network interface card 1. The network interface card 1 includes a PCMCIA interface 3, ***a network interface 4, an RF modulator 5, an RF demodulator 6, an antenna 7***, a CPU 8, a flash ROM 9 and a RAM 10. The PCMCIA interface 3 is an interface section which interacts with a personal computer having a PC card slot like the notebook size persona computer 2 shown in FIG. 3. Through this PCMCIA interface 3, data and commands are transmitted and received between the personal computer having the network interface card 1 and the network interface card 1. The network interface 4 transforms data and commands, transmitted thereto from the personal computer through the

	PCMCIA interface 3, into data and commands conforming to the format of predetermined ***wireless LAN standards*** *(e. g., the standards of 11 works groups in 802 of the IEEE 802),* transmits the data and commands thus transformed into the RF modulator 5, and inverse transforms data and commands, transmitted from the RF demodulator 6, and transmits the data and commands thus inverse-transformed to the PCMCIA interface 3." *Kita* at page 21, line 10 – page 22, line 1 (emphasis added).
4. The electronic meeting tool of claim 1, wherein the peripheral device is a plug-and-play device.	*Kita* reaches: "As described above, when the card type network interface is attached to the information terminal device, since *the network is* ***automatically set by this setting means****, the network can be set without troubling users*." *Kita* at page 5, lines 14 -17 (emphasis added).
5. The electronic meeting tool of claim 1, wherein the program is arranged to screen scrape content of the second display.	*Banerjee* reaches: "Turning now to Figure 4, another system or network 220 of operatively connected components is shown. As can be seen, system 220 comprises a plug-and-play device 236, a master computer 238 and at least one remote computer 240 The plug-and-play device 236 is physically connected to the remote computer 240 and communicates with the master computer 238 over a wireless communications link. In this embodiment, *plug-and-play device 236* ***captures and compresses screen display data generated at the remote computer 240 and allows screen sharing*** *between the remote computer 240 and the master computer 238* by automatically launching software stored on the plug-and-play device 236." *Banerjee* at paragraph [0039] (emphasis added). "Once the remote computer 240 is connected to the master computer 238 over the peer-to-peer wireless connection, the remote computer 240 may send a request to share the screen display data of the remote computer 240 to the master computer 238. *If a request to share the screen display data is sent to the master computer 238 and accepted,* ***the screen display data displayed on the remote computer 240 is compressed using a suitable compression algorithm such as for example MJPEG compression***. The compressed screen display data is then compared with previous screen display data sent to the master computer 238 in the same peer-to-peer wireless connection session to detect differences in the screen display data. The detected differences are then sent to the master computer 238 via the peer-to-peer wireless connection

	and displayed on the screen of the master computer 238. The master computer 238 passes input events, such as keyboard, mouse, trackball and/or pen-touch events, that it receives to the remote computer 240 thereby to remotely control the remote computer 240 (step 339). As will be appreciated, by compressing the screen display data of the remote computer 240, the time required to transmit the screen display data to the master computer 238 is reduced. Also, compressing the screen display data and only transmitting differences between screen display data, reduces the amount of screen display data that needs to be transmitted to the master computer 238 during screen sharing. This of course reduces the required transmission bandwidth required for screen sharing and thus, decreases latency." *Banerjee* at paragraph [0048] (emphasis added). *Applicant Admitted Prior Art (US 2002/0196378 to Slobodin)* teaches: " `Screen scraping' in our sense refers to reading the video frame buffers and processing them, rather than just rendering them on a display. Screen scraping for presentations is described in US2002/0196378 to Slobodin et al which is included herein by reference." See '348 Publication col. 11, lines 32 – 36.
6. The electronic meeting tool claim 1, wherein the input device is physical actuator coupled to the peripheral device.	*Epstein* teaches: "Referring also to FIG. 4, exemplary puck assembly 20 includes ***a puck 48*** *and first and second video/audio cables 50 and 52, respectively. Cable 50 is used to link puck 48 to a computer/laptop audio/video output port or other video source* while cable 52 links puck 48 through a circuitous path to one of the six input ports 17 shown in FIGS. 2 and 3. In at least some embodiments, each cable 52 can be taken up by a take up assembly (not shown) below deck member 21 as an associated puck 48 is moved from a use position on top of top member 26 (see FIG. 4) to a storage position as shown in FIG. 2. For more detail regarding one possible take up assembly, see US patent application Ser. No. 12/250,192 referenced above. As seen in FIG. 4, when a puck 48 is pulled into a use position on top of member 26, cable 52 can pass through gap 43 when door 39 is closed. Referring still to FIG. 4 and also to FIG. 5, *exemplary* ***puck 48 includes*** *a disc or puck shaped housing 49 that supports a plurality of components including a processor 71, an on/off*

	button 58, ***first through fourth selectable controls or control buttons 60a-60d***, four illumination devices 73a through 73d and an illumination ring 56. Processor 71 may be a programmable microprocessor or may be configured via digital components. Processor 71 is linked to each of cables 50 and 52 and can sense when cabled 50 is linked to a video/audio source. Processor 50 is also linked to each of buttons 56 and 60a-60d to sense when any of those buttons are selected. Processor 50 is further linked to each of illumination devices 73a through 73d and ring 56 for providing power to and cutting power from each of those devices." *Epstein* at paragraphs [0051 – 0052] (emphasis added).
7. The electronic meeting tool of claim 6, wherein the physical actuator has a surface area of between 100 and 14,400 square mm.	Obvious according to MPEP 2144.04 (IV)(A) "Changes in Size/Proportion" (In *Gardnerv.TEC Syst., Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied*, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.)
8. The electronic meeting tool of claim 1, wherein the input device is a key displayed on the second display.	*Banerjee* reaches: "Upon launch, the SMARTBoardTools.exe user application queries and obtains from storage 76 the calibration settings and other settings (step 140). The calibration settings enable the SMARTBoardTools.exe user application to map touch input generated by the touch panel 28 in response to pointer contacts with the touch surface 46 to the display coordinate system of the computer 40. The other settings include pen tray settings, COM port settings, contact filter settings and user settings for software applications. All of these settings are stored in a standard Windows® INI file. Further, several XML files are used to store layout and menu settings for various applets forming part of the SMARTBoardTools.exe user application. *These applets provide* ***a floating window of toolbuttons for accessing various functionality, an on-screen keyboard****, etc.* These layout and menu settings are stored in XML files in the storage 76 of the plug-and-play device 24, and are loaded and saved in a directory ("C:\Documents and Settings\<user name>\Application Data\SMART Technologies\SMARTBoard SoftwareV) during execution of the SMARTBoardTools.exe user application, where <user name> is the login name of the current user." *Banerjee* at paragraph [0035] (emphasis added). *Epstein* teaches:

	"Referring now to FIG. 15, in at least some embodiments it is contemplated that laptops 69 and other visual/audio sources may be able to wirelessly link up to a configuration 10b processor via a wireless access device 100 or the like. In this case the configuration 10b may not need a utility bay and will not require cable hookups or physical pucks. Here, where a source 69 is associated with the configuration for control purposes, referring also to FIG. 16, *a software "widget" puck representation or control interface representation (hereafter a "widget") 48a may be provided on screen. In this case it is contemplated that the widget 48a will have an appearance similar to the appearance of interface 60 and button 58 where* ***different widget areas corresponding to buttons 60a-60d and 58 will be selectable via a mouse controlled cursor or touch (in the case of a touch sensitive display) for selection***. In this case it is contemplated that when a virtual button on the widget is selected, the functionality and illumination described above with respect to puck 48 would occur. When the widget ring 56 is illuminated, the laptop could beep or buzz (i.e., create an audible signal of some type) to indicate which laptop has taken control." *Epstein* at paragraph [0072] (emphasis added).
9. The electronic meeting tool of claim 8, wherein the key displayed on the second display is not screen scraped by the program.	*Banerjee* reaches: "Upon launch, the SMARTBoardTools.exe user application queries and obtains from storage 76 the calibration settings and other settings (step 140). The calibration settings enable the SMARTBoardTools.exe user application to map touch input generated by the touch panel 28 in response to pointer contacts with the touch surface 46 to the display coordinate system of the computer 40. The other settings include pen tray settings, COM port settings, contact filter settings and user settings for software applications. All of these settings are stored in a standard Windows® INI file. Further, several XML files are used to store layout and menu settings for various applets forming part of the SMARTBoardTools.exe user application. *These applets provide a floating window of toolbuttons for accessing various functionality, an on-screen keyboard, etc. These* ***layout and menu settings are stored in XML files*** *in the storage 76 of the plug-and-play device 24, and are loaded and saved in a directory ("C:\Documents and Settings\<user name>\Application Data\SMART Technologies\SMARTBoard SoftwareV) during execution of the SMARTBoardTools.exe user application*, where <user name> is the login name of the current user." *Banerjee* at paragraph [0035] (emphasis added).
10. The electronic meeting	*Kita* reaches:

tool of claim 1, wherein the peripheral device comprises a memory in which executable software code is stored for execution on the processing device, said executable software code comprising:	"As the features of the present invention, ***the flash ROM 9 stores therein the following microprograms*** *(1) to (4).* Contents processed by the programs. (1) to (3) will be described in the examples of operations of a host and a client of a network conference system as will be described later on." *Kita* at page 22, lines 19 – line 24 (emphasis added).
a first software code portion for setting up, by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device and the processing device;	*Kita* reaches: "When the information terminal device is such one which automatically activates the application software stored in the hard disk (e. g., a personal computer in which the operating system for automatically activating the application software stored in the hard disk is installed), *the card type network interface allows the information terminal device to recognize the card type network interface as the hard disk so that the presentation application software may be automatically activated in the information terminal device.*" *Kita* at page 8, lines 15 – line 23 (emphasis added). *Banerjee* reaches: "Many ***operating systems possess a number of pre-loaded drivers for generic plug-and-play device classes***, such as USB mass storage, a two-button mouse, etc. ***If the operating system is in possession of a driver for the device class of the plug-and-play device connected to the computer, the computer loads the driver so that the functionality of the plug-and-play device can be accessed by the computer***. If the operating system does not possess a driver corresponding to the device class of the plug-and-play device, the operating system typically prompts the user to install the appropriate software to enable the computer to access the functionality of the plug-and-play device. "*Banerjee* at paragraphs [0004] (emphasis added).
a second software code portion for connecting the processing device to the communications network via the peripheral device, the peripheral device having a transceiver;	*Kita* reaches: "The "***client program***" contains processings ***used to execute the network setting to connect the clients 11 (2) to 11 (n) to the wireless LAN***. The network interface cards 1 of the clients 11 (2) to 11 (n) whose "client programs" were activated immediately start this network setting processing." *Kita* at page 26, lines 15 – 19 (emphasis added). "FIG. 4 shows an example of a circuit arrangement of this network interface card 1. The network interface card 1 includes

	a PCMCIA interface 3, ***a network interface 4, an RF modulator 5, an RF demodulator 6, an antenna*** *7*, a CPU 8, a flash ROM 9 and a RAM 10. The PCMCIA interface 3 is an interface section which interacts with a personal computer having a PC card slot like the notebook size persona computer 2 shown in FIG. 3. Through this PCMCIA interface 3, data and commands are transmitted and received between the personal computer having the network interface card 1 and the network interface card 1. The network interface 4 transforms data and commands, transmitted thereto from the personal computer through the *PCMCIA interface 3, into data and commands conforming to the format of predetermined* ***wireless LAN standards*** *(e. g., the standards of 11 works groups in 802 of the IEEE 802),* transmits the data and commands thus transformed into the RF modulator 5, and inverse transforms data and commands, transmitted from the RF demodulator 6, and transmits the data and commands thus inverse-transformed to the PCMCIA interface 3." *Kita* at page 21, line 10 – page 22, line 1 (emphasis added).
a third software code portion for screen scraping data from the processing device; and	*Kita* reaches: "If such operation is carried out ***(i. e., if the presentation data is displayed on the notebook size personal computer of the client concerned), then the same presentation data is transmitted to the host 11 (1) and other clients***, and the command for displaying the presentation data by using the presentation application software corresponding to that presentation data and the command for displaying that presentation data in synchronism with the client concerned are transmitted to the host 11 (1) and other clients (step S48)." *Kita* at page 38, lines 4 – line 12 (emphasis added). *Banerjee* teaches: "Turning now to Figure 4, another system or network 220 of operatively connected components is shown. As can be seen, system 220 comprises a plug-and-play device 236, a master computer 238 and at least one remote computer 240 The plug-and-play device 236 is physically connected to the remote computer 240 and communicates with the master computer 238 over a wireless communications link. In this embodiment, *plug-and-play device 236* ***captures and compresses screen display data generated at the remote computer 240*** and allows

	screen sharing between the remote computer 240 and the master computer 238 by automatically launching software stored on the plug-and-play device 236." *Banerjee* at paragraph [0039] (emphasis added). *Applicant Admitted Prior Art (US 2002/0196378 to Slobodin)* teaches: " `Screen scraping' in our sense refers to reading the video frame buffers and processing them, rather than just rendering them on a display. Screen scraping for presentations is described in US2002/0196378 to Slobodin et al which is included herein by reference." See '348 Publication col. 11, lines 32 – 36.
a fourth software code for routing screen scraped data between the processing device and the communications network over the means for communication; wherein the first software code portion is adapted to use a generic communication protocol for transferring the screen scraped data between the processing device and the peripheral device.	*Banerjee* teaches: "Once the remote computer 240 is connected to the master computer 238 over the peer-to-peer wireless connection, the remote computer 240 may send a request to share the screen display data of the remote computer 240 to the master computer 238. *If a request to share the screen display data is sent to the master computer 238 and accepted, the screen display data displayed on the remote computer 240 is compressed using a suitable compression algorithm such as for example MJPEG compression. The compressed screen display data is then compared with previous screen display data sent to the master computer 238 in the same peer-to-peer wireless connection session to detect differences in the screen display data. The* ***detected differences are then sent to the master computer 238 via the peer-to-peer wireless connection and displayed on the screen of the master computer 238***. The master computer 238 passes input events, such as keyboard, mouse, trackball and/or pen-touch events, that it receives to the remote computer 240 thereby to remotely control the remote computer 240 (step 339). As will be appreciated, by compressing the screen display data of the remote computer 240, the time required to transmit the screen display data to the master computer 238 is reduced. Also, compressing the screen display data and only transmitting differences between screen display data, reduces the amount of screen display data that needs to be transmitted to the master computer 238 during screen sharing. This of course reduces the required transmission bandwidth required for screen sharing and thus, decreases latency." *Banerjee* at paragraph [0048] (emphasis added).

	Kita reaches: "*The network interface 4 transforms data and commands, transmitted thereto from the personal computer through the PCMCIA interface 3, into data and commands conforming to the format of* ***predetermined wireless LAN standards (e. g., the standards of 11 works groups in 802 of the IEEE 802), transmits the data and commands thus transformed into the RF modulator 5***, and inverse transforms data and commands, transmitted from the RF demodulator 6, and transmits the data and commands thus inverse-transformed to the PCMCIA interface 3." *Kita* at page 21, lines 20 – page 22, line 1 (emphasis added). *Banerjee* reaches: "The operation of the system 220, when a peer-to-peer wireless connection between the master computer 238 and the remote computer 240 is established, will now be described with particular reference to Figure 6. When the plug-and-play device 236 is physically connected to the remote computer 240 via the cable segment 268 (step 304) and the connection of the plug-and-play device 236 is detected by the operating system of the remote computer 240, the remote computer 240 queries the plug-and-play device 236 to determine what functionality is provided by the plug-and-play device 236 (step 308). In particular, the controller 272 queries the wireless transceiver 260 and the storage 276 to determine what profiles or connections are available. In this embodiment, the storage 276 responds by indicating that it supports the mass storage device and *the wireless transceiver 260 responds by indicating its device type, interface profile and other parameters such as for example* ***wireless network protocol****, wireless network speed, encryption keys, biometrics, etc.* The plug-and-play device 236 then returns the determined functionality information to the remote computer 240." *Banerjee* at paragraph [0043] (emphasis added).
11. A non-transitory storage medium storing the first to fourth software code portion of claim 10.	Obvious for the same reasons as claim 10.

US 8,756,348 Claim Chart

Claim elements for U.S. Patent No. 8,756,348	Disclosure of *Kita*, *Banerjee*, and *Epstein*
12. A method for communicating arbitrary media content from users at a meeting comprising:	
operating a display node of a communications network, the display node being coupled to a first display, to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display; and	*Kita* teaches: "***One (11 (1)) of the wireless LAN conference terminal devices 11 is served as a host of the wireless LAN***, and remaining (n-1) terminal devices (11 (2) to 11 (n)) are served as clients of the wireless LAN." *Kita* at page 24, lines 8 – 11 (emphasis added). "FIG. 5 shows an example of an arrangement of ***a network conference terminal device (wireless LAN conference terminal device)*** according to the present invention and an example of an overall arrangement of a network conference system (wireless LAN conference system) according to the present invention. This wireless LAN conference system is comprised of a plurality of (e.g., about 30 to 50) wireless LAN conference terminal devices 11 (11 (1) to 11 (n)), ***a projector*** 12 and a video camera 13." *Kita* at page 23, lines 19 – 26 (emphasis added). "As shown in FIG. 5, *the host 11 (1) is connected through an external display output terminal of the notebook size personal computer to the projector 12* located within the conference hall and is also connected through a DV terminal of the notebook size personal computer to the video camera 13." *Kita* at page 26, lines 5 – 9 (emphasis added).
connecting a peripheral device to a port of a processing device and communicating the user selected arbitrary media content via the communications network,	*Kita* teaches: "FIG. 3 shows an example of an outward appearance and an arrangement of a network interface card, to which the present invention is applied, together with a notebook size personal computer to which this network interface card can be attached. This network interface card 1 has a shape and a dimension based on a type 2 or a type 3 of the standards of the PCMCIA. *A notebook size personal computer 2 includes a personal computer* ***card slot 2a into which there can be inserted the network interface card 1***." *Kita* at page 21, lines 1 – 8

	(emphasis added).
loading a program onto the processing device and running the program on the operating system of the processing device to obtain user selected arbitrary media content, said program leaving a zero footprint on termination, and	*Kita* reaches: "As the features of the present invention, *the flash ROM 9 stores therein the following microprograms (1) to (4)*. Contents processed by the programs. (1) to (3) will be described in the examples of operations of a host and a client of a network conference system as will be described later on. (1): A program which ha[s] described processing for enabling the personal computer having the network interface card 1 to function as a host for managing the wireless LAN (hereinafter referred to as a "host program") . (2): *A program which has described processing for enabling the personal computer having the network interface card 1 to function as a client using the wireless LAN under management of the host* (hereinafter referred to as a "client program"). (3): A program which has described processing for deciding whether the host program or the client program should be executed (hereinafter referred to as a "host/client decision program). (4): *Presentation application software (program which has described processing for displaying and controlling presentation data such as images and graphical*. This application software contains graphic viewer which is software for displaying images, software for creating, displaying and controlling graphical (e.g., "Microsoft PowerPoint" manufactured by Microsoft, "Microsoft" and "PowerPoint" are registered trademarks of Microsoft) and WWW browser which is software used to access WWW server on the Internet to display images of Web pages and the like." *Kita* at page 22, line 19 – page 23, line 17 (emphasis added). "FIG. 12 shows a procedure of operations that should be executed by the participants of the conference in order to execute the network setting of the clients 11 (2) to 11 (n). *When the network interface card 1 is attached to the notebook size personal computer and the* ***operating system of the notebook size personal computer is activated*** (the network interface card 1 may be attached to the notebook size personal computer after the operating system of the notebook size personal computer has been activated), the network setting is automatically executed by the processings shown in FIGS. 7

	and 8. Accordingly, ,as is clear from the contrast with FIG. 2 which shows the conventional network interface card, the network setting . of the clients 11 (2) to 11 (n) as the assumption that the participants are to attend the wireless LAN can be carried out without imposing a burden on the participants of the conference." *Kita* at page 33, lines 19 – line 23 (emphasis added). "As shown in FIG. 14, the network interface cards 1 of the clients 11 (2) to 11 (n) enable the notebook size personal computers of the clients 11 (2) to 11 (n) to recognize this network interface card 1 as a hard disk, respectively. At the same time, the above network interface cards set the automatic activating file (step S41). *Accordingly, the notebook size personal computers of the clients 11 (2) to 11 (n) recognize the network interface card 1 as the hard disk so that the presentation application software stored in the flash ROM 9 may be activated automatically.*" *Kita* at page 35, line 19 – page 36, line 1 (emphasis added). *Banerjee* teaches: "Controller 272 also communicates with ***storage 276 that is configured to store and automatically launch software applications thereon via an autorun feature that the operating system of the remote computer 240 supports***. Similar to the previous embodiment, storage 276 is flash memory, solid-state memory or other non-volatile computer memory. The storage 276 is configured to operate in accordance with a mass storage device and defines itself as compact disk read only memory (CD-ROM). *Storage 276 stores an executable launcher application, LinQLauncher.exe and may also store one or more access codes, biometrics or keys to automatically form a secure encrypted and authenticated wireless network connection with the master computer 238.* The operation of the system 220, when a peer-to-peer wireless connection between the master computer 238 and the remote computer 240 is established, will now be described with particular reference to Figure 6. *When the plug-and-play device 236 is physically connected to the remote computer 240 via the cable segment 268 (step 304) and the connection of the plug-and-play device 236 is detected by the operating system of the remote computer 240, the remote computer 240 queries the*

	plug-and-play device 236 to determine what functionality is provided by the plug-and-play device 236 (step 308). In particular, the controller 272 queries the wireless transceiver 260 and the storage 276 to determine what profiles or connections are available. In this embodiment, the storage 276 responds by indicating that it supports the mass storage device and the wireless transceiver 260 responds by indicating its device type, interface profile and other parameters such as for example wireless network protocol, wireless network speed, encryption keys, biometrics, etc. The plug-and-play device 236 then returns the determined functionality information to the remote computer 240." *Banerjee* at paragraphs [0042-0043] (emphasis added). "The autorun.inf file contains a pointer to the executable launcher application, LinQLauncher.exe stored in the storage 276. Upon parsing the autorun.inf file, *the remote computer 240 uses the pointer to load a LinQ software application from the storage 276 (step 328). The LinQ_auncher.exe application directs the remote computer 240 to* ***copy all necessary files of the LinQ software application from storage 276 to a temporary directory on the remote computer 240 and then start the LinQ software application*** *(step 332). The LinQ software application is used for setting up and managing the peer-to-peer wireless connection on the remote computer 240, screen sharing and communications between the remote computer 240 and the master computer 238.* Upon launch, ***the LinQ software application loads the necessary driver for the wireless transceiver 260, configures the wireless transceiver 260, finds the master computer 238 and establishes the peer-to-peer wireless connection between the LinQ software application and the mobile device manager application running on the master computer 238 (step 337).*** The LinQ software application, which manages the peer-to-peer wireless connection on the remote computer 240, then reads the access codes, biometrics or keys from the storage 276. The access codes, biometrics or keys are in turn exchanged with the master computer 238 and used as a parameter to create a secure authenticated and encrypted peer-to-peer wireless connection. The mobile device manager application running on the master computer 238 manages the peer-to-peer wireless connection on the master computer 238. In cases where multiple systems 220 may be operating, an ad-hoc network identifier may be necessary to allow the plug-and-play device 236 to determine the appropriate network to which

	to connect. In such cases, the ad-hoc network identifier is configured to be read from storage 276 in similar manner to the access codes, biometrics or keys. *Once the remote computer 240 is connected to the master computer 238 over the peer-to-peer wireless connection, the remote computer 240 may send a request to share the screen display data of the remote computer 240 to the master computer 238*. If a request to share the screen display data is sent to the master computer 238 and accepted, the screen display data displayed on the remote computer 240 is compressed using a suitable compression algorithm such as for example MJPEG compression. The compressed screen display data is then compared with previous screen display data sent to the master computer 238 in the same peer-to-peer wireless connection session to detect differences in the screen display data. The detected differences are then sent to the master computer 238 via the peer-to-peer wireless connection and displayed on the screen of the master computer 238. The master computer 238 passes input events, such as keyboard, mouse, trackball and/or pen-touch events, that it receives to the remote computer 240 thereby to remotely control the remote computer 240 (step 339). As will be appreciated, by compressing the screen display data of the remote computer 240, the time required to transmit the screen display data to the master computer 238 is reduced. Also, compressing the screen display data and only transmitting differences between screen display data, reduces the amount of screen display data that needs to be transmitted to the master computer 238 during screen sharing. This of course reduces the required transmission bandwidth required for screen sharing and thus, decreases latency." *Banerjee* at paragraphs [0046-0048] (emphasis added). "Upon termination of the session between the remote computer 240 and the master computer 238, the plug-and-play device 236 can be unplugged from the remote computer 240 and removed. *When the plug-and-play device 236 is disconnected from the remote computer 240, the remote computer 240 notifies the LinQLauncher.exe application (step 344). The LinQLauncher.exe application in turn stops the screen sharing, disconnects the peer-to-peer wireless connection with the master computer 238, terminates the execution of the LJnQ software application,* ***deletes the files in the temporary directory on the remote computer 240 that were copied from the storage 276****, and then terminates the execution of itself*

	(step 348). Those skilled in the art will appreciate that other clean up tasks, such as removing items in the system registry that were written by the LJnQ software application when it was launched may also be performed upon the disconnection of the plug-and-play device 236 from the remote computer 240." *Banerjee* at paragraph [0051] (emphasis added).
triggering transfer of said user selected arbitrary media content to said transmitter through said port after a user action on an input device.	*Kita* reaches: "The *PCMCIA interface 3 is* ***an interface section which interacts with a personal computer having a PC card slot*** *like the notebook size persona computer 2* shown in FIG. 3. Through this PCMCIA interface 3, data and commands are transmitted and received between the personal computer having the network interface card 1 and the network interface card 1. The ***network interface 4 transforms data and commands, transmitted thereto from the personal computer through the PCMCIA interface 3, into data and commands conforming to the format of predetermined wireless LAN standards*** (e.g., the standards of 11 works groups in 802 of the IEEE 802), transmits the data and commands thus transformed into the RF modulator 5, and inverse-transforms data and commands, transmitted from the RF demodulator 6, and transmits the data and commands thus inverse-transformed to the PCMCIA interface 3." *Kita* at page 21, line 14 – page 22, line 1 (emphasis added). "FIG. 1 shows a personal computer to which a conventional network interface card is connected and to which reference will be made in explaining a function of a portion used to execute this network setting. In the operating system (e.g., Windows 95 or Windows 98 ("Windows" is a registered trademark)) of personal computer, there is supported a network function. *This network function contains a function which displays a network setting picture to execute a network setting* ***based on user's input operations***." *Kita* at page 1, line 24 – page 2, line 7 (emphasis added). *Epstein* teaches: "Referring also to FIG. 4, exemplary puck assembly 20 includes ***a puck 48*** *and first and second video/audio cables 50 and 52, respectively. Cable 50 is used to link puck 48 to a computer/laptop audio/video output port or other video source* while cable 52 links puck 48 through a circuitous path to one

	of the six input ports 17 shown in FIGS. 2 and 3. In at least some embodiments, each cable 52 can be taken up by a take up assembly (not shown) below deck member 21 as an associated puck 48 is moved from a use position on top of top member 26 (see FIG. 4) to a storage position as shown in FIG. 2. For more detail regarding one possible take up assembly, see US patent application Ser. No. 12/250,192 referenced above. As seen in FIG. 4, when a puck 48 is pulled into a use position on top of member 26, cable 52 can pass through gap 43 when door 39 is closed. Referring still to FIG. 4 and also to FIG. 5, *exemplary* ***puck 48 includes*** *a disc or puck shaped housing 49 that supports a plurality of components including a processor 71, an on/off button 58,* ***first through fourth selectable controls or control buttons 60a-60d****,* four illumination devices 73a through 73d and an illumination ring 56. Processor 71 may be a programmable microprocessor or may be configured via digital components. Processor 71 is linked to each of cables 50 and 52 and can sense when cabled 50 is linked to a video/audio source. Processor 50 is also linked to each of buttons 56 and 60a-60d to sense when any of those buttons are selected. Processor 50 is further linked to each of illumination devices 73a through 73d and ring 56 for providing power to and cutting power from each of those devices." *Epstein* at paragraphs [0051 – 0052] (emphasis added). Referring to FIG. 11, *when a puck user wants to present information from her laptop 69 display via display screen 22a,* ***the user presses button 60a*** *to indicate intention to drive display 22a. Once button 60a is selected, four things happen. First, information currently displayed via display 22a is replaced by the information from the user's laptop 69 display.* Second, if a different laptop was previously presenting information via display 22a when button 60a is selected, the other user's puck illumination may change. For instance, if the other user was only displaying via display 22a when displaced, the other user's puck's ring 56 will change from green back to white illumination indicating the user is no longer driving any of displays 22a-22d. As another instance, where another user was driving each of displays 22a and 22c when button 60a is selected, the other user's puck ring will remain green after displacement from screen 22a to indicate that the other user is still driving display 22c despite being displaced from display 22a. In addition, in this case, the other user's puck button 60a will be illuminated white after displacement from screen 22a

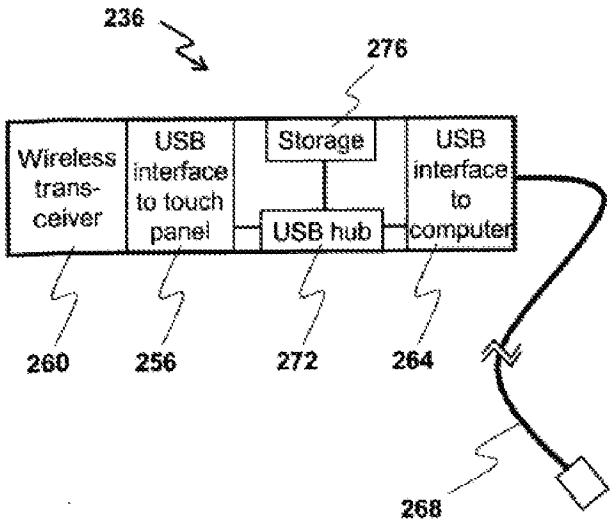
	while button 60c will remain green indicating that the other user is still driving display 22c. *Epstein* at paragraphs [0065 – 0066] (emphasis added).
13. The method of claim 12, further comprising configuring the peripheral device to connect to the communications network by pairing the peripheral device with the display node.	*Kita* teaches: "In order to solve the above second problem, there is proposed a network conference system (wireless LAN conference system) in which there are provided a host of a wireless LAN and a client of the wireless LAN, *the client is constructed such that a card type network interface is attached to an information terminal device and includes a presentation processing means for displaying and controlling presentation data. This card type network interface includes a connecting means for connecting this information terminal device to the wireless LAN and* ***a setting means for requesting a host of this wireless LAN to transmit setting information necessary for setting the network to connect this information terminal device to this wireless LAN based on the fact that the card type network interface is attached to this information terminal device and setting the network by using the setting information transmitted from the host. The host transmits the setting information to the client based on this setting information request and also transmits the presentation data to the client in which the setting of the network was completed***. This network conference system is constructed by using the above network conference terminal device as the client (i.e., the above wireless LAN card type network interface). Therefore, the network of the clients can be set without troubling those who attend the conference, and the system can be constructed without increasing the cost of equipment of the conference hall. Also in this network conference system, the card type network interface further includes a determining means for determining based on the fact that this card type network interface is attached to the information terminal device whether the information terminal device is served as a host or a client of the LAN and a processing means for transmitting requested setting information to the client if it is determined by this determining means that the information terminal device is served as the host. The setting means requests the setting information if it is determined by this determining means that the information terminal device is served as the client." Kita at page 12, line 14 to page 13, line 21 (emphasis added).

14. The method of claim 13, wherein the pairing is performed by plugging the peripheral device into the display node.	*Kita* teaches: "In order to solve the above second problem, there is proposed a network conference system (wireless LAN conference system) in which there are provided a host of a wireless LAN and a client of the wireless LAN, *the client is constructed such that* ***a card type network interface is attached to an information terminal device*** *and includes a presentation processing means for displaying and controlling presentation data. This card type network interface includes a connecting means for connecting this information terminal device to the wireless LAN and a setting means for requesting a host of this wireless LAN to transmit setting information necessary for setting the network to connect this information terminal device to this wireless LAN based on the fact that the card type network interface is attached to this information terminal device and setting the network by using the setting information transmitted from the host. The host transmits the setting information to the client based on this setting information request and also transmits the presentation data to the client in which the setting of the network was completed.* This network conference system is constructed by using the above network conference terminal device as the client (i.e., the above wireless LAN card type network interface). Therefore, the network of the clients can be set without troubling those who attend the conference, and the system can be constructed without increasing the cost of equipment of the conference hall. Also in this network conference system, the card type network interface further includes a determining means for determining based on the fact that this card type network interface is attached to the information terminal device whether the information terminal device is served as a host or a client of the LAN and a processing means for transmitting requested setting information to the client if it is determined by this determining means that the information terminal device is served as the host. The setting means requests the setting information if it is determined by this determining means that the information terminal device is served as the client." Kita at page 12, line 14 to page 13, line 21 (emphasis added). Banerjee teaches:

	"The components of the plug-and-play device 236 are better illustrated in Figure 5. As can be seen, the plug-and-play device 236 comprises an interface 256 in the form of a USB interface to wireless communication device adapter connected to *a wireless transceiver 260*. Similar to wireless communication device 238a, the wireless transceiver 260 is, for example, an RF communication device such as a Bluetooth™, WiFi or other RF adapter, or an infrared (IR) communication device. The ***wireless communication device 238a and wireless transceiver 260 are paired to enable a peer-to-peer wireless connection between the master computer 238 and the remote computer 240 to be established. The plug-and-play device 236 also comprises an interface 264 in the form of a USB interface to computing device adapter. The interface 264 comprises a port (not shown) to receive a cable segment 268 thereby to enable the physical connection to the remote computer 240 to be made***. Both interfaces 256 and 264 are also in communication with a controller 272 in the form of a USB hub." *Banerjee* at paragraph [0041] (emphasis added).
15. The method of claim 12, further comprising setting up by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device and the processing device.	*Kita* reaches: "When the information terminal device is such one which automatically activates the application software stored in the hard disk (e. g., a personal computer in which the operating system for automatically activating the application software stored in the hard disk is installed), *the card type network interface allows the information terminal device to recognize the card type network interface as the hard disk so that the presentation application software may be automatically activated in the information terminal device*." *Kita* at page 8, lines 15 – line 23 (emphasis added). *Banerjee* reaches: "Many ***operating systems possess a number of pre-loaded drivers for generic plug-and-play device classes***, such as USB mass storage, a two-button mouse, etc. ***If the operating system is in possession of a driver for the device class of the plug-and-play device connected to the computer, the computer loads the driver so that the functionality of the plug-and-play device can be accessed by the computer***. If the operating system does not possess a driver corresponding to the device class of the plug-and-play device, the operating system typically prompts the user to install the appropriate software to enable the computer to access the functionality of the plug-and-play device. "*Banerjee* at paragraphs [0004] (emphasis

	added).
16. The method of claim 12, wherein a pre-installed generic driver is selected from a human interface device driver and a mass storage device driver.	*Kita* reaches: "FIG. 11 shows a function of any portion of the clients 11 (2) to 11 (n) used to execute this network setting. *The device driver (microprogram stored within the flash ROM 9 shown in FIG. 4) for controlling the network interface card 1 contains the network setting function (the "host program" and the "client program").* The network setting of the clients 11 (2) to 11 (n) is executed by using the device driver function of this network interface card 1." *Kita* at page 32, line 24 – page 33, line 3 (emphasis added). *Banerjee* teaches: "The controller 32 comprises a processor (not shown) that executes firmware stored in non-volatile storage. Generally, the firmware causes the controller 32 to operate in one of two operational modes. In an initial mode, the controller 32 operates two USB profiles, ***namely an absolute mouse human interface device ("HID") profile and a SMARTBoard HID profile***. The absolute mouse HID profile enables the controller 32 to relay absolute position information for a pointer contacting the touch surface 46 of the touch panel 28 along with basic mouse functions. The SMARTBoard HID profile is a device class that enables enhanced functionality for the touch panel 28. The enhanced functionality comprises all of the functionality available in the absolute mouse HID device class as well as inking information, additional tool information (buttons, eraser, pen selection, etc.) and two-way communications with the controller 32. In a "native" operating mode, the controller 32 terminates the absolute mouse HID profile and only operates the SMARTBoard HID profile." *Banerjee* at paragraph [0028] (emphasis added).
17. The method of claim 12, further comprising one of: presenting the peripheral device to the processing device as a human interface device, presenting the peripheral device to the processing device as a mass storage device; and	*Kita* teaches: "FIG. 1 shows a personal computer to which a conventional network interface card is connected and to which reference will be made in explaining a function of a portion used to execute this network setting. In the operating system (e.g., Windows 95 or Windows 98 ("Windows" is a registered trademark)) of personal computer, there is supported a network function. *This network function contains a function which displays a network setting picture to execute a network setting* ***based on user's input operations***." *Kita* at page 1, line 24 – page 2, line 7 (emphasis added).

presenting the peripheral device to the processing device as a composite device.	"Presentation application software (program in which a processing for displaying and controlling ***presentation data is written) is stored in this card type network interface***." *Kita* at page 8, lines 5 – 7 (emphasis added). *Banerjee* teaches: "Upon launch, the SMARTBoardTools.exe user application queries and obtains from storage 76 the calibration settings and other settings (step 140). The calibration settings enable the SMARTBoardTools.exe user application to map touch input generated by ***the touch panel 28 in response to pointer contacts with the touch surface 46 to the display coordinate system of the computer 40***. The other settings include pen tray settings, COM port settings, contact filter settings and user settings for software applications. All of these settings are stored in a standard Windows® INI file. Further, several XML files are used to store layout and menu settings for various applets forming part of the SMARTBoardTools.exe user application. These applets provide a floating window of toolbuttons for accessing various functionality, an on-screen keyboard, etc. These layout and menu settings are stored in XML files in the storage 76 of the plug-and-play device 24, and are loaded and saved in a directory ("C:\Documents and Settings\<user name>\Application Data\SMART Technologies\SMARTBoard SoftwareV) during execution of the SMARTBoardTools.exe user application, where <user name> is the login name of the current user. Upon obtaining the calibration settings, the SMARTBoardTools.exe user application maps touch input generated by the touch panel 28 in response to pointer contacts with the touch surface 46 to the display coordinate system of the computer 40. In this manner, *the user is able to interact effectively with the image projected onto the touch surface 46 of the touch panel 28 by the LCD projector 44*. During execution, some settings are stored in the "HKEY_CURRENT_USER" key of the registry and, in particular, in the "Software\SMART Technologies\SMARTBoard SoftwareV subkey. These settings include application window positions, user settings for each application and a list of recently used files. The "HKEY_CURRENT_USER" key is used as there are generally no restrictions on modifications made to this key. In addition, if there are no access restrictions on the

	"HKEY_LOCAL_MACHINE" key, spell checker settings are written there." *Banerjee* at paragraphs [0035 – 0036] (emphasis added). "Controller 272 also communicates with storage 276 that is configured to store and automatically launch software applications thereon via an autorun feature that the operating system of the remote computer 240 supports. Similar to the previous embodiment, storage 276 is flash memory, solid-state memory or other non-volatile computer memory. ***The storage 276 is configured to operate in accordance with a mass storage device and defines itself as compact disk read only memory (CD-ROM)***. Storage 276 stores an executable launcher application, LinQLauncher.exe and may also store one or more access codes, biometrics or keys to automatically form a secure encrypted and authenticated wireless network connection with the master computer 238." *Banerjee* at paragraph [0042] (emphasis added).  FIG. 5 (Composite interfaces including USB interface to touch panel and storage interface)
18. The method of claim 12, wherein the program is stored on the peripheral device, and which obtains screen scraped data when run on the processing device.	Kita teaches: "Presentation application software (program in which a processing for displaying and controlling ***presentation data is written) is stored in this card type network interface***." *Kita* at page 8, lines 5 – 7 (emphasis added).

	Banerjee teaches: "The autorun.inf file contains a pointer to the executable launcher application, ***LinQLauncher.exe stored in the storage 276***. Upon parsing the autorun.inf file, the remote computer 240 uses the pointer to load a LinQ software application from the storage 276 (step 328). The LinQI_auncher.exe application directs the remote computer 240 to copy all necessary files of the LinQ software application from storage 276 to a temporary directory on the remote computer 240 and then start the LinQ software application (step 332). The LinQ software application is used for setting up and managing the peer-to-peer wireless connection on the remote computer 240, *screen sharing and communications between the remote computer 240 and the master computer 238*." *Banerjee* at paragraph [0046] (emphasis added).
19. The method of claim 17, wherein a generic communication protocol is used for transferring screen scraped data between the processing device and the peripheral device.	*Kita* reaches: "When the information terminal device is such one which automatically activates the application software stored in the hard disk (e. g., a personal computer in which the operating system for automatically activating the application software stored in the hard disk is installed), *the card type network interface allows the information terminal device to recognize the card type network interface as the hard disk so that the presentation application software may be automatically activated in the information terminal device*." *Kita* at page 8, lines 15 – line 23 (emphasis added). *Banerjee* reaches: "Many ***operating systems possess a number of pre-loaded drivers for generic plug-and-play device classes***, such as USB mass storage, a two-button mouse, etc. ***If the operating system is in possession of a driver for the device class of the plug-and-play device connected to the computer, the computer loads the driver so that the functionality of the plug-and-play device can be accessed by the computer***. If the operating system does not possess a driver corresponding to the device class of the plug-and-play device, the operating system typically prompts the user to install the appropriate software to enable the computer to access the functionality of the plug-and-play device. "*Banerjee* at paragraphs [0004] (emphasis added).
20. The method of claim 12 further comprising displaying	*Kita* reaches:

the user selected arbitrary media content on the first display in accordance with a set of rules.	"In order to solve the above second problem, there is proposed a network conference terminal device in which a card type network interface is attached to an information terminal device such as a personal computer, for example, and which includes *a presentation processing means for* ***displaying and controlling presentation data***. This card type network interface includes a connecting means for connecting this information terminal device to the wireless LAN and a setting means for requesting a host of this wireless LAN to transmit setting information necessary for setting the network to connect this information terminal device to this wireless LAN based on the fact that the card type network interface is attached to this information terminal device and setting the network by using the setting information transmitted from the host." *Kita* at page 12, line 14 – page 13, line 4. Banerjee teaches: "Upon launch, the SMARTBoardTools.exe user application queries and obtains from storage 76 the calibration settings and other settings (step 140). The calibration settings enable the SMARTBoardTools.exe user application to map touch input generated by the touch panel 28 in response to pointer contacts with the touch surface 46 to *the display coordinate system of the computer 40*. The other settings include pen tray settings, COM port settings, contact filter settings and user settings for software applications. All of these settings are stored in a standard Windows® INI file. Further, several XML files are used to store layout and menu settings for various applets forming part of the SMARTBoardTools.exe user application. These applets provide a floating window of toolbuttons for accessing various functionality, an on-screen keyboard, etc. These layout and menu settings are stored in XML files in the storage 76 of the plug-and-play device 24, and are loaded and saved in a directory ("C:\Documents and Settings\<user name>\Application\Data\SMART\Technologies\SMARTBoard SoftwareV) during execution of the SMARTBoardTools.exe user application, where <user name> is the login name of the current user. Upon obtaining the calibration settings, the SMARTBoardTools.exe user application maps touch input generated by the touch panel 28 ***in response to pointer contacts with the touch surface 46 to the display coordinate system of the computer 40***. In this manner, the user is able to interact effectively with the image projected onto the touch

	surface 46 of the touch panel 28 by the LCD projector 44. During execution, some settings are stored in the "HKEY_CURRENT_USER" key of the registry and, in particular, in the "Software\SMART Technologies\SMARTBoard SoftwareV subkey. These settings include application window positions, user settings for each application and a list of recently used files. The "HKEY_CURRENT_USER" key is used as there are generally no restrictions on modifications made to this key. In addition, if there are no access restrictions on the "HKEY_LOCAL_MACHINE" key, spell checker settings are written there. Banerjee at paragraphs [0035 – 0036] (emphasis added). "Similar to the embodiment of Figure 3, if desired, the *master computer 238 can be connected to an interactive input system 228 of one of the types described previously as shown in Figure 7. In this case, shared screen display data received by the master computer 238 can be presented on the touch surface 246 of the interactive input system 228 via a projection device 244 that is connected to the master computer 238 by a physical cable 248 allowing a user to interact with the shared screen display data through pointer contacts with the touch surface 246.*" Banerjee at paragraph [0054] (emphasis added). *Epstein* teaches: "Referring to FIG. 11, when a puck user wants to present information from her laptop 69 display via display screen 22a, the user presses button 60a to indicate intention to drive display 22a. Once button 60a is selected, four things happen. ***First**, information currently displayed via display 22a is replaced by the information from the user's laptop 69 display. **Second**, if a different laptop was previously presenting information via display 22a when button 60a is selected, the other user's puck illumination may change. For instance, if the other user was only displaying via display 22a when displaced, the other user's puck's ring 56 will change from green back to white illumination indicating the user is no longer driving any of displays 22a-22d. As another instance, where another user was driving each of displays 22a and 22c when button 60a is selected, the other user's puck ring will remain green after displacement from screen 22a to indicate that the other user is still driving display 22c despite being displaced from display 22a. In addition, in this case, the other user's puck button 60a will be illuminated white after displacement from screen 22a*

	while button 60c will remain green indicating that the other user is still driving display 22c. ***Third**, to indicate that the user of puck 48 in FIG. 10 is now driving at least one of displays 22a-22d, ring 56 on puck 48 changes from white to green (see single cross hatch ring in FIG. 10). **Fourth**, to let the puck user know which displays 22a-22d she is currently driving, button 60a illumination changes from white to green. Here, other buttons 60b-60d that were not selected remain white (i.e., they are shown as double cross hatched).*" Epstein at paragraphs [0066 – 0067] (emphasis added).

US 8,756,348 Claim Chart

Claim elements for U.S. Patent No. 8,756,348	Disclosure of *Banerjee*, and *Epstein*
1. An electronic meeting tool for communicating arbitrary media content from users at a meeting comprising:	
a node configuration arranged to operate a display node of a communications network, the display node being coupled to a first display,	*Banerjee* teaches: "Turning now to Figure 4, another system or network 220 of operatively connected components is shown. As can be seen, *system 220 comprises a plug-and-play device 236,* ***a master computer 238*** and at least one remote computer 240. *The plug-and-play device 236 is physically connected to the remote computer 240 and* ***communicates with the master computer 238 over a wireless communications link***. In this embodiment, plug-and-play device 236 captures and compresses screen display data generated at the remote computer 240 and allows screen sharing between the remote computer 240 and the master computer 238 by automatically launching software stored on the plug-and-play device 236." *Banerjee* at paragraph [0039] (emphasis added). "Similar to the embodiment of Figure 3, if desired, the master computer 238 can be connected to an interactive input system 228 of one of the types described previously as shown in Figure 7. In this case, *shared screen display data received by the master computer 238 can be presented on the touch surface 246 of the interactive input system 228 via a* ***projection device 244*** that is connected to the master computer 238 by a physical cable 248 allowing a user to interact with the shared screen display data through pointer contacts with the touch surface 246." *Banerjee* at paragraph [0054] (emphasis added).
the node configuration further being arranged to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display;	*Banerjee* teaches: "Similar to the embodiment of Figure 3, if desired, the master computer 238 can be connected to an interactive input system 228 of one of the types described previously as shown in Figure 7. In this case, *shared screen display data received by the master computer 238 can be presented on the touch surface 246 of the interactive input system 228 via a* ***projection device 244*** that is connected to the master computer 238 by a physical cable 248 allowing a user to interact with the shared screen display data through pointer contacts with the touch surface 246." *Banerjee* at paragraph [0054] (emphasis added).

at least one peripheral device configured to communicate the user selected arbitrary media content via the communications network, wherein the peripheral device is a connection unit comprising: (a) a connector arranged to couple to a port of a processing device having a second display, a memory and an operating system; and (b) a transmitter arranged to communicate with the communications network,	*Banerjee* teaches: "The components of the plug-and-play device 236 are better illustrated in Figure 5. As can be seen, *the plug-and-play device 236 comprises an interface 256 in the form of a USB interface to wireless communication device adapter connected to* ***a wireless transceiver 260***. Similar to wireless communication device 238a, the wireless *transceiver 260 is, for example, an RF communication device such as a Bluetooth™, WiFi or other RF adapter, or an infrared (IR) communication device. The wireless communication device 238a and wireless transceiver 260 are paired to enable a peer-to-peer wireless connection between the master computer 238 and the remote computer 240 to be established.* The plug-and-play device 236 also comprises an interface 264 in the form of a USB interface to computing device adapter. *The interface 264 comprises a port (not shown) to receive a* ***cable segment 268 thereby to enable the physical connection to the remote computer 240 to be made***. Both interfaces 256 and 264 are also in communication with a controller 272 in the form of a USB hub." *Banerjee* at paragraph [0041] (emphasis added).
a program configured to be loaded onto the processing device and to run on the operating system of the processing device, said program being arranged to obtain user selected arbitrary media content, said program leaving a zero footprint on termination, and	*Banerjee* teaches: "Controller 272 also communicates with ***storage 276 that is configured to store and automatically launch software applications thereon via an autorun feature that the operating system of the remote computer 240 supports***. Similar to the previous embodiment, storage 276 is flash memory, solid-state memory or other non-volatile computer memory. The storage 276 is configured to operate in accordance with a mass storage device and defines itself as compact disk read only memory (CD-ROM). *Storage 276 stores an executable launcher application, LinQLauncher.exe and may also store one or more access codes, biometrics or keys to automatically form a secure encrypted and authenticated wireless network connection with the master computer 238.* The operation of the system 220, when a peer-to-peer wireless connection between the master computer 238 and the remote computer 240 is established, will now be described with particular reference to Figure 6. *When the plug-and-play device 236 is physically connected to the remote computer 240 via the cable segment 268 (step 304) and the connection of the plug-and-play device 236 is detected by the operating system of the*

	remote computer 240, the remote computer 240 queries the plug-and-play device 236 to determine what functionality is provided by the plug-and-play device 236 (step 308). In particular, the controller 272 queries the wireless transceiver 260 and the storage 276 to determine what profiles or connections are available. In this embodiment, the storage 276 responds by indicating that it supports the mass storage device and the wireless transceiver 260 responds by indicating its device type, interface profile and other parameters such as for example wireless network protocol, wireless network speed, encryption keys, biometrics, etc. The plug-and-play device 236 then returns the determined functionality information to the remote computer 240." *Banerjee* at paragraphs [0041-0042] (emphasis added). "The autorun.inf file contains a pointer to the executable launcher application, LinQLauncher.exe stored in the storage 276. Upon parsing the autorun.inf file, *the remote computer 240 uses the pointer to load a LinQ software application from the storage 276 (step 328). The LinQ_auncher.exe application directs the remote computer 240 to* ***copy all necessary files of the LinQ software application from storage 276 to a temporary directory on the remote computer 240 and then start the LinQ software application*** *(step 332).* ***The LinQ software application is used for setting up and managing the peer-to-peer wireless connection on the remote computer 240, screen sharing and communications between the remote computer 240 and the master computer 238.*** Upon launch, ***the LinQ software application loads the necessary driver for the wireless transceiver 260, configures the wireless transceiver 260, finds the master computer 238 and establishes the peer-to-peer wireless connection between the LinQ software application and the mobile device manager application running on the master computer 238 (step 337).*** The LinQ software application, which manages the peer-to-peer wireless connection on the remote computer 240, then reads the access codes, biometrics or keys from the storage 276. The access codes, biometrics or keys are in turn exchanged with the master computer 238 and used as a parameter to create a secure authenticated and encrypted peer-to-peer wireless connection. The mobile device manager application running on the master computer 238 manages the peer-to-peer wireless connection on the master computer 238. In cases where multiple systems 220 may be operating, an ad-hoc network identifier may be necessary to allow the plug-and-

	play device 236 to determine the appropriate network to which to connect. In such cases, the ad-hoc network identifier is configured to be read from storage 276 in similar manner to the access codes, biometrics or keys. *Once the remote computer 240 is connected to the master computer 238 over the peer-to-peer wireless connection, the remote computer 240 may send a request to share the screen display data of the remote computer 240 to the master computer 238*. If a request to share the screen display data is sent to the master computer 238 and accepted, ***the screen display data displayed on the remote computer 240 is compressed using a suitable compression algorithm such as for example MJPEG compression. The compressed screen display data is then compared with previous screen display data sent to the master computer 238 in the same peer-to-peer wireless connection session to detect differences in the screen display data***. The detected differences are then sent to the master computer 238 via the peer-to-peer wireless connection and displayed on the screen of the master computer 238. The master computer 238 passes input events, such as keyboard, mouse, trackball and/or pen-touch events, that it receives to the remote computer 240 thereby to remotely control the remote computer 240 (step 339). As will be appreciated, by compressing the screen display data of the remote computer 240, the time required to transmit the screen display data to the master computer 238 is reduced. Also, compressing the screen display data and only transmitting differences between screen display data, reduces the amount of screen display data that needs to be transmitted to the master computer 238 during screen sharing. This of course reduces the required transmission bandwidth required for screen sharing and thus, decreases latency." *Banerjee* at paragraphs [0046-0048] (emphasis added). "Upon termination of the session between the remote computer 240 and the master computer 238, the plug-and-play device 236 can be unplugged from the remote computer 240 and removed. *When the plug-and-play device 236 is disconnected from the remote computer 240, the remote computer 240 notifies the LinQLauncher.exe application (step 344). The LinQLauncher.exe application in turn stops the screen sharing, disconnects the peer-to-peer wireless connection with the master computer 238, terminates the execution of the LJnQ software application,* ***deletes the files in the temporary directory on the remote computer 240 that were copied from***

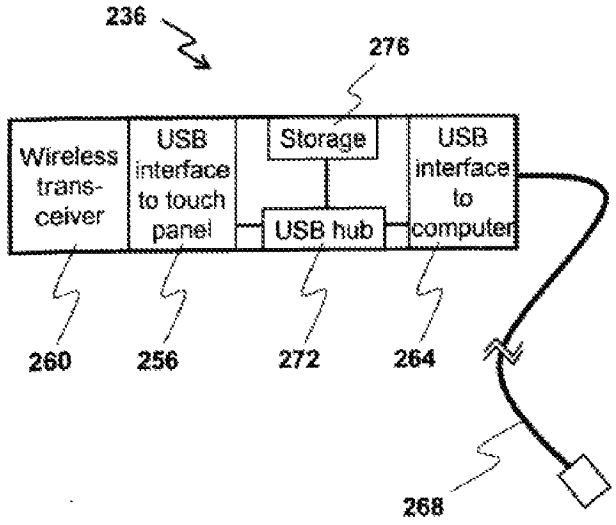
	the storage 276**, and then terminates the execution of itself (step 348)*. Those skilled in the art will appreciate that other clean up tasks, such as removing items in the system registry that were written by the LJnQ software application when it was launched may also be performed upon the disconnection of the plug-and-play device 236 from the remote computer 240." *Banerjee* at paragraph [0051] (emphasis added). "Turning now to Figure 4, another system or network 220 of operatively connected components is shown. As can be seen, system 220 comprises a plug-and-play device 236, a master computer 238 and at least one remote computer 240 The plug-and-play device 236 is physically connected to the remote computer 240 and communicates with the master computer 238 over a wireless communications link. In this embodiment, *plug-and-play device 236* ***captures and compresses screen display data generated at the remote computer 240 and allows screen sharing *between the remote computer 240 and the master computer 238* by automatically launching software stored on the plug-and-play device 236." *Banerjee* at paragraph [0039] (emphasis added).
an input device enabling the user to carry out a user action that triggers transfer of said user selected arbitrary media content to said transmitter through said port.	*Banerjee* teaches: "Turning now to Figure 1, a system or network 20 of operatively connected components is illustrated. As can be seen, system 20 comprises a plug-and-play (PnP) device 24 for receiving and digitizing input. In this embodiment, the *plug-and-play device 24 comprises an interactive input system that includes* ***a touch panel 28***, a controller 32 and a cable 36. *Touch panel 28 may be of the type employing analog resistive* or machine vision technology to register pointer input such as those disclosed in U.S. Patent Nos. 5,448,263; 6,141,000; 6,337,681; 6,747,636; 6,803,906; 7,232,986; 7,236,162; and 7,274,356 and in U.S. Patent Application Publication No. 2004/0179001 assigned to SMART Technologies ULC of Calgary, Alberta, Canada, assignee of the subject application, the contents of which are incorporated by reference. *Alternatively, touch panel 28 may be of the type employing electromagnetic, capacitive, acoustic or other technologies to register pointer input*. The controller 32 controls the operation of the touch panel 28 and is in communication with a computer 40 via the cable 36. The computer 40 is also connected to a projection unit 44 such as for example, a liquid crystal display (LCD) projector, via a video graphics array (VGA) cable 48 and controls the LCD projector 44. In response to image data received from the computer 40, the LCD projector 44 projects

	images onto a touch surface 46 of the touch panel 28. The LCD projector 44 may be positioned in front of or behind the touch panel 28. ***The touch panel 28 provides a user with the ability to interact with the image projected onto the touch surface 46 of the touch panel 28 and inject input into an application program running on the computer 40 using an active pointer*** *(e.g. a pointer that emits light, sound or other signal) or a passive pointer (e.g. a finger, cylinder or other object).* Although the touch panel 28 requires no extra software other than that provided by the operating system of the computer 40 in order to work as a mouse, the functionality of the touch panel 28 can be greatly enhanced by additional software not available on the operating system of the computer 40, as will be described below." *Banerjee* at paragraphs [0026-0027] (emphasis added). <u>*Epstein* teaches</u>: "Referring also to FIG. 4, exemplary puck assembly 20 includes ***a puck 48*** *and first and second video/audio cables 50 and 52, respectively. Cable 50 is used to link puck 48 to a computer/laptop audio/video output port or other video source* while cable 52 links puck 48 through a circuitous path to one of the six input ports 17 shown in FIGS. 2 and 3. In at least some embodiments, each cable 52 can be taken up by a take up assembly (not shown) below deck member 21 as an associated puck 48 is moved from a use position on top of top member 26 (see FIG. 4) to a storage position as shown in FIG. 2. For more detail regarding one possible take up assembly, see US patent application Ser. No. 12/250,192 referenced above. As seen in FIG. 4, when a puck 48 is pulled into a use position on top of member 26, cable 52 can pass through gap 43 when door 39 is closed. Referring still to FIG. 4 and also to FIG. 5, *exemplary* ***puck 48 includes*** *a disc or puck shaped housing 49 that supports a plurality of components including a processor 71, an on/off button 58,* ***first through fourth selectable controls or control buttons 60a-60d***, four illumination devices 73a through 73d and an illumination ring 56. Processor 71 may be a programmable microprocessor or may be configured via digital components. Processor 71 is linked to each of cables 50 and 52 and can sense when cabled 50 is linked to a video/audio source. Processor 50 is also linked to each of buttons 56 and 60a-60d to sense when any of those buttons are selected.

	Processor 50 is further linked to each of illumination devices 73a through 73d and ring 56 for providing power to and cutting power from each of those devices." *Epstein* at paragraphs [0051 – 0052] (emphasis added). "Following the instructions, as shown in FIG. 10, *a user pulls one of the pucks 48 from the cavity below a door 39 or 41 and links a laptop 69 to the puck 48 via cable 50 (see also FIG. 1). Once a laptop 69 is linked to cable 50, ring 59 as well as selectable buttons 60a-60d are illuminated white (see double crosshatch in FIG. 9) to indicate to the laptop user that the user is linked and can opt to present information from the user's laptop screen via any one or combination of displays 22a-22d corresponding to illuminated buttons 60a-60d*, respectively. Here, the white light ring 56 also indicates that currently the user of puck 48 is not presenting via any of displays 22a-22d. Referring to FIG. 11, *when a puck user wants to present information from her laptop 69 display via display screen 22a, **the user presses button 60a** to indicate intention to drive display 22a. Once button 60a is selected, four things happen. First, information currently displayed via display 22a is replaced by the information from the user's laptop 69 display*. Second, if a different laptop was previously presenting information via display 22a when button 60a is selected, the other user's puck illumination may change. For instance, if the other user was only displaying via display 22a when displaced, the other user's puck's ring 56 will change from green back to white illumination indicating the user is no longer driving any of displays 22a-22d. As another instance, where another user was driving each of displays 22a and 22c when button 60a is selected, the other user's puck ring will remain green after displacement from screen 22a to indicate that the other user is still driving display 22c despite being displaced from display 22a. In addition, in this case, the other user's puck button 60a will be illuminated white after displacement from screen 22a while button 60c will remain green indicating that the other user is still driving display 22c." *Epstein* at paragraphs [0065 – 0066] (emphasis added).
2. The electronic meeting tool of claim 1, wherein the program is stored on the peripheral device.	*Banerjee* teaches: "Controller 272 also communicates with ***storage 276 that is configured to store and automatically launch software applications thereon via an autorun feature that the operating system of the remote computer 240 supports***.

	Similar to the previous embodiment, storage 276 is flash memory, solid-state memory or other non-volatile computer memory. The storage 276 is configured to operate in accordance with a mass storage device and defines itself as compact disk read only memory (CD-ROM). *Storage 276 stores an executable launcher application, LinQLauncher.exe and may also store one or more access codes, biometrics or keys to automatically form a secure encrypted and authenticated wireless network connection with the master computer 238.*" *Banerjee* at paragraph [0042] (emphasis added).
3. The electronic meeting tool of claim 1, wherein the transmitter is a wireless transmitter or transceiver.	*Banerjee* reaches: "The components of the plug-and-play device 236 are better illustrated in Figure 5. As can be seen, the plug-and-play device 236 comprises an interface 256 in the form of a USB interface to wireless communication device adapter connected to ***a wireless transceiver 260***. Similar to wireless communication device 238a, the wireless transceiver 260 is, for example, an RF communication device such as a Bluetooth™, WiFi or other RF adapter, or an infrared (IR) communication device. ***The wireless communication device 238a and wireless transceiver 260 are paired to enable a peer-to-peer wireless connection between the master computer 238 and the remote computer 240 to be estab***lished. The plug-and-play device 236 also comprises an interface 264 in the form of a USB interface to computing device adapter. The interface 264 comprises a port (not shown) to receive a cable segment 268 thereby to enable the physical connection to the remote computer 240 to be made. Both interfaces 256 and 264 are also in communication with a controller 272 in the form of a USB hub." *Banerjee* at paragraph [0041] (emphasis added).
4. The electronic meeting tool of claim 1, wherein the peripheral device is a plug-and-play device.	*Banerjee* reaches: "***PLUG-AND-PLAY*** INTERFACE DEVICE," *Banerjee* at Title (emphasis added).
5. The electronic meeting tool of claim 1, wherein the program is arranged to screen scrape content of the second display.	*Banerjee* reaches: "Turning now to Figure 4, another system or network 220 of operatively connected components is shown. As can be seen, system 220 comprises a plug-and-play device 236, a master computer 238 and at least one remote computer 240 The plug-and-play device 236 is physically connected to the remote computer 240 and communicates with the master computer 238 over a wireless communications link. In this embodiment, *plug-and-play device 236* ***captures and compresses screen***

	display data generated at the remote computer 240 and allows screen sharing *between the remote computer 240 and the master computer 238* by automatically launching software stored on the plug-and-play device 236." *Banerjee* at paragraph [0039] (emphasis added). "Once the remote computer 240 is connected to the master computer 238 over the peer-to-peer wireless connection, the remote computer 240 may send a request to share the screen display data of the remote computer 240 to the master computer 238. *If a request to share the screen display data is sent to the master computer 238 and accepted,* ***the screen display data displayed on the remote computer 240 is compressed using a suitable compression algorithm such as for example MJPEG compression***. The compressed screen display data is then compared with previous screen display data sent to the master computer 238 in the same peer-to-peer wireless connection session to detect differences in the screen display data. The detected differences are then sent to the master computer 238 via the peer-to-peer wireless connection and displayed on the screen of the master computer 238. The master computer 238 passes input events, such as keyboard, mouse, trackball and/or pen-touch events, that it receives to the remote computer 240 thereby to remotely control the remote computer 240 (step 339). As will be appreciated, by compressing the screen display data of the remote computer 240, the time required to transmit the screen display data to the master computer 238 is reduced. Also, compressing the screen display data and only transmitting differences between screen display data, reduces the amount of screen display data that needs to be transmitted to the master computer 238 during screen sharing. This of course reduces the required transmission bandwidth required for screen sharing and thus, decreases latency." *Banerjee* at paragraph [0048] (emphasis added). *Applicant Admitted Prior Art (US 2002/0196378 to Slobodin)* teaches: " `Screen scraping' in our sense refers to reading the video frame buffers and processing them, rather than just rendering them on a display. Screen scraping for presentations is described in US2002/0196378 to Slobodin et al which is included herein by reference." See '348 Publication col. 11, lines 32 – 36.
6. The electronic meeting tool	*Banerjee* teaches:

claim 1, wherein the input device is physical actuator coupled to the peripheral device.	 FIG. 5 (Composite interfaces including ***USB interface to touch panel 256*** and storage interface 264) *Epstein* teaches: "Referring also to FIG. 4, exemplary puck assembly 20 includes ***a puck 48*** *and first and second video/audio cables 50 and 52, respectively. Cable 50 is used to link puck 48 to a computer/laptop audio/video output port or other video source* while cable 52 links puck 48 through a circuitous path to one of the six input ports 17 shown in FIGS. 2 and 3. In at least some embodiments, each cable 52 can be taken up by a take up assembly (not shown) below deck member 21 as an associated puck 48 is moved from a use position on top of top member 26 (see FIG. 4) to a storage position as shown in FIG. 2. For more detail regarding one possible take up assembly, see US patent application Ser. No. 12/250,192 referenced above. As seen in FIG. 4, when a puck 48 is pulled into a use position on top of member 26, cable 52 can pass through gap 43 when door 39 is closed. Referring still to FIG. 4 and also to FIG. 5, *exemplary* ***puck 48 includes*** *a disc or puck shaped housing 49 that supports a plurality of components including a processor 71, an on/off button 58,* ***first through fourth selectable controls or control buttons 60a-60d***, four illumination devices 73a through 73d and an illumination ring 56. Processor 71 may be a programmable microprocessor or may be configured via digital components. Processor 71 is linked to each of cables 50 and 52

	and can sense when cabled 50 is linked to a video/audio source. Processor 50 is also linked to each of buttons 56 and 60a-60d to sense when any of those buttons are selected. Processor 50 is further linked to each of illumination devices 73a through 73d and ring 56 for providing power to and cutting power from each of those devices." *Epstein* at paragraphs [0051 – 0052] (emphasis added).
7. The electronic meeting tool of claim 6, wherein the physical actuator has a surface area of between 100 and 14,400 square mm.	Obvious according to MPEP 2144.04 (IV)(A) "Changes in Size/Proportion" (In *Gardnerv.TEC Syst., Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied*, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.)
8. The electronic meeting tool of claim 1, wherein the input device is a key displayed on the second display.	*Banerjee* reaches: "Upon launch, the SMARTBoardTools.exe user application queries and obtains from storage 76 the calibration settings and other settings (step 140). The calibration settings enable the SMARTBoardTools.exe user application to map touch input generated by the touch panel 28 in response to pointer contacts with the touch surface 46 to the display coordinate system of the computer 40. The other settings include pen tray settings, COM port settings, contact filter settings and user settings for software applications. All of these settings are stored in a standard Windows® INI file. Further, several XML files are used to store layout and menu settings for various applets forming part of the SMARTBoardTools.exe user application. *These applets provide* ***a floating window of toolbuttons for accessing various functionality, an on-screen keyboard****, etc.* These layout and menu settings are stored in XML files in the storage 76 of the plug-and-play device 24, and are loaded and saved in a directory ("C:\Documents and Settings\<user name>\Application Data\SMART Technologies\SMARTBoard SoftwareV) during execution of the SMARTBoardTools.exe user application, where <user name> is the login name of the current user." *Banerjee* at paragraph [0035] (emphasis added). *Epstein* teaches: "Referring now to FIG. 15, in at least some embodiments it is contemplated that laptops 69 and other visual/audio sources may be able to wirelessly link up to a configuration 10b processor via a wireless access device 100 or the like. In this

	case the configuration 10b may not need a utility bay and will not require cable hookups or physical pucks. Here, where a source 69 is associated with the configuration for control purposes, referring also to FIG. 16, *a software "widget" puck representation or control interface representation (hereafter a "widget") 48a may be provided on screen. In this case it is contemplated that the widget 48a will have an appearance similar to the appearance of interface 60 and button 58 where* ***different widget areas corresponding to buttons 60a-60d and 58 will be selectable via a mouse controlled cursor or touch (in the case of a touch sensitive display) for selection***. In this case it is contemplated that when a virtual button on the widget is selected, the functionality and illumination described above with respect to puck 48 would occur. When the widget ring 56 is illuminated, the laptop could beep or buzz (i.e., create an audible signal of some type) to indicate which laptop has taken control." *Epstein* at paragraph [0072] (emphasis added).
9. The electronic meeting tool of claim 8, wherein the key displayed on the second display is not screen scraped by the program.	*Banerjee* reaches: "Upon launch, the SMARTBoardTools.exe user application queries and obtains from storage 76 the calibration settings and other settings (step 140). The calibration settings enable the SMARTBoardTools.exe user application to map touch input generated by the touch panel 28 in response to pointer contacts with the touch surface 46 to the display coordinate system of the computer 40. The other settings include pen tray settings, COM port settings, contact filter settings and user settings for software applications. All of these settings are stored in a standard Windows® INI file. Further, several XML files are used to store layout and menu settings for various applets forming part of the SMARTBoardTools.exe user application. *These applets provide a floating window of toolbuttons for accessing various functionality, an on-screen keyboard, etc. These* ***layout and menu settings are stored in XML files*** *in the storage 76 of the plug-and-play device 24, and are loaded and saved in a directory ("C:\Documents and Settings\<user name>\Application Data\SMART Technologies\SMARTBoard SoftwareV) during execution of the SMARTBoardTools.exe user application*, where <user name> is the login name of the current user." *Banerjee* at paragraph [0035] (emphasis added).
10. The electronic meeting tool of claim 1, wherein the peripheral device comprises a memory in which executable software code is stored for execution on the processing	*Banerjee* teaches: "Controller 272 also communicates with ***storage 276 that is configured to store and automatically launch software applications thereon via an autorun feature that the operating system of the remote computer 240 supports***.

device, said executable software code comprising:	Similar to the previous embodiment, storage 276 is flash memory, solid-state memory or other non-volatile computer memory. The storage 276 is configured to operate in accordance with a mass storage device and defines itself as compact disk read only memory (CD-ROM). Storage 276 stores an executable launcher application, LinQLauncher.exe and may also store one or more access codes, biometrics or keys to automatically form a secure encrypted and authenticated wireless network connection with the master computer 238." *Banerjee* at paragraph [0035] (emphasis added).
a first software code portion for setting up, by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device and the processing device;	*Banerjee* reaches: "Many ***operating systems possess a number of pre-loaded drivers for generic plug-and-play device classes***, such as USB mass storage, a two-button mouse, etc. ***If the operating system is in possession of a driver for the device class of the plug-and-play device connected to the computer, the computer loads the driver so that the functionality of the plug-and-play device can be accessed by the computer***. If the operating system does not possess a driver corresponding to the device class of the plug-and-play device, the operating system typically prompts the user to install the appropriate software to enable the computer to access the functionality of the plug-and-play device. "*Banerjee* at paragraphs [0004] (emphasis added).
a second software code portion for connecting the processing device to the communications network via the peripheral device, the peripheral device having a transceiver;	*Banerjee* teaches: "In one embodiment, *the first plug-and-play interface comprises a wireless transceiver and establishes a wireless connection with the first computing device*. The wireless connection may be a secure wireless connection. In this case, ***the storage further stores at least one of at least one key, at least one biometric and at least one code that is used to establish the secure wireless connection***. The plug-and-play device further comprises a physical connection to the second computing device. The physical connection may be in the form of a universal serial bus cable or the plug-and-play device may be configured as a dongle." *Banerjee* at paragraph [0010] (emphasis added).
a third software code portion for screen scraping data from the processing device; and	*Banerjee* teaches: "Turning now to Figure 4, another system or network 220 of operatively connected components is shown. As can be seen, system 220 comprises a plug-and-play device 236, a master computer 238 and at least one remote computer 240 The plug-

	and-play device 236 is physically connected to the remote computer 240 and communicates with the master computer 238 over a wireless communications link. In this embodiment, *plug-and-play device 236* ***captures and compresses screen display data generated at the remote computer 240*** and allows screen sharing between the remote computer 240 and the master computer 238 by automatically launching software stored on the plug-and-play device 236." *Banerjee* at paragraph [0039] (emphasis added). *Applicant Admitted Prior Art (US 2002/0196378 to Slobodin)* teaches: " `Screen scraping' in our sense refers to reading the video frame buffers and processing them, rather than just rendering them on a display. Screen scraping for presentations is described in US2002/0196378 to Slobodin et al which is included herein by reference." See '348 Publication col. 11, lines 32 – 36.
a fourth software code for routing screen scraped data between the processing device and the communications network over the means for communication; wherein the first software code portion is adapted to use a generic communication protocol for transferring the screen scraped data between the processing device and the peripheral device.	*Banerjee* teaches: "Once the remote computer 240 is connected to the master computer 238 over the peer-to-peer wireless connection, the remote computer 240 may send a request to share the screen display data of the remote computer 240 to the master computer 238. *If a request to share the screen display data is sent to the master computer 238 and accepted, the screen display data displayed on the remote computer 240 is compressed using a suitable compression algorithm such as for example MJPEG compression. The compressed screen display data is then compared with previous screen display data sent to the master computer 238 in the same peer-to-peer wireless connection session to detect differences in the screen display data. The* ***detected differences are then sent to the master computer 238 via the peer-to-peer wireless connection and displayed on the screen of the master computer 238***. The master computer 238 passes input events, such as keyboard, mouse, trackball and/or pen-touch events, that it receives to the remote computer 240 thereby to remotely control the remote computer 240 (step 339). As will be appreciated, by compressing the screen display data of the remote computer 240, the time required to transmit the screen display data to the master computer 238 is reduced. Also, compressing the screen display data and only transmitting differences between screen display data, reduces the amount of screen display data that needs to be transmitted to the master computer 238 during

	screen sharing. This of course reduces the required transmission bandwidth required for screen sharing and thus, decreases latency." *Banerjee* at paragraph [0048] (emphasis added). "The operation of the system 220, when a peer-to-peer wireless connection between the master computer 238 and the remote computer 240 is established, will now be described with particular reference to Figure 6. When the plug-and-play device 236 is physically connected to the remote computer 240 via the cable segment 268 (step 304) and the connection of the plug-and-play device 236 is detected by the operating system of the remote computer 240, the remote computer 240 queries the plug-and-play device 236 to determine what functionality is provided by the plug-and-play device 236 (step 308). In particular, the controller 272 queries the wireless transceiver 260 and the storage 276 to determine what profiles or connections are available. In this embodiment, the storage 276 responds by indicating that it supports the mass storage device and *the wireless transceiver 260 responds by indicating its device type, interface profile and other parameters such as for example* ***wireless network protocol****, wireless network speed, encryption keys, biometrics, etc.* The plug-and-play device 236 then returns the determined functionality information to the remote computer 240." *Banerjee* at paragraph [0043] (emphasis added).
11. A non-transitory storage medium storing the first to fourth software code portion of claim 10.	Obvious for the same reasons as claims 1 – 10.

US 8,756,348 Claim Chart

Claim elements for U.S. Patent No. 8,756,348	Disclosure of *Banerjee*, and *Epstein*
12. A method for communicating arbitrary media content from users at a meeting comprising:	
operating a display node of a communications network, the display node being coupled to a first display, to receive user selected arbitrary media content and to control display of the user selected arbitrary media content on the first display; and	*Banerjee* teaches: "Turning now to Figure 4, another system or network 220 of operatively connected components is shown. As can be seen, *system 220 comprises a plug-and-play device 236,* ***a master computer 238*** and at least one remote computer 240. *The plug-and-play device 236 is physically connected to the remote computer 240 and* ***communicates with the master computer 238 over a wireless communications link***. In this embodiment, plug-and-play device 236 captures and compresses screen display data generated at the remote computer 240 and allows screen sharing between the remote computer 240 and the master computer 238 by automatically launching software stored on the plug-and-play device 236." *Banerjee* at paragraph [0039] (emphasis added). "Similar to the embodiment of Figure 3, if desired, the master computer 238 can be connected to an interactive input system 228 of one of the types described previously as shown in Figure 7. In this case, *shared screen display data received by the master computer 238 can be presented on the touch surface 246 of the interactive input system 228 via a* ***projection device 244*** that is connected to the master computer 238 by a physical cable 248 allowing a user to interact with the shared screen display data through pointer contacts with the touch surface 246." *Banerjee* at paragraph [0054] (emphasis added).
connecting a peripheral device to a port of a processing device and communicating the user selected arbitrary media content via the communications network,	*Banerjee* teaches: "In this embodiment, *the master computer 238 comprises a wireless communication device 238a*, for example a radio frequency (RF) communication device such as a Bluetooth™, WiFi or other RF adapter, or an infrared (IR) communication device. The master computer 238 also runs a mobile device manager software application to accept and manage connections from the remote computer 240, provide screen sharing functionality, allow remote control from the remote computer 240, and optionally, provide the remote computer 240 with Internet access.

	The components of the plug-and-play device 236 are better illustrated in Figure 5. As can be seen, *the plug-and-play device 236 comprises an interface 256 in the form of a USB interface to wireless communication device adapter connected to a wireless transceiver 260*. Similar to wireless communication device 238a, the wireless *transceiver 260 is, for example, an RF communication device such as a Bluetooth™, WiFi or other RF adapter, or an infrared (IR) communication device*. ***The wireless communication device 238a and wireless transceiver 260 are paired to enable a peer-to-peer wireless connection between the master computer 238 and the remote computer 240 to be established***. *The plug-and-play device 236 also comprises an interface 264 in the form of* ***a USB interface to computing device adapter***. *The interface 264 comprises a port (not shown) to receive a cable segment 268 thereby to enable the physical connection to the remote computer 240 to be made*. Both interfaces 256 and 264 are also in communication with a controller 272 in the form of a USB hub." *Banerjee* at paragraphs [0040 - 0041] (emphasis added).
loading a program onto the processing device and running the program on the operating system of the processing device to obtain user selected arbitrary media content, said program leaving a zero footprint on termination, and	*Banerjee* teaches: "Controller 272 also communicates with ***storage 276 that is configured to store and automatically launch software applications thereon via an autorun feature that the operating system of the remote computer 240 supports***. Similar to the previous embodiment, storage 276 is flash memory, solid-state memory or other non-volatile computer memory. The storage 276 is configured to operate in accordance with a mass storage device and defines itself as compact disk read only memory (CD-ROM). *Storage 276 stores an executable launcher application, LinQLauncher.exe and may also store one or more access codes, biometrics or keys to automatically form a secure encrypted and authenticated wireless network connection with the master computer 238.* The operation of the system 220, when a peer-to-peer wireless connection between the master computer 238 and the remote computer 240 is established, will now be described with particular reference to Figure 6. *When the plug-and-play device 236 is physically connected to the remote computer 240 via the cable segment 268 (step 304) and the connection of the plug-and-play device 236 is detected by the operating system of the remote computer 240, the remote computer 240 queries the plug-and-play device 236 to determine what functionality is*

	provided by the plug-and-play device 236 (step 308). In particular, the controller 272 queries the wireless transceiver 260 and the storage 276 to determine what profiles or connections are available. In this embodiment, the storage 276 responds by indicating that it supports the mass storage device and the wireless transceiver 260 responds by indicating its device type, interface profile and other parameters such as for example wireless network protocol, wireless network speed, encryption keys, biometrics, etc. The plug-and-play device 236 then returns the determined functionality information to the remote computer 240." *Banerjee* at paragraphs [0042-0043] (emphasis added). "The autorun.inf file contains a pointer to the executable launcher application, LinQLauncher.exe stored in the storage 276. Upon parsing the autorun.inf file, *the remote computer 240 uses the pointer to load a LinQ software application from the storage 276 (step 328). The LinQ_auncher.exe application directs the remote computer 240 to* ***copy all necessary files of the LinQ software application from storage 276 to a temporary directory on the remote computer 240 and then start the LinQ software application*** *(step 332). The LinQ software application is used for setting up and managing the peer-to-peer wireless connection on the remote computer 240, screen sharing and communications between the remote computer 240 and the master computer 238.* Upon launch, ***the LinQ software application loads the necessary driver for the wireless transceiver 260, configures the wireless transceiver 260, finds the master computer 238 and establishes the peer-to-peer wireless connection between the LinQ software application and the mobile device manager application running on the master computer 238 (step 337).*** The LinQ software application, which manages the peer-to-peer wireless connection on the remote computer 240, then reads the access codes, biometrics or keys from the storage 276. The access codes, biometrics or keys are in turn exchanged with the master computer 238 and used as a parameter to create a secure authenticated and encrypted peer-to-peer wireless connection. The mobile device manager application running on the master computer 238 manages the peer-to-peer wireless connection on the master computer 238. In cases where multiple systems 220 may be operating, an ad-hoc network identifier may be necessary to allow the plug-and-play device 236 to determine the appropriate network to which to connect. In such cases, the ad-hoc network identifier is

	configured to be read from storage 276 in similar manner to the access codes, biometrics or keys. *Once the remote computer 240 is connected to the master computer 238 over the peer-to-peer wireless connection, the remote computer 240 may send a request to share the screen display data of the remote computer 240 to the master computer 238*. If a request to share the screen display data is sent to the master computer 238 and accepted, the screen display data displayed on the remote computer 240 is compressed using a suitable compression algorithm such as for example MJPEG compression. The compressed screen display data is then compared with previous screen display data sent to the master computer 238 in the same peer-to-peer wireless connection session to detect differences in the screen display data. The detected differences are then sent to the master computer 238 via the peer-to-peer wireless connection and displayed on the screen of the master computer 238. The master computer 238 passes input events, such as keyboard, mouse, trackball and/or pen-touch events, that it receives to the remote computer 240 thereby to remotely control the remote computer 240 (step 339). As will be appreciated, by compressing the screen display data of the remote computer 240, the time required to transmit the screen display data to the master computer 238 is reduced. Also, compressing the screen display data and only transmitting differences between screen display data, reduces the amount of screen display data that needs to be transmitted to the master computer 238 during screen sharing. This of course reduces the required transmission bandwidth required for screen sharing and thus, decreases latency." *Banerjee* at paragraphs [0046-0048] (emphasis added). "Upon termination of the session between the remote computer 240 and the master computer 238, the plug-and-play device 236 can be unplugged from the remote computer 240 and removed. *When the plug-and-play device 236 is disconnected from the remote computer 240, the remote computer 240 notifies the LinQLauncher.exe application (step 344). The LinQLauncher.exe application in turn stops the screen sharing, disconnects the peer-to-peer wireless connection with the master computer 238, terminates the execution of the LJnQ software application,* ***deletes the files in the temporary directory on the remote computer 240 that were copied from the storage 276****, and then terminates the execution of itself (step 348)*. Those skilled in the art will appreciate that other

	clean up tasks, such as removing items in the system registry that were written by the LJnQ software application when it was launched may also be performed upon the disconnection of the plug-and-play device 236 from the remote computer 240." *Banerjee* at paragraph [0051] (emphasis added). "Turning now to Figure 4, another system or network 220 of operatively connected components is shown. As can be seen, system 220 comprises a plug-and-play device 236, a master computer 238 and at least one remote computer 240 The plug-and-play device 236 is physically connected to the remote computer 240 and communicates with the master computer 238 over a wireless communications link. In this embodiment, *plug-and-play device 236* ***captures and compresses screen display data generated at the remote computer 240 and allows screen sharing*** *between the remote computer 240 and the master computer 238* by automatically launching software stored on the plug-and-play device 236." *Banerjee* at paragraph [0039] (emphasis added).
triggering transfer of said user selected arbitrary media content to said transmitter through said port after a user action on an input device.	*Banerjee* teaches: "In this embodiment, ***the master computer 238 comprises a wireless communication device 238a***, for example a radio frequency (RF) communication device such as a Bluetooth™, WiFi or other RF adapter, or an infrared (IR) communication device. The master computer 238 also runs a mobile device manager software application to accept and manage connections from the remote computer 240, provide screen sharing functionality, allow remote control from the remote computer 240, and optionally, provide the remote computer 240 with Internet access. The components of the plug-and-play device 236 are better illustrated in Figure 5. As can be seen, the plug-and-play device 236 comprises an interface 256 in the form of a USB interface to wireless communication device adapter connected to a wireless transceiver 260. Similar to wireless communication device 238a, the wireless transceiver 260 is, for example, an RF communication device such as a Bluetooth™, WiFi or other RF adapter, or an infrared (IR) communication device. ***The wireless communication device 238a and wireless transceiver 260 are paired to enable a peer-to-peer wireless connection between the master computer 238 and the remote computer 240 to be established. The plug-and-play device 236 also comprises an interface 264 in the form of a USB interface to computing device adapter***. The

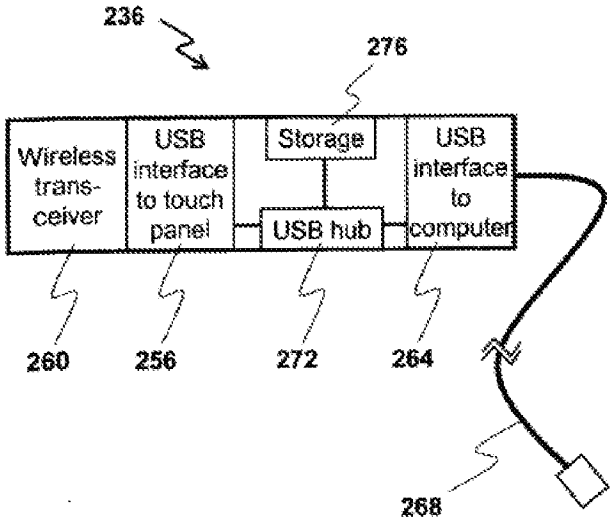
	interface 264 comprises a port (not shown) to receive a cable segment 268 thereby to enable the physical connection to the remote computer 240 to be made. Both interfaces 256 and 264 are also in communication with a controller 272 in the form of a USB hub." *Banerjee* at paragraphs [0040 – 0041] (emphasis added). "Turning now to Figure 1, a system or network 20 of operatively connected components is illustrated. As can be seen, system 20 comprises a plug-and-play (PnP) device 24 for receiving and digitizing input. In this embodiment, the *plug-and-play device 24 comprises an interactive input system that includes* ***a touch panel 28***, a controller 32 and a cable 36. Touch panel 28 may be of the type employing analog resistive or machine vision technology to register pointer input such as those disclosed in U.S. Patent Nos. 5,448,263; 6,141 ,000; 6,337,681 ; 6,747,636; 6,803,906; 7,232,986; 7,236,162; and 7,274,356 and in U.S. Patent Application Publication No. 2004/0179001 assigned to SMART Technologies ULC of Calgary, Alberta, Canada, assignee of the subject application, the contents of which are incorporated by reference. Alternatively, touch panel 28 may be of the type employing electromagnetic, capacitive, acoustic or other technologies to register pointer input. The controller 32 controls the operation of the touch panel 28 and is in communication with a computer 40 via the cable 36. The computer 40 is also connected to a projection unit 44 such as for example, a liquid crystal display (LCD) projector, via a video graphics array (VGA) cable 48 and controls the LCD projector 44. In response to image data received from the computer 40, the LCD projector 44 projects images onto a touch surface 46 of the touch panel 28. The LCD projector 44 may be positioned in front of or behind the touch panel 28. ***The touch panel 28 provides a user with the ability to interact with the image projected onto the touch surface 46 of the touch panel 28 and inject input into an application program running on the computer 40 using an active pointer (e.g. a pointer that emits light, sound or other signal) or a passive pointer (e.g. a finger, cylinder or other object).*** Although the touch panel 28 requires no extra software other than that provided by the operating system of the computer 40 in order to work as a mouse, the functionality of the touch panel 28 can be greatly enhanced by additional software not available on the operating system of the computer 40, as will be described below." *Banerjee* at paragraphs [0026 – 0027] (emphasis

	added). *Epstein* teaches: "Referring also to FIG. 4, exemplary puck assembly 20 includes ***a puck 48*** *and first and second video/audio cables 50 and 52, respectively. Cable 50 is used to link puck 48 to a computer/laptop audio/video output port or other video source* while cable 52 links puck 48 through a circuitous path to one of the six input ports 17 shown in FIGS. 2 and 3. In at least some embodiments, each cable 52 can be taken up by a take up assembly (not shown) below deck member 21 as an associated puck 48 is moved from a use position on top of top member 26 (see FIG. 4) to a storage position as shown in FIG. 2. For more detail regarding one possible take up assembly, see US patent application Ser. No. 12/250,192 referenced above. As seen in FIG. 4, when a puck 48 is pulled into a use position on top of member 26, cable 52 can pass through gap 43 when door 39 is closed. Referring still to FIG. 4 and also to FIG. 5, *exemplary* ***puck 48 includes*** *a disc or puck shaped housing 49 that supports a plurality of components including a processor 71, an on/off button 58,* ***first through fourth selectable controls or control buttons 60a-60d***, four illumination devices 73a through 73d and an illumination ring 56. Processor 71 may be a programmable microprocessor or may be configured via digital components. Processor 71 is linked to each of cables 50 and 52 and can sense when cabled 50 is linked to a video/audio source. Processor 50 is also linked to each of buttons 56 and 60a-60d to sense when any of those buttons are selected. Processor 50 is further linked to each of illumination devices 73a through 73d and ring 56 for providing power to and cutting power from each of those devices." *Epstein* at paragraphs [0051 – 0052] (emphasis added).
13. The method of claim 12, further comprising configuring the peripheral device to connect to the communications network by pairing the peripheral device with the display node.	*Banerjee* teaches: "The components of the plug-and-play device 236 are better illustrated in Figure 5. As can be seen, the plug-and-play device 236 comprises an interface 256 in the form of a USB interface to wireless communication device adapter connected to *a wireless transceiver 260*. Similar to wireless communication device 238a, the wireless transceiver 260 is, for example, an RF communication device such as a Bluetooth™, WiFi or other RF adapter, or an infrared (IR) communication device. The ***wireless communication device***

	238a and wireless transceiver 260 are paired to enable a peer-to-peer wireless connection between the master computer 238 and the remote computer 240 to be established. The plug-and-play device 236 also comprises an interface 264 in the form of a USB interface to computing device adapter. The interface 264 comprises a port (not shown) to receive a cable segment 268 thereby to enable the physical connection to the remote computer 240 to be made. Both interfaces 256 and 264 are also in communication with a controller 272 in the form of a USB hub." *Banerjee* at paragraph [0041] (emphasis added).
14. The method of claim 13, wherein the pairing is performed by plugging the peripheral device into the display node.	*Banerjee* teaches: "The components of the plug-and-play device 236 are better illustrated in Figure 5. As can be seen, the plug-and-play device 236 comprises an interface 256 in the form of a USB interface to wireless communication device adapter connected to *a wireless transceiver 260*. Similar to wireless communication device 238a, the wireless transceiver 260 is, for example, an RF communication device such as a Bluetooth™, WiFi or other RF adapter, or an infrared (IR) communication device. The ***wireless communication device 238a and wireless transceiver 260 are paired to enable a peer-to-peer wireless connection between the master computer 238 and the remote computer 240 to be established. The plug-and-play device 236 also comprises an interface 264 in the form of a USB interface to computing device adapter. The interface 264 comprises a port (not shown) to receive a cable segment 268 thereby to enable the physical connection to the remote computer 240 to be made***. Both interfaces 256 and 264 are also in communication with a controller 272 in the form of a USB hub." *Banerjee* at paragraph [0041] (emphasis added).
15. The method of claim 12, further comprising setting up by means of a pre-installed generic driver of the operating system, a means for communication between the peripheral device and the processing device.	*Banerjee* reaches: "Many ***operating systems possess a number of pre-loaded drivers for generic plug-and-play device classes***, such as USB mass storage, a two-button mouse, etc. ***If the operating system is in possession of a driver for the device class of the plug-and-play device connected to the computer, the computer loads the driver so that the functionality of the plug-and-play device can be accessed by the computer***. If the operating system does not possess a driver corresponding to the device class of the plug-and-play device, the operating system typically prompts the user to install the appropriate software to enable the computer to access the functionality of the plug-and-play device. "*Banerjee* at paragraphs [0004] (emphasis added).

16. The method of claim 12, wherein a pre-installed generic driver is selected from a human interface device driver and a mass storage device driver.	*Banerjee* teaches: "The controller 32 comprises a processor (not shown) that executes firmware stored in non-volatile storage. Generally, the firmware causes the controller 32 to operate in one of two operational modes. In an initial mode, the controller 32 operates two USB profiles, ***namely an absolute mouse human interface device ("HID") profile and a SMARTBoard HID profile***. The absolute mouse HID profile enables the controller 32 to relay absolute position information for a pointer contacting the touch surface 46 of the touch panel 28 along with basic mouse functions. The SMARTBoard HID profile is a device class that enables enhanced functionality for the touch panel 28. The enhanced functionality comprises all of the functionality available in the absolute mouse HID device class as well as inking information, additional tool information (buttons, eraser, pen selection, etc.) and two-way communications with the controller 32. In a "native" operating mode, the controller 32 terminates the absolute mouse HID profile and only operates the SMARTBoard HID profile." *Banerjee* at paragraph [0028] (emphasis added).
17. The method of claim 12, further comprising one of: presenting the peripheral device to the processing device as a human interface device, presenting the peripheral device to the processing device as a mass storage device; and presenting the peripheral device to the processing device as a composite device.	*Banerjee* teaches: "Upon launch, the SMARTBoardTools.exe user application queries and obtains from storage 76 the calibration settings and other settings (step 140). The calibration settings enable the SMARTBoardTools.exe user application to map touch input generated by ***the touch panel 28 in response to pointer contacts with the touch surface 46 to the display coordinate system of the computer 40***. The other settings include pen tray settings, COM port settings, contact filter settings and user settings for software applications. All of these settings are stored in a standard Windows® INI file. Further, several XML files are used to store layout and menu settings for various applets forming part of the SMARTBoardTools.exe user application. These applets provide a floating window of toolbuttons for accessing various functionality, an on-screen keyboard, etc. These layout and menu settings are stored in XML files in the storage 76 of the plug-and-play device 24, and are loaded and saved in a directory ("C:\Documents and Settings\<user name>\Application Data\SMART Technologies\SMARTBoard SoftwareV) during execution of the SMARTBoardTools.exe user application, where <user name> is the login name of the current user. Upon obtaining the calibration settings, the

	SMARTBoardTools.exe user application maps touch input generated by the touch panel 28 in response to pointer contacts with the touch surface 46 to the display coordinate system of the computer 40. In this manner, *the user is able to interact effectively with the image projected onto the touch surface 46 of the touch panel 28 by the LCD projector 44*. During execution, some settings are stored in the "HKEY_CURRENT_USER" key of the registry and, in particular, in the "Software\SMART Technologies\SMARTBoard SoftwareV subkey. These settings include application window positions, user settings for each application and a list of recently used files. The "HKEY_CURRENT_USER" key is used as there are generally no restrictions on modifications made to this key. In addition, if there are no access restrictions on the "HKEY_LOCAL_MACHINE" key, spell checker settings are written there." *Banerjee* at paragraphs [0035 – 0036] (emphasis added). "Controller 272 also communicates with storage 276 that is configured to store and automatically launch software applications thereon via an autorun feature that the operating system of the remote computer 240 supports. Similar to the previous embodiment, storage 276 is flash memory, solid-state memory or other non-volatile computer memory. ***The storage 276 is configured to operate in accordance with a mass storage device and defines itself as compact disk read only memory (CD-ROM)***. Storage 276 stores an executable launcher application, LinQLauncher.exe and may also store one or more access codes, biometrics or keys to automatically form a secure encrypted and authenticated wireless network connection with the master computer 238." *Banerjee* at paragraph [0042] (emphasis added).

	 FIG. 5 (Composite interfaces including USB interface to touch panel 256 and storage interface 264)
18. The method of claim 12, wherein the program is stored on the peripheral device, and which obtains screen scraped data when run on the processing device.	*Banerjee* teaches: "The autorun.inf file contains a pointer to the executable launcher application, ***LinQLauncher.exe stored in the storage 276***. Upon parsing the autorun.inf file, the remote computer 240 uses the pointer to load a LinQ software application from the storage 276 (step 328). The LinQI_auncher.exe application directs the remote computer 240 to copy all necessary files of the LinQ software application from storage 276 to a temporary directory on the remote computer 240 and then start the LinQ software application (step 332). The LinQ software application is used for setting up and managing the peer-to-peer wireless connection on the remote computer 240, *screen sharing and communications between the remote computer 240 and the master computer 238*." *Banerjee* at paragraph [0046] (emphasis added).
19. The method of claim 17, wherein a generic communication protocol is used for transferring screen scraped data between the processing device and the peripheral device.	*Banerjee* reaches: "Many ***operating systems possess a number of pre-loaded drivers for generic plug-and-play device classes***, such as USB mass storage, a two-button mouse, etc. ***If the operating system is in possession of a driver for the device class of the plug-and-play device connected to the computer, the computer loads the driver so that the functionality of the plug-and-play device can be accessed by the computer***. If the operating system does not possess a driver corresponding to the device class of the plug-and-play device, the operating system typically prompts the user to install the appropriate software to

	enable the computer to access the functionality of the plug-and-play device. "*Banerjee* at paragraphs [0004] (emphasis added).
20. The method of claim 12 further comprising displaying the user selected arbitrary media content on the first display in accordance with a set of rules.	*Banerjee* teaches: "Upon launch, the SMARTBoardTools.exe user application queries and obtains from storage 76 the calibration settings and other settings (step 140). The calibration settings enable the SMARTBoardTools.exe user application to map touch input generated by the touch panel 28 in response to pointer contacts with the touch surface 46 to *the display coordinate system of the computer 40*. The other settings include pen tray settings, COM port settings, contact filter settings and user settings for software applications. All of these settings are stored in a standard Windows® INI file. Further, several XML files are used to store layout and menu settings for various applets forming part of the SMARTBoardTools.exe user application. These applets provide a floating window of toolbuttons for accessing various functionality, an on-screen keyboard, etc. These layout and menu settings are stored in XML files in the storage 76 of the plug-and-play device 24, and are loaded and saved in a directory ("C:\Documents and Settings\<user name>\Application\Data\SMART\Technologies\SMARTBoard SoftwareV) during execution of the SMARTBoardTools.exe user application, where <user name> is the login name of the current user. Upon obtaining the calibration settings, the SMARTBoardTools.exe user application maps touch input generated by the touch panel 28 ***in response to pointer contacts with the touch surface 46 to the display coordinate system of the computer 40***. In this manner, the user is able to interact effectively with the image projected onto the touch surface 46 of the touch panel 28 by the LCD projector 44. During execution, some settings are stored in the "HKEY_CURRENT_USER" key of the registry and, in particular, in the "Software\SMART Technologies\SMARTBoard SoftwareV subkey. These settings include application window positions, user settings for each application and a list of recently used files. The "HKEY_CURRENT_USER" key is used as there are generally no restrictions on modifications made to this key. In addition, if there are no access restrictions on the "HKEY_LOCAL_MACHINE" key, spell checker settings are written there. Banerjee at paragraphs [0035 – 0036] (emphasis added).

	"Similar to the embodiment of Figure 3, if desired, the *master computer 238 can be connected to an interactive input system 228 of one of the types described previously as shown in Figure 7. In this case, shared screen display data received by the master computer 238 can be presented on the touch surface 246 of the interactive input system 228 via a projection device 244 that is connected to the master computer 238 by a physical cable 248 allowing a user to interact with the shared screen display data through pointer contacts with the touch surface 246.*" Banerjee at paragraph [0054] (emphasis added). *Epstein* teaches: "Referring to FIG. 11, when a puck user wants to present information from her laptop 69 display via display screen 22a, the user presses button 60a to indicate intention to drive display 22a. Once button 60a is selected, four things happen. ***First**, information currently displayed via display 22a is replaced by the information from the user's laptop 69 display. **Second**, if a different laptop was previously presenting information via display 22a when button 60a is selected, the other user's puck illumination may change. For instance, if the other user was only displaying via display 22a when displaced, the other user's puck's ring 56 will change from green back to white illumination indicating the user is no longer driving any of displays 22a-22d. As another instance, where another user was driving each of displays 22a and 22c when button 60a is selected, the other user's puck ring will remain green after displacement from screen 22a to indicate that the other user is still driving display 22c despite being displaced from display 22a. In addition, in this case, the other user's puck button 60a will be illuminated white after displacement from screen 22a while button 60c will remain green indicating that the other user is still driving display 22c.* ***Third**, to indicate that the user of puck 48 in FIG. 10 is now driving at least one of displays 22a-22d, ring 56 on puck 48 changes from white to green (see single cross hatch ring in FIG. 10). **Fourth**, to let the puck user know which displays 22a-22d she is currently driving, button 60a illumination changes from white to green. Here, other buttons 60b-60d that were not selected remain white (i.e., they are shown as double cross hatched).*" Epstein at paragraphs [0066 – 0067] (emphasis added).

Electronic Patent Application Fee Transmittal

Application Number:	
Filing Date:	
Title of Invention:	ELECTRONIC TOOL AND METHODS FOR MEETINGS
First Named Inventor/Applicant Name:	Koen Simon Beel
Filer:	Stanley D. Liang
Attorney Docket Number:	

Filed as Large Entity

Filing Fees for ex parte reexam

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Ex Parte Reexamination (1.510(a)) Non-Streamlined	1812	1	12000	12000
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**12000**

Electronic Acknowledgement Receipt

EFS ID:	31751733
Application Number:	90014087
International Application Number:	
Confirmation Number:	8024
Title of Invention:	ELECTRONIC TOOL AND METHODS FOR MEETINGS
First Named Inventor/Applicant Name:	Koen Simon Beel
Customer Number:	112702
Filer:	Stanley D. Liang
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	09-FEB-2018
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Deposit Account	600114
Authorized User	Stanley Liang

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Reexam - Affidavit/Decl/Exhibit Filed by 3rd Party	Request_for_Ex_Parte_Reexamination_USP_8756348.pdf	725687 b9cff397343fe51f69dfbefd5ec81174c4928017	no	86
Warnings:					
Information:					
2	Trans Letter filing of a response in a reexam	ReqReExam348_Transmittal.pdf	267244 d8d07ca2e8f230692c6a1943e3b8342cd7637426	no	4
Warnings:					
Information:					
3	Reexam - Info Disclosure Statement Filed by 3rd Party	IDS_348.pdf	87829 ca9f89b75e39c158cf2cac6df011413026a50b60	no	4
Warnings:					
Information:					
4	Foreign Reference	IDS_348_ForeignRef_Kita.pdf	3374175 d62f999e00ac5824bc7649b346a93c79fd5d6879	no	87
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5	Copy of patent for which reexamination is requested	ReqReExam348_Exhibit_1.pdf	1990819 6a952d8062eb467369fc1b716f11e6b52a501212	no	21
Warnings:					
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6	Reexam - Affidavit/Decl/Exhibit Filed by 3rd Party	ReqReExam348_Exhibit_2.pdf	3387764 0a6004ea70593aeab5a708069e2c4154018cc86b	no	87
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7	Reexam - Affidavit/Decl/Exhibit Filed by 3rd Party	ReqReExam348_Exhibit_3.pdf	1749756 fe97323ada2f93b5ab02495d19ded6ff4e8504e8	no	47
Warnings:					
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8	Reexam - Affidavit/Decl/Exhibit Filed by 3rd Party	ReqReExam348_Exhibit_4.pdf	1237890 a1548a4be9ab06e72cd129a8d63a5dffc4538bc5	no	27
Warnings:					
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9	Reexam - Affidavit/Decl/Exhibit Filed by 3rd Party	ReqReExam348_Exhibit_5.pdf	1411671 63d8e99f48c7549c8296d8b551041fdfb80134c0	no	27
Warnings:					
Information:					
10	Reexam - Affidavit/Decl/Exhibit Filed by 3rd Party	ReqReExam348_Exhibit_6.pdf	218869 ce2aea09ed18628d1761835f1945740f50cb952a	no	17
Warnings:					
Information:					
11	Reexam - Affidavit/Decl/Exhibit Filed by 3rd Party	ReqReExam348_Exhibit_7.pdf	220377 148b2b0b0298e63e32f84e121bd74ec8aca7ae97	no	17
Warnings:					
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12	Reexam - Affidavit/Decl/Exhibit Filed by 3rd Party	ReqReExam348_Exhibit_8.pdf	216774 50628b64fc8d7130f839196af07b0d30928f0769	no	15
Warnings:					
Information:					
13	Reexam - Affidavit/Decl/Exhibit Filed by 3rd Party	ReqReExam348_Exhibit_9.pdf	207268 4938555f85f6569109ea1f2bc5b9c13f4be131a4	no	13
Warnings:					
Information:					

14	Fee Worksheet (SB06)	fee-info.pdf	29391 c16311153f28bc461455e5a619d1942de3f324a8	no	2

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

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If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

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Electronic Acknowledgement Receipt

EFS ID:	31752551
Application Number:	90014087
International Application Number:	
Confirmation Number:	8024
Title of Invention:	ELECTRONIC TOOL AND METHODS FOR MEETINGS
First Named Inventor/Applicant Name:	Koen Simon Beel
Correspondence Address:	- - - - - - - - - -
Filer:	Stanley D. Liang
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	09-FEB-2018
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Application Type:	Reexam (Third Party)

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Barco Exhibit 2001

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	IDS_348_.pdf	1035180 3537704c6a4a313c775e1080942218a8130b5db2	no	4
Warnings:					
Information:					
2	Foreign Reference	IDS_348_ForeignRef_Kita.pdf	3374175 d62f999e00ac5824bc7649b346a93c79fd5d6879	no	87
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**** CONTINUING DATA ***************************

This application is a REX of 13/270,659 10/11/2011 PAT 8756348
which claims benefit of 61/534,592 09/14/2011

**** FOREIGN APPLICATIONS ***************************

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ****

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				20	2

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TITLE

ELECTRONIC TOOL AND METHODS FOR MEETINGS

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12000	FEES: Authority has been given in Paper No._____ to charge/credit DEPOSIT ACCOUNT No._____ for following:	☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit

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