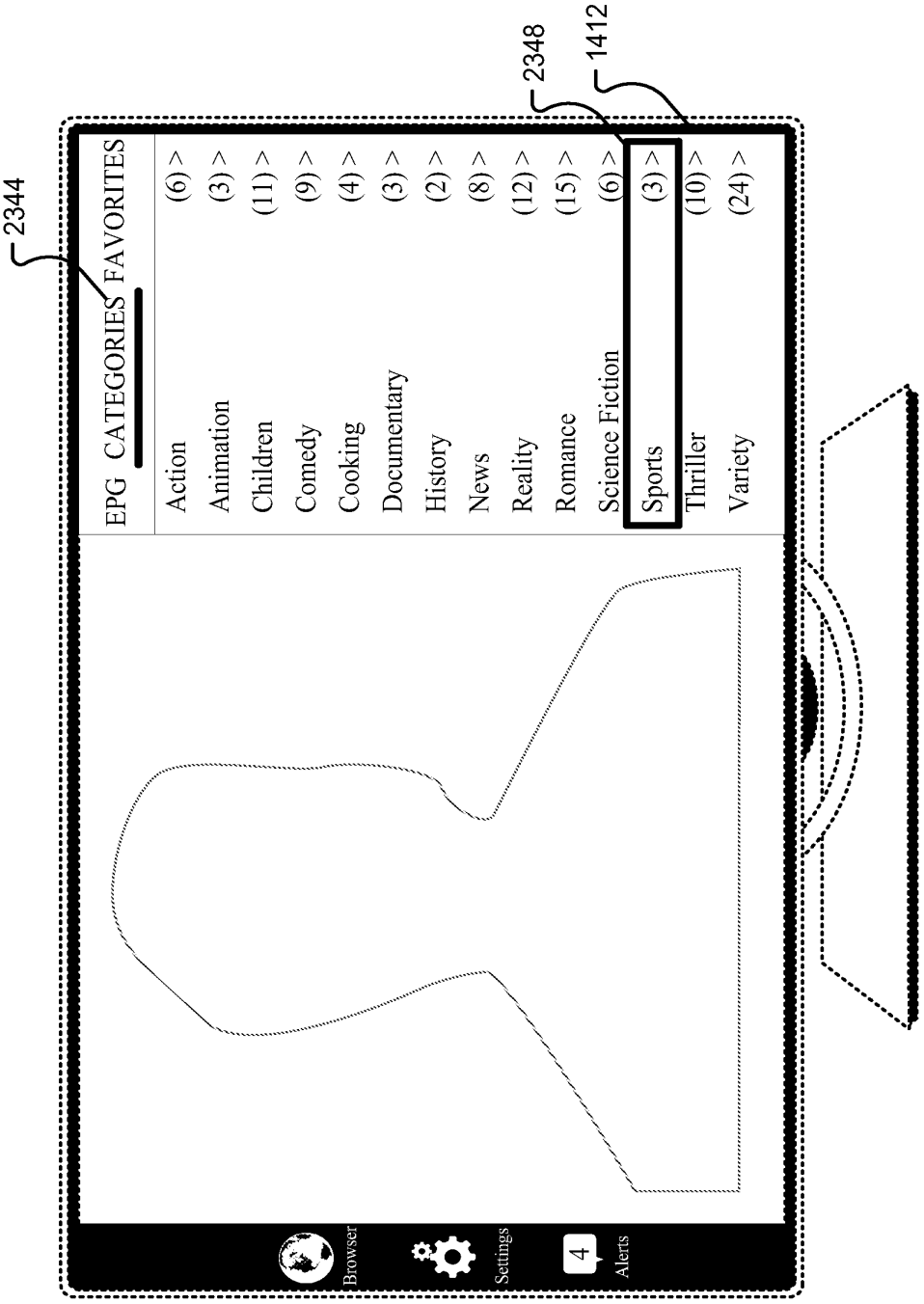

2344
EPG
CATEGORIES
FAVORITES
Action (6) >
Animation (3) >
Children (11) >
Comedy (9) >
Cooking (4) >
Documentary (3) >
History (2) >
News (8) >
Reality (12) >
Romance (15) >
Science Fiction (6) >
Sports (3) >
Thriller (10) >
Variety (24) >
2348
1412
Browser
Settings
4
Alerts

Fig. 23C

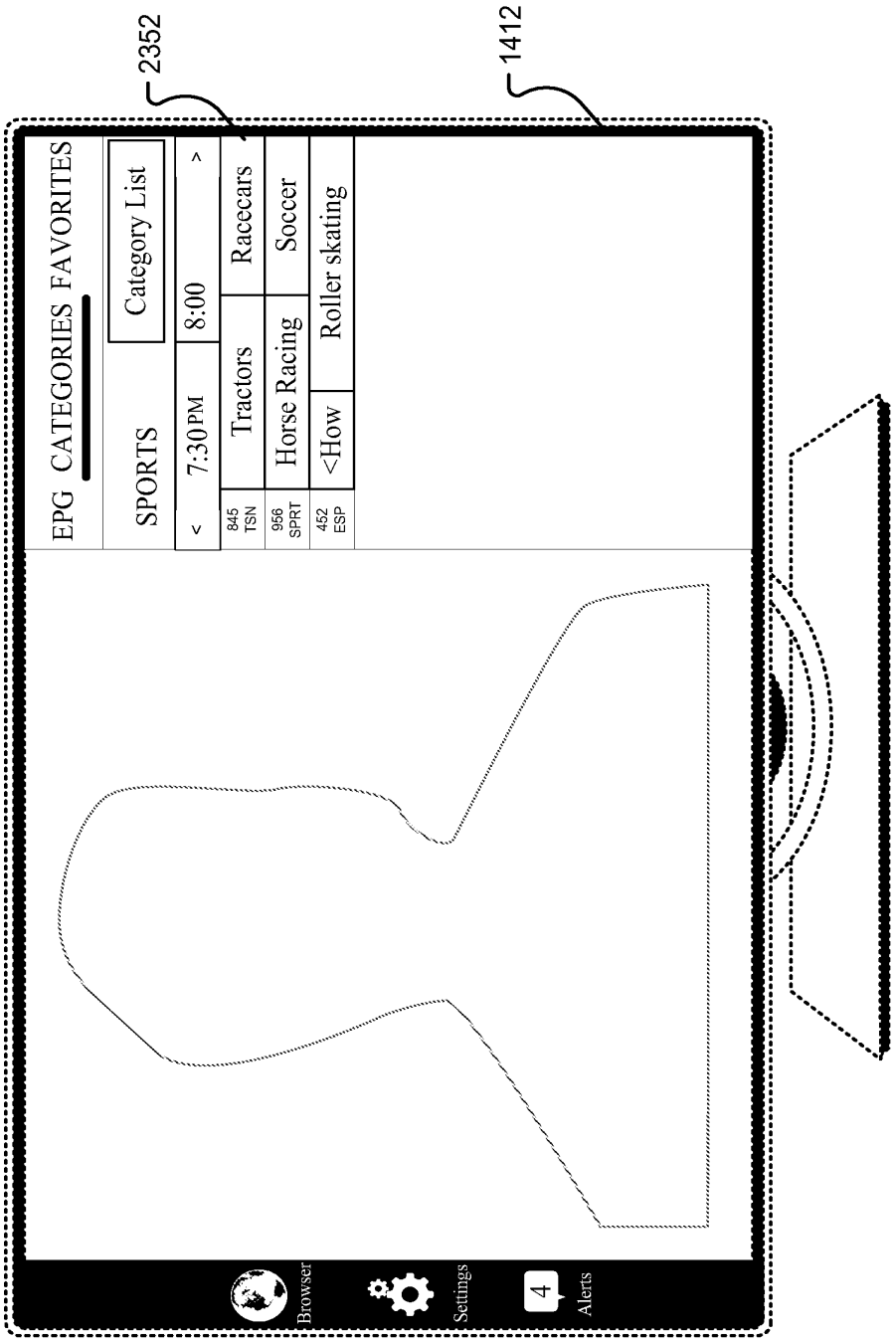

2352
1412
EPG CATEGORIES FAVORITES
SPORTS
Category List
< 7:30 PM
8:00
>
845 TSN
Tractors
Racecars
956 SPRT
Horse Racing
Soccer
452 ESP
<How
Roller skating
Browser
Settings
4
Alerts

Fig. 23D

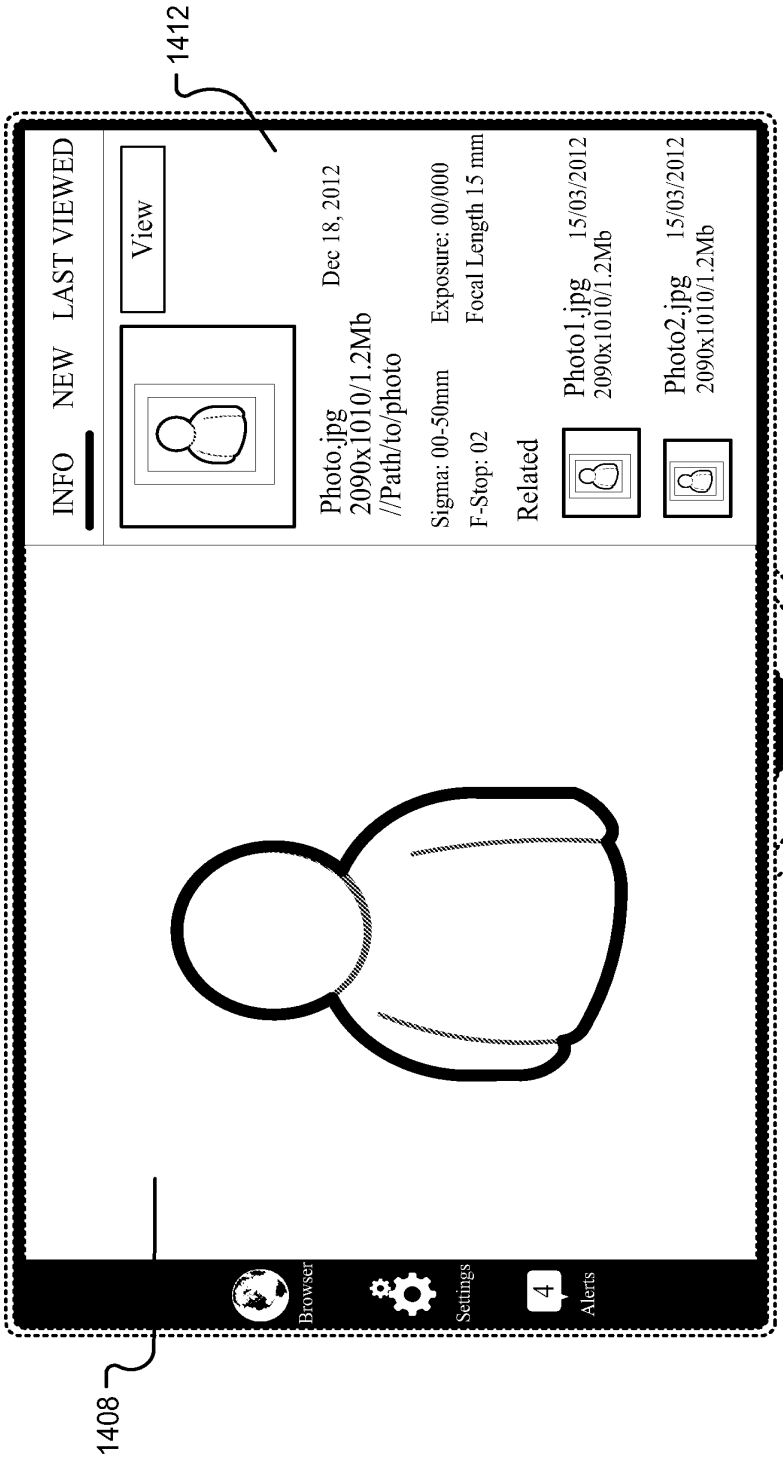

1412
INFO
NEW
LAST VIEWED
View
Photo.jpg
2090x1010/1.2Mb
//Path/to/photo
Dec 18, 2012
Sigma: 00-50mm
F-Stop: 02
Exposure: 00/000
Focal Length 15 mm
Related
Photo1.jpg
2090x1010/1.2Mb
15/03/2012
Photo2.jpg
2090x1010/1.2Mb
15/03/2012
Browser
Settings
4
Alerts
1408

Fig. 23E

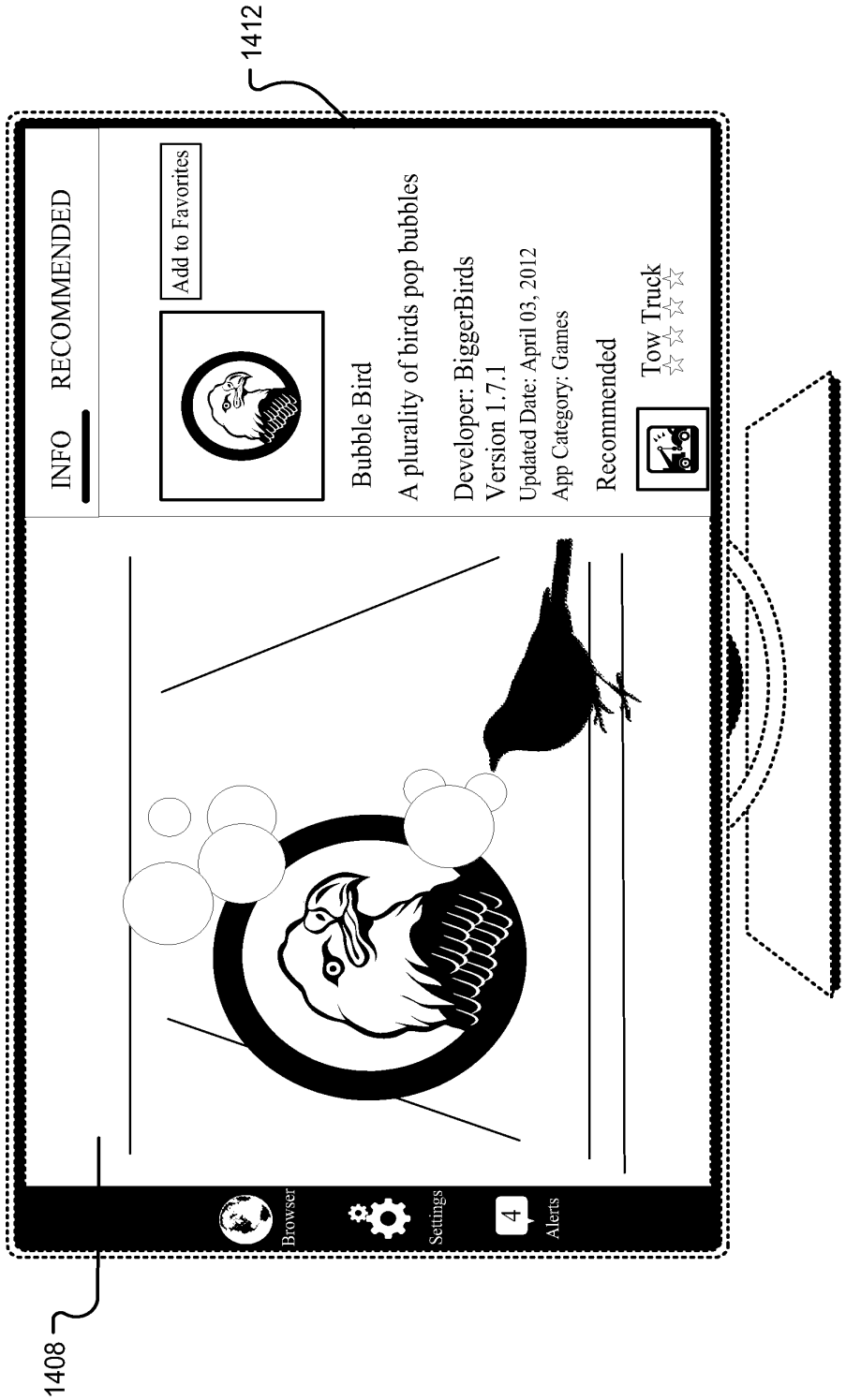

1412
1408
INFO
RECOMMENDED
Add to Favorites
Bubble Bird
A plurality of birds pop bubbles
Developer: BiggerBirds
Version 1.7.1
Updated Date: April 03, 2012
App Category: Games
Recommended
Tow Truck
Browser
Settings
4
Alerts

Fig. 23F

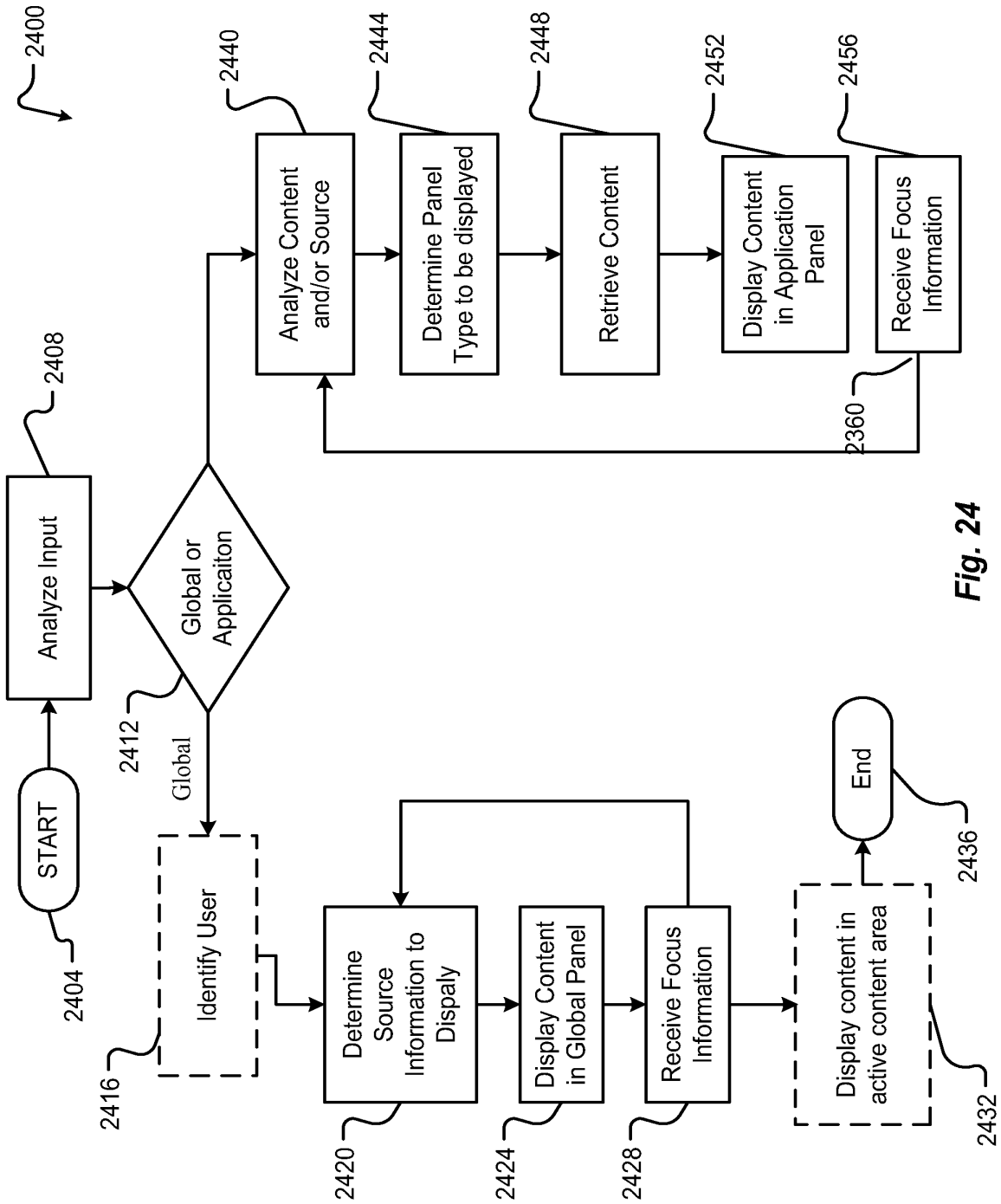

2400
START
2404
Analyze Input
2408
Global or Applicaiton
2412
Global
Identify User
2416
Determine Source Information to Dispaly
2420
Display Content in Global Panel
2424
Receive Focus Information
2428
Display content in active content area
2432
End
2436
Analyze Content and/or Source
2440
Determine Panel Type to be displayed
2444
Retrieve Content
2448
Display Content in Application Panel
2452
Receive Focus Information
2456
2360

Fig. 24

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US13/36844

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - G06F 17/30 (2013.01)
USPC - 348/554
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) Classification(s): G06F 17/30; G06F 3/00; G08B 21/00 (2013.01)
USPC Classification(s): 348/554; 725/110; 707/707; 340/635

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
MicroPatent (US-G, US-A, EP-A, EP-B, WO, JP-bib, DE-C,B, DE-A, DE-T, DE-U, GB-A, FR-A); DialogPro (Derwent, INSPEC, NTIS, PASCAL, Current Contents Search, Dissertation Abstracts Online, Inside Conferences); IP.com; Google
select, panel, television, content

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2011/0289067 A1 (JORDAN, D et al.), 24 November 2011, Paragraphs [0102]-[0106].	1-22
A	US 2006/0101504 A1 (ARAVAMUDAN, M et al.), 11 May 2006, the whole document.	1-22
A	US 2009/0064222 A1 (DAWSON, T et al.), 5 March 2009, the whole document.	1-22

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
13 June 2013 (13.06.2013)	28 JUN 2013
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: Brent R. Lindon
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, CO 80202
United States of America

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference 6583-424-PCT	Date of mailing *(day/month/year)* 28 JUN 2013 **FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. PCT/US13/36844	International filing date *(day/month/year)* 16 April 2013 (16.04.2013)
Applicant Flextronics AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Shane Thomas PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-424-PCT	**FOR FURTHER ACTION**	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US13/36844	International filing date *(day/month/year)* 16 April 2013 (16.04.2013)	(Earliest) Priority Date *(day/month/year)* 14 June 2012 (14.06.2012)
Applicant Flextronics AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 9 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

   a. With regard to the **language**, the international search was carried out on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

   b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

   c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

   ☒ the text is approved as submitted by the applicant.

   ☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

   ☒ the text is approved as submitted by the applicant.

   ☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

   a. the figure of the **drawings** to be published with the abstract is Figure No. 23A

   ☒ as suggested by the applicant.

   ☐ as selected by this Authority, because the applicant failed to suggest a figure.

   ☐ as selected by this Authority, because this figure better characterizes the invention.

   b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US13/36844

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - G06F 17/30 (2013.01)
USPC - 348/554
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) Classification(s): G06F 17/30; G06F 3/00; G08B 21/00 (2013.01)
USPC Classification(s): 348/554; 725/110; 707/707; 340/635

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
MicroPatent (US-G, US-A, EP-A, EP-B, WO, JP-bib, DE-C,B, DE-A, DE-T, DE-U, GB-A, FR-A); DialogPro (Derwent, INSPEC, NTIS, PASCAL, Current Contents Search, Dissertation Abstracts Online, Inside Conferences); IP.com; Google
select, panel, television, content

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2011/0289067 A1 (JORDAN, D et al.), 24 November 2011, Paragraphs [0102]-[0106].	1-22
A	US 2006/0101504 A1 (ARAVAMUDAN, M et al.), 11 May 2006, the whole document.	1-22
A	US 2009/0064222 A1 (DAWSON, T et al.), 5 March 2009, the whole document.	1-22

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
13 June 2013 (13.06.2013)	28 JUN 2013
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: Brent R. Lindon
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, CO 80202
United States of America

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	28 JUN 2013
Applicant's or agent's file reference 6583-424-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US13/36844	16 April 2013 (16.04.2013)	14 June 2012 (14.06.2012)

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - G06F 17/30 (2013.01)
USPC - 348/554

Applicant Flextronics AP, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 *bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to th IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Fom PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	13 June 2013 (13.06.2013)	Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/36844

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

   ☐ on paper

   ☐ in electronic form

   b. (time)

   ☐ in the international application as filed

   ☐ together with the international application in electronic form

   ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/36844

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	NONE	YES
	Claims	1-22	NO
Inventive step (IS)	Claims	NONE	YES
	Claims	1-22	NO
Industrial applicability (IA)	Claims	1-22	YES
	Claims	NONE	NO

2. Citations and explanations:

Claims 1-22 lack novelty under PCT Article 33(2) as being anticipated by US 2011/0289067 A1 to Jordan et al. (hereinafter 'Jordan').

As to Claims 1, 11, and 21, Jordan discloses a method and non-transitory computer readable information storage medium having stored thereon instructions that cause a computing system to execute a method of displaying content on a television, comprising: receiving an indication associated with a selection by a user (user may select command options in a television interface to display listings pages describing content available for display, Paragraph [0103]); determining, based on the received indication, a content panel to display via the television (a user can select to display "All", and a list of all available content will be displayed in content listing area 1820, located in content area 1720 (content panel), Paragraph [0103]); retrieving from memory, a first content information for display in the content panel (all available content may be listed in the content listing area 1820, located in content area 1720 (content panel), as retrieved from content database 112 (memory), Paragraphs [0102] and [0103]); and displaying, via the television, the retrieved content information in the specified content panel (all available content may be listed in the content listing area 1820, located in content area 1720 (content panel), Paragraph [0103]); and only as to Claim 21, an input device associated with the television (computer system, which may include a television, includes an input device, Figure 40; Paragraphs [0040] and [0139]; a memory (disk drive unit 4016, main memory 4004, and static memory 4006, Figure 40; Paragraph [0139]); and a microprocessor (data processor 4002, Figure 40, Paragraph [0139]).

As to Claims 2, 12, and 22, Jordan discloses the method, medium, and system of Claims 1, 11, and 21. Jordan further discloses a method, medium, and system further comprising: identifying a user associated with the received indication (a user may log in prior to selecting command options, in order to determine available content, Paragraph [0060]); retrieving one or more settings associated with the identified user (if logged-in user selects the favorites command option, stored favorites and recommendations based on stored user interest information (stored settings) may be retrieved and displayed, Paragraphs [0060], [0064], and [0104]); retrieving, from memory, content information associated with the identified user (if logged-in user selects the favorites command option, stored favorites (content information associated with the user) and recommendations based on stored user interest information may be retrieved and displayed, Paragraphs [0060], [0064], and [0104]); displaying, via the television, the retrieved content information in the specified content panel (if logged-in user selects the favorites command option, stored favorites and recommendations based on stored user interest information may be retrieved and displayed in the content listing area, located in content area 1720 (content panel), Paragraphs [0060], [0064], and [0104]).

As to Claims 3 and 13, Jordan discloses the method and medium of Claims 1 and 11. Jordan further discloses a method and medium further comprising: identifying a user associated with the received indication (a user may log in prior to selecting command options, in order to determine available content, Paragraph [0060]); retrieving, from memory, one or more settings associated with the identified user (if logged-in user selects the favorites command option, stored favorites and recommendations based on stored user interest information (stored settings) may be retrieved and displayed, Paragraphs [0060], [0064], and [0104]); retrieving, from memory, content information associated with the identified user and the one or more settings associated with the user (if logged-in user selects the favorites command option, stored favorites information (content information associated with the user) and recommendations based on stored user interest information (stored settings) may be retrieved and displayed, Paragraphs [0060], [0064], and [0104]); and displaying, via the television, the retrieved content information in the specified content panel (if logged-in user selects the favorites command option, stored favorites and recommendations based on stored user interest information may be retrieved and displayed in the content listing area, located in content area 1720 (content panel), Paragraphs [0060], [0064], and [0104]).

As to Claims 4 and 14, Jordan discloses the method and medium of Claims 1 and 11. Jordan further discloses a method and medium further comprising: receiving a second indication associated with a selection by a user (user may browse, selecting different command options, Paragraphs [0098]-[0100]); determining, based on the second indication, a source of content information to be displayed in the content panel based (a user can select a specific content item, such as "Lost", and information about that program (source of content information)will be displayed in the content listing area 1820, located in content area 1720 (content panel) as a Content Overview Page, Paragraphs [0103] and [0106]); retrieving at least a portion of content information from the determined source (designated movie content (determined source) may be listed in the content listing area 1820, located in content area 1720 (content panel) as a Content Overview Page, Paragraphs [0102], [0103], and [0106]); and displaying, via the television, the content information associated with the determined source (designated movie content (determined source) may be listed in the content listing area 1820, located in content area 1720 (content panel) of the television display as a Content Overview Page, Paragraphs [0102], [0103], and [0106]).

-***-Continued Within the Next Supplemental Box-***-

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/36844

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

Claim 16 is objected to under PCT Rule 66.2(a)(iii) as containing the following defect in the form or contents thereof:

At Page 54, Line 21 of the application, Claim 16 reads 'The method of claim 1, further comprising:'. As Claim 16 is located among the non-transitory computer-readable medium claims associated with Claim 11, would be duplicative of Claim 6 were it to be understood as written, and as it is referred to in Claim 17 as a non-transitory computer-reabable medium claim, for the purposes of this examination Claim 16 has been best understood to depend upon Claim 11, and the text at Page 54, Line 21 of the application which reads 'The method of claim 1, further comprising:' to read 'The non-transitory computer-readable medium of Claim 11, further comprising:'.

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:
-***-Continued from Box No. V: Citations and Explanations-***-

As to Claims 5 and 15, Jordan discloses the method and medium of Claims 1 and 11. Jordan further discloses wherein the content panel is a global panel (content area 1720 hosts the display of content information across various menus, Figures 17-20, Paragraphs [0099] and [0108]).

As to Claims 6 and 16, Jordan discloses the method and medium of Claims 1 and 11. Jordan further discloses a method and medium further comprising: identifying at least one of a content source and a content information currently being displayed via a television (an additional dimension may be presented based on (identified) the currently selected content item, Paragraphs [0127]-[0129] and [0137]); selecting a panel type based on the identified at least one of content source and content information currently being displayed via the television (different types of information such as similar items or reviews may be presented based on what type of content is selected, Paragraphs [0127]-[0129]); retrieving, from memory, content information based on the selected panel type (if one of the additional information dimensions is selected, associated information may be obtained by the user, which is stored in a database (memory), Paragraphs [0060]-[0061] and [0127]-[0129]); and displaying, via the television, the retrieved content information in the content panel based on the selected panel type (if one of the additional information dimensions is selected, different types of information may be presented based on what type of content is selected, Paragraphs [0127]-[0129]).

As to Claims 7 and 17, Jordan discloses the method and medium of Claims 6 and 16. Jordan further discloses a method and medium further comprising: receiving a second indication associated with a selection by a user (user may browse, selecting different command options, Paragraphs [0098]-[0100] and [0127]-[0129]); selecting a panel type based on the second indication (different types of information such as similar items or reviews may be presented based on what type of content is selected, Paragraphs [0127]-[0129]); retrieving, from memory, content information based on the selected panel type and the second indication (if one of the additional information dimensions is selected, associated information may be obtained by the user, which is stored in a database (memory), Paragraphs [0060]-[0061] and [0127]-[0129]); and displaying, via the television, the retrieved content information in the content panel (if one of the additional information dimensions is selected, different types of information may be presented based on what type of content is selected, Paragraphs [0127]-[0129]).

As to Claims 8 and 18, Jordan discloses the method and medium of Claims 7 and 17. Jordan further discloses wherein the retrieved content information comprises information associated with content information marked as favorite (user can instead select the "For You" command option, which provides recommendations based on stored user interest information, such as designated Favorites, Paragraphs [0106], [0116], and [0125]).

As to Claims 9 and 19, Jordan discloses the method and medium of Claims 7 and 17. Jordan further discloses wherein the retrieved content information comprises information associated with content information recently viewed (user can instead select the "For You" command option, which provides recommendations based on stored user interest information, such as previously viewed content, Paragraphs [0106], [0116], and [0125]).

As to Claims 10 and 20, Jordan discloses the method and medium of Claims 7 and 7. Jordan further discloses wherein the content panel is an application panel (information is presented in various pages (application panels) in the content area 1720, Paragraphs [0118], [0120], and [0127]-[0129]).

Claims 1-22 have industrial applicability as defined by PCT Article 33(4) because the subject matter can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: Tadd F. Wilson
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, CO 80202
United States of America

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Date of mailing *(day/month/year)*	28 JUN 2013
Applicant's or agent's file reference: 6583-425-PCT	**FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No.: PCT/US13/36843	International filing date *(day/month/year)*: 16 April 2013 (16.04.2013)
Applicant: Flextronics AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

Filing of amendments and statement under Article 19:
The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450	Authorized officer Shane Thomas
Facsimile No. 571-273-3201	Telephone No. PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-425-PCT	**FOR FURTHER ACTION**	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US13/36843	International filing date *(day/month/year)* 16 April 2013 (16.04.2013)	(Earliest) Priority Date *(day/month/year)* 14 June 2012 (14.06.2012)
Applicant Flextronics AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 9 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

   a. With regard to the **language**, the international search was carried out on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

   b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

   c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

   ☒ the text is approved as submitted by the applicant.

   ☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

   ☒ the text is approved as submitted by the applicant.

   ☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

   a. the figure of the **drawings** to be published with the abstract is Figure No. 14

   ☒ as suggested by the applicant.

   ☐ as selected by this Authority, because the applicant failed to suggest a figure.

   ☐ as selected by this Authority, because this figure better characterizes the invention.

   b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US13/36843

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - G06F 17/30 (2013.01)
USPC - 348/554
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) Classification(s): G06F 17/30; G06F 3/00; G08B 21/00 (2013.01)
USPC Classification(s): 348/554; 725/110; 707/707; 340/635

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
MicroPatent (US-G, US-A, EP-A, EP-B, WO, JP-bib, DE-C,B, DE-A, DE-T, DE-U, GB-A, FR-A); DialogPro (Derwent, INSPEC, NTIS, PASCAL, Current Contents Search, Dissertation Abstracts Online, Inside Conferences); IP.com; Google
select, silo, icon, television, content

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 2011/0289067 A1 (JORDAN, D et al.) 24 November 2011, Figure 40; Paragraphs [0098]-[0100] and [0105]-[0106].	1-5, 9-13, and 16-18 --- 6-8, 14, 15, 19, and 20
Y	US 2011/0074591 A1 (ARLING, P et al.) 31 March 2011, Paragraphs [0028] and [0035].	6-8, 14, 15, 19, and 20
A	US 2006/0101504 A1 (ARAVAMUDAN, M et al.) 11 May 2006, the whole document.	1-20

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
11 June 2013 (11.06.2013)	28 JUN 2013
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: Tadd F. Wilson
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, CO 80202
United States of America

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	28 JUN 2013
Applicant's or agent's file reference 6583-425-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US13/36843	16 April 2013 (16.04.2013)	14 June 2012 (14.06.2012)

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - G06F 17/30 (2013.01)
USPC - 348/554

Applicant Flextronics AP, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 *bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	11 June 2013 (11.06.2013)	Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/36843

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

      ☐ on paper

      ☐ in electronic form

   b. (time)

      ☐ in the international application as filed

      ☐ together with the international application in electronic form

      ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/36843

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	6-8, 14, 15, 19, and 20	YES
	Claims	1-5, 9-13, and 16-18	NO
Inventive step (IS)	Claims	NONE	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	NONE	NO

2. Citations and explanations:

Claims 1-5, 9-13, and 16-18 lack novelty under PCT Article 33(2) as being anticipated by US 2011/0289067 A1 to Jordan et al. (hereinafter 'Jordan').

As to Claims 1, 11, and 16, Jordan discloses a method for providing content in an Intelligent television, tangible computer-readable medium, and Intelligent television, the method, medium, and television comprising: receiving a designation for a silo, wherein a silo is a logical representation of a content source for the Intelligent television (user may select (designate) an icon representing a content source (silo) through the television interface, Paragraphs [0098]-[0100]); based on the designation, determining the silo (system detects (determines) the highlighting and selection of the TV portal, Paragraphs [0105]-[0106]); and providing content from the silo (system presents TV Portal content to the user in response to the selection, Paragraph [0106]); and in reference only to Claim 16, a display (video display 4010, Figure 40); a memory (main and static memories 4004 and 4006, Figure 40); and a processor in communication with the memory and the display (processor 4002, in communication with video display 4010 and memories 4004 and 4006 through bus 4008, Figure 40).

As to Claim 2, Jordan discloses the method of Claim 1. Jordan further discloses wherein a silo is a content application or an input source (content sources (silos) may be broadcast, cable, or satellite media sources (input source) or on-demand sources (content application), among others, Paragraphs [0040] and [0100]).

As to Claim 3, Jordan discloses the method of Claim 2. Jordan further discloses wherein configuration data is associated with the silo (membership information related to a content source (configuration data) is stored in the system memory, Paragraph [0046]).

As to Claims 4, 12, and 17, Jordan discloses the method, medium, and television of Claims 3, 11, and 16. Jordan further discloses a method, medium, and television further comprising changing to the silo (the TV portal interface is displayed (changed to silo) when that content source is selected, Paragraphs [0104]-[0105]).

As to Claims 5, 13, and 18, Jordan discloses the method, medium, and television of Claims 4, 12, and 17. Jordan further discloses a method, medium, and television further comprising: determining whether the silo is a content application or an input source (when an icon is selected, it will either launch a navigation menu to select a content source (content application) or directly launch a content source, such as a broadcast television source (input source), Paragraphs [0093] and [0100]; if the silo is an input source: presenting a watermark in a user interface to indicate which silo has been selected; activating a device or storage mechanism associated with the input source (if a content source such as a broadcast television program is selected, the title of the program will be shown and a highlighting box surrounds it (watermark), and the content signal acquired, Paragraphs [0093], [0100], and [0105]-[0106]); if the silo is a content application, determining whether a preview has been cached for the silo (in the movie portal interface, the movie icons linking to the Movie Overview page (content application) may be represented by an image of the DVD jacket (preview), but only if such an image is available (check if preview is cached), Paragraph [0115]); if a preview has been cached: presenting the preview in during a silo transition; launching the content application (selectable movie icon (silo) may be represented by an image of the DVD jacket (preview), and when a user selects the movie icon, the Movie Overview page (content application) is presented, Paragraph [0115]); if a preview has not been cached: presenting a watermark in during a silo transition; and launching the content application (selectable movie icon (silo) may only be represented by a text description in its icon (watermark), such as when no DVD jacket image is available, and when a user selects the movie icon, the Movie Overview page (content application) is presented, Paragraph [0115]).

As to Claim 9, Jordan discloses the method of Claim 4. Jordan further discloses wherein the Intelligent TV includes two or more silos (system includes icons for multiple content sources (two or more), Paragraphs [0098]-[0100]).

As to Claim 10, Jordan discloses the method of Claim 9. Jordan further discloses wherein the two or more silos provide a contextual experience for a user based on an organization of the silos (content source icons are may arranged in a grid according to various ordering schemes (contextual experience), Paragraph [0103]).

-***-Continued Within the Next Supplemental Box-***-

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/36843

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

Claims 6, 14, and 19 are objected to under PCT Rule 66.2(a)(iii) as containing the following defect in the form or contents thereof:

At Page 53, Line 32, Page 55, Line 20, and Page 57, Line 8 of the application, Claims 6, 14, and 19 contain the text 'if there is no a signal error'. There appears to be a letter 't' missing from the end of 'no'. For the purposes of this examination, the text 'if there is no a signal error' in Claims 6, 14, and 19 has been best understood to read 'if there is not a signal error'.

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

-***-Continued from Box No. V: Citations and Explanations-***-

Claims 6-8, 14, 15, 19, and 20 lack an inventive step under PCT Article 33(3) as being obvious over Jordan in view of US 2011/0074591 A1 to Arling et al. (hereinafter 'Arling').

As to Claims 6, 14, and 19, Jordan discloses the method, medium, and television of Claims 5, 12, and 17. However, Jordan fails to disclose a method, medium, and television further comprising: determining whether there is a signal error with a signal associated with the silo or an error with content associated with the silo; if there is a signal error, presenting a user interface indicating there is a signal error; and if there is not a signal error, presenting the content associated with the signal. Arling discloses a method, medium, and television further comprising: determining whether there is a signal error with a signal associated with the silo or an error with content associated with the silo (device will monitor the inputs and outputs of the AV system (determine error) for the expected result of a user command, such as playing a movie (silo), Paragraph [0035]); if there is a signal error, presenting a user interface indicating there is a signal error (if the expected result is not detected (content error), an error message may be displayed to prompt the user to retry the command, Paragraph [0035]); and if there is not a signal error, presenting the content associated with the signal (if the expected result is detected, the AV input will receive and display the content data, Paragraph [0035]). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method, medium, and television disclosed in Jordan to include a method, medium, and television further comprising: determining whether there is a signal error with a signal associated with the silo or an error with content associated with the silo; if there is a signal error, presenting a user interface indicating there is a signal error; and if there is not a signal error, presenting the content associated with the signal, as taught in Arling, for the benefit of notifying the user if a problem is encountered, so that it can be corrected.

As to Claims 7, 15, and 20, Jordan discloses the method, medium, and television of Claims 4, 12, and 18. Jordan further discloses wherein the silo is a content application (content sources (silos) may be on-demand sources (content applications), among others, Paragraphs [0040] and [0100]). However, Jordan fails to disclose a method, medium, and television further comprising: determining if the silo is in a first time on state; if the silo is in a first time on state, starting the silo in the background; determining whether the silo is in a first time experience state; if the silo is not in a first time experience state or if the silo is not in a first time on state, determining if the silo is in an error state; if the silo is in an error state, presenting a user interface indicating that the silo is in an error state; if the silo is not in an error state, providing the silo; and if the silo is in a first time experience state, starting a first time experience process for the silo. Arling discloses a method, medium, and television further comprising: determining if the silo is in a first time on state (system checks to ensure that the source device is turned on (first time on state), Paragraph [0028]); if the silo is in a first time on state, starting the silo in the background (if the input device is not powered on (first time on state), a power on command is sent to the input device to activate it without user intervention (background), Paragraph [0028]); determining whether the silo is in a first time experience state (AV receiver checks to ensure that the activity, such as "Watch a Movie", has been configured (first time experience state), Paragraph [0028]); if the silo is not in a first time experience state or if the silo is not in a first time on state, determining if the silo is in an error state (if device is on and activity is configured, device will monitor the inputs and outputs of the AV system (determine error) for the expected result of a user command, such as playing a movie (silo), Paragraphs [0028] and [0035]); if the silo is in an error state, presenting a user interface indicating that the silo is in an error state (if the expected result is not detected (error state), an error message may be displayed to prompt the user to retry the command, Paragraph [0035]); if the silo is not in an error state, providing the silo (if the expected result is detected, the AV input will receive and display the content data, such as a movie (silo), Paragraph [0035]); and if the silo is in a first time experience state, starting a first time experience process for the silo (if the activity, such as "Watch a Movie", has not been configured (first time experience state), the user is prompted to configure the activity (first time experience process), Paragraph [0028]). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method, medium, and television disclosed in Jordan to include a method, medium, and television further comprising: determining if the silo is in a first time on state; if the silo is in a first time on state, starting the silo in the background; determining whether the silo is in a first time experience state; if the silo is not in a first time experience state or if the silo is not in a first time on state, determining if the silo is in an error state; if the silo is in an error state, presenting a user interface indicating that the silo is in an error state; if the silo is not in an error state, providing the silo; and if the silo is in a first time experience state, starting a first time experience process for the silo, as taught in Arling, for the benefit of ensuring the content application is properly configured and functioning, and alerting the user if it is otherwise.

As to Claim 8, the combination of Jordan and Arling discloses the method of Claim 7. However, Jordan fails to disclose wherein the first time experience process comprises: presenting a first time experience user interface; receiving a first time experience input; and configuring the content application in response to the first time experience input. Arling discloses wherein the first time experience process comprises: presenting a first time experience user interface (user is prompted to select the appropriate source device for the activity in question (first time experience user interface), Paragraphs [0026]-[0028]); receiving a first time experience input (user selects the appropriate source device for the activity in question, Paragraphs [0026]-[0028]); and configuring the content application in response to the first time experience input (configuration parameters are stored in AV receiver memory (application configured), Paragraph [0027]). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method disclosed in Jordan to include wherein the first time experience process comprises: presenting a first time experience user interface; receiving a first time experience input; and configuring the content application in response to the first time experience input, as taught in Arling, for the benefit of setting up a content application so that it functions according to the user's preferences.

Claims 1-20 have industrial applicability as defined by PCT Article 33(4) because the subject matter can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: Tadd F. Wilson
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, CO 80202
United States of America

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference 6583-430-PCT	Date of mailing *(day/month/year)* 17 JUN 2013 **FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. PCT/US13/36826	International filing date *(day/month/year)* 16 April 2013 (16.04.2013)
Applicant Flextronics AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Shane Thomas PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-430-PCT	**FOR FURTHER ACTION**	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US13/36826	International filing date *(day/month/year)* 16 April 2013 (16.04.2013)	(Earliest) Priority Date *(day/month/year)* 14 June 2012 (14.06.2012)
Applicant Flextronics AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 15

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

Form PCT/ISA/210 (first sheet) (July 2009)

INTERNATIONAL SEARCH REPORT PCT/US2013/036826 17.06.2013

International application No.
PCT/US13/36826

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H04N 5/44543; G06F 8/34 (2013.01)
USPC - 715/763; 725/39
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8): H04L 29/08072; G06F 3/0481, 3/04817, 3/0482, 8/34; H04N 5/44543 (2013.01); USPC: 709/224; 715/835, 836, 763, 810; 725/39

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
MicroPatent (US-G, US-A, EP-A, EP-B, WO, JP-bib, DE-C,B, DE-A, DE-T, DE-U, GB-A, FR-A); DialogPro (Derwent, INSPEC, NTIS, PASCAL, Current Contents Search, Dissertation Abstracts Online, Inside Conferences); IP.com; Google Scholar; associate*, badge*, content, source, interface, indicia, feature, state, destination, select*, second, television

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X -- Y	US 8,201,104 B2 (YAMAMOTO, R et al.) June 12, 2012, abstract, column 2, lines 32-35, column 9, lines 8-10	1-4, 9-12 and 16-17 ---------- 5-8, 13-15 and 18-20
Y	US 8,151,215 B2 (BAURMANN, T et al.) April 3, 2012, column 1, lines 29-34, column 4, lines 44-49, column 3, lines 46-50	5-8, 13-15 and 18-20
A	US 7,363,591 B2 (GOLDTHWAITE, F et al.) April 22, 2008, entire document	1

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
6 June 2013 (06.06.2013)	17 JUN 2013
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: Tadd F. Wilson
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, CO 80202
United States of America

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	17 JUN 2013
Applicant's or agent's file reference 6583-430-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US13/36826	16 April 2013 (16.04.2013)	14 June 2012 (14.06.2012)

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H04N 5/44543; G06F 8/34 (2013.01)
USPC - 715/763; 725/39

Applicant Flextronics AP, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 *bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	6 June 2013 (06.06.2013)	Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/36826

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

   ☐ on paper

   ☐ in electronic form

   b. (time)

   ☐ in the international application as filed

   ☐ together with the international application in electronic form

   ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/36826

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	5-8, 13-15 and 18-20	YES
	Claims	1-4, 9-12 and 16-17	NO
Inventive step (IS)	Claims	NONE	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	NONE	NO

2. Citations and explanations:

Claims 1-4, 9-12 and 16-17 lack novelty under PCT Article 33(2) as being anticipated by US 8,201,104 B2 Yamamoto et al. (hereinafter "Yamamoto").

As to claim 1, Yamamoto discloses a method for associating badges with an item of content or a content source, the method comprising (a plurality of function icons (associating badges) representing respective types of content playing functions, column 2, lines 32-35): receiving a selection associated with the item of content or the content source (A game icon 62 is an icon that represents the game running function and is selected to run a game program (selection associated with a item/game program), column 9, lines 8-10); based on the selection, associating a badge with the item of content or the content source (a plurality of function icons (associating badges) representing respective types of content playing functions, column 2, lines 32-35), wherein a badge is a user interface device having visual indicia that indicates the item of content or the content source includes a feature, a state, or a designation (A moving image icon, which is a function (feature) icon displayed in an area of intersection in which the array of function icons and the array of content icons (item of content) intersect, is highlighted by a color different from that of the other function icons (when the state changes) and by an enlarged view, abstract).

As to claim 2, Yamamoto discloses the method as defined in claim 1, further comprising receiving a second selection for a user interface containing information about the item of content or the content source (a display controller which generates the image data for the on-screen menu with a two-dimensional array which includes a first array comprising the plurality of function icons arranged in a specific direction on a screen and which also includes a second array comprising the plurality of content icons (item of content) in a direction intersecting the specific direction on the screen, column 2, lines 2-9).

As to claim 3, Yamamoto discloses the method as defined in claim 2, further comprising, based on the second selection, presenting the information about the item of content or the content source (The display controller displays the second array to intersect the first array at a position of one of the function icons selected by the user, and, if the contents are hierarchically stored in the storage, displays an expanded view (presenting the information) of the content icons (item of content) in the second array such that the hierarchy is represented visually or auditorily, column 2, lines 9-14).

As to claim 4, Yamamoto discloses the method as defined in claim 3, further comprising, based on the second selection, presenting the badge, associated with the item of content or the content source, with the information the item of content or the content source (the contents are hierarchically stored in the storage, displays an expanded view of the content icons (badge) in the second array such that the hierarchy is represented visually or auditorily and the term "content" refers to information including moving images, still images, audio, texts and programs that are played, displayed or run by respective types of information conveying means, column 2, lines 9-19).

As to claim 9, Yamamoto discloses the method as defined in claim 4, further disclose wherein the state is a paused playback (The instruction determination module 94 acquires instructions such as "content playing", "pause playing" (pause playback) and "invoke on-screen menu" entered by the user manipulating the controller 42, column 4, line 66 and column 5, line 3).

As to claim 10, Yamamoto discloses the method as defined in claim 3, further discloses wherein the badge is an in-progress badge (The instruction determination module 94 acquires instructions such as "content playing" (in progress icon), "pause playing" (pause playback) and "invoke on-screen menu" entered by the user manipulating the controller 42, column 4, line 66 and column 5, line 3).

As to claim 11, Yamamoto discloses a tangible computer readable medium having instructions stored thereon, wherein when executed by a processor cause the processor to execute a method (computer readable medium having stored therein a computer program executable by a computer for displaying an on-screen menu in a content player, column 25, lines 21-25), the instructions comprising: instructions to receive a selection associated with the item of content or the content source (A game icon 62 is an icon that represents the game running function and is selected to run a game program (selection associated with a item/game program), column 9, lines 8-10); based on the selection, instructions to associate a badge with the item of content or the content source (a plurality of function icons (associating badges) representing respective types of content playing functions, column 2, lines 32-35), wherein a badge is a user interface device having visual indicia that indicates the item of content or the content source includes a feature, a state, or a designation (A moving image icon, which is a function (feature) icon displayed in an area of intersection in which the array of function icons and the array of content icons intersect, is highlighted by a color different from that of the other function icons (when the state changes) and by an enlarged view, abstract).

-***-Continued Within the Next Supplemental Box-***-

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/36826

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

-***-Continued from Box No. V: Citations and Explanations-***-

As to claim 12, Yamamoto discloses the tangible computer readable medium as defined in claim 11, further comprising: instructions to receive a second selection for a user interface containing information about the item of content or the content source (a display controller which generates the image data for the on-screen menu with a two-dimensional array which includes a first array comprising the plurality of function icons arranged in a specific direction on a screen and which also includes a second array comprising the plurality of content icons in a direction intersecting the specific direction on the screen, column 2, lines 2-9); based on the second selection, instructions to present the information about the item of content or the content source (The display controller displays the second array to intersect the first array at a position of one of the function icons selected by the user, and, if the contents are hierarchically stored in the storage, displays an expanded view of the content icons in the second array such that the hierarchy is represented visually or auditorily, column 2, lines 9-14); and based on the second selection, instructions to present the badge, associated with the item of content or the content source, with the information the item of content or the content source (the contents are hierarchically stored in the storage, displays an expanded view of the content icons (badge) in the second array such that the hierarchy is represented visually or auditorily and the term "content" refers to information including moving images, still images, audio, texts and programs that are played, displayed or run by respective types of information conveying means, column 2, lines 9-19).

As to claim 16, Yamamoto discloses an intelligent television comprising: a display; a memory (a television set 30 onscreen display with a onscreen buffer 102 that temporally stores storage/memory) column 5, lines 53-57); a processor in communication with the memory and the display, the processor operable to (the processor 108 displays content icons, column 8, lines 10-12): receive a selection associated with the item of content or the content source (a plurality of function icons (associating badges) representing respective types of content playing functions, column 2, lines 32-35); based on the selection, associate a badge with the item of content or the content source, wherein a badge is a user interface device having visual indicia that indicates the item of content or the content source includes a feature, a state, or a designation (A moving image icon, which is a function icon displayed in an area of intersection in which the array of function icons and the array of content icons intersect, is highlighted by a color different from that of the other function icons and by an enlarged view, abstract).

As to claim 17, Yamamoto discloses the intelligent television as defined in claim 16, wherein the processor is further operable to: receive a second selection for a user interface containing information about the item of content or the content source (a display controller which generates the image data for the on-screen menu with a two-dimensional array which includes a first array comprising the plurality of function icons arranged in a specific direction on a screen and which also includes a second array comprising the plurality of content icons in a direction intersecting the specific direction on the screen, column 2, lines 2-9); based on the second selection, present the information about the item of content or the content source (The display controller displays the second array to intersect the first array at a position of one of the function icons selected by the user, and, if the contents are hierarchically stored in the storage, displays an expanded view of the content icons in the second array such that the hierarchy is represented visually or auditorily, column 2, lines 9-14); and based on the second selection, present the badge, associated with the item of content or the content source, with the information the item of content or the content source (the contents are hierarchically stored in the storage, displays an expanded view of the content icons (badge) in the second array such that the hierarchy is represented visually or auditorily and the term "content" refers to information including moving images, still images, audio, texts and programs that are played, displayed or run by respective types of information conveying means, column 2, lines 9-19).

Claims 5-8, 13-15 and 18-20 lack an inventive step under PCT Article 33(3) as being obvious over Yamamoto in view of US 8151215 B2 Baurmann et al. (hereinafter "Baurmann").

As to claim 5, Yamamoto discloses the method as defined in claim 4, Yamamoto fails to disclose wherein the designation is a favorite designation. Baurmann discloses wherein the designation is a favorite designation (icons that arc associated with favorite TV channels, column 1, lines 29-34). It would have been obvious to one skilled in the art at the time of the invention to modify the Yamamoto system to include the designation is a favorite designation features taught by Baurmann because doing so would make the Yamamoto system more flexible and user-friendly.

As to claim 6, the combination of Yamamoto and Baurmann discloses the method as defined in claim 5. Yamamoto fails to disclose wherein the badge is a star or a banner. Baurmann discloses wherein the badge is a star or a banner (the objects or icons 46, can be invoked from the remote control 22 by pressing the favorites key 30. If there is on-screen display (OSD) text on the screen e.g., a banner when Favorites is pressed, the OSD can be removed and the favorites icons 46 displayed, column 4, lines 44-49). It would have been obvious to one skilled in the art at the time of the invention to modify the Yamamoto system to include the designation is a star or a banner designation features taught by Baurmann because doing so would make the Yamamoto system more flexible and user-friendly.

As to claim 7, the combination of Yamamoto and Baurmann discloses the method as defined in claim 4. Yamamoto fails to disclose wherein the state is as new content. Baurmann discloses wherein the state is as new content (items may display when user first accesses New Favorites (new content), column 6, lines 54-56). It would have been obvious to one skilled in the art at the time of the invention to modify the Yamamoto system to include the designation of new content features taught by Baurmann because doing so would make the Yamamoto system more flexible and user-friendly.

As to claim 8, the combination of Yamamoto and Baurmann discloses the method as defined in claim 7. Yamamoto fails to disclose wherein the badge is a fresh badge. Baurmann discloses wherein the badge is a fresh badge (the GUI 42 revolves left or right across the display, moving a new icon (fresh badge) into the center-most focused spot and enlarging it relative to the other icons, column 3, lines 46-50). It would have been obvious to one skilled in the art at the time of the invention to modify the Yamamoto system to include the designation of fresh badge (new icon) features taught by Baurmann because doing so would make the Yamamoto system more flexible and user-friendly.

-***-Continued Within the Next Supplemental Box-***-

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/36826

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

-***-Continued from Previous Supplemental Box-***-

As to claims 13 and 18, Yamamoto discloses the tangible computer readable medium as defined in claims 12 and 17. Yamamoto fails to disclose wherein: if the designation is a favorite designation, the badge is a star or a banner; if the state is as new content, the badge is a fresh badge; and if the state is a paused playback, the badge is an in-progress badge. Baurmann discloses wherein: if the designation is a favorite designation (icons that arc associated with favorite TV channels, column 1, lines 29-34), the badge is a star or a banner (the objects or icons 46, can be invoked from the remote control 22 by pressing the favorites key 30. If there is on-screen display (OSD) text on the screen e.g., a banner when <Favorites> is pressed, the OSD can be removed and the favorites icons 46 displayed, column 4, lines 44-49); if the state is as new content (items may display when user first accesses New Favorites (new content), column 6, lines 54-56), the badge is a fresh badge (the GUI 42 revolves left or right across the display, moving a new icon (fresh badge) into the center-most focused spot and enlarging it relative to the other icons, column 3, lines 46-50); and if the state is a paused playback (The instruction determination module 94 acquires instructions such as "content playing", "pause playing" (pause playback) and "invoke on-screen menu" entered by the user manipulating the controller 42, column 4, line 66 and column 5, line 3), the badge is an in-progress badge (The instruction determination module 94 acquires instructions such as "content playing" (in progress icon), "pause playing" (pause playback) and "invoke on-screen menu" entered by the user manipulating the controller 42, column 4, line 66 and column 5, line 3). It would have been obvious to one skilled in the art at the time of the invention to modify the Yamamoto system to include favorites, a star or banner, new content, fresh badge, paused playback and in-progress features taught by Baurmann because doing so would make the Yamamoto system more flexible and user-friendly.

As to claims 14 and 19, the combination of Yamamoto and Baurmann discloses the tangible computer readable medium as defined in claims 13 and 18. Yamamoto further discloses wherein the badge is presented in one of a panel, an electronic programming guide, or a menu (A broadcast icon 58 is an icon that represents the broadcast display function and is selected to view a television program input via the antenna cable 32 and The content information 65 may include the name of a broadcasting station, the name of a broadcast channel, the title of a program or broadcast schedule acquired based on Electronic Program Guide (EPG) data, column 8 line 66 – column 9 line 7).

As to claims 15 and 20, Yamamoto discloses the tangible computer readable medium as defined in claims 12 and 19. Yamamoto fails to disclose wherein the second selection is a paused playback and the badge is an in-progress indicator presented in a panel with a paused content display. Baurmann discloses wherein the second selection is a paused playback and the badge is an in-progress indicator presented in a panel with a paused content display (The instruction determination module 94 acquires instructions such as "content playing" (in-progress indicator), "pause playing" (pause playback) and "invoke on-screen menu" (presented n a panel) entered by the user manipulating the controller 42, column 4, line 66 and column 5, line 3). It would have been obvious to one skilled in the art at the time of the invention to modify the Yamamoto system to include paused playback and in-progress features taught by Baurmann because doing so would make the Yamamoto system more flexible and user-friendly.

Claims 1-20 have industrial applicability as defined by PCT Article 33(4) because the subject matter can be made or used in industry.

From the INTERNATIONAL SEARCHING AUTHORITY

To: Tadd F. Wilson
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, Colorado 80202
United States of America

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference 6583-436-PCT	Date of mailing *(day/month/year)* 19 DEC 2013 **FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. PCT/US13/55589	International filing date *(day/month/year)* 19 August 2013 (19.08.2013)
Applicant Flextronics AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

Filing of amendments and statement under Article 19:
The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Shane Thomas PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-436-PCT	**FOR FURTHER ACTION**	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US13/55589	International filing date *(day/month/year)* 19 August 2013 (19.08.2013)	(Earliest) Priority Date *(day/month/year)* 17 August 2012 (17.08.2012)
Applicant Flextronics AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☒ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 16

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☒ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US13/55589

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

Group I: Claims 1, 2; Group II: Claims 3, 4; Group III: Claims 5, 6; Group IV: Claims 7, 8; Group V: Claims 9, 10; Group VI: Claims 11, 12; Group VII: Claims 13, 14; Group VIII: Claims 15, 16

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fee must be paid.

Group I: Claims 1 and 2 are directed toward a method for providing video-on-demand in an intelligent television including determining metadata characteristics for a content and providing a first view of the VOD content.

Group II: Claims 3 and 4 are directed toward a method for providing video-on-demand in an intelligent television including a first, second and third selections and provide different views of the VOD content.

-***-Continued Within the Extra Page-***-

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
Claims 1 and 2

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.

☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US13/55589

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - G06F 3/0 (2013.01)
USPC - 725/46
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8): G06F 3/00, 3/048; H04N 7/00 (2013.01)
USPC: 715/854; 725/46, 55, 141

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
MicroPatent (US-G, US-A, EP-A, EP-B, WO, JP-bib, DE-C,B, DE-A, DE-T, DE-U, GB-A, FR-A); Google/Google Scholar; IEEE; DialogPRO;

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2008/0141307 A1 (WHITEHEAD S) June 12, 2008, paragraphs [0012], [0016], [0022], [0023], [0026], [0029] and [0097]	1 and 2

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
26 November 2013 (26.11.2013)	19 DEC 2013
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US13/55589

-Continued from Box No. III: Observations where unity of invention is lacking-

Group III: Claims 5 and 6 are directed toward a method for providing video-on-demand in an intelligent television including determining whether a second selection is for showcase content, movie content, television content, or variety content and provide a second user interface having content associated.

Group IV: Claims 7 and 8 are directed toward a method for providing video-on-demand in an intelligent television including receiving a first selection to filter the VOD content and providing a second collection view of the filtered content.

Group V: Claims 9 and 10 are directed toward a method for providing video-on-demand in an intelligent television including receiving a selection of a television series from the catalog view and if there is only one season, providing a first digest view of the season.

Group VI: Claims 11 and 12 are directed toward a method for providing one of two types of user interfaces in an intelligent television including receiving a second selection of an episode and playing the episode in a series player.

Group VII: Claims 13 and 14 are directed toward a method for providing video-on-demand in an intelligent television including receiving a selection to sort the items of content based on a watched status.

Group VIII: Claims 15 and 16 are directed toward a method for providing video-on-demand in an intelligent television including if the user has previously watched the content, prompting the user if the user desires to resume watching the content.

The inventions listed as Groups I-VIII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The common technical feature shared by Groups I-VIII are a method for providing video-on-demand in an intelligent television including sorting the contents. However, this common feature is previously disclosed by US 2006/0031875 A1 (YU). Yu discloses a method for providing video-on-demand in an intelligent television including sorting the contents (an apparatus and method for supplying electronic programs for video on demand services including sorting the received service data according to a predetermined sorting condition and display through a predetermined graphical user interface, abstract).

Since the common technical feature is previously disclosed by the Yu reference, this common feature is not special and so Groups I-VIII lack unity.

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: Tadd F. Wilson
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, Colorado 80202
United States of America

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	19 DEC 2013
Applicant's or agent's file reference 6583-436-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US13/55589	19 August 2013 (19.08.2013)	17 August 2012 (17.08.2012)

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - G06F 3/0 (2013.01)
USPC - 725/46

Applicant Flextronics AP, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☒ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 *bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	26 November 2013 (26.11.2013)	Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55589

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

   ☐ on paper

   ☐ in electronic form

   b. (time)

   ☐ in the international application as filed

   ☐ together with the international application in electronic form

   ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55589

Box No. IV Lack of unity of invention

1. ☒ In response to the invitation (Form PCT/ISA/206) to pay additional fees the applicant has, within the appicable time limit:
   - ☐ paid additional fees
   - ☐ paid additional fees under protest and, where applicable, the protest fee
   - ☐ paid additional fees under protest but the applicable protest fee was not paid
   - ☒ not paid additional fees
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rule 13.1, 13.2 and 13.3 is
   - ☐ complied with
   - ☒ not complied with for the following reasons:

Group I: Claims 1, 2; Group II: Claims 3, 4; Group III: Claims 5, 6; Group IV: Claims 7, 8; Group V: Claims 9, 10; Group VI: Claims 11, 12; Group VII: Claims 13, 14; Group VIII: Claims 15, 16

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fee must be paid.

Group I: Claims 1 and 2 are directed toward a method for providing video-on-demand in an intelligent television including determining metadata characteristics for a content and providing a first view of the VOD content.

Group II: Claims 3 and 4 are directed toward a method for providing video-on-demand in an intelligent television including a first, second and third selections and provide different views of the VOD content.

Group III: Claims 5 and 6 are directed toward a method for providing video-on-demand in an intelligent television including determining whether a second selection is for showcase content, movie content, television content, or variety content and provide a second user interface having content associated.

Group IV: Claims 7 and 8 are directed toward a method for providing video-on-demand in an intelligent television including receiving a first selection to filter the VOD content and providing a second collection view of the filtered content.

Group V: Claims 9 and 10 are directed toward a method for providing video-on-demand in an intelligent television including receiving a selection of a television series from the catalog view and if there is only one season, providing a first digest view of the season.

Group VI: Claims 11 and 12 are directed toward a method for providing one of two types of user interfaces in an intelligent television including receiving a second selection of an episode and playing the episode in a series player.

Group VII: Claims 13 and 14 are directed toward a method for providing video-on-demand in an intelligent television including receiving a selection to sort the items of content based on a watched status.

Group VIII: Claims 15 and 16 are directed toward a method for providing video-on-demand in an intelligent television including if the user has previously watched the content, prompting the user if the user desires to resume watching the content.

The inventions listed as Groups I-VIII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The common technical feature shared by Groups I-VIII are a method for providing video-on-demand in an intelligent television including sorting the contents. However, this common feature is previously disclosed by US 2006/0031875 A1 (YU). Yu discloses a method for providing video-on-demand in an intelligent television including sorting the contents (an apparatus and method for supplying electronic programs for video on demand services including sorting the received service data according to a predetermined sorting condition and display through a predetermined graphical user interface, abstract).

Since the common technical feature is previously disclosed by the Yu reference, this common feature is not special and so Groups I-VIII lack unity.

4. Consequently, this opinion has been established in respect of the following parts of the international application:
   - ☐ all parts
   - ☒ the parts relating to claims Nos. 1 and 2

Form PCT/ISA/237 (Box No. IV) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55589

Box No. V. Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	NONE	YES
	Claims	1 and 2	NO
Inventive step (IS)	Claims	NONE	YES
	Claims	1 and 2	NO
Industrial applicability (IA)	Claims	1 and 2	YES
	Claims	NONE	NO

2. Citations and explanations:

Claims 1 and 2 lack novelty under PCT Article 33(2) as being anticipated by US 2008/0141307 A1 (Whitehead).

As per claim 1, Whitehead discloses a method for providing video-on-demand (VOD) in an intelligent television (providing VOD in a media player 115 such as a HDTV, figure 1 and paragraphs [0012], [0016], [0022] and [0023]), the method comprising: receiving, by a processor of the intelligent television, content for VOD (receiving by the HDTV processor content of the VOD, figure 1 and paragraphs [0012], [0016], [0022] and [0023]); determining metadata characteristics for the content (determining certain content characteristics/profile of metadata such as advertising content or media content, paragraphs [0025] and [0097]); storing the metadata characteristics with the content in a database for VOD content (advertising metadata 141 is stored in an advertising database 142 and media metadata 150 is stored in a media database 156, paragraphs [0027] and [0029]); and providing a first view of the VOD content based on the metadata characteristics (providing VOD content to be viewed on the HDTV based on whether the content is media or advertisements, paragraphs [0016], [0025], [0026] and [0097]).

As per claim 2, Whitehead discloses an intelligent television system (a HDTV system, figure 1 and paragraphs [0012] and [0016]) comprising: a memory operable to store video-on-demand (VOD) content (a database for storing VOD content, paragraph [0022]); a processor in communication with the memory (a processing device 110 interact with a recording memory 112, figure 1 and paragraph [0012]), the processor operable to: execute a VOD data service (the processing device 110 can execute the VOD, paragraph [0022]) operable to: receive content for VOD (receiving content for the VOD, figure 1 and paragraphs [0012], [0016], [0022] and [0023]); determine metadata characteristics for the content (determining certain content characteristics/profile of metadata such as advertising content or media content, paragraphs [0025] and [0097]); store the metadata characteristics with the content in a database for VOD content (advertising metadata 141 is stored in an advertising database 142 and media metadata 150 is stored in a media database 156, paragraphs [0027] and [0029]); and execute a user interface application in communication with the VOD data service (a user interface (TV screen) application is implemented using the VOD content, paragraph [0088]), the user interface application operable to provide a first view of the VOD content based on the metadata characteristics (providing VOD content to be viewed on the HDTV based on whether the content is media or advertisements, paragraphs [0016], [0025], [0026] and [0097]).

Claims 1 and 2 have industrial applicability as defined by PCT Article 33(4) because the subject matter can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: THAINE LENNOX-GENTLE
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Date of mailing *(day/month/year)*	02 DEC 2013
Applicant's or agent's file reference: 6583-444-PCT	**FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No.: PCT/US2013/055289	International filing date *(day/month/year)*: 16 August 2013
Applicant: FLEXTRONICS AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450	Authorized officer Blaine R. Copenheaver PCT Helpdesk: 571-272-4300
Facsimile No. 571-273-3201	Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-444-PCT	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US2013/055289	International filing date *(day/month/year)* 16 August 2013	(Earliest) Priority Date *(day/month/year)* 17 August 2012
Applicant FLEXTRONICS AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 25

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT PCT/US2013/055289 02.12.2013

International application No.
PCT/US2013/055289

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H04N 5/445 (2013.01)
USPC - 725/41
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) - H04N 5/50, 5/445 (2013.01)
USPC - 348/731, 732; 725/28, 32, 38, 39, 41

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
CPC: H04N 5/44543, 21/482 (2013.01)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Questel Orbit, Google Patent, Google

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2010/0201890 A1 (DEGONDE et al) 12 August 2010 (12.08.2010) entire document	1-20
Y	US 2008/0244637 A1 (CANDELORE) 02 October 2008 (02.10.2008) entire document	1-20
Y	US 2009/0235311 A1 (MICHEL et al) 17 September 2009 (17.09.2009) entire document	19, 20
A	US 2011/0072480 A1 (STONE) 24 March 2011 (24.03.2011)entire document	1-20
A	US 2008/0307457 A1 (YANG et al) 11 December 2008 (11.12.2008) entire document	1-20
A	US 2012/0011545 A1 (DOETS et al) 12 January 2012 (12.01.2012) entire document	1-20

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
13 November 2013	02 DEC 2013
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: THAINE LENNOX-GENTLE
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	02 DEC 2013
Applicant's or agent's file reference 6583-444-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US2013/055289	16 August 2013	17 August 2012

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H04N 5/445 (2013.01)
USPC - 725/41

Applicant FLEXTRONICS AP, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	13 November 2013	Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055289

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

      ☐ on paper

      ☐ in electronic form

   b. (time)

      ☐ in the international application as filed

      ☐ together with the international application in electronic form

      ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055289

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	1-20	YES
	Claims	None	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	None	NO

2. Citations and explanations:

Claims 1-18 lack an inventive step under PCT Article 33(3) as being obvious over DeGonde et al. (hereinafter referred to as DeGonde) in view of Candelore.

Regarding claims 1, 13, DeGonde discloses a method (abstract), comprising receiving, by a television, a request to change a television tuner from a first channel to a second channel (user changes channel on a broadcast data receiver to switch from a first channel to a newly selected channel by using a remote control, para 55-56; see para 9, abstract), the first channel providing first programming and the second
channel providing second programming, wherein the first and second programming are different (first channel and new channel broadcast data, para 13, 55; video 16 [first channel programming] and video 26 [second channel programming], fig. 3, para 64-65) and wherein changing from the first channel to the second channel causes a delay in providing, by the television tuner, the second programming (changing from a first channel to a second channel produces a delay, para 4-5, 57; delay between first video 16 and newly selected video 26, see fig. 3, para 64-65); determining, by a microprocessor executable application framework (see application processing of system, fig. 1) and based on data associated with the at least one of the second channel and second programming, a graphical image associated with the second programming (identify and decode data for new channel, which includes I-frames, para 58-59; first I-frame decoded and displayed during transfer to new channel, para 62; video frame of newly selected channel is output for display as a still image until transfer to new channel is complete, abstract, para 14); and during the delay, displaying, by the microprocessor executable application framework and on a screen of the television, the image (video frame of newly selected channel is output for display as a still image until transfer to new channel is complete, abstract, para 14; as soon as first I-frame of new channel is received it is displayed as a still image, para 65; system is a television system, para 1). DeGonde does not specifically disclose that the data is metadata, or tangible and non-transient computer readable medium, comprising microprocessor executable instructions that, when executed, are configured to perform operations.
Candelore is in the field of a television system for displaying program information during channel changes (abstract, fig. 1) and teaches tangible and non-transient computer readable medium, comprising microprocessor executable instructions that, when executed (para 26-28), are configured to perform operations of using metadata to extract program information for display during a channel change (para 8, metadata associated with user selected program is determined, para 23, 30). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the metadata features as taught in Candelore with the invention of DeGonde in order to provide the appearance of the channels being switched more quickly to the user (see DeGonde, para 1, 14).

Regarding claim 7, DeGonde discloses a television (television system, para 1, abstract), comprising: a television tuner (tuning means, para 8-9); a screen for displaying programming (display screen, para 21); at least one of an infrared and radio frequency module (broadcast data receiver receives input from remote control via infra-red signal, para 4) configured to receive a request to change the television tuner from a first channel to a second channel (user changes channel on a broadcast data receiver to switch from a first channel to a newly selected channel by using a remote control, para 55-56; see para 9, abstract), the first channel providing first programming and the second channel providing second programming, wherein the first and second programming are different (first channel and new channel broadcast data, para 13, 55; video 16 [first channel programming] and video 26 [second channel programming], fig. 3, para 64-65) and wherein changing from the first channel to the second channel causes a delay in providing, by the television tuner, the second programming (changing from a first channel to a second channel produces a delay, para 4-5, 57; delay between first video 16 and newly selected video 26, see fig. 3, para 64-65); and a microprocessor executable application framework (see application processing of system, fig. 1) configured to determine, based on data associated with the at least one of the second channel and second programming, an image associated with the second programming (identify and decode data for new channel, which includes I-frames, para 58-59; first I-frame decoded and displayed during transfer to new channel, para 62; video frame of newly selected channel is output for display as a still image until transfer to new channel is complete, abstract, para 14) and, during the delay, display, on the screen ofthe television, the image (video frame of newly selected channel is output for display as a still image until transfer to new channel is complete, abstract, para 14; as soon as first I-frame of new channel is received it is displayed as a still image, para 65; system is a television system, para 1). DeGonde does not specifically disclose that the data is metadata. Candelore is in the field of a television system for displaying program information during channel changes (abstract, fig. 1) and teaches using metadata to extract program information for display during a channel change (para 8, metadata associated with user selected program is determined, para 23, 30). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the metadata features as taught in Candelore with the invention of DeGonde in order to provide the appearance of the channels being switched more quickly to the user (see DeGonde, para 1, 14).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055289

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding claims 2, 8, 14, DeGonde discloses wherein the image is one of a captured frame of the second programming, a picture associated with the second programming, and a photograph associated with the second programming (video frame of newly selected channel is output for display as a still image until transfer to new channel is complete, abstract, para 14; as soon as first I-frame of new channel is received it is displayed as a still image, para 65; system is a television system, para 1), but does not specifically disclose wherein each ofthe first and second programming is one or more of a movie, an episode, sport event, and a television special. However, Candelore teaches wherein each ofthe first and second programming is one or more of a movie, an episode, sport event, and a television special (obtaining program information during channel changes [first channel to second channel], para 8; programming includes television programs such as movie, sporting events, news broadcasts, etc., para 29). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the programming features as taught in Candelore with the invention of DeGonde in order to allow a user of a television system to switch between desired watching experiences.

Regarding claims 3, 9, 15, DeGonde discloses wherein the image is a captured frame of the second programming and wherein the captured frame is a still image and wherein the image is displayed full screen (video frame of newly selected channel is output for display as a still image until transfer to new channel is complete, abstract, para 14; as soon as first I-frame of new channel is received it is displayed as a still image, para 65; system is a television system, para 1).

Regarding claims 4, 10, 16, DeGonde discloses wherein the image is a captured frame of the second programming and wherein the captured frame is a still and not moving image (video frame of newly selected channel is output for display as a still image until transfer to new channel is complete, abstract, para 14; as soon as first I-frame of new channel is received it is displayed as a still image, para 65; system is a television system, para 1), but fails to disclose wherein the image is displayed as part of a header bar, and wherein the header bar comprises at least one of a program name, series name, episode number, episode name, and sport event name and a plurality of a program description, a program type, a program category, a start-to-finish time, current runtime, and a remaining runtime.
However, Candelore teaches wherein the metadata is displayed as part of a header bar, and wherein the header bar comprises at least one of a program name, series name, episode number, episode name, and sport event name and a plurality of a program description, a program type, a program category, a start-to-finish time, current runtime, and a remaining runtime (during channel change event, metadata provides information about the selected program channel and displays it to the user, which includes program description and name, see Fig. 5, 7, para 73-74). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the header bar information features as taught in Candelore with the invention of DeGonde in order to provide the user with useful information related to the selected programming during a channel change (see Candelore, para 20, 73-74).

Regarding claims 5, 11, 17, DeGonde discloses wherein the image is a captured frame of the second programming and is not moving (video frame of newly selected channel is output for display as a still image until transfer to new channel is complete, abstract, para 14; as soon as first I-frame of new channel is received it is displayed as a still image, para 65; system is a television system, para 1).

Regarding claims 6, 12, 18, DeGonde discloses the invention above, including the image, but fails to disclose wherein the metadata and image are provided by an electronic program guide service. However, Candelore teaches obtaining metadata and information provided by an electronic program guide service (electronic program guide (EPG) provides metadata information, para 29-30; see para 66, 68). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the electronic program guide features as taught in Candelore with the invention of DeGonde in order to use information provided by the service provider (see Candelore, para 68).

Claims 19-20 lack an inventive step under PCT Article 33(3) as being obvious over DeGonde in view of Candelore and further in view of Michel et al. (hereinafter referred to as Michel).

Regarding claims 19-20, DeGonde as modified discloses the invention above, but fails to disclose wherein the metadata is populated into an electronic program guide using the Program and System Information Protocol or wherein the metadata is converted into a broadcast-ready format by a Programming Metadata Communication Protocol generator. However, the use of Program and System Information Protocol and Programming Metadata Communication Protocol was well known in the art at the time of the invention, as evidenced by Michel. Michel is in the field of transmitting program information over television networks (abstract) and teaches using wherein the metadata is populated into an electronic program guide using the Program and System Information Protocol (program data server configured to provide current programsystem information protocol (PSIP) data, para 6; inserted into EPG, para 19, 25) and wherein the metadata is converted into a broadcast-ready format by a Programming Metadata Communication Protocol generator (data formatter 320 then formats the PSIP data into a format referred to as Programming and Metadata Communication Protocol (PMCP), which can be interpreted by the station PSIP generator 134, para 28, fig. 3). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the metadata protocols as taught in Michel with the invention of modified DeGonde in order to abide by current mandated laws (see Michel, para 3).

Claims 1-20 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: THAINE LENNOX-GENTLE
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

	Date of mailing *(day/month/year)* 02DEC 2013
Applicant's or agent's file reference 6583-445-PCT	**FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. PCT/US2013/055288	International filing date *(day/month/year)* 16 August 2013
Applicant FLEXTRONICS AP , LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-445-PCT	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US2013/055288	International filing date *(day/month/year)* 16 August 2013	(Earliest) Priority Date *(day/month/year)* 17 August 2012
Applicant FLEXTRONICS AP , LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 26

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/055288

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H04N 7/173 (2013.01)
USPC - 725/27
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) - G06F 3/00; H04N 7/16, 173 (2013.01)
USPC - 715/ 709, 738, 760; 725/27

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
CPC - G06F 3/00; H04N 7/16, 173 (2013.01)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Google, Orbit, Google Patents

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2011/0289419 A1 (YU et al) 24 November 2011 (24.11.2011) entire document	1-20
Y	US 2012/0200574 A1 (HILL et al) 09 August 2012 (09.08.2012) entire document	1-20
A	WO 99/21308 (MUGURA et al) 29 April 1999 (29.04.1999) entire document	1-20
A	TVONICSUK. TVonics: How to use the EPG search function. 2011. [retrieved on 2013-11-11]. Retrieved from the Internet:<URL:http://www.youtube.com/watch?v=H8weuZ0lydo >. entire document.	1-20

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
11 November 2013	02DEC 2013
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: THAINE LENNOX-GENTLE
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	02DEC 2013
Applicant's or agent's file reference 6583-445-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US2013/055288	16 August 2013	17 August 2012

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H04N 7/173 (2013.01)
USPC - 725/27

Applicant FLEXTRONICS AP, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	11 November 2013	Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055288

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

      ☐ on paper

      ☐ in electronic form

   b. (time)

      ☐ in the international application as filed

      ☐ together with the international application in electronic form

      ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055288

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	1-20	YES
	Claims	None	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	None	NO

2. Citations and explanations:

Claims 1-20 lack an inventive step under PCT Article 33(3) as being obvious over Yu et al., hereinafter referred to as Yu in view of Hill et al., hereinafter referred to as Hill.

Regarding claims 1, 7, 13, Yu discloses a method [claim 1] (a method for providing content, abstract), a television, comprising: a television screen [claim 7] (a user platform 140 comprises a television 142 [includes television screen], figs.2 & 7 para 0071): a tangible and non-transient computer readable medium, comprising microprocessor executable instructions that, when executed, are configured to perform operations comprising [claim 13] (a non-transitory machine readable medium 5622 which stores instructions, further a memory 5606 and processor 5602 executes the instructions and transmitted over the network, para 0229): comprising: receiving, wirelessly by at least one of an infrared and radio frequency module of a television and from a remote control, a request to change a programming channel (a user platform 140 comprises a television 142, para 0071; figs 17, 18 & 20 shows the user access television content items via a TV portal, the television content is provided as a listing which can be accessed by the user by manipulating a conventional television remote control device by position the selection box 2022 around a desired TV content item [it is inherent for a conventional television remote control device to include an infrared module and as the TV receives the selection via the infrared the television also includes an infrared module], para 0115, 0122);
displaying, by a microprocessor executable application framework and on a television screen, an on screen channel changer, the on screen channel changer comprising electronic program guide ("EPG") information (fig. 18 displays a content listing area 1820 [screen channel changer/ electronic program guide] which lists the available contents with the time slots which includes the programming channels, which the users can highlights/select a particular content using an input device which upon selection delivers the content, para 0119, 0123; further fig. 20 displays a TV portal 2012 which displays a listing of television content which can be accessed by the user, and displays an electronic/interactive programing guide (EPG) on a user selection platform 140, and further the user selects the listed TV content by position the selection box 2022 using the remote control device, para 0086, 0122; fig.56 shows a processor 5602 that is a central processing unit which executes instructions to provide display at the display unit 5610, para 0228),
receiving, by the application framework and from the remote control, a channel selection using the on screen channel changer (fig. 18 displays a content listing area 1820 [screen channel changer/ application framework] which lists the available contents with the time slots which includes the programming channels, which the users can highlights/select a particular content using an input device which upon selection [receiving a channel selection] delivers the content, para 0119, 0123; further fig. 20 displays a TV portal 2012 which displays a listing of television content which can be accessed by the user, and displays an electronic/interactive programing guide (EPG) on a user selection platform 140, and further the user selects the particular listed TV content by position the selection box 2022 [receiving a channel selection using the remote control] using the remote control device, para 0086, 0122);
and changing, by the application framework, to the selected channel (further fig. 20 displays a TV portal 2012 wherein the user selects the particular listed TV content by position the selection box 2022 using the remote control device and upon the selection of 2022 the user is presented with fig.21 wherein the display 2100 provides the user with an option to select 2122 upon the selection of that button the user is enable to watch the content [interpreted as changing to the selected channel], para 0086, 0122), but lacks the teaching of the on screen channel changer comprising a number input bar comprising digits; receiving a channel selection based on digits using the on screen channel changer.
Hill is in the field of a TV display 28 which displays a soft number pad used to receive inputs for channel selection (see para 0119) and teaches displaying the on screen channel changer comprising electronic program guide ("EPG") information and a number input bar comprising digits (fig.1 shows a TV display 28 and a broadcast EPG is displayed on the display 28, para 0014; figs. 2 & 7 shows an image button 62 which can be selected by the user to display an electronic programing guide to be presented on the display 28, further the display 28 displays a soft number pad 310 which allows the viewer to select any number from zero to nine to input to select/tune to a specific channel number, para 0019) receiving a channel selection based on digits using the on screen channel changer (fig.1 shows a TV display 28 and a broadcast EPG is displayed on the display 28, para 0014; figs. 2 & 7 shows an image button 62 which can be selected by the user to display an electronic programing guide to be presented on the display 28, further the display 28 displays a soft number pad 310 which allows the viewer to select any number from zero to nine to input [receiving a channel selection] to select/tune to a specific channel number, para 0019). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Hill to incorporate the on screen channel changer comprising a number input bar comprising digits; receiving a channel selection based on digits using the on screen channel changer into the invention of Yu. The motivation would have been to provide a touch interface for an optimized user experience (see para 0004).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055288

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Claims 7-19 is objected to under PCT Rule 66.2(a)(v) as lacking clarity under PCT Article 6 because Claim 1 is indefinite for the following reasons:

Claim 7 seems to incorrectly combine two separate claims, and recites "A television, comprising: a television screen..... and change to the selected channel. The television of claim 7, wherein the digits range from 0 to 9." Further, claims 8-9 depend from themselves. For the purpose of the written opinion, claims 7-19 are interpreted as including an extra claim, to provide a total of 20 claims, and to recite the following:

7. A television, comprising: a television screen; at least one of an infrared and radio frequency module configured to receive wirelessly requests from a remote control of a user, the requests comprising a selected channel or program from a displayed listing; and microprocessor executable application framework configured to receive a request to change a programming channel, display, on the television screen, an on screen channel changer, the on screen channel changer comprising electronic program guide ("EPG") information and a number input bar comprising digits, receive, from the remote control, a channel selection based on digits using the on screen channel changer, and change to the selected channel.

8. The television of claim 7, wherein the digits range from 0 to 9, wherein the remote control selects the digits using non-numeric keys, and wherein the EPG information corresponds to multiple programs and/or channels, and wherein the EPG information comprises, for each program, airtime, program name, program channel, and program description.

9. The television of claim 8, wherein each of the digits are selected using one or more arrow keys and a select button.

10. The television of claim 9, wherein the remote control does not have a key corresponding to each of the digits.

11. The television of claim 7, wherein the on screen channel changer comprises a thumbnail preview containing EPG information corresponding to an in focus channel and/or program and a graphical image, wherein the EPG information in the thumbnail preview comprises, for the in focus channel and/or program, airtime, program name, program channel, and program description, and wherein the graphical image in the thumbnail preview is one of a captured frame of a program associated with the in focus program, a picture associated with the in focus program, and a photograph associated with the in focus program.

12. The television of claim 7, wherein, as the user selects each digit, the application framework updates the EPG information to include only those programs and/or channels selectable from the selected digits.

13. A tangible and non-transient computer readable medium, comprising microprocessor executable instructions that, when executed, are configured to perform operations comprising: receive, from a remote control of a user, a request to change a programming channel; display, on a television screen, an on screen channel changer, the on screen channel changer comprising electronic program guide ("EPG") information and a number input bar comprising digits; receive, from the remote control, a channel selection based on digits using the on screen channel changer; and change to the selected channel.

14. The computer readable medium of claim 13, wherein the digits range from 0 to 9, wherein the remote control selects the digits using non-numeric keys, and wherein the EPG information corresponds to multiple programs and/or channels, and wherein the EPG information comprises, for each program, airtime, program name, program channel, and program description.

15. The computer readable medium of claim 14, wherein each of the digits are selected using one or more arrow keys and a select button.

16. The computer readable medium of claim 15, wherein the remote control does not have a key corresponding to each of the digits.

17. The computer readable medium of claim 13, wherein the on screen channel changer comprises a thumbnail preview containing EPG information corresponding to an in focus channel and/or program and a graphical image, wherein the EPG information in the thumbnail preview comprises, for the in focus channel and/or program, airtime, program name, program channel, and program description, and wherein the graphical image in the thumbnail preview is one of a captured frame of a program associated with the in focus program, a picture associated with the in focus program, and a photograph associated with the in focus program.

18. The computer readable medium of claim 13, wherein, as the user selects each digit, the application framework updates the EPG information to include only those programs and/or channels selectable from the selected digits.

19. The method of claim 5, wherein the EPG information and graphical image in the thumbnail preview changes as the in focus EPG information changes.

20. The television of claim 11, wherein the EPG information and graphical image in the thumbnail preview changes as the in focus EPG information changes.

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055288

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding claims 2, 8, 14, Yu further teaches wherein the remote control selects keys (the user selects any of the listed TV content by activating a selection button on the remote control device, para 0122) and wherein the EPG information corresponds to multiple programs and/or channels (fig. 18 displays a content listing area 1820 [electronic program guide includes multiple programs and/or channels] which lists the available contents with the time slots which includes the programming channels, which the users can highlights/select a particular content using an input device which upon selection delivers the content, para 0119, 0123), and wherein the EPG information comprises, for each program, airtime, program name, program channel, and program description (fig. 18 displays a content listing area 1820 [electronic program guide includes multiple programs and/or channels] which lists the available contents with the time slots [airtime] which includes the programming channels, which the users can highlights/select a particular content 1822 "Lost" [includes the program name] 1812 displays the program channel "abc" and further 1824 [program description] provides detailed information of the selected content listing, para 0119, 0123), but lacks the teaching of wherein the digits range from 0 to 9, wherein the remote control selects the digits using non-numeric keys. Furthermore, to establish the selected key on the remote control to be a non-numeric key would have been a matter of design choice and would have been a known practice in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine wherein the remote control selects using non-numeric keys as taught by Yu. The motivation would have been to provide users with an optimized experience for accessing the program contents.
Hill is in the field of a TV display 28 which displays a soft number pad used to receive inputs for channel selection (see para 0119) and teaches selects the digits on a display and wherein the digits range from 0 to 9 (fig.1 shows a TV display 28 and a broadcast EPG is displayed on the display 28, para 0014; figs. 2 & 7 shows an image button 62 which can be selected by the user to display an electronic programing guide to be presented on the display 28, further the display 28 displays a soft number pad 310 which allows the viewer to select any number from zero to nine to input to select/tune to a specific channel number, para 0019). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Hill to incorporate wherein the digits range from 0 to 9, wherein the remote control selects the digits using non-numeric keys into the invention of Yu. The motivation would have been to provide a touch interface for an optimized user experience (see para 0004).

Regarding claims 3, 9, 15, Yu further teaches wherein each of the digits are selected using one or more arrow keys and a select button (figs.34 & 35 shows a user is presented with an alphanumeric tool 3410, 3510 which the user uses to type in a search query "12 Monkeys" 3422 [each of the digits are selected] using the remote control device, para 0140; a user using the conventional television remote control device using a keyboard arrow buttons to select the options on the display, para 0115; the user selects any of the listed TV content by activating a selection button on the remote control device, para 0122).

Regarding claims 4, 10, 16, Yu further teaches wherein the remote control does not have a key corresponding to each of the digits (figs.34 & 35 shows a user is presented with an alphanumeric tool 3410, 3510 which the user uses to type in a search query "12 Monkeys" 3422 [each of the digits are selected] using the remote control device, para 0140; a user using the conventional television remote control device using a keyboard arrow buttons to select the options on the display [as arrow keys are used on the remote control device it is interpreted as remote control does not have a key corresponding to each of the digits], para 0115).

Regarding claims 5, 11, 17, Yu further teaches wherein the on screen channel changer comprises
a thumbnail preview containing EPG information corresponding to an in focus channel and/or program and a graphical image, wherein the EPG information in the thumbnail preview comprises, for the in focus channel and/or program, airtime, program name, program channel, and program description (fig. 18 displays a content listing area 1820 [electronic program guide includes multiple programs and/or channels] which lists the available contents with the time slots [airtime] which includes the programming channels, which the users can highlights/select a particular content 1822 "Lost" [includes the program name] 1812 displays the program channel "abc" and further 1824 [program description] provides a thumbnail preview [graphical image] and 1826 provides detailed information of the selected content listing, para 0119, 0123), and wherein the graphical image in the thumbnail preview is one of a captured frame of a program associated with the in focus program, a picture associated with the in focus program, and a photograph associated with the in focus program (1824 shows a graphical image is a photograph related to the programming channel selected by the user, para 0123).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055288

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding claims 6, 12, 18, Yu further teaches wherein, the application framework updates the EPG information to include only those programs and/or channels selectable (fig. 20 displays a TV portal 2012 which displays a listing of television content which can be accessed by the user, and displays an electronic/interactive programing guide (EPG) on a user selection platform 140, and further the user selects the listed TV content by position the selection box 2022 using the remote control device and upon the selection of 2022 the user is presented with fig.21 wherein the display 2100 provides the user with an option to select 2122 upon the selection of that button the user is enable to watch the content [upon the selection of 2022 to provide the display screen 2100 is interpreted as updates the EPG information], para 0086, 0122), but lacks the teaching of wherein, as the user selects each digit, the application framework updates the EPG information to include only those programs and/or channels selectable from the selected digits
Hill is in the field of a TV display 28 which displays a soft number pad used to receive inputs for channel selection (see para 0119) and teaches as the user selects each digit and the programs and/or channels selectable from the selected digits (fig.1 shows a TV display 28 and a broadcast EPG is displayed on the display 28, para 0014; figs. 2 & 7 shows an image button 62 which can be selected by the user to display an electronic programing guide to be presented on the display 28, further the display 28 displays a soft number pad 310 which allows the viewer to select any number from zero to nine to input to select/tune to a specific channel number, para 0019). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Hill to incorporate wherein, as the user selects each digit, the application framework updates the EPG information to include only those programs and/or channels selectable from the selected digits into the invention of Yu. The motivation would have been to provide a touch interface for an optimized user experience (see para 0004).

Regarding claim 19, Yu further teaches wherein the EPG information and graphical image in the thumbnail preview changes as the in focus EPG information changes (fig.18 shows an EPG with 1824 [graphical image] and further when the pointing device is moved in proximity to a particular content item listing in content listing area 1820, the particular content item listing is highlighted and the content information associated with the highlighted content item listing is displayed in an expanded form [as the user selects different contents each contents image is displayed interpreted as thumbnail preview changes as the in focus] of the highlighted content item listing as shown in FIG. 18, para 0119).

Regarding claim 20, Yu further teaches, wherein the EPG information and graphical image in the thumbnail preview changes as the in focus EPG information changes (fig.18 shows an EPG with 1824 [graphical image] and further when the pointing device is moved in proximity to a particular content item listing in content listing area 1820, the particular content item listing is highlighted and the content information associated with the highlighted content item listing is displayed in an expanded form [as the user selects different contents each contents image is displayed interpreted as thumbnail preview changes as the in focus] of the highlighted content item listing as shown in FIG. 18, para 0119).

Claims 1-20 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: THAINE LENNOX-GENTLE
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference 6583-446-PCT	Date of mailing *(day/month/year)* 02DEC 2013 **FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. PCT/US2013/055286	International filing date *(day/month/year)* 16 August 2013
Applicant FLEXTRONICS AP, LLC.	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-446-PCT	**FOR FURTHER ACTION**	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US2013/055286	International filing date *(day/month/year)* 16 August 2013	(Earliest) Priority Date *(day/month/year)* 17 August 2012
Applicant FLEXTRONICS AP, LLC.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

   a. With regard to the **language**, the international search was carried out on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

   b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

   c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

   ☒ the text is approved as submitted by the applicant.

   ☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

   ☒ the text is approved as submitted by the applicant.

   ☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

   a. the figure of the **drawings** to be published with the abstract is Figure No. 19

   ☒ as suggested by the applicant.

   ☐ as selected by this Authority, because the applicant failed to suggest a figure.

   ☐ as selected by this Authority, because this figure better characterizes the invention.

   b. ☐ none of the figures is to be published with the abstract.

Form PCT/ISA/210 (first sheet) (July 2009)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/055286

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H04N 5/445 (2013.01)
USPC - 725/41
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) - H04N 5/50, 5/445 (2013.01)
USPC - 348/731, 732; 725/28, 32, 38, 39, 41

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
CPC: H 04N 5/44543; H 04N 21/482 (2013.01)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
PatBase, Orbit, Google Patents, Google Scholar,

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2012/0206652 A1 (YI) 16 August 2012 (16.08.2012) entire document	1-21
Y	EP 2 348 724 A2 (CONSTANT et al) 27 July 2011 (27.07.2011) entire document	1-21
A	US 2010/0201890 A1 (DEGONDE et al) 12 August 2010 (12.08.2010) entire document	1-21
A	US 2008/0244637 A1 (CANDELORE) 02 October 2008 (02.10.2008) entire document	1-21
A	US 2011/0289419 A1 (YU et al) 24 November 2011 (24.11.2011) entire document	1-21

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
15 November 2013	02DEC 2013
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: THAINE LENNOX-GENTLE
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	02 DEC 2013
Applicant's or agent's file reference 6583-446-PCT	FOR FURTHER ACTION See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US2013/055286	16 August 2013	17 August 2012

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H04N 5/445 (2013.01)
USPC - 725/41

Applicant FLEXTRONICS AP, LLC.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	15 November 2013	Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055286

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

a. (means)

☐ on paper

☐ in electronic form

b. (time)

☐ in the international application as filed

☐ together with the international application in electronic form

☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055286

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	1-21	YES
	Claims	None	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-21	NO
Industrial applicability (IA)	Claims	1-21	YES
	Claims	None	NO

2. Citations and explanations:

Claims 1-21 lack an inventive step under PCT Article 33(3) as being obvious over Yi in view of Constant et al. (hereinafter referred to as Constant).

Regarding claims 1, 15, Yi discloses a method (para 6), and a tangible and non-transient computer readable medium, comprising microprocessor executable instructions that, when executed, are configured to perform operations (para 7, 14) comprising: receiving, by a television (television 12, Fig. 1), electronic program guide ("EPG") information associated with a channel and/or program (EPG, Fig. 2, is displayed on TV Display, para 5, 17); determining, by a microprocessor executable application framework (processor 14 of TV, para 14) and based on metadata associated with a selected program (metadata associated with selected channel is accessed, para 23, 6), a graphical image associated with the selected program (second metadata may also include information pertaining to a program different than a current program on the TV channel as well as a video preview of the TV channel, para 5; metadata information can include thumbnail image of channel, para 23); and in a first mode, displaying, by the application framework and on a screen of the television, a thumbnail preview comprising EPG information associated with the selected program and the graphical image, wherein the selected program corresponds to an in focus program in a listing of EPG information for multiple channels and/or programs and wherein the graphical image is not related with a currently viewed program (when browsing the channels a desired [i.e. not currently viewed] channel icon can be selected so that enhanced metadata is accessed from EPG data structure and presented to the user, which includes a still image miniature of the program, para 23-25, Fig. 4); and in a second mode, displaying, by the application framework and on the television screen, a header bar (cross media bar XMB, para 6), the header bar comprising EPG information associated with the selected program and the graphical image (XMB bar displays EPG metadata associated with the desired [selected] program, para 23-25, fig.3-4), but does not specifically disclose wherein the selected program corresponds to a currently viewed program and is not related to an in focus program in a listing of EPG information for multiple channels and/or programs.
However, in the field of displaying EPG information on a television display (abstract, Fig. 1a), Constant teaches receiving, by a television (television, para 12), electronic program guide ("EPG") information associated with a channel and/or program (providing an electronic program guide to a television, abstract, para 12); in a first mode, displaying a thumbnail preview comprising EPG information associated with the selected program and the graphical image (see Fig. 1a-b; image preview of a show is shown in top banner 110, para 20-21); and in a second mode, displaying, by the application framework and on the television screen, a header bar (fig. 2a-b [showing second mode], window displays a TV Viewing Now & Next banner 230, para 32-34), the header bar comprising EPG information associated with the selected program and the graphical image (image shown in 210 may depend on selected channel, para 34-35), wherein the selected program corresponds to a currently viewed program and is not related to an in focus program in a listing of EPG information for multiple channels and/or programs (banner 230 provides information on the current TV channel, para 34). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the header bar showing the currently viewed program information as taught in Constant with the invention of Yi in order to provide the viewer with information that corresponds to the current time and channel viewed (see Constant, para 34).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055286

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding claim 8, Yi discloses a television (television 10, para 14, fig. 1), comprising: a screen for displaying programming (TV display 40, para 5, 17, Fig. 1); at least one of an infrared and radio frequency module configured to receive wireless signals from a remote control of a user (TV system 10 also includes a portable hand-holdable TV remote control (RC) 22. The RC 22, among other things, can have cursor control keys 24 for sending wireless signals to a receiver 26 on the chassis 12, para 15, fig. 1); and a microprocessor executable application framework (processor 14 of TV, para 14) configured to receive electronic program guide ("EPG") information associated with a channel and/or program (EPG, Fig. 2, is displayed on TV Display, para 5, 17), determine, based on metadata associated with a selected program(metadata associated with selected channel is accessed, para 23, 6), a graphical image associated with the selected program (second metadata may also include information pertaining to a program different than a current program on the TV channel as well as a video preview of the TV channel, para 5; metadata information can include thumbnail image of channel, para 23); and operate in the following modes: in a first mode, displaying, on the television screen, a thumbnail preview comprising EPG information associated with the selected program and the graphical image, wherein the selected program corresponds to an in focus program in a listing of EPG information for multiple channels and/or programs and wherein the graphical image is not related with a currently viewed program (when browsing the channels a desired [i.e. not currently viewed] channel icon can be selected so that enhanced metadata is accessed from EPG data structure and presented to the user, which includes a still image miniature of the program, para 23-25, Fig. 4); and in a second mode, displaying, on the television screen, a header bar (cross media bar XMB, para 6), the header bar comprising EPG information associated with the selected program and the graphical image (XMB bar displays EPG metadata associated with the desired [selected] program, para 23-25, fig.3-4), but does not specifically disclose wherein the selected program corresponds to a currently viewed program and is not related to an in focus program in a listing of EPG information for multiple channels and/or programs. However, in the field of displaying EPG information on a television display (abstract, Fig. 1a), Constant teaches receiving, by a television (television, para 12), electronic program guide ("EPG") information associated with a channel and/or program (providing an electronic program guide to a television, abstract, para 12); in a first mode, displaying a thumbnail preview comprising EPG information associated with the selected program and the graphical image (see Fig. 1a-b; image preview of a show is shown in top banner 110, para 20-21); and in a second mode, displaying, by the application framework and on the television screen, a header bar (fig. 2a-b [showing second mode], window displays a TV Viewing Now & Next banner 230, para 32-34), the header bar comprising EPG information associated with the selected program and the graphical image (image shown in 210 may depend on selected channel, para 34-35), wherein the selected program corresponds to a currently viewed program and is not related to an in focus program in a listing of EPG information for multiple channels and/or programs (banner 230 provides information on the current TV channel, para 34). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the header bar showing the currently viewed program information as taught in Constant with the invention of Yi in order to provide the viewer with information that corresponds to the current time and channel viewed (see Constant, para 34).

Regarding claims 2, 9, 16, Yi discloses wherein the first mode is performed when the user changes a channel to the selected program (when browsing the channels a desired channel icon can be selected [i.e. user changed channel] so that enhanced metadata is accessed from EPG data structure and presented to the user, which includes a still image miniature of the program, para 23-25, Fig. 4) and/or when the user moves a remote control (enhanced metadata is displayed when the desired channel icon is activated by user for more than a first period, para 4-5, wherein the user uses a remote control to select desired channels, para 17).

Regarding claims 3, 10, 17, Yi as modified discloses the invention above, and Yi further discloses wherein the second mode is performed when the listing EPG information is displayed on the television screen (EPG, Fig. 2, is displayed on TV Display, para 5, 17) and wherein the EPG information comprises, for each program, program name, program channel, and program description (program name 70 and other enhanced metadata information, including program description and channel, para 21, 23, fig. 3-4), but does not specifically disclose the EPG information includes, for each program, airtime. However, Constant teaches wherein the second mode is performed when the listing EPG information is displayed on the television screen (see fig. 2a; EPG shown on TV display, para 11-12) and wherein the EPG information comprises, for each program, airtime, program name, program channel (Fig. 1a-b shows the EPG information includes the time 122, name and channel 121, para 21). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the second mode features as taught in Constant with the invention of Yi in order to provide the viewer with information that corresponds to the current time and channel viewed (see Constant, para 34).

Regarding claims 4, 11, 18, Yi discloses wherein the selected program is one or more of a movie, an episode, sport event, and a television special (selected program may be an episode, para 23, fig. 4) and wherein the image is one of a captured frame of the selected program, a picture associated with the selected program, and a photograph associated with the selected program (desired channel icon can be selected so that enhanced metadata is accessed from EPG data structure and presented to the user, which includes a still image miniature of the program, para 23-25, Fig. 4).

Regarding claims 5, 12, 19, Yi discloses wherein the image is a captured frame, wherein the captured frame is a still image and wherein the image is displayed only on part of the screen (desired channel icon can be selected so that enhanced metadata is accessed from EPG data structure and presented to the user, which includes a still image miniature of the program, para 23-25, see Fig. 4 [showing enhanced metadata shown on part of display 50]).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055286

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding claims 6, 13, 20, Yi discloses wherein the image is a captured frame, wherein the captured frame is a still and not moving image (desired channel icon can be selected so that enhanced metadata is accessed from EPG data structure and presented to the user, which includes a still image miniature of the program, para 23-25, see Fig. 4), and wherein the header bar comprises at least one of a program name, series name, episode number, episode name, and sport event name and a plurality of a program description, a program type, a program category, a start to-finish time, current runtime, and a remaining runtime (XMB header bar displays program name 70 and other enhanced metadata information, including program description, para 21, 23, fig. 3-4).

Regarding claims 7, 14, 21, Yi discloses wherein the metadata and image are provided by an electronic program guide service (desired channel icon can be selected so that enhanced metadata is accessed from EPG data structure and presented to the user, which includes a still image miniature of the program, para 23-25, see Fig. 4).

Claims 1-21 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: Thaine Lennox-Gentle
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, Colorado 80202
United States of America

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference 6583-447-PCT	**FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. PCT/US13/55285	International filing date *(day/month/year)* 16 August 2013 (16.08.2013)
Applicant Flextronics AP, LLC	

Date of mailing *(day/month/year)* 11DEC 2013

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Shane Thomas PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-447-PCT	**FOR FURTHER ACTION**	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US13/55285	International filing date *(day/month/year)* 16 August 2013 (16.08.2013)	(Earliest) Priority Date *(day/month/year)* 17 August 2012 (17.08.2012)
Applicant Flextronics AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 23

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US13/55285

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - G06F 13/00 (2013.01)
USPC - 725/53
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8): G06F 13/00; H04N 5/445 (2013.01)
USPC: 348/563; 725/40, 46, 53

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
MicroPatent (US-G, US-A, EP-A, EP-B, WO, JP-bib, DE-C,B, DE-A, DE-T, DE-U, GB-A, FR-A); Google/Google scholar; IEEE; DialogPRO; application, framework, panel, manager, controller, electronic, program, guide, EPG, television, TV, search, term, phrase, characters, query, display, screen, channel, favorite, reminder

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 2010/0031193 A1 (STARK K et al.) February 4, 2010, paragraphs [0012], [0023], [0025], [0029], [0031]-[0034], [0167]	1-6, 9-14 and 17-22 --- 7, 8, 15, 16, 23 and 24
Y	US 2009/0019485 A1 (ELLIS M et al.) January 15, 2009, paragraphs [0103], [0113], [0129], [0133], [0152], [0156], [0157], [0162]	7, 8, 15, 16, 23 and 24

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
29 November 2013 (29.11.2013)	11 DEC 2013
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: Thaine Lennox-Gentle
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, Colorado 80202
United States of America

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	11 DEC 2013
Applicant's or agent's file reference 6583-447-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US13/55285	16 August 2013 (16.08.2013)	17 August 2012 (17.08.2012)

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - G06F 13/00 (2013.01)
USPC - 725/53

Applicant Flextronics AP, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 *bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	29 November 2013 (29.11.2013)	Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55285

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

      ☐ on paper

      ☐ in electronic form

   b. (time)

      ☐ in the international application as filed

      ☐ together with the international application in electronic form

      ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55285

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	7, 8, 15, 16, 23 and 24	YES
	Claims	1-6, 9-14 and 17-22	NO
Inventive step (IS)	Claims	NONE	YES
	Claims	1-24	NO
Industrial applicability (IA)	Claims	1-24	YES
	Claims	NONE	NO

2. Citations and explanations:

Claims 1-6, 9-14 and 17-22 lack novelty under PCT Article 33(2) as being anticipated by US 2010/0031193 A1 to Stark et al. (hereinafter 'Stark').

As per claim 1, Stark discloses a method, comprising: accessing, from a network accessible content provider, electronic program guide ("EPG") information (a user can access an EPG with a help of a content provider, paragraphs [0011], [0016] and [0080]), the EPG information comprising, for each program, airtime, program name, program channel, and program description (the EPG has a program, an airtime, a program name, a channel name and program description, figure 2, TV view area 140 and paragraphs [0023] and [0188]); displaying, by a microprocessor executable application framework and on a screen of a television, a search panel (using a computer with a CPU to display a search window on a screen of a TV, figure 1 and figure 11 and paragraphs [0015], [0018] and [0279]), the search panel comprising a search term field to receive a search term and at least one previous set of search terms used by the user in a prior search (a TV screen with search section receives from a user a search term which is associated with previous term searches, figure 11 and paragraphs [0038]-[0040], [0127] and [0151]), wherein selection of the at least one previous set of search terms initiates a search of the EPG information using the at least one previous set of search terms as a selected set of search terms (selecting a previous search using a term such as "Stargate" in the EPG of a TV, paragraphs [0011], [0016] and [0038]-[0040]); performing, by a microprocessor executable data service of a television, the search using a selected set of search terms (using a CPU to execute data in order to display on a TV screen search terms to be selected by a user, figure 11 and paragraphs [0011], [0015], [0016] and [0038]-[0040]), the selected set of search terms being received in the search term field or a selected previous set of search terms (search terms to be selected are shown on a screen, figure 11 and paragraphs [0038]-[0040]); obtaining, by the data service, a set of search results (obtaining search results, figure 11 and paragraphs [0038]-[0040] and [0167]), the set of search results comprising EPG information corresponding to multiple channels and/or programs (displayed search results are associated with shown EPG channels and programs, figures 2 and 11 and paragraphs [0011], [0016] and [0038]-[0040]); displaying, by the application framework, the set of search results on the television screen (displaying a result of searching for a "Stargate" on a TV screen a program and the channel that displays the program, paragraphs [0014], [0018] and [0038]-[0040]); receiving, by the application framework and from a remote control of the user, a program selection from the displayed set of search results (receiving by a cell phone acting as a remote control, remote control functionality to apply a program selection of the search results, paragraphs [0020], [0023], [0038]-[0040] and [0167]); and changing, by the application framework, a current channel to a channel broadcasting the program selection (changing a current channel to a selected channel airing desired programs, paragraphs [0012], [0023], [0025], [0029] and [0031]-[0034]).

As per claim 9, Stark discloses a television (a TV, figure 1, device 370 and paragraphs [0014] and [0018]), comprising: a television screen (programs are presented on a TV screen, paragraphs [0014], [0017] and [0018]); a local computer readable medium (a computer readable medium, paragraph [0021]); at least one of an infrared and radio frequency module configured to receive wirelessly input signals from a remote control of a user (a wireless cellphone acts as a remote control using RF signals to control what is displayed on a TV screen, paragraphs [0014], [0018], [0020] and [0023]); a microprocessor executable application platform configured to display, on the television screen, a search panel (using a computer with a CPU to display a search window on a screen of a TV, figures 1 and 11 and paragraphs [0015], [0018] and [0279], the search panel comprising a search term field to receive a search term and at least one previous set of search terms used by the user in a prior search (a TV screen with search section receives from a user a search term which is associated with previous term searches, figure 11 and paragraphs [0038]-[0040], [0127] and [0151]), wherein selection of the at least one previous set of search terms initiates a search of the EPG information using the at least one previous set of search terms as a selected set of search terms (selecting a previous search using a term such as "Stargate" in the EPG of a TV, paragraphs [0011], [0016] and [0038]-[0040]), to display a set of search results on the television screen (displaying a result of searching for a "Stargate" on a TV screen a program and the channel that displays the program, paragraphs [0014], [0018] and [0038]-[0040]), to receive a program selection from the displayed set of search results, and to change a current channel to a channel airing the program selection (changing a current channel to a selected channel airing desired programs, paragraphs [0012], [0023], [0025], [0029] and [0031]-[0034]); and a microprocessor executable data service configured to receive, from a network accessible content provider, electronic program guide ("EPG") information (a user can access an EPG with a help of a content provider, paragraphs [0011], [0016] and [0080]), the EPG information comprising, for each program, airtime, program name, program channel, and program description (the EPG has a program, an airtime, a program name, a channel name and a program description, figure 2, TV view area 140 and paragraphs [0023] and [0188]), to perform the search using a selected set of search terms (using a CPU to execute data in order to display on a TV screen search terms to be selected by a user, figure 11 and paragraphs [0011], [0015], [0016] and [0038]-[0040]), the selected set of search terms being received in the search term field or a selected previous set of search terms (search terms to be selected are shown on a screen, figure 11 and paragraphs [0038]-[0040]), and obtain the set of search results (obtaining search results, figure 11 and paragraphs [0038]-[0040] and [0167]), comprising EPG information corresponding to multiple channels and/or programs (displayed search results are associated with shown EPG channels and programs, figures 2 and 11 and paragraphs [0011], [0016] and [0038]-[0040]).

-***-Continued Within the Next Supplemental Box-***-

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55285

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:
-***-Continued from Box V: Citations and Explanations-***-

As per claim 17, Stark discloses a tangible and non-transient computer readable medium, comprising microprocessor executable instructions that, when executed, are configured to perform operations (a computer readable medium and a CPU for executing instructions, paragraphs [0015] and [0021]) comprising: obtaining, from a network accessible content provider, electronic program guide ("EPG") information (a user can access an EPG with a help of a content provider, paragraphs [0011], [0016] and [0080]), the EPG information comprising, for each program, airtime, program name, program channel, and program description (the EPG has a program, an airtime, a program name, a channel name and a program description, figure 2, TV view area 140 and paragraphs [0023] and [0188]); displaying, on a screen of a television, a search panel (using a computer with a CPU to display a search window on a screen of a TV, figures 1 and 11 and paragraphs [0015], [0018] and [0279]), the search panel comprising a search term field to receive a search term and at least one previous set of search terms used by the user in a prior search (a TV screen with search section receives from a user a search term which is associated with previous term searches, figure 11 and paragraphs [0038]-[0040], [0127] and [0151]), wherein selection of the at least one previous set of search terms initiates a search of the EPG information using the at least one previous set of search terms as a selected set of search terms (selecting a previous search using a term such as "Stargate" in the EPG of a TV, paragraphs [0011], [0016] and [0038]-[0040]); performing the search using a selected set of search terms (using a CPU to execute data in order to display on a TV screen search terms to be selected by a user, figure 11 and paragraphs [0011], [0015], [0016] and [0038]-[0040]), the selected set of search terms being received in the search term field or a selected previous set of search terms (search terms to be selected are shown on a screen, figure 11 and paragraphs [0038]-[0040]); obtaining a set of search results (obtaining search results, figure 11 and paragraphs [0038]-[0040] and [0167]), the set of search results comprising EPG information corresponding to multiple channels and/or programs (displayed search results are associated with shown EPG channels and programs, figures 2 and 11 and paragraphs [0011], [0016] and [0038]-[0040]); displaying the set of search results on the television screen (displaying a result of searching for a "Stargate" on a TV screen a program and the channel that displays the program, paragraphs [0014], [0018] and [0038]-[0040]); receiving, from a remote control of the user, a program selection from the displayed set of search results (receiving by a cell phone acting as a remote control, remote control functionality to apply a program selection of the search results, paragraphs [0020], [0023], [0038]-[0040] and [0167]); and changing a current channel to a channel broadcasting the program selection (changing a current channel to a selected channel airing desired programs, paragraphs [0012], [0023], [0025], [0029] and [0031]-[0034]).

As per claims 2, 10 and 18, Stark further discloses wherein, when a search term is entered into the search term field (doing (entering) a quick term search, paragraphs [0038]-[0040]), an existing set of search results is cleared automatically and replaced by the obtained set of search results (a search is cleared and replaced by a selected search, paragraphs [0039] and [0040]).

As per claims 3, 11 and 19, Stark further discloses wherein the displayed search results lists multiple programs (as a result of search new programs are displayed, paragraphs [0040] and [0041]) and wherein each search result comprises an air time of the corresponding program, a name of the corresponding program, and a channel broadcasting the corresponding program (a TV program has an airtime, a program name, a channel name and a program description, figure 2, TV view area 140 and paragraphs [0023], [0041] and [0188]).

As per claims 4, 12 and 20, Stark further discloses wherein one of the multiple programs is in focus (programs that currently are a "focus", paragraphs [0033] and [0207]), wherein a thumbnail preview is displayed on the television screen with the displayed set of search results (pop-up, image or thumb (thumbnail) displayed on a TV screen, paragraphs [0013], [0018], [0026], [0069], [0070], [0076], [0081] and [0086]), wherein the thumbnail preview corresponds to the in focus program (an image that is currently of a focus of the user, paragraphs [0033], [0041], [0076] and [0207]), wherein the thumbnail preview comprises a graphical image and at least one of a program name, series name, episode number, episode name, and sport event name and a plurality of a program description, a program type, a program category, a start-to-finish time, current runtime, and a remaining runtime (the images/thumbs (thumbnails) contains name of program such "Seinfeld", paragraphs [0041], [0026], [0081] and [0086]), and wherein the graphical image is one of a captured frame of the in focus program, a picture associated with the in focus program, and a photograph associated with the in focus program (an image is associated with a PHOTO which is a focus of the user, paragraphs [0033], [0076], [0081] and [0207]).

As per claims 5, 13 and 21, Stark further discloses wherein the displayed set of search results lists multiple airings of a common program (displaying multiple listing of programs with airtime, figure 2 and paragraphs [0023], [0054], [0058], [0059], 0243]-[0245]) and wherein each search result in the set of search results comprises a respective air time of the common program, a name of the common program, and a respective channel broadcasting the common program (a search results in the EPG has an airtime, a program, a program name, a channel broadcasting a program and program description, figure 2, TV view area 140 and paragraphs [0023] and [0188]) and wherein the displayed set of search results are ordered by time (displayed programs are listed by airtime, figure 2 and paragraphs [0023], [0054], [0058], [0059], 0243]-[0245]).

As per claims 6, 14 and 22, Stark further discloses wherein the displayed set of search results update in real time while the user fills in the search term field (live TV programs (programs listed in real time) are updated during a user's search, paragraphs [0023], [0026]-[0029], [0033], [0034], [0052], [0059] and [0069]).

-***-Continued Within the Next Supplemental Box-***-

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55285

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:
-***-Continued from Previous Supplemental Box-***-

Claims 7, 8, 15, 16, 23 and 24 lack an inventive step under PCT Article 33(3) as being obvious over Stark in view of US 2009/0019485 Al to Ellis et al. (hereinafter 'Ellis').

As per claims 7, 15 and 23, Stark does not teach wherein the user can, using the remote control, mark a channel and/or program as a favorite, wherein a set of user marked favorite channels and/or programs is maintained in a local computer readable medium, wherein the accessed EPG information is indexed by airtime, channel, category, and favorites, and wherein the set of favorite channels and/or programs are not maintained in a remotely located computer readable medium. However, Ellis teaches wherein the user can, using the remote control, mark a channel and/or program as a favorite (user a remote control to display the EPG on a TV screen comprises favorite programs and favorite channels, paragraphs [0103], [0120], [0156] and [0157]), wherein a set of user marked favorite channels and/or programs is maintained in a local computer readable medium (favorite programs are stored in a memory, paragraph [0162]), wherein the accessed EPG information is indexed by airtime, channel, category, and favorites (the EPG has an air time, channel, category, and favorite, paragraphs [0113], [0129], [0133], [0156], [0157] and [0162]), and wherein the set of favorite channels and/or programs are not maintained in a remotely located computer readable medium (favorite programs ands channels are stored in the memory 25, wherein the memory 25 is not located in a remote computer, paragraph [0162]). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to improve Stark's system to include wherein the user can, using the remote control, mark a channel and/or program as a favorite, wherein a set of user marked favorite channels and/or programs is maintained in a local computer readable medium, wherein the accessed EPG information is indexed by airtime, channel, category, and favorites, and wherein the set of favorite channels and/or programs are not maintained in a remotely located computer readable medium as taught by Ellis to provide a favorite feature in order to enhance the user's experience.

As per claims 8, 16 and 24, Stark further discloses a category indicator to indicate a category of the corresponding program (indication categorized programs, paragraphs [0059], [0067], [0081] and [0279]); and a first air indicator to indicate that a corresponding program that is airing for the first time (airing programs as new (first time) programs, paragraphs [0041], [0046], [0049], [0052] and [0073]) and wherein the program is one or more of a movie, an episode, sport event, and a television special (a program such as Chris Rock Show (episode), paragraph [0052]). Stark does not teach wherein locally stored EPG information comprises a favorite indicator to indicate that a corresponding channel or program is in the set of favorite channels and programs, a reminder indicator to indicate that a corresponding program has been set to trigger a reminder. However, Ellis teaches wherein locally stored EPG information comprises a favorite indicator to indicate that a corresponding channel or program is in the set of favorite channels and programs (the EPG comprises favorites such as favorite programs and favorite channels, paragraphs [0156] and [0157]), a reminder indicator to indicate that a corresponding program has been set to trigger a reminder (set a reminder to remind the user about a programs, paragraphs [0129], [0136], [0150]-[0152], [0162] and [0202]). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to improve Stark's system to include wherein locally stored EPG information comprises a favorite indicator to indicate that a corresponding channel or program is in the set of favorite channels and programs, a reminder indicator to indicate that a corresponding program has been set to trigger a reminder as taught by Ellis to provide favorite and reminder features in order to enhance the user's experience.

Claims 1-24 have industrial applicability as defined by PCT Article 33(4) because the subject matter can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: THAINE LENNOX-GENTLE
SHERIDAN ROSS P.C.
1560 BROADWAY SUITE 1200
DENVER, CO 80202

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Date of mailing *(day/month/year)*	14 JAN 2014
Applicant's or agent's file reference: 6583-448-PCT	**FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No.: PCT/US2013/055284	International filing date *(day/month/year)*: 16 August 2013
Applicant: FLEXTRONICS AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/	Authorized officer
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450	Blaine R. Copenheaver
Facsimile No. 571-273-3201	Telephone No. PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-448-PCT	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US2013/055284	International filing date *(day/month/year)* 16 August 2013	(Earliest) Priority Date *(day/month/year)* 17 August 2012
Applicant FLEXTRONICS AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☒ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 17

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/055284

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see extra sheet.

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
1-24

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.

☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/055284

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H04N 5/445 (2014.01)
USPC - 725/41
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) - H04N 5/50, 5/445 (2014.01)
USPC - 348/731, 732; 725/28, 32, 38, 39, 41

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
CPC: H 04N 5/44543; H 04N 21/482 (2014.01)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Orbit, Google Patents, Google

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X -- Y	US 2011/0289419 A1 (YU et al) 24 November 2011 (24.11.2011) entire document	1-2, 4-6, 9-10, 12-14, 17-18, 20-22 --- 3, 7-8, 11, 15-16, 19, 23, 24
X -- Y	WO 2012/030024 (LEE et al) 08 March 2012 (08.03.2012) entire document	1, 17 --- 8, 16, 24
Y	US 2011/0041150 A1 (SCHEIN et al) 17 February 2011 (17.02.2011) entire document	3, 7, 11, 15, 19, 23
A	US 2003/0177498 A1 (ELLIS et al) 18 September 2003 (18.09.2003), abstract, para 36, 93, 95	1-24

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
02 January 2014	14 JAN 2014
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/055284

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claims 1-24, drawn to a method of maintaining and displaying a set of favorite channels and programs.
Group II, claims 25-28, drawn to a method of monitoring viewing patterns of a user.

The inventions listed as Groups I-II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the special technical feature of the Group I invention: receiving EPG information, maintaining a set of favorite channels and programs, displaying a list, receiving a selection and changing the channel to the selection as claimed therein is not present in the invention of Group II. The special technical feature of the Group II invention: monitoring viewing patterns of a user and determining the more frequently viewed channels of greater interest to the user than less frequently viewed channels as claimed therein is not present in the invention of Groups I.

Groups I and II lack unity of invention because even though the inventions of these groups require the technical feature of a microprocessor executable application related to television programming, this technical feature is not a special technical feature as it does not make a contribution over the prior art in view of US 2003/0177498 A1 (ELLIS et al) 18 September 2003 (18.09.2003), abstract, para 36, 93, 95.

Since none of the special technical features of the Group I or II inventions are found in more than one of the inventions, unity of invention is lacking.

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: THAINE LENNOX-GENTLE
SHERIDAN ROSS P.C.
1560 BROADWAY SUITE 1200
DENVER, CO 80202

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	14 JAN 2014
Applicant's or agent's file reference 6583-448-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US2013/055284	16 August 2013	17 August 2012

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H04N 5/445 (2014.01)
USPC - 725/41

Applicant FLEXTRONICS AP, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☒ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	02 January 2014	Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055284

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

      ☐ on paper

      ☐ in electronic form

   b. (time)

      ☐ in the international application as filed

      ☐ together with the international application in electronic form

      ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055284

Box No. IV Lack of unity of invention

1. ☒ In response to the invitation (Form PCT/ISA/206) to pay additional fees the applicant has, within the appicable time limit:

   ☐ paid additional fees

   ☐ paid additional fees under protest and, where applicable, the protest fee

   ☐ paid additional fees under protest but the applicable protest fee was not paid

   ☒ not paid additional fees

2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rule 13.1, 13.2 and 13.3 is

   ☐ complied with

   ☒ not complied with for the following reasons:

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claims 1-24, drawn to a method of maintaining and displaying a set of favorite channels and programs.
Group II, claims 25-28, drawn to a method of monitoring viewing patterns of a user.

The inventions listed as Groups I-II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the special technical feature of the Group I invention: receiving EPG information, maintaining a set of favorite channels and programs, displaying a list, receiving a selection and changing the channel to the selection as claimed therein is not present in the invention of Group II. The special technical feature of the Group II invention: monitoring viewing patterns of a user and determining the more frequently viewed channels of greater interest to the user than less frequently viewed channels as claimed therein is not present in the invention of Groups I.

Groups I and II lack unity of invention because even though the inventions of these groups require the technical feature of a microprocessor executable application related to television programming, this technical feature is not a special technical feature as it does not make a contribution over the prior art in view of US 2003/0177498 A1 (ELLIS et al) 18 September 2003 (18.09.2003), abstract, para 36, 93, 95.

Since none of the special technical features of the Group I or II inventions are found in more than one of the inventions, unity of invention is lacking.

4. Consequently, this opinion has been established in respect of the following parts of the international application:

   ☐ all parts

   ☒ the parts relating to claims Nos. 1-24

Form PCT/ISA/237 (Box No. IV) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055284

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	3, 7-8, 11, 15-16, 19, 23, 24	YES
	Claims	1-2, 4-6, 9-10, 12-14, 17-18, 20-22	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-24	NO
Industrial applicability (IA)	Claims	1-24	YES
	Claims	None	NO

2. Citations and explanations:

Claims 1-2, 4-6, 9-10, 12-14, 17-18, 20-22 lack novelty under PCT Article 33(2) as being anticipated by Yu et al., hereinafter referred to as Yu.

Regarding claims 1, 17, Yu discloses a method and tangible and non-transient computer readable medium, comprising microprocessor executable instructions (abstract, para 44, Fig. 56), comprising: receiving, by a microprocessor executable data service of a television and from a network accessible content provider (see Fig. 2, showing service provider sending content to a television), electronic program guide ("EPG") information (content includes providing an EPG, para 86, see fig. 18), the
EPG information comprising, for each program, airtime, program name, program channel, and program description (see Fig. 18 showing for each program, a schedule time [airtime as shown in top bar], program name, channel and description, para 123); maintaining, by the data service in a local computer readable medium (guide generator 366 is part of user platform 140 and stores guide information locally, see Fig. 10 & 13, para 86; local storage, para 87, 89, Fig. 9), a set of favorite channels and programs (content listing grouping represented by the 'Favorites' command option in command option area 1810, para 120, Fig. 18); receiving, by a microprocessor executable application framework (Fig. 13) and from a
remote control of a user (user can manipulate a conventional television remote control device, cursor control device, keyboard arrow buttons, or other pointing and/or control mechanism to select one of the command options, para 115), a request for channels and programs marked as favorites (The 'Favorites' command option enables the user to pick content from a group of pre-defined user favorites, para 120, Fig. 18); displaying, by the application framework and on a television screen, a listing of the set of favorite channels and programs, the listing comprising EPG information (user favorites can be content items explicitly specified by the user as favorite content items by using command options provided by the 'Favorites' functionality, para 119-120, see Fig. 18); receiving, by the application framework and from the remote control, a selected channel or program from the listing (user selects content from the favorites listing, para 120, Fig. 18); and changing, by the application framework, to the selected channel (the favorites content items provide the user with easy access to the channel for content viewing [i.e. the channel is changed to the favorite], para 124).

Regarding claim 9, Yu discloses a television (Fig. 2, abstract), comprising: a television screen (television provides user with display of information, Fig. 2, para 121); a local computer readable medium (Fig. 56, para 228); at least one of an infrared and radio frequency module configured to receive wirelessly requests from a remote control of a user (remote control device may be wireless, para 115), the requests comprising a selected channel or program from a displayed listing (select desired command option, para 115; user selects content from the favorites listing, para 120, Fig. 18); a microprocessor executable data service configured to receive from a network accessible content provider (see Fig. 2, showing service provider sending content to a television), electronic program guide ("EPG") information (content includes providing an EPG, para 86, see fig. 18), the EPG information comprising, for each program, airtime, program name, program channel, and program description (see Fig. 18 showing for each program, a schedule time [airtime as shown in top bar], program name, channel and description, para 123) and to maintain, in the local computer readable medium (guide generator 366 is part of user platform 140 and stores guide information locally, see Fig. 10 & 13, para 86; local storage, para 87, 89, Fig. 9), a set of favorite channels and programs (content listing grouping represented by the 'Favorites' command option in command option area 1810, para 120, Fig. 18); and a microprocessor executable application framework (Fig. 13) configured to receive from a remote control of a user (user can manipulate a conventional television remote control device, cursor control device, keyboard arrow buttons, or other pointing and/or control mechanism to select one of the command options, para 115), a request for channels and programs marked as favorites (The 'Favorites' command option enables the user to pick content from a group of pre-defined user favorites, para 120, Fig. 18) to display, on the television screen, a listing of the set of favorite channels and programs, the listing comprising EPG information (user favorites can be content items explicitly specified by the user as favorite content items by using command options provided by the 'Favorites' functionality, para 119-120, see Fig. 18), to receive, from the at least one of an infrared and radio frequency module, a selected channel or program from the listing (user selects content from the favorites listing, para 120, Fig. 18), and change to the
selected channel (the favorites content items provide the user with easy access to the channel for content viewing [i.e. the channel is changed to the favorite], para 124).

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055284

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Claims 5, 13, 21 are objected to under PCT Rule 66.2(a)(v) as lacking clarity under PCT Article 6 because they are indefinite for the following reason:

Claims 5, 13, 21 cite dependency from claims 4, 12, 20, respectively. However, claims 4, 12, 20 lack antecedent basis for "the second programming" recited. For the purpose of the written opinion, Claims 5, 13, 21 are interpreted as reciting "a second programming."

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055284

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding claims 2, 10, 18, Yu discloses wherein the programs described by the EPG programming information are indexed by airtime, channel, category, and favorites (see EPG data shown in Fig. 18, showing each program with its scheduled time [top bar], channel [10-16], and 1810 showing categories and favorites, para 119-120) and wherein the set of favorite channels and programs are not maintained in a remotely located computer readable medium (guide generator 366 is part of user platform 140 and stores guide information, including favorites listings, locally, see Fig. 10 & 13, para 86; local storage, para 87, 89, Fig. 9).

Regarding claims 4, 12, 20, Yu discloses wherein, in the displaying step, the screen comprises a header bar, the header bar comprising a graphical image associated with an infocus program EPG information (see Fig. 18, showing header bar with an infocus program information for listing "Lost", para 122-123).

Regarding claims 5, 13, 21, Yu discloses wherein the header bar comprises at least one of a program name, series name, episode number, episode name, and sport event name (see Fig. 18, showing header bar with program name "Lost", para 122) and a plurality of a program description, a program type, a program category, a start-to-finish time, current runtime, and a remaining runtime (see Fig. 18, showing program description for "Lost", para 122) and wherein the image is one of a captured frame of the second programming, a picture, and a photograph (see picture depicting program "Lost", Fig. 18, para 122).

Regarding claims 6, 14, 22, Yu discloses wherein the image is a captured frame of the second programming and wherein the captured frame is a still image and the image is displayed on only a part of the screen (see Fig. 18 showing still image of TV show "Lost" on only part of the screen, para 122).

Claims 1, 17 lack novelty under PCT Article 33(2) as being anticipated by Lee et al., hereinafter referred to as Lee.

Regarding claims 1, 17, Lee discloses a method and tangible and non-transient computer readable medium, comprising microprocessor executable instructions (abstract, Fig. 19, para 489), comprising receiving, by a microprocessor executable data service of a television (image display apparatus 100 includes processor and application, Fig. 2, para 57-59) and from a network accessible content provider (content provider 10 and HNED 40 comprising a smart TV, Fig. 1, para 48-49; see Fig. 14), electronic program guide ("EPG") information (para 214, Fig. 4), the EPG information comprising, for each program, airtime, program name, program channel, and program description (EPG data includes broadcasting information specifying start times, end times [airtime] of scheduled TV programs, para 222; see object 2021 showing broadcast information including channel, program name and airtime, Fig. 49); maintaining, by the data service in a local computer readable medium, a set of favorite channels and programs (memory 140 stores applications, para 104, 126-132; applications include favorite channel object representing favorite channels, para 299, 330); receiving, by a microprocessor executable application framework (Fig. 12) and from a remote control of a user (Fig. 13), a request for channels and programs marked as favorites (favorite channel object selected? S1920, Fig. 19; user selects favorite channel object 2019 using remote controller 200, para 380); displaying, by the application framework and on a television screen (Fig. 12, 15), a listing of the set of favorite channels and programs, the listing comprising EPG information (display favorite channel list S1925, Fig. 19; favorite channel list 2110 is displayed, para 381); receiving, by the application framework and from the remote control, a selected channel or program from the listing (display broadcast image of selected channel, S1935, Fig. 19; specific channel from favorite listing is selected by user, para 380-383); and changing, by the application framework, to the selected channel (Fig. 19; channel is switched to selected channel from favorites listing, para 380-383).

Claims 3, 7, 11, 15, 19, 23 lack an inventive step under PCT Article 33(3) as being obvious over Yu in view of Schein et al., hereinafter referred to as Schein.

Regarding claims 3, 11, 19, Yu discloses the invention above, and further discloses wherein locally stored EPG information comprises a category indicator to indicate a category of the corresponding program (see Fig. 18, showing category of selected program "Lost" as being TVPG [TV category], para 123), and a first air indicator to indicate that a corresponding program that is airing for the first time (see Fig. 18, showing icon caption of "repeat" in the program content listing for "Lost" [indicating this is a repeat, and not a first aired program listing], para 123) and wherein the program is one or more of a movie, an episode, sport event, and a television special (see Fig. 18, showing program episode "Lost", para 123-124). Yu lacks teaching a favorite indicator to indicate that a corresponding channel or program is in the set of favorite channels and programs, a reminder indicator to indicate that a corresponding program has been set to trigger a reminder. Schein is in the field of television program schedule listings (abstract, para 56) and teaches the EPG information (program guide, para 56) comprises a favorite indicator to indicate that a corresponding channel or program is in the set of favorite channels and programs (viewer than identifies which ones are favorites. After specifying the criteria for being a favorite, a confirmation panel (not shown) may appear that allows the viewer to o.k. the action. When the viewer returns to the Items Info Menu, a favorite symbol has been added to the title, para 56, Fig. 9A-F), and a reminder indicator to indicate that a corresponding program has been set to trigger a reminder(user creates a program reminder and after confirmation, a reminder symbol has been added to the title , para 57, Fig. 10A-D). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the favorites and reminder indicators as taught in Schein with the invention of Yu in order to allow the user to quickly identify favorites and reminders from the program guide and provide an option to remove the indicators (see Schein, para 56-57).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055284

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding claims 7, 15, 23, Yu discloses the invention above, but fails to disclose wherein, in the displaying step, the display comprises a view of currently selected programming, the view being displayed on only a part of the screen.
Schein is in the field of television program schedule listings that provide favorites listings (abstract, para 56) and teaches the display comprises a view of currently selected programming, the view being displayed on only a part of the screen (see Fig. 9E, showing favorites listing on left hand side of screen and currently viewed programming on right hand side of screen [second box on right, corresponding to box 126 of Fig. 8B], para 45-46). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the view of currently selected programming as taught in Schein with the invention of Yu so that the viewer can browse through program matrix 106 without missing the action on the currently tuned program (see Schein, para 46).

Claims 8, 16, 24 lack an inventive step under PCT Article 33(3) as being obvious over Yu in view of Lee et al., hereinafter referred to as Lee.

Regarding claims 8, 16, 24, Yu discloses wherein, in the displaying step, the listing of favorite channels and programs are presented in a first portion of the screen (user selects favorites command from 1810 to provide a list of user favorites, Fig. 18, para 120) and wherein the recommended channels are based on one or more of the user's set of favorite channels and programs and watching patterns (recommendation engine 241 obtains user behavior information to provide recommended content, para 80; the user favorites can be content items implicitly identified by using recommendation engine 241 to gather user interest information, as described above, and to correlate user interests with corresponding content items and content information, para 120, 141).
However, Lee is in the field of broadcast information on televisions (see Fig. 25, abstract) and teaches wherein, in the displaying step, the listing of favorite channels and programs are presented in a first portion of the screen (favorite channels listed within channel card 2060 on portion of screen, as seen in Fig. 39, para 326, 342) and recommended channels or programs are presented in a second portion of the screen (RECOMMENDED LIST card object 2070, Fig. 39, para 418), the first and second portions being non-overlapping (cards may be selected and presented on the display by user as seen in Fig. 39, showing favorite channel card 2060 displayed next to recommended list card object 2070, para 418; see Fig. 41-44, showing user can move card objects for display on screen, para 418-419).
It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the display features as taught in Lee with the invention of Yu in order to provide the user with multiple options when browsing television content (see Lee, para 418-419, 348).

Claims 1-24 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: THAINE LENNOX-GENTLE
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Date of mailing *(day/month/year)*	02 DEC 2013
Applicant's or agent's file reference: 6583-449-PCT	**FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No.: PCT/US2013/055293	International filing date *(day/month/year)*: 16 August 2013
Applicant: FLEXTRONICS AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-449-PCT	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US2013/055293	International filing date *(day/month/year)* 16 August 2013	(Earliest) Priority Date *(day/month/year)* 17 August 2012
Applicant FLEXTRONICS AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 15

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

PCT/US2013/055293 02.12.2013

International application No.
PCT/US2013/055293

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H04N 5/445 (2013.01)
USPC - 725/61
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) - G06F 3/0488, H04N 5/445, H04Q 5/22 (2013.01)
USPC - 340/10.1, 715/810, 725/61

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
CPC - H04N 7/17318, 21/4722, 21/47214 (2013.01)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Orbit, Google Patents, Google

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2012/0210370 Al (KIM et al) 16 August 2012 (16.08.2012) entire document	1-20
Y	US 8,127,329 B1 (KUNKEL et al) 28 February 2012 (28.02.2012) entire document	1-20
Y	US 2010/0225830 A1 (BLANCHARD et al) 09 September 2010 (09.09.2010) entire document	9 and 18
A	US 2012/0210275 A1 (PARK et al) 16 August 2012 (16.08.2012) entire document	1-20

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
12 November 2013	02DEC 2013
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: THAINE LENNOX-GENTLE
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	02DEC 2013
Applicant's or agent's file reference 6583-449-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US2013/055293	16 August 2013	17 August 2012

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H04N 5/445 (2013.01)
USPC - 725/61

Applicant FLEXTRONICS AP, LLC

1. This opinion contains indications relating to the following items:

- [X] Box No. I Basis of the opinion
- [ ] Box No. II Priority
- [ ] Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- [ ] Box No. IV Lack of unity of invention
- [X] Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- [ ] Box No. VI Certain documents cited
- [ ] Box No. VII Certain defects in the international application
- [ ] Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	12 November 2013	Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055293

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

      ☐ on paper

      ☐ in electronic form

   b. (time)

      ☐ in the international application as filed

      ☐ together with the international application in electronic form

      ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055293

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	1-20	YES
	Claims	None	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	None	NO

2. Citations and explanations:

Claims 1-8, 10-17, and 19-20 lack an inventive step under PCT Article 33(3) as being obvious over Kim et al, hereinafter Kim in view of Kunkel et al, hereinafter Kunkel.

Regarding Claim 1, Kim teaches a method, comprising: initiating a live television (TV) application associated with an intelligent TV (paragraph 121 for having a Smart TV or electronic device element 300 with a multi-functional display element 302 and a receiver and paragraph 328 for having real time or live broadcasting through a satellite or terrestrial broadcast system); determining, via a processor associated with the intelligent TV (paragraph 327 for having a controller element 340 or processor means to control the GUI for the smart TV element 300) and prior to enabling full functionality of the live TV application (paragraph 621 for the controller element 340 initializing the GUI element upon boot or prior to full function of the electronic device element 300 or the smart TV), that a setup of one or more channel sets associated with the live TV application is required (paragraph 328 for having a GUI to set up the electronic device with broadcast channels for receiving terrestrial and satellite channels with real time broadcasting or live TV means); presenting, via a display of the intelligent TV (paragraph 327 for the GUI being displayed on the display element 302 input boxes to enter information from the user for the smart TV element 300), a first setup option dialog (figure 31 element 3110 for the first box with channels NBC and FOX and paragraph 327 for the controller element 340 controls the display element 302 with three different input boxes for dragging and dropping), wherein the first setup option dialog is associated with a first channel set of the one or more channel sets (paragraph 327 for having a GUI with the display for setting up channels and figure 31 element 3110 for having a first list of channels CBS, FOX, and NBC etc.); selecting the first setup option dialog associated with the first channel set (figure 31 element 3110 for a first set up box with a set of channels and paragraph 327 for having a user option of selecting a channel or selecting a menu item for set up); scanning at least one signal source for one or more live TV channels (paragraph 636 for scanning channels either automatically or manually at the request of the user and controlled by the controller element 340 and paragraph 642 for scanning for broadcast channels); and enabling at least partial functionality of the live TV application upon detecting the one or more live TV channels (paragraphs 646-647 for skipping the channel scan and displaying the results of the channels found at that time or a partial list of channels along with displaying the results of the channel scan), wherein the at least partial functionality of the live TV application is associated with the detected one or more live TV channels (paragraph 328 for having real time or live broadcasting through a satellite or terrestrial broadcast system and paragraph 121 for having a Smart TV or electronic device element 300 with a multi-functional display element 302 and a receiver). Kim does not explicitly teach scanning associated with the first channel set and detecting the one or more live TV channels associated with the first channel set. Kunkel has methods for a video scan (abstract) and teaches scanning associated with the first channel set and detecting the one or more live TV channels associated with the first channel set (col 21, lines 40-67 for having two different scans associated with a criteria for the first channel set such as a user selection and having a second scan with a second criteria such as the user's behavior and then identifying or detecting the channels available according to the criteria with col 3, lines 40-60 for using both analog and digital signals for the tuner). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the scan criteria as taught by Kunkel in the smart TV method of Kim in order to scan for channels based on user behavior (Kunkel, col 21, lines 40-60).

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055293

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding Claim 2, Kim teaches wherein presenting the first setup option dialog includes presenting a second option dialog (figure 31 element 3110 for the first setup dialog box with a first set of broadcast channels such as NBC and FOX and a second dialog box element 3120 with a second set of channels that are part of the social network service or SNS channels such as Facebook and Twitter and paragraph 328 for having the option of dragging and dropping the channels), wherein the second setup option dialog is associated with a second channel set of the one or more channel sets , and wherein the second option dialog is presented (figure 31 element 3120 for the first box and element 3140 for the second box), via the display of the intelligent TV, at the same time as the first setup option dialog (figure 31 for the controller element 340 controls the display element 302 with three different input boxes elements 3110, 3120, 3130 and 3140 for displayed simultaneously).

Regarding Claim 3, Kim teaches wherein the selection of the first setup option dialog is made automatically via the processor associated with the intelligent TV (paragraph 636 for having the GUI for scanning channels being displayed automatically by the controller element 340 of the smart TV element 300 and figure 31 element 3110 for having a dialog box for selecting TV channels).

Regarding Claim 4, Kim teaches wherein the selection of the first setup option dialog is made in response to detecting an input received at the intelligent TV via a remote control associated with the intelligent TV (paragraph 370 for having a remote controller associated with the TV controller element 340 for making user selections based on the channel map and paragraph 327 for the display element 302 having a GUI to detect user actions for channel set up using a menu).

Regarding Claim 5, Kim teaches wherein the at least one signal source includes at least one of an over-the-air broadcast medium, a digital TV channel source, an analog TV channel source, the Internet, a satellite provider, a cable provider, and a multiple-system operator (paragraph 32 for using signals from a satellite network, a terrestrial broadcast, as well as the internet).

Regarding Claim 6, Kim teaches presenting, via the display of the intelligent TV (paragraph 327 for having a GUI for a display element 302), a first switch option associated with the first channel set (paragraph 327 for having a menu with associated user actions for selecting a menu item with figure 31 element 3110 for having a first set of channels on the display in a box and paragraph 330 for using a switch to go to the next channel in the channel region), wherein a selection of the first switch option tunes the intelligent TV to the detected one or more live TV channels of the first channel set (paragraph 329 for having a list of channels in the first channel set element 3110, and paragraph 151 for the smart TV element 300 having a tuner element 305 for selecting a channel and tuning to the channel frequency); and presenting, via the display of the intelligent TV, a second setup option dialog (figure 31 element 3120 for having a second dialog box with a second set of channels that are social network services or SNS channels), wherein the second setup option dialog is associated with a second channel set of the one or more channel sets (figure 31 element 3130 for a second dialog box that has a second set of social network channels such as Facebook and Twitter along with information of messages for the user).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

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Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding Claim 7, Kim teaches selecting the first switch option associated with the first channel set (paragraph 327 for having a menu with associated user actions for selecting a menu item with figure 31 element 3110 for having a first set of channels on the display in a box and paragraph 330 for using a switch to go to the next channel in the channel region); and tuning the intelligent TV to the one or more live TV channels of the first channel (paragraph 329 for having a list of channels in the first channel set element 3110, and paragraph 151 for the smart TV element 300 having a tuner element 305 for selecting a channel and tuning to the channel frequency).

Regarding Claim 8, Kim teaches selecting the second setup option dialog associated with the second channel set (figure 31 for a second dialog box element 3120 with a second set of channels that are part of the social network service or SNS channels such as Facebook and Twitter and paragraph 328 for having the option of dragging and dropping the channels). Kim does not explicitly teach scanning at least one signal source associated with the second channel set for one or more live TV channels, detecting the one or more live TV channels associated with the second channel set, and enabling at least partial functionality of the live TV application upon detecting the one or more live TV channels of the second channel set, wherein the at least partial functionality of the live TV application is associated with the detected one or more live TV channels of the second channel set. Kunkel has methods for a video scan (abstract) and teaches scanning at least one signal source associated with the second channel set for one or more live TV channels scanning at least one signal source associated with the second channel set for one or more live TV channels (col 21, lines 40-67 for having two different scans associated with a criteria for the first channel set such as a user selection and having a second scan with a second criteria such as the user's behavior and then identifying or detecting the channels available according to the criteria with col 3, lines 40-60 for using both analog and digital signals for the tuner), detecting the one or more live TV channels associated with the second channel set , detecting the one or more live TV channels associated with the second channel set (col 21, lines 60-67 for identifying the channels that fit the scan criteria or detecting the channels that fit the second scan criteria of the user's behavior) and enabling at least partial functionality of the live TV application upon detecting the one or more live TV channels of the second channel set (col 22, lines 15-30 for the application upon scanning the channels of the second criteria tune to the first and second selected programs and direct the program to the display device or allowing some function of the TV to display the programs), wherein the at least partial functionality of the live TV application is associated with the detected one or more live TV channels of the second channel set (col 22, lines 30-40 for the interactive guide to sequentially display the programs and based on the scan sequences). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the scan criteria as taught by Kunkel in the smart TV method of Kim in order to scan for channels based on user behavior (Kunkel, col 21, lines 40-60).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
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Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding Claim 10, Kim teaches tangible, non-transitory computer readable medium having instructions stored thereon that, when executed by a processor (paragraph 121 for having a Smart TV or electronic device element 300 with a multi-functional display element 302 and a receiver with a controller or processor means element 340 and paragraph 328 for having real time or live broadcasting through a satellite or terrestrial broadcast system), perform the method comprising: initiating a live television (TV) application associated with an intelligent TV (paragraph 621 for the controller element 340 initializing the GUI element upon boot or prior to full function of the electronic device element 300 or the smart TV); determining, via a processor associated with the intelligent TV and prior to enabling full functionality of the live TV application (paragraph 621 for the controller element 340 or processor means for initializing the GUI element upon boot or prior to full function of the electronic device element 300 or the smart TV), that a setup of one or more channel sets associated with the live TV application is required (paragraph 328 for having a GUI to set up the electronic device with broadcast channels for receiving terrestrial and satellite channels with real time broadcasting or live TV means); presenting, via a display of the intelligent TV (paragraph 327 for the GUI being displayed on the display element 302 input boxes to enter information from the user for the smart TV element 300), a first setup option dialog (figure 31 element 3110 for the first box with channels NBC and FOX and paragraph 327 for the controller element 340 controls the display element 302 with three different input boxes for dragging and dropping), wherein the first setup option dialog is associated with a first channel set of the one or more channel sets (paragraph 327 for having a GUI with the display for setting up channels and figure 31 element 3110 for having a first list of channels CBS, FOX, and NBC etc.); selecting the first setup option dialog associated with the first channel set (paragraph 327 for having a GUI with the display for setting up channels and figure 31 element 3110 for having a first list of channels CBS, FOX, and NBC etc.); selecting the first setup option dialog associated with the first channel set (figure 31 element 3110 for a first set up box with a set of channels and paragraph 327 for having a user option of selecting a channel or selecting a menu item for set up); scanning at least one signal source for one or more live TV channels (paragraph 636 for scanning channels either automatically or manually at the request of the user and controlled by the controller element 340 and paragraph 642 for scanning for broadcast channels); and enabling at least partial functionality of the live TV application upon detecting the one or more live TV channels of the first channel set (paragraphs 646-647 for skipping the channel scan and displaying the results of the channels found at that time or a partial list of channels along with displaying the results of the channel scan), wherein the at least partial functionality of the live TV application is associated with the detected one or more live TV channels of the first channel set (paragraph 328 for having real time or live broadcasting through a satellite or terrestrial broadcast system and paragraph 121 for having a Smart TV or electronic device element 300 with a multi-functional display element 302 and a receiver). Kim does not explicitly teach scanning associated with the first channel set and detecting the one or more live TV channels associated with the first channel set. Kunkel has methods for a video scan (abstract) and teaches scanning associated with the first channel set and detecting the one or more live TV channels associated with the first channel set (col 21, lines 40-67 for having two different scans associated with a criteria for the first channel set such as a user selection and having a second scan with a second criteria such as the user's behavior and then identifying or detecting the channels available according to the criteria with col 3, lines 40-60 for using both analog and digital signals for the tuner). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the scan criteria as taught by Kunkel in the smart TV method of Kim in order to scan for channels based on user behavior (Kunkel, col 21, lines 40-60).

Regarding Claim 11, Kim teaches wherein presenting the first setup option dialog includes presenting a second option dialog (figure 31 element 3110 for the first setup dialog box with a first set of broadcast channels such as NBC and FOX and a second dialog box element 3120 with a second set of channels that are part of the social network service or SNS channels such as Facebook and Twitter and paragraph 328 for having the option of dragging and dropping the channels), wherein the second setup option dialog is associated with a second channel set of the one or more channel sets (figure 31 for a second dialog box element 3120 with a second set of channels that are part of the social network service or SNS channels such as Facebook and Twitter and paragraph 328 for having the option of dragging and dropping the channels), and wherein the second option dialog is presented, via the display of the intelligent TV, at the same time as the first setup option dialog (figure 31 for the controller element 340 controls the display element 302 with three different input boxes elements 3110, 3120, 3130 and 3140 for displayed simultaneously).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055293

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding Claim 12, Kim teaches wherein the selection of the first setup option dialog is made automatically via a processor associated with the intelligent TV (paragraph 636 for having the GUI for scanning channels being displayed automatically by the controller element 340 of the smart TV element 300 and figure 31 element 3110 for having a dialog box for selecting TV channels).

Regarding Claim 13, Kim teaches wherein the selection of the first setup option dialog is made in response to detecting an input received at the intelligent TV via a remote control associated with the intelligent TV (paragraph 370 for having a remote controller associated with the TV controller element 340 for making user selections based on the channel map and paragraph 327 for the display element 302 having a GUI to detect user actions for channel set up using a menu).

Regarding Claim 14, Kim teaches wherein the at least one signal source includes at least one of an over-the-air broadcast medium, a digital TV channel source, an analog TV channel source, the Internet, a satellite provider, a cable provider, and a multiple-system operator (paragraph 32 for using signals from a satellite network, a terrestrial broadcast, as well as the internet).

Regarding Claim 15, Kim teaches wherein the method further comprises: presenting, via the display of the intelligent TV (paragraph 327 for having a GUI for a display element 302), a first switch option associated with the first channel set (paragraph 327 for having a menu with associated user actions for selecting a menu item with figure 31 element 3110 for having a first set of channels on the display in a box and paragraph 330 for using a switch to go to the next channel in the channel region), wherein a selection of the first switch option tunes the intelligent TV to the detected one or more live TV channels of the first channel set (paragraph 329 for having a list of channels in the first channel set element 3110, and paragraph 151 for the smart TV element 300 having a tuner element 305 for selecting a channel and tuning to the channel frequency); and presenting, via the display of the intelligent TV (paragraph 327 for having a GUI for a display element 302), a second setup option dialog, wherein the second setup option dialog is associated with a second channel set of the one or more channel sets (figure 31 for a second dialog box element 3120 with a second set of channels that are part of the social network service or SNS channels such as Facebook and Twitter and paragraph 328 for having the option of dragging and dropping the channels).

Regarding Claim 16, Kim teaches wherein the method further comprises: selecting the first switch option associated with the first channel set (paragraph 327 for having a menu with associated user actions for selecting a menu item with figure 31 element 3110 for having a first set of channels on the display in a box and paragraph 330 for using a switch to go to the next channel in the channel region); and tuning the intelligent TV to the one or more live TV channels of the first channel set (paragraph 329 for having a list of channels in the first channel set element 3110, and paragraph 151 for the smart TV element 300 having a tuner element 305 for selecting a channel and tuning to the channel frequency).

Regarding Claim 17, Kim teaches wherein the method further comprises: selecting the second setup option dialog associated with the second channel set (figure 31 for a second dialog box element 3120 with a second set of channels that are part of the social network service or SNS channels such as Facebook and Twitter and paragraph 328 for having the option of dragging and dropping the channels). Kim does not explicitly teach scanning at least one signal source associated with the second channel set for one or more live TV channels, detecting the one or more live TV channels associated with the second channel set, and enabling at least partial functionality of the live TV application upon detecting the one or more live TV channels of the second channel set, wherein the at least partial functionality of the live TV application is associated with the detected one or more live TV channels of the second channel set. Kunkel has methods for a video scan (abstract) and teaches scanning at least one signal source associated with the second channel set for one or more live TV channels (col 21, lines 40-67 for having two different scans associated with a criteria for the first channel set such as a user selection and having a second scan with a second criteria such as the user's behavior and then identifying or detecting the channels available according to the criteria with col 3, lines 40-60 for using both analog and digital signals for the tuner), detecting the one or more live TV channels associated with the second channel set (col 21, lines 60-67 for identifying the channels that fit the scan criteria or detecting the channels that fit the second scan criteria of the user's behavior) and enabling at least partial functionality of the live TV application upon detecting the one or more live TV channels of the second channel set (col 22, lines 15-30 for the application upon scanning the channels of the second criteria tune to the first and second selected programs and direct the program to the display device or allowing some function of the TV to display the programs), wherein the at least partial functionality of the live TV application is associated with the detected one or more live TV channels of the second channel set (col 22, lines 30-40 for the interactive guide to sequentially display the programs and based on the scan sequences). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the scan criteria as taught by Kunkel in the smart TV method of Kim in order to scan for channels based on user behavior (Kunkel, col 21, lines 40-60).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
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In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding Claim 19, Kim discloses a system, comprising: an intelligent television (TV) having a display and a tuner (paragraph 121 for having a Smart TV or electronic device element 300 with a multi-functional display element 302 and a tuner element 305, and paragraph 328 for having real time or live broadcasting through a satellite or terrestrial broadcast system), wherein the tuner is configured to receive and convert broadcast content signals to be displayed by the display (paragraph 151 for converting the RF signals using the tuner element 305 and demodulating the signal for display with display element 302); an input device associated with the intelligent TV (paragraph 370 for having a remote controller associated with the TV controller element 340 for making user selections based on the channel map and paragraph 327 for the display element 302 having a GUI to detect user actions for channel set up using a menu); a memory (paragraph 150 for having a storage unit element 345 with the smart TV element 300 and paragraph 187 for the storage unit element 345 having memory means); and a microprocessor operable to (paragraph 327 for having a controller element 340 or processor means to control the GUI for the smart TV element 300): initiate a live TV application associated with the intelligent TV (paragraph 621 for the controller element 340 initializing the GUI element upon boot or prior to full function of the electronic device element 300 or the smart TV); determine, prior to enabling full functionality of the live TV application (paragraph 621 for the controller element 340 initializing the GUI element upon boot or prior to full function of the electronic device element 300 or the smart TV), that a setup of one or more channel sets associated with the live TV application is required (paragraph 328 for having a GUI to set up the electronic device with broadcast channels for receiving terrestrial and satellite channels with real time broadcasting or live TV means); present, via the display of the intelligent TV (paragraph 327 for the GUI being displayed on the display element 302 input boxes to enter information from the user for the smart TV element 300), a first setup option dialog (figure 31 element 3110 for the first box with channels NBC and FOX and paragraph 327 for the controller element 340 controls the display element 302 with three different input boxes for dragging and dropping), wherein the first setup option dialog is associated with a first channel set of the one or more channel sets (paragraph 327 for having a GUI with the display for setting up channels and figure 31 element 3110 for having a first list of channels CBS, FOX, and NBC etc.); select the first setup option dialog associated with the first channel set (paragraph 327 for having a GUI with the display for setting up channels and figure 31 element 3110 for having a first list of channels CBS, FOX, and NBC etc.); selecting the first setup option dialog associated with the first channel set (figure 31 element 3110 for a first set up box with a set of channels and paragraph 327 for having a user option of selecting a channel or selecting a menu item for set up); scan at least one signal source for one or more live TV channels (paragraph 636 for scanning channels either automatically or manually at the request of the user and controlled by the controller element 340 and paragraph 642 for scanning for broadcast channels); and enable at least partial functionality of the live TV application upon detecting the one or more live TV channels of the first channel set (paragraphs 646-647 for skipping the channel scan and displaying the results of the channels found at that time or a partial list of channels along with displaying the results of the channel scan), wherein the at least partial functionality of the live TV application is associated with the detected one or more live TV channels of the first channel set (paragraph 328 for having real time or live broadcasting through a satellite or terrestrial broadcast system and paragraph 121 for having a Smart TV or electronic device element 300 with a multi-functional display element 302 and a receiver). Kim does not explicitly disclose scanning associated with the first channel set and detecting the one or more live TV channels associated with the first channel set. Kunkel has methods for a video scan (abstract) and discloses scanning associated with the first channel set and detecting the one or more live TV channels associated with the first channel set (col 21, lines 40-67 for having two different scans associated with a criteria for the first channel set such as a user selection and having a second scan with a second criteria such as the user's behavior and then identifying or detecting the channels available according to the criteria with col 3; lines 40-60 for using both analog and digital signals for the tuner). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the scan criteria as taught by Kunkel in the smart TV system of Kim in order to scan for channels based on user behavior (Kunkel, col 21, lines 40-60).

Regarding Claim 20, Kim discloses wherein the selection of the first setup option dialog is made in response to detecting an input received at the intelligent TV via the input device (paragraph 370 for having a remote controller associated with the TV controller element 340 for making user selections based on the channel map and paragraph 327 for the display element 302 having a GUI to detect user actions for channel set up using a menu).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055293

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Claims 9 and 18 lack an inventive step under PCT Article 33(3) as being obvious over Kim et al, hereinafter Kim in view of Kunkel, and further in view of Blanchard et al, hereinafter Blanchard.

Regarding Claim 9 and 18, Kim teaches having the live TV application upon scanning all channel sets of the one or more channel sets associated with the live TV application (paragraph 647 for having the controller determine if the channel scan is complete). Kim and Kunkel do not explicitly teach enabling the full functionality of the live TV. Blanchard has a full scan of every frequency to find a channel (abstract) and teaches enabling the full functionality of the live TV (paragraph 26 for having the TV revert to normal operations or full function once the scan is complete and paragraphs 22-23 for scanning the TV channels and then enabling control for the TV to have normal operations). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the enabling of functionality as taught by Blanchard in the smart TV method of Kim in order to allow for quicker or immediate use of the TV set (Blanchard, paragraph 23).

Claims 1-20 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: THAINE LENNOX-GENTLE
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Date of mailing *(day/month/year)*	02DEC 2013
Applicant's or agent's file reference 6583-450-PCT	**FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. PCT/US2013/055294	International filing date *(day/month/year)* 16 August 2013
Applicant FLEXTRONICS AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450	Authorized officer Blaine R. Copenheaver
Facsimile No. 571-273-3201	Telephone No. PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-450-PCT	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US2013/055294	International filing date *(day/month/year)* 16 August 2013	(Earliest) Priority Date *(day/month/year)* 17 August 2012
Applicant FLEXTRONICS AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 24A

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

Form PCT/ISA/210 (first sheet) (July 2009)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/055294

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H04N 5/445 (2013.01)
USPC - 725/39
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) - G06F 3/00, 15/00; G09G 5/00; H04N 5/44, 5/445, 7/16, 7/173 (2013.01)
USPC -348/553; 725/39-55, 60, 100, 105, 110, 112, 113, 135, 136

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
CPC - H04N 5/00, 7/00 (2013.01)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Orbit, Google Patents, Google, Google Scholar

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2010/0013997 A1 (HWANG) 21 January 2010 (21.01.2010) entire document	1-20
Y	US 7,493,641 B2 (Klosterman et al.) 17 february 2009 (17.02.2009) entire document	1-20
A	US 2004/0216156 A1 (Wagner) 28 October 2004 (28.10.2004) entire document	1-20
A	US 2007/0261090 A1 (Miller et al.) 08 November 2007 (08.11.2007) entire document	1-20
A	US 7,487,529 B1 (Orlick) 03 February 2009 (03.02.2009) entire document	1-20

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
07 November 2013	02 DEC 2013
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: THAINE LENNOX-GENTLE
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)* 02 DEC 2013

Applicant's or agent's file reference	FOR FURTHER ACTION
6583-450-PCT	See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US2013/055294	16 August 2013	17 August 2012

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H04N 5/445 (2013.01)
USPC - 725/39

Applicant FLEXTRONICS AP, LLC

1. This opinion contains indications relating to the following items:

- [x] Box No. I Basis of the opinion
- [ ] Box No. II Priority
- [ ] Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- [ ] Box No. IV Lack of unity of invention
- [x] Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- [ ] Box No. VI Certain documents cited
- [ ] Box No. VII Certain defects in the international application
- [ ] Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	07 November 2013	Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055294

Box No. I **Basis of this opinion**

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

      ☐ on paper

      ☐ in electronic form

   b. (time)

      ☐ in the international application as filed

      ☐ together with the international application in electronic form

      ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055294

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	1-20	YES
	Claims	None	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	None	NO

2. Citations and explanations:

Claims 1-20 lacks an inventive step under PCT Article 33(3) as being obvious over Hwang in view of Klosterman et al.

Regarding claim 1, Hwang disclose a method (Metadata Display Control Method and System for Broadcast Receiver, abstract), comprising:

Presenting, via a display of an intelligent television (TV), live TV content, wherein the live TV content is presented to a first portion of the display (The display unit 140 displays the video data of the broadcast program transmitted by the broadcast station, fig.1-2, para. 0033);

Receiving an electronic program guide (EPG) presentation input at the intelligent TV (Electronic Program Guide (EPG) is referred to as "Metadata", para. 0005, 0026; Interactive TV 100 receives the broadcast programs and Metadata associated with broadcast program, fig. 2, 0036); and

Determining, by a processor associated with the intelligent TV and in response to receiving the EPG presentation input, EPG information that corresponds to at least one of the presented live TV content and the EPG presentation input received (the metadata is transmitted to the mobile terminal 300 through a Bluetooth link established between the interactive TV 100 and the mobile terminal 300, para. 0036, 0037; the controller 370 monitors to detect user command input by the viewer and determines , if a user command is detected, once determined if the metadata is received, the metadata (EPG) associated with the broadcast program is displayed, fig. 6, para. 0064-0065); and

Retrieving, from at least one source, the EPG information (the control unit 160 of the interactive TV 100 receives metadata (EPG) associated broadcast programs provided by the broadcast station or broadcast service provider, fig. 1, para. 0035).

Hwang fails to specifically teach determining, by processor, an EPG presentation layout, wherein the EPG presentation layout includes at least one position associated with content of the EPG information within a live TV application panel. However, Klosterman et al. discloses a system/method for displaying an electronic program guide (Abstract) and teaches determining an EPG presentation layout, wherein the EPG presentation layout includes at least one position associated with content of the EPG information within a live TV application panel (a program guide data processor 1205 and a plug-in program guide controller module 1240 wherein the module 1240 determines the program guide 1205 capabilities by allowing user to customize the program guide layout, fig. 12, col.12, lines 65-67 and col. 13, lines 10-21; a user may evoke a preview screen within the display content where the user can view EPG information within a live TV application panel which can be referred to a hypertune, fig. 6d, col. 10, lines 1-14).

Hwang teaches that the metadata (EPG) can overlap the broadcast program displayed on screen of the interactive TV 100 (fig. 2, para. 0036), but fails to specifically teach presenting, via the display, the EPG information in the EPG presentation layout to a second portion of the display, wherein the second portion of the display is associated with the live TV application panel, and wherein the live TV application panel overlaps at least a portion of the presented live TV content. However, Klosterman et al. teaches presenting, via the display, the EPG information in the EPG presentation layout to a second portion of the display, wherein the second portion of the display is associated with the live TV application panel, and wherein the live TV application panel overlaps at least a portion of the presented live TV content (a preview window or a pop-up window that can overlap the current live program while searching or messaging the program guide via user interaction, fig. 2, col. 7, lines 62-67 and fig. 5a, col. 8, lines 42-59 and fig. 6d, col. 10, lines 1-14). Therefore, it would have been obvious to one of ordinary skill at the time of the invention to use the teaching of an Electronic Program Guide display system and method that includes a processor capable of processing the user command for EPG layout presentation and output displays overlays, picture-in-picture, and pop-up windows while responding to user commands during live content broadcast as taught by Klosterman et al. to incorporate the above EPG displaying features in the invention of Hwang in order to provide an easy and convenient way to manipulate the electronic program guide based on user command and preferences (Klosterman et al., col. 1, line 64 - col. 2, line 7).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
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Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding claim 2, Hwang disclose the method of claim 1, wherein determining the EPG presentation layout further comprises:
Referring to rules stored in a memory, wherein the rules include one or more EPG information layout templates, wherein the one or more EPG information layout templates correspond to one or more EPG presentation inputs (storage 360 stores application programs associated with functions of the mobile terminal 300, metadata and sub-metadata from interactive TV or user data and may be divided into program region and a data region, fig. 4, para. 0048);
Matching the received EPG presentation input to one of the one or more EPG presentation inputs (user selects one of the items constituting the metadata, controller 370 transmits the information of the selected item to the interactive TV 100 and the metadata is displayed currently, when channel is switched or program ended, fig. 4, para.0050); and
Hwang fails to specifically teach determining, based on the match, a select EPG information layout template for the EPG presentation layout from the one or more EPG information layout templates. However, Klosterman et al. teaches determining, based on the match, a select EPG information layout template for the EPG presentation layout from the one or more EPG information layout templates (an electronic program guide that can have different display arrangements such as different typeface, different color, given additional space for program description or other graphic enhancements, thereby one can conclude that such preference is stored in a computer readable medium of the device 100, fig. 2, col. 6, lines 59-63; User can upgrade/change program guides based on preferences, col. 13, lines 10-25. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teaching of the use of EPG layout choices stored in memory based on user or provider as taught by Klosterman et al. to incorporate the above features in the invention of Hwang in order to allow modification and alterations to the program guide without requiring major hardware changes.

Regarding claim 3, Hwang discloses the method of claim 1, wherein the EPG information is retrieved from two or more signal sources (EPG information is retrieved from interactive TV control system includes broadcast receiver unit 110, data processing unit 115, a feedback data transmitter 120, Bluetooth unit 130, storage unit 120 and a control unit 160, Fig. 2, para, 0028).

Regarding claim 4, Hwang discloses the method of claim 1, wherein the at least one source is at least one of a local memory, a remote memory, a broadcast signal, and a memory located across a network (broadcast receiver unit 110 receives and processes the broadcast signals and transmitter 120 receives and transmits channel data via IP network, fig. 2, para. 0029 and para. 0031).

Regarding claim 5, Hwang discloses the method of claim 1, wherein at least one of EPG information and the live TV application panel is at least partially transparent, and wherein the presented live TV content is visible beneath the presented EPG information (the Bluetooth communication link established through the interactive TV 100 is disabled allowing the metadata (EPG, para. 0026) to overlap the current broadcast program displayed, fig. 1, para. 0036).

Regarding claim 6, Hwang disclose the method of claim 1, wherein the EPG presentation input is provided via an input device associated with the intelligent TV (mobile terminal 300 can communicate with interactive TV 100, the viewer may request and receive metadata from the mobile device 300, fig. 1, para. 0036 and fig. 6, para. 0064).

Regarding claim 7, Hwang disclose the method of claim 1, but fails to specifically teach wherein the EPG presentation layout is arranged to present the EPG information in a tabular format. However, Klosterman et al. teaches wherein the EPG presentation layout is arranged to present the EPG information in a tabular format (a grid format for the schedule guide display output based on an x-y axis layout, fig. 1 & fig. 3a, col. 5, lines 44-46). It would have been obvious to one of ordinary skill at the time of the invention to use the teachings of a grid format arrangement for the EPG layout displayed on the interactive TV as taught by Klosterman et al. to incorporate the above EPG presentation layout in the invention of Hwang in order to provide multiple options for viewing and selecting EPG information for user, providing an easier access to information or by providing a user a customization experience.

Regarding claim 8, Hwang disclose the method of claim 7, but fails to specifically teach wherein the tabular format is ordered by at least one of channel number and time associated with the EPG information. However, Klosterman et al. teaches wherein the tabular format is ordered by at least one of channel number and time associated with the EPG information (guide screen 200 contains cells 245 and each cell may contain channel number 32, program service name, and Program Broadcast Service name, fig. 2, col. 6, lines 46-52; an EPG layout format that includes channel name, time and additional information as it relates to the EPG information provided (fig. 4a, col. 8, lines 17-25). It would have been obvious to one of ordinary skill at the time of the invention to use the teaching of a program guide with program detail information such as time, name and channel of the program information as taught by Klosterman et al. to incorporate the above features in the invention of Hwang in order to provide user with detailed information and options for easy manipulation by user in an electronic program guide system and method.

Regarding claim 9, Hwang disclose the method of claim 8, wherein the EPG information is associated with preferred content (controller 370 detects and determines user commands and user selection command of metadata (EPG) associated with broadcast program, fig. 6, para. 0064-0066).

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Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding claim 10, Hwang disclose the method of claim 1, further comprising:
Determining a select-focus is associated with an EPG entry in the presented EPG information (Controller 370 determines user selection command input based on the received metadata (EPG) information, fig. 6, para. 0065-0066).
Hwang fails to specifically teach initiating a timer associated with the determined select-focus, wherein the timer includes a goal timer. However, Klosterman et al. teaches initiating a timer associated with the determined select-focus, wherein the timer includes a goal timer (a guide screen 400 having an interactive information region where the user can select a program that has a later scheduled time and may select the recording option or the auto tune option to view upcoming program or the description of the program content, fig. 4,col. 8, lines 26-41).
Hwang also fails to specifically teach presenting, upon reaching the goal time, an EPG preview window adjacent to the EPG entry associated with the select-focus, wherein the EPG preview window includes at least one of a thumbnail graphic, a description, and a time associated with the EPG entry. However, Klosterman et al. teaches presenting, upon reaching the goal time, an EPG preview window adjacent to the EPG entry associated with the select-focus, wherein the EPG preview window includes at least one of a thumbnail graphic, a description, and a time associated with the EPG entry (a guide screen 500 that has an interactive region 520 where message screen 550 displays description of the program content and may contain an icon linked to a short video preview and the preview may be in the form of picture-in-picture displaying possible information about upcoming program, fig. 5a-b, col. 8, lines 43-59). It would have been obvious to one of ordinary skill at the time of the invention to use the teachings of a timer and a preview window capable of recording or auto tuning broadcast programs along with EPG information displayed in a preview window as taught by Klosterman et al. to incorporate the above EPG features in the invention of Hwang in order to provide users with the convenience of viewing a program at a later time or to preview a program to determine the user's preference.

Regarding claim 11, Hwang discloses the method of claim 10, wherein the EPG preview window includes a preview indicator, and wherein the preview indicator is linked to the EPG entry (the Interactive TV 100 displays a query message asking whether to receive the metadata (EPG) in the form of pop-up window, for example a user selects a channel on the interactive TV 100, then a pop-up window is displayed presenting a querying message asking whether to receive metadata (EPG) associated with broadcast program on display, fig. 5, para. 0056-0057).

Regarding claim 12, Hwang disclose a tangible, non-transitory computer readable medium having instructions stored there on that, when executed by a processor (storage unit 360 stores application programs, metadata and sub metadata, fig. 3, para.0048), perform the method comprising:
Presenting, via a display of an intelligent television (TV), live TV content, wherein the live TV content is presented to a first portion of the display (The display unit 140 displays the video data of the broadcast program transmitted by the broadcast station, fig.1-2, para. 0033);
Receiving an electronic program guide (EPG) presentation input at the intelligent TV (Electronic Program Guide (EPG) is referred to as "Metadata", para. 0026; Interactive TV 100 receives the broadcast programs and Metadata associated with broadcast program, fig. 2, para. 0036); and
Determining, by a processor associated with the intelligent TV and in response to receiving the EPG presentation input, EPG information that corresponds to at least one of the presented live TV content and the EPG presentation input received (the metadata is transmitted to the mobile terminal 300 through a Bluetooth link established between the interactive TV 100 and the mobile terminal 300, para. 0036, 0037; the controller 370 monitors to detect user command input by the viewer and determines , if a user command is detected, once determined if the metadata is received, the metadata (EPG) associated with the broadcast program is displayed, fig. 6, para. 0064-0065); and
Retrieving, from at least one source, the EPG information (the control unit 160 of the interactive TV 100 receives metadata (EPG) associated broadcast programs provided by the broadcast station or broadcast service provider, fig. 1, para. 0035).
Hwang fails to specifically teach determining, by processor, an EPG presentation layout, wherein the EPG presentation layout includes at least one position associated with content of the EPG information within a live TV application panel. However, Klosterman et al. discloses a system/method for displaying an electronic program guide (Abstract) and teaches determining an EPG presentation layout, wherein the EPG presentation layout includes at least one position associated with content of the EPG information within a live TV application panel (a program guide data processor 1205 and a plug-in program guide controller module 1240 wherein the module 1240 determines the program guide 1205 capabilities by allowing user to customize the program guide layout, fig. 12, col.12, lines 65-67 and col. 13, lines 10-21; a user may evoke a preview screen within the display content where the user can view EPG information within a live TV application panel which can be referred to a hypertune, fig. 6d, col. 10, lines 1-14).
Hwang teaches that the metadata (EPG) can overlap the broadcast program displayed on screen of the interactive TV 100 (fig. 2, para. 0036), but fails to specifically teach presenting, via the display, the EPG information in the EPG presentation layout to a second portion of the display, wherein the second portion of the display is associated with the live TV application panel, and wherein the live TV application panel overlaps at least a portion of the presented live TV content. However, Klosterman et al. teaches presenting, via the display, the EPG information in the EPG presentation layout to a second portion of the display, wherein the second portion of the display is associated with the live TV application panel, and wherein the live TV application panel overlaps at least a portion of the presented live TV content (a preview window or a pop-up window that can overlap the current live program while searching or messaging the program guide via user interaction, fig. 2, col. 7, lines 62-67 and fig. 5a, col. 8, lines 42-59 and fig. 6d, col. 10, lines 1-14). Therefore, it would have been obvious to one of ordinary skill at the time of the invention to use the teaching the teaching of an Electronic Program Guide display system and method that includes a processor capable of processing the user command for EPG layout presentation and output displays overlays, picture-in-picture, and pop-up windows while responding to user commands during live content broadcast as taught by Klosterman et al. to incorporate the above EPG displaying features in the invention of Hwang in order to provide an easy and convenient way to manipulate the electronic program guide based on user command and preferences (Klosterman et al., col. 1, line 64 - col. 2, line 7).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

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Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding claim 13, Hwang disclose the tangible, non-transitory computer readable medium of claim 12, wherein determining the EPG presentation layout further comprises:

Referring to rules stored in a memory, wherein the rules include one or more EPG information layout templates, wherein the one or more EPG information layout templates correspond to one or more EPG presentation inputs (storage 360 stores application programs associated with functions of the mobile terminal 300, metadata and sub-metadata from interactive TV or user data and may be divided into program region and a data region, fig. 4, para. 0048);

Matching the received EPG presentation input to one of the one or more EPG presentation inputs (user selects one of the items constituting the metadata, controller 370 transmits the information of the selected item to the interactive TV 100 and the metadata is displayed currently, when channel is switched or program ended, fig. 4, para.0050).

Hwang fails to specifically teach determining, based on the match, a select EPG information layout template for the EPG presentation layout from the one or more EPG information layout templates. However, Klosterman et al. teaches determining, based on the match, a select EPG information layout template for the EPG presentation layout from the one or more EPG information layout templates (an electronic program guide that can have different display arrangements such as different typeface, different color, given additional space for program description or other graphic enhancements, thereby one can conclude that such preference is stored in a computer readable medium of the device 100, fig. 2, col. 6, lines 59-63; User can upgrade/change program guides based on preferences, col. 13, lines 10-25). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of the use of EPG layout choices stored in memory based on user or provider as taught by Klosterman et al. to incorporate the above desired EPG features in the invention of Hwang in order to allow modification and alterations to the program guide without requiring major hardware changes.

Regarding claim 14, Hwang discloses the tangible, non-transitory computer readable medium of claim 12, wherein the EPG information is retrieved from two or more signal sources (EPG information is retrieved from interactive TV control system includes broadcast receiver unit 110, data processing unit 115, a feedback data transmitter 120, Bluetooth unit 130, storage unit 120 and a control unit 160, Fig. 2, para, 0028).

Regarding claim 15, Hwang discloses the tangible, non-transitory computer readable medium of claim 12, wherein the at least one source is at least one of a local memory, a remote memory, a broadcast signal, and a memory located across a network (broadcast receiver unit 110 receives and processes the broadcast signals and transmitter 120 receives and transmits channel data via IP network, fig. 2, para. 0029 and para. 0031).

Regarding claim 16, Hwang discloses the tangible, non-transitory computer readable medium of claim 12, wherein at least one of EPG information and the live TV application panel is at least partially transparent, and wherein the presented live TV content is visible beneath the presented EPG information (the Bluetooth communication link established through the interactive TV 100 is disabled allowing the metadata (EPG, para. 0026) to overlap the current broadcast program displayed, fig. 1, para. 0036).

Regarding claim 17, Hwang disclose the tangible, non-transitory computer readable medium of claim 12, but fails to specifically teach wherein the EPG presentation layout is arranged to present the EPG information in a tabular format. However, Klosterman et al. teaches wherein the EPG presentation layout is arranged to present the EPG information in a tabular format (a grid format for the schedule guide display output based on an x-y axis layout, fig. 1 & fig. 3a, col. 5, lines 44-46). ITherefore, it would have been obvious to one of ordinary skill at the time of the invention to combine a grid format arrangement for the EPG layout displayed on the interactive TV as taught by Klosterman et al. to incorporate the above desired EPG displaying format in the invention of Hwang in order to provide multiple options for viewing and selecting EPG information for user, providing an easier access to information or by providing a user a customization experience.

Regarding claim 18, Hwang disclose the tangible, non-transitory computer readable medium of claim 12, wherein the method further comprising:

Determining a select-focus is associated with an EPG entry in the presented EPG information (Controller 370 determines user selection command input based on the received metadata (EPG) information, fig. 6, para. 0065-0066).

Hwang fails to specifically teach initiating a timer associated with the determined select-focus, wherein the timer includes a goal timer. However, Klosterman et al. teaches initiating a timer associated with the determined select-focus, wherein the timer includes a goal timer (a guide screen 400 having an interactive information region where the user can select a program that has a later scheduled time and may select the recording option or the auto tune option to view upcoming program or the description of the program content, fig. 4,col. 8, lines 26-41).

Hwang also fails to specifically teach presenting, upon reaching the goal time, an EPG preview window adjacent to the EPG entry associated with the select-focus, wherein the EPG preview window includes at least one of a thumbnail graphic, a description, and a time associated with the EPG entry. However, Klosterman et al. teaches presenting, upon reaching the goal time, an EPG preview window adjacent to the EPG entry associated with the select-focus, wherein the EPG preview window includes at least one of a thumbnail graphic, a description, and a time associated with the EPG entry (a guide screen 500 that has an interactive region 520 where message screen 550 displays description of the program content and may contain an icon linked to a short video preview and the preview may be in the form of picture-in-picture displaying possible information about upcoming program, fig. 5a-b, col. 8, lines 43-59). Therefore, it would have been obvious to one of ordinary skill at the time of the invention to use the teachings of a timer and a preview window capable of recording or auto tuning broadcast programs along with EPG information displayed in a preview window as taught by Klosterman et al. to incorporate the above desired EPG features in the invention of Hwang in order to provide users with the convenience of viewing a program at a later time or to preview a program to determine the user's preference.

Regarding claim 19, Hwang discloses the tangible, non-transitory computer readable medium of claim 12, wherein the EPG preview window includes a preview indicator, and wherein the preview indicator is linked to the EPG entry (the Interactive TV 100 displays a query message asking whether to receive the metadata (EPG) in the form of pop-up window, for example a user selects a channel on the interactive TV 100, then a pop-up window is displayed presenting a querying message asking whether to receive metadata (EPG) associated with broadcast program on display, fig. 5, para. 0056-0057).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

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Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding claim 20, Hwang disclose a system (Interactive TV of a metadata display control system, abstract, fig.1) comprising:
An intelligent television (TV) having a display and a tuner, wherein the tuner is configured to receive and convert broadcast content signals to be displayed by the display (Interactive TV 100 having display unit 140 and broadcast receiver unit 110 includes a tuner and demodulator which receives and converts broadcast signal to be outputted to the display unit 140, fig. 2, para. 0029-0030);
An input device associated with the intelligent TV (mobile terminal 300, fig. 1, para. 0032);
A memory (storage unit 150 and storage 360 stores application programs, metadata, sub metadata, and recorded broadcast programs fig. 2, para. 0034 and fig. 4, para. 0048); and
A microprocessor (Data processing unit 115, fig. 2, para. 0030) operable to:
Present, via a display of an intelligent television (TV), live TV content, wherein the live TV content is presented to a first portion of the display (The display unit 140 displays the video data of the broadcast program transmitted by the broadcast station, fig.1-2, para. 0033);
Receive an electronic program guide (EPG) presentation input at the intelligent TV (Electronic Program Guide (EPG) is referred to as "Metadata", para. 0005, 0026; Interactive TV 100 receives the broadcast programs and Metadata associated with broadcast program, fig. 2, para. 0036); and
Determine, in response to receiving the EPG presentation input, EPG information that corresponds to at least one of the presented live TV content and the EPG presentation input received (the metadata is transmitted to the mobile terminal 300 through a Bluetooth link established between the interactive TV 100 and the mobile terminal 300, para. 0036, 0037; the controller 370 monitors to detect user command input by the viewer and determines , if a user command is detected, once determined if the metadata is received, the metadata (EPG) associated with the broadcast program is displayed, fig. 6, para. 0064-0065); and
Retrieve, from at least one source, the EPG information (the control unit 160 of the interactive TV 100 receives metadata (EPG) associated broadcast programs provided by the broadcast station or broadcast service provider, fig. 1, para. 0035).
Hwang fails to specifically teach determine, an EPG presentation layout, wherein the EPG presentation layout includes at least one position associated with content of the EPG information within a live TV application panel. However, Klosterman et al. discloses a system/method for displaying an electronic program guide (Abstract) and teaches determine an EPG presentation layout, wherein the EPG presentation layout includes at least one position associated with content of the EPG information within a live TV application panel (a program guide data processor 1205 and a plug-in program guide controller module 1240 wherein the module 1240 determines the program guide 1205 capabilities by allowing user to customize the program guide layout, fig. 12, col.12, lines 65-67 and col. 13, lines 10-21; a user may evoke a preview screen within the display content where the user can view EPG information within a live TV application panel which can be referred to a hypertune, fig. 6d, col. 10, lines 1-14).
Hwang teaches that the metadata (EPG) can overlap the broadcast program displayed on screen of the interactive TV 100 (fig. 2, para. 0036), but fails to specifically teach present, via the display, the EPG information in the EPG presentation layout to a second portion of the display, wherein the second portion of the display is associated with the live TV application panel, and wherein the live TV application panel overlaps at least a portion of the presented live TV content. However, Klosterman et al. teaches resent, via the display, the EPG information in the EPG presentation layout to a second portion of the display, wherein the second portion of the display is associated with the live TV application panel, and wherein the live TV application panel overlaps at least a portion of the presented live TV content (a preview window or a pop-up window that can overlap the current live program while searching or messaging the program guide via user interaction, fig. 2, col. 7, lines 62-67 and fig. 5a, col. 8, lines 42-59 and fig. 6d, col. 10, lines 1-14). Therefore, it would have been obvious to one of ordinary skill at the time of the invention to use the teaching of an Electronic Program Guide display system and method that includes a processor capable of processing the user command for EPG layout presentation and output displays overlays, picture-in-picture, and pop-up windows while responding to user commands during live content broadcast as taught by Klosterman et al. to incorporate the above EPG displaying features in the invention of Hwang in order to provide an easy and convenient way to manipulate the electronic program guide based on user command and preferences (Klosterman et al., col. 1, line 64 - col. 2, line 7).

Claims 1-20 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: THAINE LENNOX-GENTLE
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference 6583-451-PCT	Date of mailing *(day/month/year)* 29 NOV 2013 **FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. PCT/US2013/055296	International filing date *(day/month/year)* 16 August 2013
Applicant FLEXTRONICS AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-451-PCT	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US2013/055296	International filing date *(day/month/year)* 16 August 2013	(Earliest) Priority Date *(day/month/year)* 17 August 2012
Applicant FLEXTRONICS AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 21

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

Form PCT/ISA/210 (first sheet) (July 2009)

INTERNATIONAL SEARCH REPORT PCT/US2013/055296 29.11.2013

International application No.
PCT/US2013/055296

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H04N 5/445 (2013.01)
USPC - 725/39
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) - H04N 5/445, 7/173 (2013.01)
USPC - 348/E5.104, E5.105, E5.112; 725/39, 40, 43, 44, 47

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
CPC - H04N 5/45, 5/44543, 21/47, 21/482, 21/4316, 21/4626 (2013.01)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
PatBase, Google Patents, Google

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/0067376 A1 (MARTIN et al) 06 June 2002 (06.06.2002) entire document	1-20
A	US 2001/0056577 A1 (GORDON et al) 27 December 2001 (27.12.2001) entire document	1-20
A	US 2011/0145860 A1 (WEI) 16 June 2011 (16.06.2011) entire document	1-20
A	US 8,220,021 B1 (LOOK et al) 10 July 2012 (10.07.2012) entire document	1-20

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
14 November 2013	29 NOV 2013
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: THAINE LENNOX-GENTLE
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	29 NOV 2013
Applicant's or agent's file reference 6583-451-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US2013/055296	16 August 2013	17 August 2012

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H04N 5/445 (2013.01)
USPC - 725/39

Applicant FLEXTRONICS AP, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	14 November 2013	Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055296

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

      ☐ on paper

      ☐ in electronic form

   b. (time)

      ☐ in the international application as filed

      ☐ together with the international application in electronic form

      ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055296

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	None	YES
	Claims	1-20	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	None	NO

2. Citations and explanations:

Claims 1-20 lack novelty under PCT Article 33(2) as being anticipated by Martin et al. hereinafter referred to as Martin.
Regarding Claim 1, Martin discloses a method, comprising: presenting, via a display of an intelligent television (TV) (Para. [0005] regarding systems and methods described herein relate to a portal for simultaneously viewing video channels, launching interactive applications, and/or interfacing with locally or remotely stored content), live TV broadcast content (Fig. 7A regarding talkshow video 700; Para. [0088] regarding A given page may display a composite program consisting entirely of live video cells, a composite program containing some live video combined with locally displayed content), wherein the live TV broadcast content is presented to a first portion of the display (Fig. 7A regarding talkshow video 700 over the entire display); receiving an informational input at the intelligent TV (Para. [0122] regarding When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed); determining, by a processor associated with the intelligent TV and in response to receiving the informational input, live TV informational content that corresponds to at least one of the presented live TV broadcast content and the informational input received (Para. [0122] regarding When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed with details on the selected subject); retrieving, from at least one source, the live TV informational content (Para. [0035] regarding multiplexer 1040 handles audio and video data received from a number of parallel sources and interacts with transmitter 1080 to broadcast the information along a number of channels. In addition to audio and video data, messages, applications); and presenting, via the display, the live TV informational content to a second portion of the display (Fig. 7A regarding info content 704, 706, 708 within semitransparent bar 702; Fig. 7B regarding info cell 710, overlay 712), wherein the second portion of the display is associated with a live TV application panel (Para. [0122] regarding When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed with details on the selected subject), and wherein the live TV application panel overlaps at least a portion of the presented live TV broadcast content (Para. [0122] regarding a semi-transparent bar 702 across the bottom of the screen that includes an information icon... the text may be in a semi-transparent background overlaid in the upper left corner of screen 700).

Regarding Claim 2, Martin discloses the method of claim 1, and further discloses wherein determining the live TV informational content further comprises: referring to rules stored in a memory (Para. [0049] regarding STB 1140 includes a central processor 220 including associated memory elements and adapted to receive input data from...remote; Para. [0051] regarding The memory of STB 1140 may include EEPROM, host RAM, flash memory for software and data), wherein the rules include one or more informational content fields mapped to at least one live TV broadcast content type (Para. [0051] regarding The memory of STB 1140 may include EEPROM, host RAM, flash memory for software and data; Para. [0052] regarding Graphics processor 252 is preferably designed to generate a screen display combining moving images together with overlaid text or other images. More specifically, graphics processor 252 can combine four layers; Para. [0122] regarding a new overlay 712 is displayed with details on the selected subject); comparing a live TV broadcast content type associated with the presented live TV broadcast content with the one or more mapped informational content fields (Para. [0052] regarding central processor 220 and combines this information with information received from video decoder 248 to generate the screen display; Para. [0122] regarding a new overlay 712 is displayed with details on the selected subject); determining select informational content fields from the one or more mapped informational content fields (Para. [0122] regarding a new overlay 712 is displayed with details on the selected subject), wherein the select informational content fields are associated with the live TV broadcast content type associated with the presented live TV broadcast content (Para. [0122] regarding If the highlights icon 706 is selected, a composite video is shown with the talk show video in a window 730 positioned at the upper right corner of the screen and a highlight clip looping in a main window 732); and including the select informational content fields in the live TV informational content for retrieval (Para. [0122] regarding each entry in the information cell 710 can be highlighted using directional keys on remote control 230. When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed).

Regarding Claim 3, Martin discloses the method of claim 1, and further discloses wherein the live TV informational content is retrieved from two or more signal sources (Para. [0035] regarding multiplexer 1040 handles audio and video data received from a number of parallel sources and interacts with transmitter 1080 to broadcast the information along a number of channels. In addition to audio and video data, messages, applications (software programs), CD-quality audio data or any other type of digital data may be introduced into some or all of these channels intermixed).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055296

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding Claim 4, Martin discloses the method of claim 1, and further discloses wherein the at least one source is at least one of a local memory, a remote memory, a broadcast signal, and a memory located across a network (Para. [0035] regarding multiplexer 1040 handles audio and video data received from a number of parallel sources and interacts with transmitter 1080 to broadcast the information along a number of channels. In addition to audio and video data, messages, applications (software programs), CD-quality audio data or any other type of digital data may be introduced into some or all of these channels intermixed; Para. [0050] regarding STB 1140 also includes a tuner 242 and demodulator 244).

Regarding Claim 5, Martin discloses the method of claim 1, and further discloses wherein at least one of the live TV informational content and the live TV application panel is at least partially transparent, and wherein the presented live TV broadcast content is visible beneath the presented live TV informational content (Para. [0122] regarding a semi-transparent bar 702 across the bottom of the screen that includes an information icon 704... the text may be in a semi-transparent background overlaid in the upper left comer of screen 700).

Regarding Claim 6, Martin discloses the method of claim 1, and further discloses wherein a size of the first portion is maintained upon presenting the live TV informational content via the second portion of the display (Fig. 7A to Fig. 7B, wherein talkshow video 700 remains the same size while info 704, 706, 708, window 710, overlay 712 are displayed).

Regarding Claim 7, Martin discloses the method of claim 1, and further discloses wherein the informational input is provided via an input device associated with the intelligent TV (Para. [0122] regarding When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed).

Regarding Claim 8, Martin discloses the method of claim 1, and further discloses wherein the presented live TV broadcast content includes at least one of a movie, a TV program, a sport event, a TV special, and a radio program (Fig. 7A regarding talkshow video 700).

Regarding Claim 9, Martin discloses the method of claim 8, and further discloses wherein the presented live TV informational content includes at least one of a program description, a channel identifier, a thumbnail graphic, an electronic program guide (EPG), and preference information (Para. [0122] regarding When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed with details on the selected subject; Para. [0055] regarding program guide applications).

Regarding Claim 10, Martin discloses a tangible, non-transitory computer readable medium having instructions stored thereon that, when executed by a processor (Para. [0051] regarding The memory of STB 1140 may include EEPROM, host RAM, flash memory for software and data), perform the method comprising: presenting, via a display of an intelligent television (TV) (Para. [0005] regarding systems and methods described herein relate to a portal for simultaneously viewing video channels, launching interactive applications, and/or interfacing with locally or remotely stored content), live TV broadcast content (Fig. 7A regarding talkshow video 700; Para. [0088] regarding A given page may display a composite program consisting entirely of live video cells, a composite program containing some live video combined with locally displayed content), wherein the live TV broadcast content is presented to a first portion of the display (Fig. 7A regarding talkshow video 700 over the entire display); receiving an informational input at the intelligent TV (Para. [0122] regarding When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed); determining, by a processor associated with the intelligent TV and in response to receiving the informational input, live TV informational content that corresponds to at least one of the presented live TV broadcast content and the informational input received (Para. [0122] regarding When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed with details on the selected subject); retrieving, from at least one source, the live TV informational content (Para. [0035] regarding multiplexer 1040 handles audio and video data received from a number of parallel sources and interacts with transmitter 1080 to broadcast the information along a number of channels. In addition to audio and video data, messages, applications); and presenting, via the display, the live TV informational content to a second portion of the display (Fig. 7A regarding info content 704, 706, 708 within semitransparent bar 702; Fig. 7B regarding info cell 710, overlay 712), wherein the second portion of the display is associated with a live TV application panel (Para. [0122] regarding When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed with details on the selected subject), and wherein the live TV application panel overlaps at least a portion of the presented live TV broadcast content (Para. [0122] regarding a semi-transparent bar 702 across the bottom of the screen that includes an information icon... the text may be in a semi-transparent background overlaid in the upper left comer of screen 700).

Regarding Claim 11, Martin discloses a tangible, non-transitory computer readable medium of claim 10, wherein determining the live TV informational content of the method further comprises: referring to rules stored in a memory (Para. [0049] regarding STB 1140 includes a central processor 220 including associated memory elements and adapted to receive input data from...remote; Para. [0051] regarding The memory of STB 1140 may include EEPROM, host RAM, flash memory for software and data), wherein the rules include one or more informational content fields mapped to at least one live TV broadcast content type (Para. [0051] regarding The memory of STB 1140 may include EEPROM, host RAM, flash memory for software and data; Para. [0052] regarding Graphics processor 252 is preferably designed to generate a screen display combining moving images together with overlaid text or other images. More specifically, graphics processor 252 can combine four layers; Para. [0122] regarding a new overlay 712 is displayed with details on the selected subject); comparing a live TV broadcast content type associated with the presented live TV broadcast content with the one or more mapped informational content fields (Para. [0052] regarding central processor 220 and combines this information with information received from video decoder 248 to generate the screen display; Para. [0122] regarding a new overlay 712 is displayed with details on the selected subject); determining select informational content fields from the one or more mapped informational content fields (Para. [0122] regarding a new overlay 712 is displayed with details on the selected subject), wherein the select informational content fields are associated with the live TV broadcast content type associated with the presented live TV broadcast content (Para. [0122] regarding If the highlights icon 706 is selected, a composite video is shown with the talk show video in a window 730 positioned at the upper right corner of the screen and a highlight clip looping in a main window 732); and including the select informational content fields in the live TV informational content for retrieval (Para. [0122] regarding each entry in the information cell 710 can be highlighted using directional keys on remote control 230. When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055296

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding Claim 12, Martin discloses the tangible, non-transitory computer readable medium of claim 10, and further discloses wherein the live TV informational content is retrieved from two or more signal sources (Para. [0035] regarding multiplexer 1040 handles audio and video data received from a number of parallel sources and interacts with transmitter 1080 to broadcast the information along a number of channels. In addition to audio and video data, messages, applications (software programs), CD-quality audio data or any other type of digital data may be introduced into some or all of these channels intermixed).

Regarding Claim 13, Martin discloses the tangible, non-transitory computer readable medium of claim 10, and further discloses wherein the at least one source is at least one of a local memory, a remote memory, a broadcast signal, and a memory located across a network (Para. [0035] regarding multiplexer 1040 handles audio and video data received from a number of parallel sources and interacts with transmitter 1080 to broadcast the information along a number of channels. In addition to audio and video data, messages, applications (software programs), CD-quality audio data or any other type of digital data may be introduced into some or all of these channels intermixed; Para. [0050] regarding STB 1140 also includes a tuner 242 and demodulator 244).

Regarding Claim 14, Martin discloses the tangible, non-transitory computer readable medium of claim 10, and further discloses wherein at least one of the live TV informational content and the live TV application panel is at least partially transparent, and wherein the presented live TV broadcast content is visible beneath the presented live TV informational content (Para. [0122] regarding a semi-transparent bar 702 across the bottom of the screen that includes an information icon 704... the text may be in a semi-transparent background overlaid in the upper left comer of screen 700).

Regarding Claim 15, Martin discloses the tangible, non-transitory computer readable medium of claim 10, and further discloses wherein a size of the first portion is maintained upon presenting the live TV informational content via the second portion of the display (Fig. 7A to Fig. 7B, wherein talkshow video 700 remains the same size while info 704, 706, 708, window 710, overlay 712 are displayed).

Regarding Claim 16, Martin discloses the tangible, non-transitory computer readable medium of claim 10, and further discloses wherein the informational input is provided via an input device associated with the intelligent TV (Para. [0122] regarding When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed).

Regarding Claim 17, Martin discloses the tangible, non-transitory computer readable medium of claim 10, and further discloses wherein the presented live TV broadcast content includes at least one of a movie, a TV program, a sport event, a TV special, and a radio program (Fig. 7A regarding talkshow video 700).

Regarding Claim 18, Martin discloses the tangible, non-transitory computer readable medium of claim 17, and further discloses wherein the presented live TV informational content includes at least one of a program description, a channel identifier, a thumbnail graphic, an electronic program guide (EPG), and preference information (Para. [0122] regarding When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed with details on the selected subject; Para. [0055] regarding program guide applications).

Regarding Claim 19, Martin discloses a system, comprising: an intelligent television (TV) having a display (Para. [0005] regarding systems and methods described herein relate to a portal for simultaneously viewing video channels, launching interactive applications, and/or interfacing with locally or remotely stored content) and a tuner (Para. [0050] regarding STB 1140 also includes a tuner 24), wherein the tuner is configured to receive and convert broadcast content signals to be displayed by the display (Para. [0050] regarding STB 1140 also includes a tuner 242 and demodulator 244 (e.g., a 256 QAM demodulator) to receive and demodulate the received transmissions which are then filtered and demultiplexed by unit 240); an input device associated with the intelligent TV (Para. [0122] regarding When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed); a memory (Para. [0049] regarding STB 1140 includes a central processor 220 including associated memory elements); and a microprocessor (Para. [0049] regarding STB 1140 includes a central processor 220 including associated memory elements and adapted to receive input data from...remote) operable to: present, via the display, live TV broadcast content (Para. [0117] regarding a live event broadcast on at least one channel into the data stream of at least one other channel), wherein the live TV broadcast content is presented to a first portion of the display (Fig. 7A regarding talkshow video 700); receive an informational input at the intelligent TV (Para. [0122] regarding When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed); determine, in response to receiving the informational input, live TV informational content that corresponds to at least one of the presented live TV broadcast content and the informational input received (Para. [0122] regarding When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed with details on the selected subject); retrieve, from at least one source, the live TV informational content (Para. [0035] regarding multiplexer 1040 handles audio and video data received from a number of parallel sources and interacts with transmitter 1080 to broadcast the information along a number of channels. In addition to audio and video data, messages, applications); and present, via the display, the live TV informational content to a second portion of the display (Fig. 7A regarding info content 704, 706, 708 within semitransparent bar 702; Fig. 7B regarding info cell 710, overlay 712), wherein the second portion of the display is associated with a live TV application panel (Para. [0122] regarding When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed with details on the selected subject), and wherein the live TV application panel overlaps at least a portion of the presented live TV broadcast content (Para. [0122] regarding a semi-transparent bar 702 across the bottom of the screen that includes an information icon... the text may be in a semi-transparent background overlaid in the upper left comer of screen 700).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055296

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding Claim 20, Martin discloses the system of claim 19, and further discloses wherein determining the live TV informational content further comprises: referring to rules stored in the memory (Para. [0049] regarding STB 1140 includes a central processor 220 including associated memory elements and adapted to receive input data from...remote; Para. [0051] regarding The memory of STB 1140 may include EEPROM, host RAM, flash memory for software and data), wherein the rules include one or more informational content fields mapped to at least one live TV broadcast content type (Para. [0051] regarding The memory of STB 1140 may include EEPROM, host RAM, flash memory for software and data; Para. [0052] regarding Graphics processor 252 is preferably designed to generate a screen display combining moving images together with overlaid text or other images. More specifically, graphics processor 252 can combine four layers; Para. [0122] regarding a new overlay 712 is displayed with details on the selected subject); comparing a live TV broadcast content type associated with the presented live TV broadcast content with the one or more mapped informational content fields (Para. [0052] regarding central processor 220 and combines this information with information received from video decoder 248 to generate the screen display; Para. [0122] regarding a new overlay 712 is displayed with details on the selected subject); determining select informational content fields from the one or more mapped informational content fields (Para. [0122] regarding a new overlay 712 is displayed with details on the selected subject), wherein the select informational content fields are associated with the live TV broadcast content type associated with the presented live TV broadcast content (Para. [0122] regarding If the highlights icon 706 is selected, a composite video is shown with the talk show video in a window 730 positioned at the upper right corner of the screen and a highlight clip looping in a main window 732); and including the select informational content fields in the live TV informational content for retrieval (Para. [0122] regarding each entry in the information cell 710 can be highlighted using directional keys on remote control 230. When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed).

Claims 1-20 meet the criteria set out in PCT Article 33(4), and thus industrial applicability has been met because the subject matter claimed can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: Kendria E. Pearson
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, Colorado 80202
United States of America

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Date of mailing *(day/month/year)*	07 NOV 2013
Applicant's or agent's file reference: 6583-452-PCT	**FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No.: PCT/US13/55493	International filing date *(day/month/year)*: 18 August 2013 (18.08.2013)
Applicant: Flextronics AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Shane Thomas PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-452-PCT	**FOR FURTHER ACTION**	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US13/55493	International filing date *(day/month/year)* 18 August 2013 (18.08.2013)	(Earliest) Priority Date *(day/month/year)* 17 August 2012 (17.08.2012)
Applicant Flextronics AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 23B

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US13/55493

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - G06F 3/00, 13/00; H04N 5/445, 7/14 (2013.01)
USPC - 725/037, 39; 348/14.07
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8):G06T 15/00; G06F 3/00, 13/00; H04N 5/445, 7/14 (2013.01); USPC: 345/419; 725/037, 39; 348/14.03, 14.07

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
MicroPatent (US-G, US-A, EP-A, EP-B, WO, JP-bib, DE-C,B, DE-A, DE-T, DE-U, GB-A, FR-A); DialogPro (Derwent, INSPEC, NTIS, PASCAL, Current Contents Search, Dissertation Abstracts Online, Inside Conferences); IP.com; Google Scholar; intelligent, tv, television, smart, panel, display, detect, location, transparent, opaque, overlay, background, menu, guide

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,539,479 A (BERTRAM, R) July 23, 1996, column 2, lines 38-40, column 33, lines 28-33, column 37, lines 52-66, column 38, lines 45-49, column 37, line 66 through column 38, line 2	1-20
A	US 6,661,468 B2 (ALTEN, J et al.) December 9, 2003, entire document	1, 9, 18

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
30 October 2013 (30.10.2013)	07 NOV 2013
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: Kendria E. Pearson
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, Colorado 80202
United States of America

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	07 NOV 2013
Applicant's or agent's file reference 6583-452-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US13/55493	18 August 2013 (18.08.2013)	17 August 2012 (17.08.2012)

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - G06F 3/00, 13/00; H04N 5/445, 7/14 (2013.01)
USPC - 725/037, 39; 348/14.07

Applicant Flextronics AP, LLC

1. This opinion contains indications relating to the following items:

- [X] Box No. I Basis of the opinion
- [ ] Box No. II Priority
- [ ] Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- [ ] Box No. IV Lack of unity of invention
- [X] Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- [ ] Box No. VI Certain documents cited
- [ ] Box No. VII Certain defects in the international application
- [ ] Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 *bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to th IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Fom PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	30 October 2013 (30.10.2013)	Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55493

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

   ☐ on paper

   ☐ in electronic form

   b. (time)

   ☐ in the international application as filed

   ☐ together with the international application in electronic form

   ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55493

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	NONE	YES
	Claims	1-20	NO
Inventive step (IS)	Claims	NONE	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	NONE	NO

2. Citations and explanations:

Claims 1-20 lack novelty under PCT Article 33(2) as being anticipated by US 5,539,479 A Bertram.

As to claim 1, Bertram discloses a method, comprising: presenting, via a display of an intelligent television (TV) (set top devices used as accessories to television receivers may be incorporated directly into which are here called intelligent television receivers, column 33, lines 29-33), live TV broadcast content, wherein the live TV broadcast content is presented to a first portion of the display (the video stream images is displayed in a minor portion of the available screen area (the upper right hand corner) almost as if it were a so-called "picture in picture", with the remainder of the viewing field being occupied by listing of available choices, Figure 17, column 41, lines 34-39); receiving an application panel input at the intelligent TV, wherein the application panel input corresponds to at least one of a categories input, a favorites input, and a search input (When viewed channels or signal sources are thus constructed into a list, the list may be named such as "Fri Night" for favorite programs (favorites input) viewed that evening or "Kids" for programming specifically selected by or for children (categories input) and saved in system memory, Figure 17, column 41, lines 42-47); determining, by a processor associated with the intelligent TV and in response to receiving the application panel input, live TV application panel content that corresponds to a live TV application and the application panel input received (a processor controlling the video display to execute a control program formulated in a particularly concise language and controlling the display of menus and the like. Menus are displayed as overlays onto a live motion video image, Abstract); retrieving, from at least one source, the live TV application panel content (the display controller modifies displayed visual images by displaying over a portion of a live video images a menu display from which the human observer may select further modifications, FIGS. 13 through 15 column 40, lines 64-67); and presenting; via the display, the live TV application panel content to a second portion of the display, wherein the second portion of the display is associated with a live TV application panel, and wherein the live TV application panel overlaps at least a portion of the presented live TV broadcast content (the video stream images (live TV) is displayed in a minor portion of the available screen area (the upper right hand corner) almost as if it were a so-called "picture in picture", with the remainder of the viewing field being occupied by listing of available choices (TV application panel), Figure 17, column 41, lines 34-39).

As to claim 2, Bertram discloses the method of claim 1, wherein determining the live TV application panel content further comprises: referring to rules stored in a memory (the CPU may access control programs stored, for example, in the set top device system memory 45 so as to be accessible to the processor, for controlling the display of visual images by said video display device, column 8, lines 34-39), wherein the rules include one or more application panel content fields mapped to at least one live TV application panel content type (a human observer may cause a processor controlling the video display to execute a control program formulated in a particularly concise language (rules) and controlling the display of menus (TV application panel), Abstract); comparing a live TV application panel content type associated with the presented live TV broadcast content with the one or more mapped application panel content fields (a processor controlling the video display to execute a control program formulated in a particularly concise language and controlling the display of menus and the like. Menus are displayed as overlays onto a live motion video image, Abstract); determining select application panel content fields from the one or more mapped application panel content fields (The application begins by displaying Card1. The title of the Card is "Menu 1" and the selectable items are "Weather" (Selection A) and "Sports" (Selection B). If "Weather" is selected, it creates Card2, since this is the action in the "Selection A" line. Card2 is a flow card which immediately displays Card3 since the condition "1=-1" is true, column 37, line 52 through column 38, line 2); and including the select application panel content fields in the live TV application panel content for retrieval (selecting "Menu" (select application panel) will take an observer to the screen of FIG. 17, where the video stream images is displayed in a minor portion of the available screen area (the upper right hand corner) almost as if it were a so-called "picture in picture", with the remainder of the viewing field being occupied by listing of available choices, column 41, lines 33-38).

As to claim 3, Bertram discloses the method of claim 1, wherein the live TV application panel content is retrieved from two or more signal sources (the video stream images (source 1) is displayed in a minor portion of the available screen area (the upper right hand corner) almost as if it were a so-called "picture in picture", with the remainder of the viewing field being occupied by listing of available choices (source 2), column 41, lines 33-38).

As to claim 4, Bertram discloses the method of claim 1, wherein the at least one source is at least one of a local memory, a remote memory, a broadcast signal, and a memory located across a network (The television receiver may be one configured to receive broadcast signals of NTSC or PAL standards, column 4, lines 62-64).

-***-Continued Within the Next Supplemental Box-***-

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55493

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:
-***-Continued from Box V: Citations and Explanations-***-

As to claim 5, Bertram discloses the method of claim 1, wherein at least one of the live TV application panel content and the live TV application panel is at least partially transparent, and wherein the presented live TV broadcast content is visible beneath the presented live TV application panel content (a user may cause a first level of menu to appear in overlay over the video stream and where the comparator may also be used to provide a pixel plane effect, to give transparent colors (partially transparent), column 37, lines 61-62 and column 19, lines 43-46).

As to claim 6, Bertram discloses the method of claim 1, wherein a size of the first portion is maintained upon presenting the live TV application panel content via the second portion of the display (a major portion (size) of the available field is occupied by the video stream image the image of a weather map, partially obscured in FIGS. 14 and 15 by the overlain menus and informational text while a minor portion (size) is occupied by the displayed menu(s), Figure 13, column 41, lines 1-5).

As to claim 7, Bertram discloses the method of claim 1, wherein the presented live TV broadcast content includes at least one of a movie, a TV program, a sport event, a TV special, and a radio program (The application begins by displaying Card1. The title of the Card is "Menu 1" and the selectable items are "Weather" Selection A and "Sports" Selection B, Figures 17 and 18, column 37, lines 62-66).

As to claim 8, Bertram discloses the method of claim 7, wherein the presented live TV application panel content includes at least one of a category, a channel identifier, a thumbnail graphic, an electronic program guide (EPG), a favorite, and a search term (the remote control functions enables use of the embodied icons (thumbnail graphic) such as the iconic representations of "channel up" or "channel down" (channel identifier) found in remote control functionality for navigation among programming choices. However, by selecting "List" or "Menu", other services may be accessed, Figures 17 and 18, column 41, lines 27-33).

As to claim 9, Bertram discloses a tangible, non-transitory computer readable medium having instructions stored thereon that, when executed by a processor (the CPU may access control programs stored, for example, in the set top device system memory 45 so as to be accessible to the processor, for controlling the display of visual images by said video display device, column 8, lines 34-39), perform the method comprising: presenting, via a display of an intelligent television (TV) (set top devices used as accessories to television receivers may be incorporated directly into which are here called intelligent television receivers, column 33, lines 29-33), live TV broadcast content, wherein the live TV broadcast content is presented to a first portion of the display (the video stream images is displayed in a minor portion of the available screen area (the upper right hand corner) almost as if it were a so-called "picture in picture", with the remainder of the viewing field being occupied by listing of available choices, Figure 17, column 41, lines 34-39); receiving an application panel input at the intelligent TV, wherein the application panel input corresponds to at least one of a categories input, a favorites input, and a search input (When viewed channels or signal sources are thus constructed into a list, the list may be named such as "Fri Night" for favorite programs (favorites input) viewed that evening or "Kids" for programming specifically selected by or for children (categories input) and saved in system memory, Figure 17, column 41, lines 42-47); determining, by a processor associated with the intelligent TV and in response to receiving the application panel input, live TV application panel content that corresponds to a live TV application and the application panel input received (a processor controlling the video display to execute a control program formulated in a particularly concise language and controlling the display of menus and the like. Menus are displayed as overlays onto a live motion video image, Abstract); retrieving, from at least one source, the live TV application panel content (the display controller modifies displayed visual images by displaying over a portion of a live video images a menu display from which the human observer may select further modifications, FIGS. 13 through 15 column 40, lines 64-67); and presenting, via the display, the live TV application panel content to a second portion of the display, wherein the second portion of the display is associated with a live TV application panel, and wherein the live TV application panel overlaps at least a portion of the presented live TV broadcast content (the video stream images (live TV) is displayed in a minor portion of the available screen area (the upper right hand corner) almost as if it were a so-called "picture in picture", with the remainder of the viewing field being occupied by listing of available choices (TV application panel), Figure 17, column 41, lines 34-39).

As to claim 10, Bertram discloses the tangible, non-transitory computer readable medium of claim 9, wherein determining the live TV application panel content of the method further comprises: referring to rules stored in a memory (the CPU may access control programs stored, for example, in the set top device system memory 45 so as to be accessible to the processor, for controlling the display of visual images by said video display device, column 8, lines 34-39), wherein the rules include one or more application panel content fields mapped to at least one live TV application panel content type (a human observer may cause a processor controlling the video display to execute a control program formulated in a particularly concise language (rules) and controlling the display of menus (TV application panel), Abstract); comparing a live TV application panel content type associated with the presented live TV broadcast content with the one or more mapped application panel content fields (a processor controlling the video display to execute a control program formulated in a particularly concise language and controlling the display of menus and the like. Menus are displayed as overlays onto a live motion video image, Abstract); determining select application panel content fields from the one or more mapped application panel content fields (The application begins by displaying Card1. The title of the Card is "Menu 1" and the selectable items are "Weather" (Selection A) and "Sports" (Selection B). If "Weather" is selected, it creates Card2, since this is the action in the "Selection A" line. Card2 is a flow card which immediately displays Card3 since the condition "1=-1" is true, column 37, line 52 through column 38, line 2); and including the select application panel content fields in the live TV application panel content for retrieval (selecting "Menu" (select application panel) will take an observer to the screen of FIG. 17, where the video stream images is displayed in a minor portion of the available screen area (the upper right hand corner) almost as if it were a so-called "picture in picture", with the remainder of the viewing field being occupied by listing of available choices, column 41, lines 33-38).

As to claim 11, Bertram discloses the tangible, non-transitory computer readable medium of claim 9, wherein the live TV application panel content is retrieved from two or more signal sources (the video stream images (source 1) is displayed in a minor portion of the available screen area (the upper right hand corner) almost as if it were a so-called "picture in picture", with the remainder of the viewing field being occupied by listing of available choices (source 2), column 41, lines 33-38).

-***-Continued Within the Next Supplemental Box-***-

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55493

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

-***-Continued from Previous Supplemental Box-***-

As to claim 12, Bertram discloses the tangible, non-transitory computer readable medium of claim 9, wherein the at least one source is at least one of a local memory, a remote memory, a broadcast signal, and a memory located across a network (The television receiver may be one configured to receive broadcast signals of NTSC or PAL standards, column 4, lines 62-64).

As to claim 13, Bertram discloses the tangible, non-transitory computer readable medium of claim 9, wherein at least one of the live TV application panel content and the live TV application panel is at least partially transparent, and wherein the presented live TV broadcast content is visible beneath the presented live TV application panel content (a user may cause a first level of menu to appear in overlay over the video stream and where the comparator may also be used to provide a pixel plane effect, to give transparent colors (partially transparent), column 37, lines 61-62 and column 19, lines 43-46).

As to claim 14, Bertram discloses the tangible, non-transitory computer readable medium of claim 9, wherein a size of the first portion is maintained upon presenting the live TV application panel content via the second portion of the display (a major portion (size) of the available field is occupied by the video stream image the image of a weather map, partially obscured in FIGS. 14 and 15 by the overlain menus and informational text while a minor portion (size) is occupied by the displayed menu(s), Figure 13, column 41, lines 1-5).

As to claim 15, Bertram discloses the tangible, non-transitory computer readable medium of claim 9, wherein the application panel input is provided via an input device associated with the intelligent TV information (the remote control functions enables use of the embodied icons such as the iconic representations of "channel up" or "channel down" found in remote control functionality for navigation among programming choices, Figures 17 and 18, column 41, lines 27-33).

As to claim 16, Bertram discloses the tangible, non-transitory computer readable medium of claim 9, wherein the presented live TV broadcast content includes at least one of a movie, a TV program, a sport event, a TV special, and a radio program (The application begins by displaying Card1. The title of the Card is "Menu 1" and the selectable items are "Weather" Selection A and "Sports" Selection B, Figures 17 and 18, column 37, lines 62-66).

As to claim 17, Bertram discloses the tangible, non-transitory computer readable medium of claim 16, wherein the presented live TV application panel content includes at least one of a program description, a channel identifier, a thumbnail graphic, an electronic program guide (EPG), and preference information (the remote control functions enables use of the embodied icons (thumbnail graphic) such as the iconic representations of "channel up" or "channel down" (channel identifier) found in remote control functionality for navigation among programming choices. However, by selecting "List" or "Menu", other services may be accessed, Figures 17 and 18, column 41, lines 27-33).

As to claim 18, Bertram discloses a system, comprising: an intelligent television (TV) having a display and a tuner, wherein the tuner is configured to receive and convert broadcast content signals to be displayed by the display (set top boxes which may be in the form of cable tuner systems, column 4 lines 28-34); an input device associated with the intelligent TV (set top devices used as accessories to television receivers may be incorporated directly into which are here called intelligent television receivers, column 33, lines 29-33); a memory (the processor 39 is operatively connected with system memory 45, column 6, lines 58-59); and a microprocessor operable to (a microprocessor 48 functioning as a central processing unit or CPU, column 6, lines 59-60): present, via a display of an intelligent television (TV) (set top devices used as accessories to television receivers may be incorporated directly into which are here called intelligent television receivers, column 33, lines 29-33), live TV broadcast content, wherein the live TV broadcast content is presented to a first portion of the display (the video stream images is displayed in a minor portion of the available screen area (the upper right hand corner) almost as if it were a so-called "picture in picture", with the remainder of the viewing field being occupied by listing of available choices, Figure 17, column 41, lines 34-39); receive an application panel input at the intelligent TV, wherein the application panel input corresponds to at least one of a categories input, a favorites input, and a search input (When viewed channels or signal sources are thus constructed into a list, the list may be named such as "Fri Night" for favorite programs (favorites input) viewed that evening or "Kids" for programming specifically selected by or for children (categories input) and saved in system memory, Figure 17, column 41, lines 42-47); determine, by a processor associated with the intelligent TV and in response to receiving the application panel input, live TV application panel content that corresponds to a live TV application and the application panel input received (a processor controlling the video display to execute a control program formulated in a particularly concise language and controlling the display of menus and the like. Menus are displayed as overlays onto a live motion video image, Abstract); retrieve, from at least one source, the live TV application panel content (the display controller modifies displayed visual images by displaying over a portion of a live video images a menu display from which the human observer may select further modifications, FIGS. 13 through 15 column 40, lines 64-67); and present, via the display, the live TV application panel content to a second portion of the display, wherein the second portion of the display is associated with a live TV application panel, and wherein the live TV application panel overlaps at least a portion of the presented live TV broadcast content (the video stream images (live TV) is displayed in a minor portion of the available screen area (the upper right hand corner) almost as if it were a so-called "picture in picture", with the remainder of the viewing field being occupied by listing of available choices (TV application panel), Figure 17, column 41, lines 34-39).

-***-Continued Within the Next Supplemental Box-***-

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55493

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

-***-Continued from Previous Supplemental Box-***-

As to claim 19, Bertram discloses the system of claim 18, wherein the microprocessor is further operable to: refer to rules stored in a memory (the CPU may access control programs stored, for example, in the set top device system memory 45 so as to be accessible to the processor, for controlling the display of visual images by said video display device, column 8, lines 34-39), wherein the rules include one or more application panel content fields mapped to at least one live TV application panel content type (a human observer may cause a processor controlling the video display to execute a control program formulated in a particularly concise language (rules) and controlling the display of menus (TV application panel), Abstract); compare a live TV application panel content type associated with the presented live TV broadcast content with the one or more mapped application panel content fields (a processor controlling the video display to execute a control program formulated in a particularly concise language and controlling the display of menus and the like. Menus are displayed as overlays onto a live motion video image, Abstract); determine select application panel content fields from the one or more mapped application panel content fields (The application begins by displaying Card1. The title of the Card is "Menu 1" and the selectable items are "Weather" (Selection A) and "Sports" (Selection B). If "Weather" is selected, it creates Card2, since this is the action in the "Selection A" line. Card2 is a flow card which immediately displays Card3 since the condition "1=-1" is true, column 37, line 52 through column 38, line 2); and include the select application panel content fields in the live TV application panel content for retrieval (selecting "Menu" (select application panel) will take an observer to the screen of FIG. 17, where the video stream images is displayed in a minor portion of the available screen area (the upper right hand corner) almost as if it were a so-called "picture in picture", with the remainder of the viewing field being occupied by listing of available choices, column 41, lines 33-38).

As to claim 20, Bertram discloses the system of claim 18, wherein at least one of the live TV application panel content and the live TV application panel is at least partially transparent, and wherein the presented live TV broadcast content is visible beneath the presented live TV application panel content (a user may cause a first level of menu to appear in overlay over the video stream and where the comparator may also be used to provide a pixel plane effect, to give transparent colors (partially transparent), column 37, lines 61-62 and column 19, lines 43-46).

Claims 1-20 have industrial applicability as defined by PCT Article 33(4) because the subject matter can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: THAINE LENNOX-GENTLE
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference 6583-453-PCT	Date of mailing *(day/month/year)* 28 JUN 2013 **FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. PCT/US2013/036828	International filing date *(day/month/year)* 16 April 2013
Applicant FLEXTRONICS AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-453-PCT	**FOR FURTHER ACTION**	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US2013/036828	International filing date *(day/month/year)* 16 April 2013	(Earliest) Priority Date *(day/month/year)* 14 June 2012
Applicant FLEXTRONICS AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

   a. With regard to the **language**, the international search was carried out on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

   b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

   c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

   ☒ the text is approved as submitted by the applicant.

   ☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

   ☒ the text is approved as submitted by the applicant.

   ☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

   a. the figure of the **drawings** to be published with the abstract is Figure No. 23

   ☒ as suggested by the applicant.

   ☐ as selected by this Authority, because the applicant failed to suggest a figure.

   ☐ as selected by this Authority, because this figure better characterizes the invention.

   b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/036828

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H04N 7/173 (2013.01)
USPC - 725/24
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) - H04N 5/92, 5/445, 7/173 (2013.01)
USPC - 725/24, 40, 60

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
CPC: H04N 5/44543, 21/4532, 21/44222 (2013.01)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Orbit, Google Patents, and Google

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2011/0078745 A1 (MACRAE et al) 31 March 2011 (31.03.2011) entire document	1-24
Y	US 2003/0182659 A1 (ELLIS et al) 25 September 2003 (25.09.2003) entire document	1-24
Y	US 2012/0144423 A1 (KIM et al) 07 June 2012 (07.06.2012) entire document	11 and 13
A	US 2008/0086745 A1 (KNUDSON et al) 10 April 2008 (10.04.2008) entire document	1-24

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
05 June 2013	28 JUN 2013

Name and mailing address of the ISA/US	Authorized officer:
Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: THAINE LENNOX-GENTLE
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	28 JUN 2013
Applicant's or agent's file reference 6583-453-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US2013/036828	16 April 2013	14 June 2012

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H04N 7/173 (2013.01)
USPC - 725/34

Applicant FLEXTRONICS AP, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	05 June 2013	Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/036828

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

      ☐ on paper

      ☐ in electronic form

   b. (time)

      ☐ in the international application as filed

      ☐ together with the international application in electronic form

      ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/036828

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	1-24	YES
	Claims	None	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-24	NO
Industrial applicability (IA)	Claims	1-24	YES
	Claims	None	NO

2. Citations and explanations:

Claims 1-10, 12, and 14-24 lack an inventive step under PCT Article 33(3) as being obvious over Macrae et al, hereinafter Macrae in view of Ellis et al, hereinafter Ellis.

Regarding Claim 1, Macrae teaches a method for navigating through channels on a television (paragraph 29 for the user using a television channel guide and selecting a program to watch with figure 1A element 10 for an electronic program guide), comprising: receiving a first directional input via an input device associated with the television (paragraph 29 for using a remote control or user input device associated with the television and paragraph 33 for moving through the guide using arrows or a first directional input on arrow keys elements 28 and 30 for going up and down through the guide); determining, based on a first direction associated with the first directional input (paragraph 33 for moving the cursor on the guide using arrow keys elements 28 and 30 to highlight one of the nine program on the guide in the first vertical direction both upward and downwards), a display of at least one channel information card via the television (paragraph 35 for selecting the information key on the remote control to display an information box or channel information card for the given program and paragraph 36 for means to customize the location and size of the information on the screen); retrieving, from a memory, a first image that is representative of broadcast content playing on a first channel (figure 1A element 14 for having a grid guide with a first image of the stored freeze frame image, paragraph 58 for having the microprocessor having storing means to capture an image of Channel A or means to store an image and downloading the image or retrieving the image to access a website, with paragraph 78 for showing logos and graphics associated with channels), wherein the first image is retrieved from the memory in the absence of tuning to the first channel (paragraph 36 for having an advertisement or image for a future program as a virtual ad from RAM or memory for a channel, therefore not tuning to the future program but showing an image to the user see the advertisement for the future program and paragraph 78 for having a pointer associated with the logo and graphics to an episode of a show in a database); displaying, via the television, the first image on a first channel information card (paragraph 59 for using the first image on the first channel A as part of an interactive television display and figure 1A element 14 for a first advertisement card with information for other channels with paragraph 78 for the advertisement have episode and airtime information for a channel or show along with logo or first image information); receiving a second directional input via the input device (paragraph 33 for moving the cursor on the guide using arrow keys elements 32 and 34 to highlight one of the nine program on the guide in the horizontal direction or a second direction); determining, based on a second direction associated with the second directional input (paragraph 29 for using a remote control input device and paragraph 33 for using the arrows or directional input to move the guide cursor in a horizontal direction to view future programs), a second channel information card to display via the television (figure 1A element 16 for having a second image location for putting information on the electronic guide element 10 with paragraph 58 for means to retrieve a stored image of a live broadcast to display in the ad location element 16), wherein the second channel information card includes a second image that is representative of broadcast content playing on a second channel (figure 1A element 16 for having means to display a second stored image on the guide display with paragraph 36 for the image having information on future programs and paragraph 79 for using graphic logos along with the channel program information), and wherein the second image is retrieved from the memory in the absence of tuning to the second channel (paragraph 59 for storing the freeze frame image in RAM and using it as part of an interactive display anytime the microprocessor is triggered, paragraph 78 for having graphics and logo information in a database therefore accessing without having to tune to a channel such as accessing the NBC logo); and displaying, via the television, the second image on the second channel information card (figure 1A element 16 for displaying location for the second stored image and paragraph 36 for watching the selected program). Macrae does not explicitly teach a presentation layout for each of the channel information cards. Ellis has an electronic program schedule system with product ordering capability which includes a data processor for receiving program schedule information for a plurality of programs (abstract) and teaches a presentation layout for each of the channel information cards (figure 11 for a presentation display for an individual channel card with an image and channel information and paragraph 127 for having a multiple window or split screen operation for browsing channels and images or previews of channels with paragraph 218 for scrolling through different movies and formats or using directional movement to select channels). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the layout as taught by Ellis in the media method of Macrae in order to simultaneously display multiple broadcast programs on a single screen (Ellis, paragraph 127).

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding Claim 2, Macrae teaches detecting a selection input (paragraph 29 for using a remote control as a selection input device), wherein the selection input is at least one of a timed response to a channel navigation condition and an active selection provided via the input device, and wherein the selection input corresponds to a selection of a channel associated with a displayed channel information card (paragraph 33 for selecting a channel by highlighting the channel using the cursor and the arrows to locate the desired program with the active channel shown in the PIP window figure 1A element 12); and tuning, in response to detecting the selection input (paragraph 29 for using the remote control to select a channel to view or to tune to using the selection input of the remote control with paragraph 37 for using the guide system to tune to a desired channel), the television to receive and display live broadcast content of the channel associated with the selected channel information card (paragraph 29 for pressing the select button on the remote control to watch a program in full screen mode).

Regarding Claim 3, Macrae teaches wherein the memory is associated with an electronic programming guide (EPG) (figure 1A element 10 for an electronic programming guide with channels element 52).

Regarding Claim 4, Macrae teaches wherein the first image is an enlarged thumbnail graphic retrieved from an EPG (figure 1A element 14 for the first image is a enlarged thumbnail graphic on the left side of the screen in the middle section under the picture in picture of the current program and above the second thumbnail image with paragraph 24 for having the positions and sizes of the elements of the guide on the screen being customizable).

Regarding Claim 5, Macrae teaches wherein the memory is associated with the television, and wherein the first image is configured to indicate at least one of (paragraph 58 for taking an image shot of Channel A or a first image and storing the image by capturing the video frame) an availability of broadcast content preview, an availability of broadcast content, and an availability of a broadcast signal associated with the first channel (paragraph 59 for taking the stored image in RAM and using it as part of an interactive screen display for selecting or purchasing a product; figure 1A element 16 for having means to display a second stored image on the guide display with paragraph 36 for the image having information on future programs).

Regarding Claim 6, Macrae teaches wherein the directional input is an upward directional input or a downward directional input (paragraph 33 for having a remote control to move the cursor in an upward direction element 30 or a downward direction element 32 using arrows on the remote control device), wherein the upward directional input has an upward direction, and the downward directional input has a downward direction (paragraph 33 for having a remote control to move the cursor in an upward direction element 30 or a downward direction element 32 using arrows on the remote control device covering both upward and downward directions).

Regarding Claim 7, Macrae teaches wherein the presentation layout is arranged to display a single channel information card via the television (paragraph 24 for showing an information box or information card for the single highlighted channel as shown in figure 1A for the highlighted single channel show prime time live highlighted with the cursor element 36 with the information card element 24).

Regarding Claim 8, Macrae teaches wherein the second directional input has an upward direction (paragraph 33 for having a remote control to move the cursor in an upward direction element 30 using arrows on the remote control device), and wherein the upward direction moves the first channel information card upwardly out of a selection focus area of the television while (figure 1A element 52 for a grid tile on the electronic guide element 10 for having the selected channels in the focus area with the highlighted channel element 36 along with the associated information card element 24). Macrae does not explicitly teach simultaneously moving the second channel information card upwardly into the selection focus area of the television. Ellis has an electronic program schedule system with product ordering capability which includes a data processor for receiving program schedule information for a plurality of programs (abstract) and teaches simultaneously moving the second channel information card upwardly into the selection focus area of the television (paragraph 127 for having a multiple window or split screen operation for browsing channels and images or previews of channels simultaneously using a browse feature or directional moving of information). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the layout as taught by Ellis in the media method of Macrae in order to simultaneously display multiple broadcast programs on a single screen (Ellis, paragraph 127).

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding Claim 9, Macrae teaches wherein the second directional input has a downward direction (paragraph 33 for having a remote control to move the cursor in a downward direction element 32 using arrows on the remote control device), and wherein the downward direction moves the first channel information card downwardly out of a selection focus area of the television (figure 1A element 52 for a grid tile on the electronic guide element 10 for having the selected channels in the focus area with the highlighted channel element 36 along with the associated information card element 24). Macrae does not explicitly teach while simultaneously moving the second channel information card downwardly into the selection focus area of the television. Ellis has an electronic program schedule system with product ordering capability which includes a data processor for receiving program schedule information for a plurality of programs (abstract) and teaches while simultaneously moving the second channel information card downwardly into the selection focus area of the television (paragraph 127 for having a multiple window or split screen operation for browsing channels and images or previews of channels simultaneously using a browse feature or directional moving of information). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the layout as taught by Ellis in the media method of Macrae in order to simultaneously display multiple broadcast programs on a single screen (Ellis, paragraph 127).

Regarding Claim 10, Macrae teaches wherein the first and second directional inputs are provided via a channel up/down button of an input device (paragraph 33 for having a remote control to move the cursor in an upward direction element 30 or a downward direction element 32 using arrows on the remote control device).

Regarding Claim 12, Macrae teaches wherein the second channel information card determined to display via the television is selected from a first group of channel numbers (figure 1A element 16 for displaying a second channel information card with a second advertisement with paragraph 40 for using a specialized guide for sports or a first group of channels associated with sports information).

Regarding Claim 14, Macrae teaches wherein the directional input is a leftward directional input or a rightward directional input (paragraph 33 for having a remote control with left and right arrows for input to highlight channel titles on the grid television guide), wherein the leftward directional input has a leftward direction (paragraph 33 for going in the left horizontal direction element 34), and the rightward directional input has a rightward direction (paragraph 33 for going in the right horizontal directions element 32).

Regarding Claim 15, Macrae teaches wherein the presentation layout is arranged to display a plurality of channel information cards that are overlaid on content playing via the television (paragraph 24 for having all the information elements of the screen of the television display being customizable with information card element 24 and two additional image locations elements 14, and 16 and paragraph 49 for the programming guide being translucent and overlaid on screen).

Regarding Claim 16, Macrae teaches, wherein the second directional input has a leftward direction (paragraph 33 for having a remote control with left and right arrows for input to highlight channel titles on the grid television guide), and wherein the leftward direction moves a selection focus area associated with the first channel information card to the second channel information card (paragraph 33 for having arrows for moving the information left and right using elements 32 and 34), where the second channel information card is arranged on the left of the first channel information card (paragraph 33 for using the right and left arrow keys for moving horizontally around the guide grid with means to view the future listings for the highlighted channels).

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding Claim 17, Macrae teaches a tangible, non-transitory computer readable medium having instructions stored thereon that, when executed by a processor (paragraph 40 for having and interactive guide giving the user information on specialized channels and linking to external websites and storing information in a RAM or having instructions stored on a processor), perform the method comprising: receiving a first directional input via an input device associated with a television (paragraph 29 for using a remote control or user input device associated with the television and paragraph 33 for moving through the guide using arrows or a first directional input on arrow keys elements 28 and 30 for going up and down through the guide); determining, based on a first direction associated with the first directional input (paragraph 33 for moving the cursor on the guide using arrow keys elements 28 and 30 to highlight one of the nine program on the guide in the first vertical direction both upward and downwards), a display for at least one channel information card via the television (paragraph 35 for selecting the information key on the remote control to display an information box or channel information card for the given program and paragraph 36 for means to customize the location and size of the information on the screen); retrieving, from a memory, a first image that is representative of broadcast content playing on a first channel (figure 1A element 14 for having a grid guide with a first image of the stored freeze frame image, paragraph 58 for having the microprocessor having storing means to capture an image of Channel A or means to store an image and downloading the image or retrieving the image to access a website, with paragraph 78 for showing logos and graphics associated with channels), wherein the first image is retrieved from the memory in the absence of tuning to the first channel (figure 1A element 14 for having a grid guide with a first image of the stored freeze frame image, paragraph 58 for having the microprocessor having storing means to capture an image of Channel A or means to store an image and downloading the image or retrieving the image to access a website, with paragraph 78 for showing logos and graphics associated with channels); displaying, via the television, the first image on a first channel information (paragraph 59 for using the first image on the first channel A as part of an interactive television display and figure 1A element 14 for a first advertisement card with information for other channels with paragraph 78 for the advertisement have episode and airtime information for a channel or show along with logo or first image information); receiving a second directional input via the input device (paragraph 33 for moving the cursor on the guide using arrow keys elements 32 and 34 to highlight one of the nine program on the guide in the horizontal direction or a second direction); determining, based on a second direction associated with the second directional input (paragraph 29 for using a remote control input device and paragraph 33 for using the arrows or directional input to move the guide cursor in a horizontal direction to view future programs), a second channel information card to display via the television (figure 1A element 16 for having a second image location for putting information on the electronic guide element 10 with paragraph 58 for means to retrieve a stored image of a live broadcast to display in the ad location element 16), wherein the second channel information card includes a second image that is representative of broadcast content playing on a second channel (figure 1A element 16 for having means to display a second stored image on the guide display with paragraph 36 for the image having information on future programs and paragraph 79 for using graphic logos along with the channel program information), and wherein the second image is retrieved from the memory in the absence of tuning to the second channel (paragraph 59 for storing the freeze frame image in RAM and using it as part of an interactive display anytime the microprocessor is triggered, paragraph 78 for having graphics and logo information in a database therefore accessing without having to tune to a channel such as accessing the NBC logo); and displaying, via the television, the second image on the second channel information card (figure 1A element 16 for displaying location for the second stored image and paragraph 36 for watching the selected program). Macrae does not explicitly teach a presentation layout for each of the channel information cards. Ellis has an electronic program schedule system with product ordering capability which includes a data processor for receiving program schedule information for a plurality of programs (abstract) and teaches a presentation layout for each of the channel information cards (figure 11 for a presentation display for an individual channel card with an image and channel information and paragraph 127 for having a multiple window or split screen operation for browsing channels and images or previews of channels with paragraph 218 for scrolling through different movies and formats or using directional movement to select channels). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the layout as taught by Ellis in the media method of Macrae in order to simultaneously display multiple broadcast programs on a single screen (Ellis, paragraph 127).

Regarding Claim 18, Macrae wherein the method further comprises: detecting a selection input (paragraph 29 for using a remote control as a selection input device), wherein the selection input is at least one of a timed response to a channel navigation condition and an active selection provided via the input device, and wherein the selection input corresponds to a selection of a channel associated with a displayed channel information card (paragraph 33 for selecting a channel by highlighting the channel using the cursor and the arrows to locate the desired program with the active channel shown in the PIP window figure 1A element 12); and tuning, in response to detecting the selection input, the television to receive and display live broadcast content of the channel associated with the selected channel information card (paragraph 29 for pressing the select button on the remote control to watch a program in full screen mode).

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding Claim 19, Macrae teaches wherein the first image is an enlarged thumbnail graphic retrieved from an EPG (figure 1A element 10 for an electronic programming guide with channels element 52).

Regarding Claim 20, Macrae teaches wherein the memory is associated with the television (paragraph 78 for having a database or memory means for storing images such as logos in the IPG database with the IPG associated with the television), and wherein the first image is configured to indicate at least one of an availability of broadcast content preview, an availability of broadcast content, and an availability of a broadcast signal associated with the first channel (paragraph 78 for having a logo or graphics or first image that represents an episode of a program or the availability of a broadcast with content information such as the network, episode, and title; figure 1A element 16 for having means to display a second stored image on the guide display with paragraph 36 for the image having information on future programs).

Regarding Claim 21, Macrae teaches wherein the directional input is an upward directional input or a downward directional input (paragraph 33 for having a remote control to move the cursor in an upward direction element 30 or a downward direction element 32 using arrows on the remote control device), wherein the upward directional input has an upward direction, and the downward directional input has a downward direction (paragraph 33 for having a remote control to move the cursor in an upward direction element 30 or a downward direction element 32 using arrows on the remote control device covering both upward and downward directions).

Regarding Claim 22, Macrae teaches wherein the second directional input has an upward direction (paragraph 33 for having a remote control to move the cursor in an upward direction element 30 or a downward direction element 32 using arrows on the remote control device), and wherein the upward direction moves the first channel information card upwardly out of a selection focus area of the television (figure 1A element 52 for a grid tile on the electronic guide element 10 for having the selected channels in the focus area with the highlighted channel element 36 along with the associated information card element 24 and paragraph). Macrae does not explicitly teach while simultaneously moving the second channel information card upwardly into the selection focus area of the television. Ellis has an electronic program schedule system with product ordering capability which includes a data processor for receiving program schedule information for a plurality of programs (abstract) and teaches while simultaneously moving the second channel information card upwardly into the selection focus area of the television (paragraph 127 for having a multiple window or split screen operation for browsing channels and images or previews of channels simultaneously using a browse feature or directional moving of information). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the layout as taught by Ellis in the media method of Macrae in order to simultaneously display multiple broadcast programs on a single screen (Ellis, paragraph 127).

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding Claim 23, Macrae discloses a system for navigating through broadcast content channels (paragraph 29 for the user using a television channel guide and selecting a program to watch with figure 1A element 10 for an electronic program guide), comprising: a television having a display and a tuner (figure 1A element 10 for a television displayer showing a TV program in the window in element 12, and paragraph 28 for having a tuner for the TV with the last channel displayed in the PIP window), wherein the tuner is configured to receive and convert broadcast content signals to be displayed by the display (paragraph 28 for using the Tuner to display a television program or the last program watched in the PIP window of the guide and showing the currently telecast channel); an input device associated with the television (paragraph 29 for using a remote control device with a guide button to display the guide on the television); a memory (paragraph 40 for having and interactive guide giving the user information on specialized channels and linking to external websites and storing information in a RAM or having instructions stored on a processor); and a microprocessor operable to: receive a first directional input via the input device associated with the television (paragraph 29 for using a remote control or user input device associated with the television and paragraph 33 for moving through the guide using arrows or a first directional input on arrow keys elements 28 and 30 for going up and down through the guide); determine, based on a first direction associated with the first directional input (paragraph 33 for moving the cursor on the guide using arrow keys elements 28 and 30 to highlight one of the nine program on the guide in the first vertical direction both upward and downwards), a display for at least one channel information card via the display of the television (paragraph 35 for selecting the information key on the remote control to display an information box or channel information card for the given program and paragraph 36 for means to customize the location and size of the information on the screen); retrieve, from the memory, a first image that is representative of broadcast content playing on a first channel (figure 1A element 14 for having a grid guide with a first image of the stored freeze frame image, paragraph 58 for having the microprocessor having storing means to capture an image of Channel A or means to store an image and downloading the image or retrieving the image to access a website, with paragraph 78 for showing logos and graphics associated with channels), wherein the first image is retrieved from the memory in the absence of tuning to the first channel (figure 1A element 14 for having a grid guide with a first image of the stored freeze frame image, paragraph 58 for having the microprocessor having storing means to capture an image of Channel A or means to store an image and downloading the image or retrieving the image to access a website, with paragraph 78 for showing logos and graphics associated with channels); display, via the display of the television, the first image on a first channel information card (paragraph 59 for using the first image on the first channel A as part of an interactive television display and figure 1A element 14 for a first advertisement card with information for other channels with paragraph 78 for the advertisement have episode and airtime information for a channel or show along with logo or first image information); receive a second directional input via the input device (paragraph 33 for moving the cursor on the guide using arrow keys elements 32 and 34 to highlight one of the nine program on the guide in the horizontal direction or a second direction); determine, based on a second direction associated with the second directional input (paragraph 29 for using a remote control input device and paragraph 33 for using the arrows or directional input to move the guide cursor in a horizontal direction to view future programs), a second channel information card to display via the television (figure 1A element 16 for having a second image location for putting information on the electronic guide element 10 with paragraph 58 for means to retrieve a stored image of a live broadcast to display in the ad location element 16), wherein the second channel information card includes a second image that is representative of broadcast content playing on a second channel (figure 1A element 16 for having means to display a second stored image on the guide display with paragraph 36 for the image having information on future programs and paragraph 79 for using graphic logos along with the channel program information), and wherein the second image is retrieved from the memory in the absence of tuning to the second channel (paragraph 59 for storing the freeze frame image in RAM and using it as part of an interactive display anytime the microprocessor is triggered, paragraph 78 for having graphics and logo information in a database therefore accessing without having to tune to a channel such as accessing the NBC logo); and display, via the display of the television, the second image on the second channel information card (figure 1A element 16 for displaying location for the second stored image and paragraph 36 for watching the selected program). Macrae does not explicitly disclose a presentation layout for each of the channel information cards. Ellis has an electronic program schedule system with product ordering capability which includes a data processor for receiving program schedule information for a plurality of programs (abstract) and discloses a presentation layout for each of the channel information cards (figure 11 for a presentation display for an individual channel card with an image and channel information and paragraph 127 for having a multiple window or split screen operation for browsing channels and images or previews of channels with paragraph 218 for scrolling through different movies and formats or using directional movement to select channels). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the layout as taught by Ellis in the media system of Macrae in order to simultaneously display multiple broadcast programs on a single screen (Ellis, paragraph 127).

Regarding Claim 24, Macrae discloses wherein the input device includes at least one of a channel up button, a channel down button, a directional pad having an up, down, left, and right buttons, and wherein each of the buttons is configured to provide a directional input to the television (paragraph 33 for having a remote control or input device with four buttons including the up and down buttons 28 and 30, as well as the left and right horizontal buttons element 32 and 34).

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Claims 11 and 13 lack an inventive step under PCT Article 33(3) as being obvious over Macrae in view of Ellis, and further in view of Kim et al, hereinafter Kim.

Regarding Claim 11, Macrae and Ellis teach the method as shown above. Macrae and Ellis do not explicitly teach wherein the first and second directional inputs are provided via a directional pad of an input device. Kim has a method for controlling display of information (abstract) and discloses wherein the first and second directional inputs are provided via a directional pad of an input device (paragraph 305 for using a directional keypad with the remote controller). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the input pad as taught by Kim in the media system of Macrae in order to remotely control the display device (Kim, paragraph 305).

Regarding Claim 13, Macrae teaches wherein the second channel information card determined to display via the television (figure 1A element 16 for displaying a second channel information card with a second advertisement) is selected from a second group of channel numbers (paragraph 51 for displaying a channel or program from a second group of channels that are selected based on the user profile and giving the user the option to watch or record the channel), and wherein the second group of channel numbers is associated with at least one stored user preference (paragraph 51 for determining a group of channels associated with the user's profile or stored preferences).

Claims 1-24 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: TADD F. WILSON
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Date of mailing *(day/month/year)*	10 FEB 2014
Applicant's or agent's file reference: 6583-454-PCT	**FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No.: PCT/US2013/055340	International filing date *(day/month/year)*: 16 August 2013
Applicant: FLEXTRONICS AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

Filing of amendments and statement under Article 19:
The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-454-PCT	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US2013/055340	International filing date *(day/month/year)* 16 August 2013	(Earliest) Priority Date *(day/month/year)* 17 August 2012
Applicant FLEXTRONICS AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☒ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 1

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

International application No.
PCT/US2013/055340

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:
see extra sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
1-3

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.

☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT PCT/US2013/055340 10.02.2014

International application No.
PCT/US2013/055340

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H04N 7/173 (2014.01)
USPC - 725/27
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) - G06F 3/00; H04N 7/16, 173 (2014.01)
USPC - 715/ 709, 738, 760; 725/27

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
CPC - G06F 3/00; H04N 7/16, 173 (2013.01)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Google, Orbit, Google Patents

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X -- Y	US 2006/0262116 A1 (MOSHIRI et al) 23 November 2006 (23.11.2006) entire document	1, 3 ---- 2
Y	US 2012/0210370 A1 (KIM et al) 16 August 2012 (16.08.2012) entire document	2
A	US 2011/0289419 A1 (YU et al) 24 November 2011 (24.11.2011) entire document	1-3
A	US 2012/0200574 A1 (HILL et al) 09 August 2012 (09.08.2012) entire document	1-3
A	WO 99/21308 (MUGURA et al) 29 April 1999 (29.04.1999) entire document	1-3
A	WO 2011/163481 A2 (ROUADY et al) 29 December 2011 (29.12.2011) entire document	1-3

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
28 January 2014	10 FEB 2014
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

International application No.
PCT/US2013/055340

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claims 1-3, drawn to a method of automatically determining a live television source for scanning channels.
Group II, claims 4-6, 13-15, drawn to a method of storing user received media content according to a user defined organization criteria.
Group III, claims 7-9, drawn to a method of using electronic programming guide (EPG) information to present information on content listings.
Group IV, claims 10-12, drawn to a method of searching content in the television.

The inventions listed as Groups I, II, III or IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the special technical feature of the Group I invention: automatically determining a live television source for scanning channels and providing a list of the scanned channels as claimed therein is not present in the invention of Groups II, III or IV. The special technical feature of the Group II invention: storing user received media content according to a user defined organization criteria and presenting to the user the stored media as claimed therein is not present in the invention of Groups I, III or IV. The special technical feature of the Group III invention: receiving electronic programming guide (EPG) information including a content listing including information about two or more items of content, receiving a user-defined attribute and storing the attribute with the EPG information in the content listing as claimed therein is not present in the invention of Groups I, II or IV. The special technical feature of the Group IV invention: receiving a search query for content that contains two or more terms, returning a result, parsing the terms, and storing the query and result as claimed therein is not present in the invention of Groups I, II or III.

Groups I, II, III and IV lack unity of invention because even though the inventions of these groups require the technical feature of a method/system/computer readable medium for storing instruction to manage data associated with an intelligent television, store social media data and content in a memory and provide a user interface on the intelligent television, this technical feature is not a special technical feature as it does not make a contribution over the prior art in view of US 2012/0210370 A1 (KIM et al) 16 August 2012 (16.08.2012).

US 2012/0210370 A1 to KIM et al. disclose a method/system/computer readable medium for storing instruction to manage data associated with an intelligent television (abstract, para 121, 124-125), store social media data and content in a memory (para 123, 132-133) and provide a user interface on the intelligent television (para 121, 340).

Since none of the special technical features of the Group I, II, III or IV inventions are found in more than one of the inventions, unity of invention is lacking.

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: TADD F. WILSON
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	10 FEB 2014
Applicant's or agent's file reference 6583-454-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US2013/055340	16 August 2013	17 August 2012

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H04N 7/173 (2014.01)
USPC - 725/27

Applicant FLEXTRONICS AP, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☒ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	28 January 2014	Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055340

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

   ☐ on paper

   ☐ in electronic form

   b. (time)

   ☐ in the international application as filed

   ☐ together with the international application in electronic form

   ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055340

Box No. IV Lack of unity of invention

1. ☒ In response to the invitation (Form PCT/ISA/206) to pay additional fees the applicant has, within the appicable time limit:

   ☐ paid additional fees

   ☐ paid additional fees under protest and, where applicable, the protest fee

   ☐ paid additional fees under protest but the applicable protest fee was not paid

   ☒ not paid additional fees

2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rule 13.1, 13.2 and 13.3 is

   ☐ complied with

   ☒ not complied with for the following reasons:

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claims 1-3, drawn to a method of automatically determining a live television source for scanning channels.
Group II, claims 4-6, 13-15, drawn to a method of storing user received media content according to a user defined organization criteria.
Group III, claims 7-9, drawn to a method of using electronic programming guide (EPG) information to present information on content listings.
Group IV, claims 10-12, drawn to a method of searching content in the television.

The inventions listed as Groups I, II, III or IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the special technical feature of the Group I invention: automatically determining a live television source for scanning channels and providing a list of the scanned channels as claimed therein is not present in the invention of Groups II, III or IV. The special technical feature of the Group II invention: storing user received media content according to a user defined organization criteria and presenting to the user the stored media as claimed therein is not present in the invention of Groups I, III or IV. The special technical feature of the Group III invention: receiving electronic programming guide (EPG) information including a content listing including information about two or more items of content, receiving a user-defined attribute and storing the attribute with the EPG information in the content listing as claimed therein is not present in the invention of Groups I, II or IV. The special technical feature of the Group IV invention: receiving a search query for content that contains two or more terms, returning a result, parsing the terms, and storing the query and result as claimed therein is not present in the invention of Groups I, II or III.

Groups I, II, III and IV lack unity of invention because even though the inventions of these groups require the technical feature of a method/system/computer readable medium for storing instruction to manage data associated with an intelligent television, store social media data and content in a memory and provide a user interface on the intelligent television, this technical feature is not a special technical feature as it does not make a contribution over the prior art in view of US 2012/0210370 A1 (KIM et al) 16 August 2012 (16.08.2012).

US 2012/0210370 A1 to KIM et al. disclose a method/system/computer readable medium for storing instruction to manage data associated with an intelligent television (abstract, para 121, 124-125), store social media data and content in a memory (para 123, 132-133) and provide a user interface on the intelligent television (para 121, 340).

Since none of the special technical features of the Group I, II, III or IV inventions are found in more than one of the inventions, unity of invention is lacking.

4. Consequently, this opinion has been established in respect of the following parts of the international application:

   ☐ all parts

   ☒ the parts relating to claims Nos. 1-3

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055340

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	2	YES
	Claims	1, 3	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-3	NO
Industrial applicability (IA)	Claims	1-3	YES
	Claims	None	NO

2. Citations and explanations:

Claims 1, 3, lack novelty under PCT Article 33(2) as being anticipated by Moshiri et al., hereinafter referred to as Moshiri.

Regarding claims 1, 3, Moshiri discloses a method for managing data associated with an intelligent television, the method comprising [claim 1] (the fig.4 shows a method wherein the left most object 400 to be shortcut button to the home view screen and the object 406 is the Live TV button, upon selecting the 400 object the user interface immediately displays the home view shown in fig.3b, the fig.3b shows a GUI screen is a home view that refer to a currently displayed set of UI objects seen on a television 320, and displays applications 322 [intelligent television], "Live Tv", "Guide", "On Demand", "Photos", "Recorded" selectable by the user, abstract, para 0033-0035, 0048):
a computer readable medium having stored thereon processor executable instructions that cause a computing system to execute a method, the instructions comprising [claim 3] (the system includes a processor for executing sequences of instructions contained in a memory device, causes the processor to execute, para 0050):
automatically determining a live television source (the fig.4 shows the left most object 400 to be shortcut button to the home view screen and the object 406 is the Live TV button, upon selecting the 400 object the user interface immediately displays the home view shown in fig.3b, the fig.3b shows a GUI screen is a home view that refer to a currently displayed set of UI objects seen on a television 320, and displays applications 322, "Live Tv" [live television source], "Guide" [live television source], "On Demand", "Photos", "Recorded" selectable by the user [upon the user selects the home view tab which presents the user with the buttons "Live Tv" and "Guide" along with other contents, these buttons provide the user with access to live television content this requires/means the determination of live tv source "live tv" interpreted as automatically determining a live television source], para 0033-0035, 0041, 0048);
automatically scanning for one or more live television channels in the live television source (when the user selects the "guide" application of the fig.3b, it results in displaying an electronic program guide of fig.10, the EPG on the television screen provides a list of live TV channels to view [upon the selecting of the guide application the user is presented with live television channels this is interpreted as automatically scanning for one or more live television channels], para 0048; fig.4 shows the object 406 displayed which is a Live TV button, upon actuating the object 406 it results in the user interface to immediately display live TV UI view [immediately displaying a live TV channel feed requires/means the determination of and automatically scanning for a live television channel/feed] that enables a user to quickly view television programs, the live TV UI view/feed 700 is shown in fig.7, with a channel section overlay 800 of fig.8 presented which is used to change channels, para 0041);
and providing a list of the live television channels (when the user selects the "guide" application of the fig.3b, it results in displaying an electronic program guide of fig.10, on the television screen and provides a list of live TV channels to view, para 0048).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055340

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Claim 2 lacks an inventive step under PCT Article 33(3) as being obvious over Moshiri in view of Kim et al., hereinafter referred to as Kim.

Regarding claim 2, Moshiri discloses an intelligent television system comprising (fig.3b shows a system which includes a GUI screen is a home view that refer to a currently displayed set of UI objects seen on a television 320, and displays applications 322 [intelligent television], "Live Tv", "Guide", "On Demand", "Photos", "Recorded" selectable by the user, abstract, para 0033-0035, 0048):
a memory and a processor in communication with the memory, the processor operable to: execute a live television source plug-in operable to (the system includes a processor for executing sequences of instructions contained in a memory device, causes the processor to execute, para 0050; when the user selects the "guide" application of the fig.3b, it results in displaying an electronic program guide of fig.10, on the television screen and provides a list of live TV channels to view [execute a live television source plug-in], para 0048):
automatically determine a live television source (the fig.4 shows the left most object 400 to be shortcut button to the home view screen and the object 406 is the Live TV button, upon selecting the 400 object the user interface immediately displays [automatically determining] the home view shown in fig.3b, the fig.3b shows a GUI screen is a home view that refer to a currently displayed set of UI objects seen on a television 320, and displays applications 322, "Live Tv" [live television source], "Guide" [live television source], "On Demand", "Photos", "Recorded" selectable by the user, para 0033-0035, 0048); automatically scan for one or more live television channels in the live television source (fig.4 shows the object 406 displayed which is a Live TV button, upon actuating the object 406 it results in the user interface to immediately display live TV UI view that enables a user to quickly view television programs, the live TV UI view/feed 700 is shown in fig.7 [automatically scanning a live television channel], with a channel section overlay 800 of fig.8 presented which is used to change channels, para 0041; when the user selects the "guide" application of the fig.3b, it results in displaying an electronic program guide of fig.10, on the television screen and provides a list of live TV channels to view [automatically scanning for one or more live television channels], para 0048);
and execute a user interface application in communication with the live television source plug-in, the user interface application operable to provide a list of the live television channels (fig.4 shows the object/applications 406 displayed which is a Live TV button, upon actuating the object 406 it results in the user interface to immediately display live TV UI view that enables a user to quickly view live television programs, the live TV UI view/feed 700 is shown in fig.7 [actuating the Live Tv icon 406 provides the users with live television channels, the application 406 is interpreted as a live television source plug-in with reference to the Applicant's Specs para 316, 317], with a channel section overlay 800 of fig.8 presented which is used to change channels, para 0041; when the user selects the "guide" application of the fig.3b, it results in displaying an electronic program guide [a user interface] of fig.10, on the television screen and provides a list of live TV channels to view [execute a user interface in communication with a live television source plug-in], para 0048), but lacks the teaching of a memory operable to store social media data.
Kim is in the field of a multi-functional display having a channel scan interface accessing the social network service of individuals (abstract) and teaches a memory operable to store social media data (figs.1 & 3 shows that the electronic device 300 functions as a first broadcasts receiver 100, which is a television, and further includes a storage unit 345, para 0131, 0149, 150; a Social network service (SNS) provides online social network among different users for media sharing and fig.85 shows the GUI 8500 includes a list of SNS sites 8511 to 8519 previously stored in the storage unit 345 [store social media data], para 0123, 0626; a storage unit is configured to store SNS account assigned to at least one channel number, para 0132, 0883). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Kim to incorporate a memory operable to store social media data into the invention of Moshiri. The motivation would have been to provide the users with an optimized integration of social network service with television channels (see Kim para 0133).

Claims 1-3 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: Kendria E. Pearson
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, Colorado 80202
United States of America

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference 6583-463-PCT	Date of mailing *(day/month/year)* 06 DEC 2013 **FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. PCT/US13/55551	International filing date *(day/month/year)* 19 August 2013 (19.08.2013)
Applicant Flextronics AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Shane Thomas PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-463-PCT	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US13/55551	International filing date *(day/month/year)* 19 August 2013 (19.08.2013)	(Earliest) Priority Date *(day/month/year)* 17 August 2012 (17.08.2012)
Applicant Flextronics AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 15B

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US13/55551

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H04N 5/445 (2013.01)
USPC - 348/564
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8): G06F 3/048; H04N 5/445, 5/50 (2013.01)
USPC: 348/564, 569; 715/854

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
MicroPatent (US-G, US-A, EP-A, EP-B, WO, JP-bib, DE-C,B, DE-A, DE-T, DE-U, GB-A, FR-A); Google/Google Scholar; IEEE; DialogPRO; intelligent, television, TV, smart, interactive, high-definition, HDTV, first, portion, screen, second, menu, table, list, user, interface, UI, none, overlap, non-overlap, split, divide, display, content, separate

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2012/0174039 A1 (RHOADS J et al.) July 5, 2012, paragraphs [0028]-[0035], [0053], [0056]	1-20

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
12 November 2013 (12.11.2013)	06 DEC 2013

Name and mailing address of the ISA/US	Authorized officer:
Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: Kendria E. Pearson
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, Colorado 80202
United States of America

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	06 DEC 2013
Applicant's or agent's file reference 6583-463-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US13/55551	19 August 2013 (19.08.2013)	17 August 2012 (17.08.2012)

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H04N 5/445 (2013.01)
USPC - 348/564

Applicant Flextronics AP, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 *bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to th IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Fom PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	12 November 2013 (12.11.2013)	Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55551

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

   ☐ on paper

   ☐ in electronic form

   b. (time)

   ☐ in the international application as filed

   ☐ together with the international application in electronic form

   ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55551

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	NONE	YES
	Claims	1-20	NO
Inventive step (IS)	Claims	NONE	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	NONE	NO

2. Citations and explanations:

Claims 1-20 lack novelty under PCT Article 33(2) as being anticipated by US 2012/0174039 A1 to Rhoads et al. (hereinafter 'Rhoads').

As per claim 1, Rhoads discloses a method, comprising: presenting a first content via a display of an intelligent television (TV) (content provided to HDTV (intelligent television) or 3D display TV, paragraph [0053]), wherein the first content is presented to a first portion and a second portion of the display (different type of contents are displayed on the HDTV screen and are presented as different regions such a first region 102 and a second region 126, figure 1 and paragraphs [0028]-[0035]); receiving a menu input at the intelligent TV (the HDTV receives a menu option as an input, paragraphs [0028] and [0053]), wherein the menu input corresponds to a user interface (a menu option corresponding to a user interface, paragraph [0028]); determining, by a processor associated with the intelligent TV and in response to receiving the menu input, menu content that corresponds to at least one of the first content and menu input received (a microprocessor is a cause of interaction between a menu on the HDTV and the user interface, paragraphs [0028], [0049] and [0053]); retrieving, from at least one source, the menu content (accessing media content source, paragraph [0056]); and presenting, via the display, the menu content to the second portion of the display (presenting menu content on a second region 126, paragraph [0035]), wherein the second portion of the display is associated with a menu (the second region 126 displays menu, paragraphs [0028] and [0035]), wherein the first content is shifted such that the first content is presented to the first portion of the display (the first region 102 is isolated or stands alone which contain a unique menu, paragraphs [0028]-[0035]), and wherein the first portion and the second portion of the display do not substantially overlap (the first region 102 and the second region 126 are separated, paragraphs [0028]-[0035]).

As per claim 9, Rhoads discloses a tangible, non-transitory computer readable medium having instructions stored thereon that, when executed by a processor (a memory stores instructions executed by a processor, paragraphs [0049] and [0051]), perform the method comprising: presenting a first content via a display of an intelligent television (TV) (content provided to HDTV (intelligent television) or 3D display TV, paragraph [0053]), wherein the first content is presented to a first portion and a second portion of the display (different type of contents are displayed on the HDTV screen and are presented as different regions such a first region 102 and a second region 126, figure 1 and paragraphs [0028]-[0035]); receiving a menu input at the intelligent TV (the HDTV receives a menu option as an input, paragraphs [0028] and [0053]), wherein the menu input corresponds to a user interface (a menu option corresponding to a user interface, paragraph [0028]); determining, by a processor associated with the intelligent TV and in response to receiving the menu input, menu content that corresponds to at least one of the first content and menu input received (a microprocessor is a cause of interaction between a menu on the HDTV and the user interface, paragraphs [0028], [0049] and [0053]); retrieving, from at least one source, the menu content (accessing media content source, paragraph [0056]); and presenting, via the display, the menu content to the second portion of the display (presenting menu content on a second region 126, paragraph [0035]), wherein the second portion of the display is associated with a menu (the second region 126 displays menu, paragraphs [0028] and [0035]), wherein the first content is shifted such that the first content is presented to the first portion of the display (the first region 102 is isolated or stands alone which contain a unique menu, paragraphs [0028]-[0035]), and wherein the first portion and the second portion of the display do not substantially overlap (the first region 102 and the second region 126 are separated, paragraphs [0028]-[0035]).

As per claim 18, Rhoads discloses a system (a system, paragraphs [0023] and [0024]), comprising: an intelligent television (TV) having a display and a tuner (a HDTV having a tuner and a display, paragraphs [0052], [0053] and [0067]), wherein the tuner is configured to receive and convert broadcast content signals to be displayed by the display (a tuner receive analog signals and convert analog signals to digital signals for displaying, paragraphs [0052] and [0067]); an input device associated with the intelligent TV (an input device 310 associated with a display 312, paragraph [0053]); a memory (a memory, paragraphs [0049] and [0051]); and a microprocessor operable to: present a first content via a display of an intelligent television (TV) (a microprocessor provided content to HDTV (intelligent television) or 3D display TV, paragraphs [0049] and [0053]), wherein the first content is presented to a first portion and a second portion of the display (different type of contents are displayed on the HDTV screen and are presented as different regions such a first region 102 and a second region 126, figure 1 and paragraphs [0028]-[0035]); receive a menu input at the intelligent TV (the HDTV receives a menu option as an input, paragraphs [0028] and [0053]), wherein the menu input corresponds to a user interface (a menu option corresponding to a user interface, paragraph [0028]); determine, by a processor associated with the intelligent TV and in response to receiving the menu input, menu content that corresponds to at least one of the first content and menu input received (a microprocessor is a cause of interaction between a menu on the HDTV and the user interface, paragraphs [0028], [0049] and [0053]); retrieve, from at least one source, the menu content (retrieve from a source information to generate the guidance display (menu), paragraph [0056]); and present, via the display, the menu content to the second portion of the display (presenting menu content on a second region 126, paragraph [0035]), wherein the second portion of the display is associated with a menu (the second region 126 displays menu, paragraphs [0028] and [0035]),

-***-Continued Within the Next Supplemental Box-***-

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55551

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:
-***-Continued from Previous Supplemental Box-***-

wherein the first content is shifted such that the first content is presented to the first portion of the display (the first region 102 is isolated or stands alone which contain a unique menu, paragraphs [0028]-[0035]), and wherein the first portion and the second portion of the display do not substantially overlap (the first region 102 and the second region 126 are separated, paragraphs [0028]-[0035]).

As per claims 2 and 10, Rhoads further discloses wherein determining the menu content of the method further comprises: referring to rules stored in a memory (a boot-up routine and other instructions (rules) stored in a memory), paragraph [0051]), wherein the rules include one or more menu fields mapped to at least one menu content type (menu identifiers (fields) specifying menu type, paragraph [0121]); comparing a menu content type associated with the first content with the one or more mapped menu fields (comparing selected media asset in a menu with the media identifiers (fields), paragraph [0148]); determining select menu fields from the one or more mapped menu fields (selecting media assets that are compatible to media identifiers, paragraphs [0148] and [0149]); and including the select menu fields in the menu content for retrieval (retrieve the media identifiers associated with the selected media asset, paragraph [0148]).

As per claims 3, 11 and 19, Rhoads further discloses receiving a menu selection at the intelligent TV (receiving a selection of menus on a HDTV, paragraphs [0028], [0035], [0043], [0053] and [0121]), wherein the menu selection corresponds to a selected content (a menu to select channels that display contents, paragraphs [0028], [0035] and [0121]); determine the selected content based on the menu selection (displaying (selecting) a menu to select channels that display contents, paragraphs [0028], [0035] and [0121]); and providing a focus on the selected content in the user interface (scroll through a menu channels in the user interface, [0028], [0035], [0121] and [0142]).

As per claims 4 and 16, Rhoads further discloses wherein the at least one source is at least one of a local memory, a remote memory, a broadcast signal, and a memory located across a network (a memory stores media asset associated with media source, paragraphs [0093] and [0137]).

As per claims 5 and 12, Rhoads further discloses receiving a menu selection at the intelligent TV (receiving a selection of menus on a HDTV, paragraphs [0028], [0035], [0043], [0053] and [0121]), wherein the menu selection corresponds to a selected content type (a menu to select channels that display different types of contents, paragraphs [0028], [0035] and [0121]); determining the selected content type based on the menu selection (displaying (selecting) a menu to select channels that display different types of contents, paragraphs [0028], [0035] and [0121]); determining which content of the first content is the selected content type (one typical type of media guidance application is selected as an interactive television program guide, paragraph [0025]); and providing a user interface with content of the selected content type highlighted in the first portion of the display (a user interface in the screen of the HDTV where a menu 102 is displayed, paragraphs [0028]-[0035] and [0053]).

As per claims 6 and 13, Rhoads further discloses receiving a second selection (receiving a second media navigation cue to be selected, paragraphs [0038], [0040] and [0059]); and rearranging content in at least one of the first portion of the display and the second portion of the display (arranging the media assets on the first region 102 and the second region 122, paragraphs [0027]-[0035], [0088] and [0139]); and presenting, via the display, the rearranged content (displaying the arranged media assets on a screen, paragraphs [0029] and [0036]).

As per claims 7 and 14, Rhoads further discloses wherein a size of the first portion of the display is larger than a size of the second portion of the display (on a display screen the region 102 is larger in size than the region 122, figure 1 and paragraphs [0028]-[0035]).

As per claims 8, 15 and 20, Rhoads further discloses receiving a menu selection at the intelligent TV (receiving a selection of menus on a HDTV, paragraphs [0028], [0035], [0043], [0053] and [0121]), wherein the menu selection corresponds to a specific selected content (a menu to select channels that display certain types of contents, paragraphs [0028], [0035] and [0121]); determining the metadata of the specific selected content (determining certain media (content), wherein the media can be distributed by a metadata source, paragraphs [0005] and [0139]); retrieving a secondary content based on the metadata of the specific selected content (acquire certain media based on media distributed by a metadata source, paragraphs [0005] and [0139]); providing, via the user interface, the secondary content within the second portion of the display (providing media on a user interface to be displayed s menu list on a region of display screen such as region 122, paragraphs [0028]-[0035]).

As per claim 17, Rhoads further discloses wherein the menu input is provided via an input device associated with the intelligent TV (the HDTV receives a menu option as an input, paragraphs [0028] and [0053]).

Claims 1-20 have industrial applicability as defined by PCT Article 33(4) because the subject matter can be made or used in industry.

ASD/SAC

PATENT COOPERATION TREATY

RECEIVED
JUN 21 2013
SHERIDAN ROSS PC
DOCKETING DEPT

From the INTERNATIONAL SEARCHING AUTHORITY

To: DEAN N. REINHARDT
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

	Date of mailing *(day month year)* 17 JUN 2013
Applicant's or agent's file reference 6583-469-PCT	**FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. PCT/US2013/036819	International filing date *(day month year)* 16 April 2013
Applicant FLEXTRONICS AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-469-PCT	**FOR FURTHER ACTION**	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US2013/036819	International filing date *(day/month/year)* 16 April 2013	(Earliest) Priority Date *(day/month/year)* 14 June 2012
Applicant FLEXTRONICS AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 9 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

   a. With regard to the **language**, the international search was carried out on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

   b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

   c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

   ☒ the text is approved as submitted by the applicant.

   ☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

   ☒ the text is approved as submitted by the applicant.

   ☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

   a. the figure of the **drawings** to be published with the abstract is Figure No. 14A

   ☒ as suggested by the applicant.

   ☐ as selected by this Authority, because the applicant failed to suggest a figure.

   ☐ as selected by this Authority, because this figure better characterizes the invention.

   b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/036819

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H04H 60/29 (2013.01)
USPC - 725/14
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) - H04H 60/29, H04N 5/45 (2013.01)
USPC - 725/14, 39, 40, 52, 53, 56, 57, 61

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
CPC- H04N 5/44543, 21/44222, 21/4821 (2013.01)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
PatBase, Google Patents, Google Scholar

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 2010/0293497 A1 (PETERSON) 18 November 2010 (18.11.2010) entire document	18-20 --- 1-17
Y	US 6,704,062 B1 (AHIDA) 09 March 2004 (09.03.2004) entire document	1-17
A	US 2009/0249394 A1 (SCHWESINGER et al) 01 October 2009 (01.10.2009) entire document	1-17
A	US 2002/0056098 A1 (WHITE) 09 May 2002 (09.05.2002) entire document	1-17
A	US 2008/0288461 A1 (GLENNON et al) 20 November 2008 (20.11.2008) entire document	1-17

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
04 June 2013	17 JUN 2013
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: DEAN N. REINHARDT
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	17 JUN 2013
Applicant's or agent's file reference 6583-469-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US2013/036819	16 April 2013	14 June 2012

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H04H 60/29 (2013.01)
USPC - 725/14

Applicant FLEXTRONICS AP, LLC

1. This opinion contains indications relating to the following items:

- [X] Box No. I. Basis of the opinion
- [ ] Box No. II Priority
- [ ] Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- [ ] Box No. IV Lack of unity of invention
- [X] Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- [ ] Box No. VI Certain documents cited
- [ ] Box No. VII Certain defects in the international application
- [ ] Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	04 June 2013	Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/036819

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

      ☐ on paper

      ☐ in electronic form

   b. (time)

      ☐ in the international application as filed

      ☐ together with the international application in electronic form

      ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/036819

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	1-17	YES
	Claims	18-20	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	None	NO

2. Citations and explanations:

Claims 18-20 lack novelty under PCT Article 33(2) as being anticipated by Peterson.

Regarding claim 18, Peterson teaches a method (systems and methods for simplifying text entry, [abstract]), comprising: sending by a user a command to a television to active an on screen channel changer (media guidance application which includes an interactive television program guide sometimes referred to as an electronic program guide which allows users to navigate among television programming, [0027]; media guidance application may be organized by time and channel in a grid, [0029]; a user may indicate a desire to access media information by selecting a selectable option provided in a display screen or pressing a dedicated GUIDE button on a remote control or other user input interface device, [0029]); navigating focus by the user to a show name in a list of one or more program listings displayed by the on screen channel changer (as the user is searching for a program title, all valid program titles currently accessible by the user may be indexed in a table and as the user inputs characters of the program title, candidate resultant strings that do not match the user's input may be removed or pruned from the list or tree, [0010]; [figure 9 shows the candidate strings and figure 12 shows that the list of candidate strings is displayed 1212 to the user and the user may select one of the candidates in the list 1222]); and selecting by the user the show name that has focus (user can select program listings by moving highlight region 110, [0030]; fig.1).

Regarding claim 19, Peterson teaches the step of: selecting by the user one or more number buttons on a number (alphanumeric [letters and numbers] navigation and input, [0008]) entry bar (although visual keypad 500 is shown as a rectangular grid, the shape, size and letter layout of the visual keypads described herein may differ and may be square or a single row [bar] or column of lettered buttons, [0066]; fig.5A) of the on screen channel changer to determine the list that is displayed (as the user is searching for a program title, all valid program titles currently accessible by the user may be indexed in a table and as the user inputs characters of the program title, candidate resultant strings that do not match the user's input may be removed or pruned from the list or tree, [0010]; [figure 9 shows the candidate strings and figure 12 shows that the list of candidate strings is displayed 1212 to the user and the user may select one of the candidates in the list 1222]).

Regarding claim 20, Peterson teaches the list is comprised of one or more previously viewed channel numbers ([figure 12 shows that the user's profile may determine which candidate strings to display 1220]; media guidance application may monitor user activity to determine various user preferences in order to create a personalized guidance application showing favorite [previously viewed] channel selections, [0037]).

Claims 1-17 lack an inventive step under PCT Article 33(3) as being obvious over Peterson in view of Ahida.

Regarding claim 1, Peterson teaches a non-transitory computer readable storage medium having stored thereon instructions that cause a processor to execute a method (control circuitry executes instructions for a media guidance application stored in memory, [0042]) for changing a channel number on a television (media guidance application which includes an interactive television program guide sometimes referred to as an electronic program guide which allows users to navigate among television programming, [0027]; media guidance application may be organized by time and channel in a grid, [0029]), the method comprising the steps of: receiving a command from a user to activate an on screen channel changer on the television (a user may indicate a desire to access media information by selecting a selectable option provided in a display screen or pressing a dedicated GUIDE button on a remote control or other user input interface device, [0029]); rendering the on screen channel changer on a screen of the television upon receiving the command from the user (in response to the user's indication, the media guidance application provides a display screen with media information organized by time and channel in a grid, [0029]); receiving a selection wherein the user makes the selection using the on screen channel changer (user can select program listings by moving highlight region 110, [0030]; fig.1); and presenting content associated with the selection on the screen upon receiving the selection (information relating to the program listing selected by highlight region 110 may be provided in program information region 112 wherein region 112 may include the program title, description, time, channel, rating, and other desired information, [0030]; fig.1), but does not disclose the selection is a channel number selection. However, Peterson does teach channel selection ([0027]; [0029]) and further teaches a numeric keypad (alphanumeric [letters and numbers] navigation and input, [0008]). Furthermore it is well known in the art of television to allow a user to input a channel selection number corresponding to a broadcast channel desired (see Ahida, [abstract]; [col.1 ln.5-10]; [col.2 ln.35-50]). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide channel number selection capabilities as taught by Ahida using the numeric keypad of Peterson in order to allow a user to quickly select broadcast channels with minimum operations required to reduce burden on the user (Ahida, [col.2 ln.26-34]).

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding claim 10, Peterson teaches a television system (media guidance application which includes an interactive television program guide sometimes referred to as an electronic program guide which allows users to navigate among television programming, [0027]; media guidance application may be organized by time and channel in a grid, [0029]), comprising: a memory (memory, [0042]); a screen (on-screen keypad, [0008]); a user input device (a user may indicate a desire to access media information by selecting a selectable option provided in a display screen or pressing a dedicated GUIDE button on a remote control or other user input interface device, [0029]); a processor in communication with the memory and the screen (control circuitry executes instructions for a media guidance application stored in memory, [0042]), the processor operable to: receive a command from a user to change a channel number on the television (a user may indicate a desire to access media information by selecting a selectable option provided in a display screen or pressing a dedicated GUIDE button on a remote control or other user input interface device, [0029]); render an on screen channel changer on the screen upon receiving the command from the user (in response to the user's indication, the media guidance application provides a display screen with media information organized by time and channel in a grid, [0029]); receive a selection when the user makes the selection using the on screen channel changer (user can select program listings by moving highlight region 110, [0030]; fig.1); and present content associated with the selection on the screen upon receiving the selection (information relating to the program listing selected by highlight region 110 may be provided in program information region 112 wherein region 112 may include the program title, description, time, channel, rating, and other desired information, [0030]; fig.1), but does not disclose the selection is a channel number selection. However, Peterson does teach channel selection ([0027]; [0029]) and further teaches a numeric keypad (alphanumeric [letters and numbers] navigation and input, [0008]). Furthermore it is well known in the art of television to allow a user to input a channel selection number corresponding to a broadcast channel desired (see Ahida, [abstract]; [col.1 ln.5-10]; [col.2 ln.35-50]). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide channel number selection capabilities as taught by Ahida using the numeric keypad of Peterson in order to allow a user to quickly select broadcast channels with minimum operations required to reduce burden on the user (Ahida, [col.2 ln.26-34]).

Regarding claim 2, Peterson teaches the on screen channel changer includes a number entry bar with number buttons (alphanumeric [letters and numbers] navigation and input, [0008]; although visual keypad 500 is shown as a rectangular grid, the shape, size and letter layout of the visual keypads described herein may differ and may be square or a single row [bar] or column of lettered buttons, [0066]; fig.5A).

Regarding claim 3, modified Peterson teaches the selection is a channel number selection, per above discussion, and Peterson further teaches only number buttons that produce selectable selections are enabled on the number entry bar (characters that cannot possibly be the next user input selection may be grayed out or disabled in the visual keypad and in some embodiments, the grayed out or disabled keys are actually removed from the visual keypad display, [0013]).

Regarding claim 4, modified Peterson teaches the selection is a channel number selection, per above discussion, and Peterson further teaches the steps of: receiving one or more selections by the user (alphanumeric [letters and numbers] navigation and input, [0008]) from the number entry bar (although visual keypad 500 is shown as a rectangular grid, the shape, size and letter layout of the visual keypads described herein may differ and may be square or a single row [bar] or column of lettered buttons, [0066]; fig.5A); and rendering a dynamic electronic program guide in the on screen channel changer upon receiving a first of the one or more selections (as the user is searching for a program title, all valid program titles currently accessible by the user may be indexed in a table and as the user inputs characters of the program title, candidate resultant strings that do not match the user's input may be removed or pruned from the list or tree, [0010]; [figure 9 shows the candidate strings and figure 12 shows that the list of candidate strings is displayed 1212 to the user and the user may select one of the candidates in the list 1222]), wherein: the dynamic electronic program guide displays a first list, the first list is comprised of program listings for a plurality of selectable content (media guidance application may be organized by time and channel in a grid, [0029]), and the plurality of selectable content are selectable content with a first number equal to the first of the one or more selections (after a user selects a character within the keypad for input, buttons corresponding to letters [since the keypad is alphanumeric, the character could be a number] that cannot possible be the next character in the user input string may be disabled wherein valid candidate strings are based on the program schedule database, [0081]; fig.9).

Regarding claim 5, modified Peterson teaches the selection is a channel number selection, per above discussion, and Peterson further teaches the steps of: receiving a second of the one or more selections (keypad is redisplayed with a greater or fewer number of buttons after each character input, [0082]; fig.9), wherein the dynamic electronic program guide replaces the first list with a second list (as the user is searching for a program title, all valid program titles currently accessible by the user may be indexed in a table and as the user inputs characters of the program title, candidate resultant strings that do not match the user's input may be removed or pruned from the list or tree, [0010]; [figure 9 shows the candidate strings and figure 12 shows that the list of candidate strings is displayed 1212 to the user and the user may select one of the candidates in the list 1222]); wherein the second list is comprised of program listings for a plurality of selectable content (valid program titles currently accessible by the user, [0010]); and wherein the plurality of selectable content are selectable content with a first number equal to the first of the one or more selections and a second number equal to the second of the one or more selections (as the user inputs characters of the program title, candidate resultant strings that do not match the user's input may be removed or pruned from the list or tree, [0010]; figure 9]).

Regarding claim 6, Peterson teaches the steps of: receiving one or more focus decisions from the user (user can select program listings by moving highlight region 110, [0030]; fig.1); and rendering a program preview in the on screen channel changer when a show name has focus, wherein the program preview provides program information for the show that has focus (information relating to the program listing selected by highlight region 110 may be provided in program information region 112 wherein region 112 may include the program title, description, time, channel, rating, and other desired information, [0030]; fig.1).

Regarding claim 7, Peterson teaches the on screen channel changer includes a mini electronic program guide (media guidance displays may be fully or partially overlaid over media content being displayed, [0029]), wherein the mini electronic program guide displays program listings for one or more previously viewed channel numbers (media guidance application may monitor user activity to determine various user preferences in order to create a personalized guidance application showing favorite [previously viewed] channel selections, [0037]).

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding claim 8, Peterson teaches only one number button (alphanumeric [letters and numbers] navigation and input, [0008]) may be selected by the user at a time ([see figure 9]).

Regarding claim 9, modified Peterson teaches the selection is a channel number selection, per above discussion, and Peterson further teaches the steps of: rendering in the on screen channel changer (in response to the user's indication, the media guidance application provides a display screen with media information organized by time and channel in a grid, [0029]) a dynamic electronic program guide when the user selects one or more of the number buttons (after a user selects a character within the keypad for input, buttons corresponding to letters [since the keypad is alphanumeric, the character could be a number] that cannot possible be the next character in the user input string may be disabled wherein valid candidate strings are based on the program schedule database, [0081]; fig.9; as the user is searching for a program title, all valid program titles currently accessible by the user may be indexed in a table and as the user inputs characters of the program title, candidate resultant strings that do not match the user's input may be removed or pruned from the list or tree, [0010]; [figure 9 shows the candidate strings and figure 12 shows that the list of candidate strings is displayed 1212 to the user and the user may select one of the candidates in the list 1222]); displaying, by the dynamic electronic program guide, program listings for one or more channel numbers in response to the user selecting a first of the one or more number buttons; and changing the program listings in response to the user selecting a next of the one or more number buttons, where the one or more selectable selections are comprised of numbers represented by the one or more number buttons selected by the user (as the user is searching for a program title, all valid program titles currently accessible by the user may be indexed in a table and as the user inputs characters of the program title [each time a user enters a character, the guide is updated], candidate resultant strings that do not match the user's input may be removed or pruned from the list or tree, [0010]; [figure 9 shows the candidate strings and figure 12 shows that the list of candidate strings is displayed 1212 to the user and the user may select one of the candidates in the list 1222]).

Regarding claim 11, Peterson teaches the on screen channel changer includes a number (alphanumeric [letters and numbers] navigation and input, [0008]) entry bar (although visual keypad 500 is shown as a rectangular grid, the shape, size and letter layout of the visual keypads described herein may differ and may be square or a single row [bar] or column of lettered buttons, [0066]; fig.5A).

Regarding claim 12, modified Peterson teaches the selection is a channel number selection, per above discussion, and Peterson further teaches receiving one or more selections by the user (user input, [0010]) from the number entry bar (although visual keypad 500 is shown as a rectangular grid, the shape, size and letter layout of the visual keypads described herein may differ and may be square or a single row [bar] or column of lettered buttons, [0066]; fig.5A); and rendering a dynamic electronic program guide (in response to the user's indication, the media guidance application provides a display screen with media information organized by time and channel in a grid, [0029]) in the on screen channel changer upon receiving a first selection (after a user selects a character within the keypad for input, buttons corresponding to letters [since the keypad is alphanumeric, the character could be a number] that cannot possible be the next character in the user input string may be disabled wherein valid candidate strings are based on the program schedule database, [0081]; fig.9; as the user is searching for a program title, all valid program titles currently accessible by the user may be indexed in a table and as the user inputs characters of the program title, candidate resultant strings that do not match the user's input may be removed or pruned from the list or tree, [0010]; [figure 9 shows the candidate strings and figure 12 shows that the list of candidate strings is displayed 1212 to the user and the user may select one of the candidates in the list 1222]), the dynamic electronic program guide displaying lists of program listings for one or more channel numbers (valid program titles, [0010]; guidance application may be organized by time and channel in a grid, [0029]), wherein: a first list is comprised of one or more selectable content with a first number beginning with the first selection ([see figure 9 wherein the alphanumeric keypad may accept numeric input instead of alphabetic input]); a second list is comprised of one or more channels selectable content with the first number beginning with the first selection and a second number beginning with a second selection; and a third list is comprised of one or more selectable content with the first number beginning with the first selection, the second channel number beginning with the second selection, and a third number beginning with a third selection (as the user is searching for a program title, all valid program titles currently accessible by the user may be indexed in a table and as the user inputs characters of the program title [each time a user enters a character, the guide is updated], candidate resultant strings that do not match the user's input may be removed or pruned from the list or tree, [0010]; [figure 9 shows the candidate strings and figure 12 shows that the list of candidate strings is displayed 1212 to the user and the user may select one of the candidates in the list 1222]).

Regarding claim 13, Peterson does not explicitly teach the one or more channel numbers includes eleven channel numbers. However, Ahida teaches 10 channel numbers ([see figure 1]). Furthermore, it is known in the art of on screen interfaces to include additional buttons for ease of user navigation. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide channel numbers as taught by Ahida including a total of eleven channel numbers in the invention of modified Peterson since the provision of adjustability, where needed, involves only routine skill in the art, and such a modification would allow a user to customize their interface with commonly used channel numbers.

Regarding claim 14, Peterson teaches the processor is further operable to: receive one or more selections by the user (user input, [0010]) from the number entry bar (although visual keypad 500 is shown as a rectangular grid, the shape, size and letter layout of the visual keypads described herein may differ and may be square or a single row [bar] or column of lettered buttons, [0066]; fig.5A); render a dynamic electronic program guide in the on screen channel changer upon receiving a first selection, the dynamic electronic program guide displaying a list of program listings for at least four channel numbers, the program listings including one or more show names (as the user is searching for a program title, all valid program titles currently accessible by the user may be indexed in a table and as the user inputs characters of the program title, candidate resultant strings that do not match the user's input may be removed or pruned from the list or tree, [0010]; [figure 9 shows the candidate strings and figure 12 shows that the list of candidate strings is displayed 1212 to the user and the user may select one of the candidates in the list 1222]); receive one or more focus decisions by the user (user can select program listings by moving highlight region 110, [0030]; fig.1); and render a program preview in the on screen channel changer when a show name has focus, wherein the program preview comprises at least one of: a show name; an episode number; an episode name; a start time; an end time; and a description of the show (information relating to the program listing selected by highlight region 110 may be provided in program information region 112 wherein region 112 may include the program title, description, time, channel, rating, and other desired information, [0030]; fig.1).

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding claim 15, Peterson teaches the program preview includes a thumbnail image (display may include a video region that allows a user to preview programs wherein the content of the video region corresponds to one of the listings displayed in the grid, [0033]).

Regarding claim 16, Peterson teaches the on screen channel changer includes a mini electronic program guide (media guidance displays may be fully or partially overlaid over media content being displayed, [0029]); and the mini electronic program guide displays program listings for one or more previously viewed channels (media guidance application may monitor user activity to determine various user preferences in order to create a personalized guidance application showing favorite [previously viewed] channel selections, [0037]).

Regarding claim 17, Peterson teaches the user input device comprises at least one of a remote control (a user may indicate a desire to access media information by selecting a selectable option provided in a display screen or pressing a dedicated GUIDE button on a remote control or other user input interface device, [0029]), a voice capture device, a gesture capture device, a touch screen, or a smart device.

Claims 1-20 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: DOUGLAS M. GROVER
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

	Date of mailing *(day/month/year)* 28 JUN 2013
Applicant's or agent's file reference 6583-470-PCT	**FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. PCT/US2013/036782	International filing date *(day/month/year)* 16 April 2013
Applicant FLEXTRONICS AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-470-PCT	**FOR FURTHER ACTION**	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US2013/036782	International filing date *(day/month/year)* 16 April 2013	(Earliest) Priority Date *(day/month/year)* 14 June 2012
Applicant FLEXTRONICS AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

   a. With regard to the **language**, the international search was carried out on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

   b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

   c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

   ☒ the text is approved as submitted by the applicant.

   ☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

   ☒ the text is approved as submitted by the applicant.

   ☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

   a. the figure of the **drawings** to be published with the abstract is Figure No. 20

   ☒ as suggested by the applicant.

   ☐ as selected by this Authority, because the applicant failed to suggest a figure.

   ☐ as selected by this Authority, because this figure better characterizes the invention.

   b. ☐ none of the figures is to be published with the abstract.

Form PCT/ISA/210 (first sheet) (July 2009)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/036782

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - G06F 3/00 (2013.01)
USPC - 725/46
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) - G06F 3/00, 13/00, H04N 5/445 (2013.01)
USPC - 725/46, 109, 110

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
CPC: H04N 5/44543, 21/4532, 21/44222 (2013.01)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Orbit, Google Patents, Google

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2011/0321098 A1 (BANGALORE et al) 29 December 2011 (29.12.2011) entire document	1-20
Y	US 2011/0173657 A1 (THOMAS et al) 14 July 2011 (14.07.2011) entire document	1-20
Y	US 2011/0126251 A1 (LAFRENIERE et al) 26 May 2011 (26.05.2011) entire document	4, 9, 14, and 19
Y	US 2011/0154198 A1 (BACHMAN et al) 23 June 2011 (23.06.2011) entire document	6, 8, 16, and 18
Y	US 2003/0110234 A1 (EGLI et al) 12 June 2003 (12.06.2003) entire document	10
A	US 2012/0110623 A1 (HILL et al) 03 May 2012 (03.05.2012) entire document	1-20
A	WO 2011/148054 A1 (PEKONEN et al) 01 December 2011 (01.12.2011) entire document	1-20

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
31 May 2013	28 JUN 2013
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: DOUGLAS M. GROVER
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	28 JUN 2013
Applicant's or agent's file reference 6583-470-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US2013/036782	16 April 2013	14 June 2012

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - G06F 3/00 (2013.01)
USPC - 725/46

Applicant FLEXTRONICS AP, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	31 May 2013	Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/036782

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

      ☐ on paper

      ☐ in electronic form

   b. (time)

      ☐ in the international application as filed

      ☐ together with the international application in electronic form

      ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/036782

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	1-20	YES
	Claims	None	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	None	NO

2. Citations and explanations:

Claims 1-3, 5, 7, 11-13, 15,17, and 20 lack an inventive step under PCT Article 33(3) as being obvious over Bangalore et al, hereinafter Bangalore in view of Thomas et al, hereinafter Thomas.

Regarding Claims 1, Bangalore teaches a method for accessing media comprising (paragraph 24 for having an IPTV system to access media and display on the TV device element 124): searching a network to identify a plurality of media sources (paragraph 29 for the IPTV system having a private network element 110, a public network element 112 and a search agent element 210 with paragraph 30 for the search agent element 210 searching video streams sent to the set top box element 116), and having media items associated with the media sources (paragraph 35 for the search agent element 210 finding items associated with a website for purchase and searching other media sources such as social network websites and news websites and outputting the results associated with the keywords); identifying metadata associated with the determined number of media items (paragraph 32 for receiving and analyzing metadata from the video stream and updating the user profile with the metadata and paragraph 37 for analyzing the metadata from the video streams); storing the metadata in a memory (paragraph 32 for storing the metadata to update the user profile and store the metadata in the user profile repository); receiving a request from a user to display one or more of the media items (paragraph 26 for the user requesting video on demand content and accessing the video from a set top box, or over the network on a computer) and displaying the one or more media items based on the stored metadata (page 26 for displaying the video to the user using user interface to access the TV2 server or displaying the media from the computer). Bangalore does not explicitly teach determining a number of media items associated with media sources. Thomas has methods for providing guidance to users for finding media (abstract) and teaches determining a number of media items associated with media sources (paragraph 74 for searching media items based on user's define search strings, and paragraph 77 for having a number of media items associated with groups or sub-groups of media sources based on user preferences). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the number determination as taught by Thomas in the media method of Bangalore in order to configuring a menu screen according to a user's preferences (Thomas, paragraph 77).

Regarding Claims 11, Bangalore discloses a system for accessing media comprising (paragraph 24 for having an IPTV system to access media and display on the TV device element 124): a search engine configured to search a network to identify a plurality of media sources (paragraph 29 for the IPTV system having a private network element 110, a public network element 112 and a search agent element 210 with paragraph 30 for the search agent or search engine means element 210 searching video streams sent to the set top box element 116), and having media items associated with the media sources (paragraph 35 for the search agent element 210 finding items associated with a website for purchase and searching other media sources such as social network websites and news websites and outputting the results associated with the keywords); a media module configured to identify metadata associated with the determined number of media items (paragraph 32 for getting metadata from the video stream and updating the user profile with the metadata and paragraph 37 for analyzing the metadata from the video streams); a memory configured to store the metadata (paragraph 32 for storing the metadata to update the user profile and store the metadata in the user profile repository); a user interface configured to receive a request from a user to display one or more of the media items (paragraph 26 for the user requesting video on demand content and accessing the video from a set top box, or over the network on a computer and the user interface to the TV2 server); and a display configured display the one or more media items based on the stored metadata (paragraph 35 for allowing users to navigate the information and purchase the products or select and offer and allowing the user to access a list of coupons, products or headlines or displayed items and paragraph 32 for displaying user profile or metadata collected from streaming video). Bangalore does not explicitly disclose determining a number of media items associated with media sources. Thomas has methods for providing guidance to users for finding media (abstract) and discloses determining a number of media items associated with media sources (paragraph 74 for searching media items based on user's define search strings, and paragraph 77 for having a number of media items associated with groups or sub-groups of media sources based on user preferences). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the number determination as taught by Thomas in the media system of Bangalore in order to configuring a menu screen according to a user's preferences (Thomas, paragraph 77).

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding Claims 2, Bangalore teaches receiving a search request from the user for an individual media item (paragraph 35 for the search agent element 210 finding items associated with a website for purchase and searching other media sources such as social network websites and news websites and outputting the results associated with the keywords); in response to receiving the search request (paragraph 35 for performing a keyword search for news, social media or e-commerce), identifying multiple media sources in the plurality of media sources that have the individual media item (paragraph 35 for the search agent element 210 finding items associated with a website for purchase and displaying the results via the set top box by identifying the different websites that have the desired item); presenting a list of offers from the multiple media sources to the user for the individual item (paragraph 35 for offering the user advertisements, coupons, price comparisons and news headlines or a list of offers based on the keyword searches); receiving a selection by the user of an individual offer from the list of offers (paragraph 35 for the user having a list of searched offers with, paragraph 26 for the user requesting video on demand content and accessing the video from a set top box, or over the network on a computer); and in response to receiving the selection by the user (paragraph 35 for allowing users to navigate the information and purchase the products or select and offer), providing access to the individual item (paragraph 35 for allowing the user to access a list of coupons, products or headlines by navigating through the offers).

Regarding Claims 12, Bangalore discloses wherein: the search engine is further configured to receive a search request from the user for an individual media item (paragraph 35 for the search agent element 210 finding items associated with a website for purchase and searching other media sources such as social network websites and news websites and outputting the results associated with the keywords) and identify multiple media sources in the plurality of media sources that have the individual media item in response to receiving the search request (paragraph 35 for the search agent element 210 finding items associated with a website for purchase and displaying the results via the set top box by identifying the different websites that have the desired item); the media module is further configured to present a list of offers from the multiple media sources to the user for the individual item (paragraph 35 for offering the user advertisements, coupons, price comparisons and news headlines or a list of offers based on the keyword searches) and provide access to an individual item in response to receiving a selection by the user (paragraph 35 for the user having a list of searched offers with, paragraph 26 for the user requesting video on demand content and accessing the video from a set top box, or over the network on a computer or having access to desired video); and the user interface is further configured to receive the selection by the user of the individual offer from the list of offers (paragraph 35 for allowing the user to access a list of coupons, products or headlines by navigating through the search results and the key words).

Regarding Claims 3 and 13, Bangalore teaches wherein the list of offers comprise is at least one of: an offer to play the individual media item, an offer to view the individual media item, a pay per view offer to view the individual media item, an offer to rent the individual media item, an offer to purchase a ticket to a movie theater showing the individual media item, an offer to purchase the individual media item, a trial access offer to the individual media item, and an offer to access the individual media item on a social media site (paragraph 35 for presenting offers to obtain a coupon, purchase and item, or view headlines via a social media site).

Regarding Claims 5 and 15, Bangalore teaches wherein the plurality of media sources comprises at least two of a video server, an audio server, a Digital Video Recorder (DVR), a set-top box, a social media site, a voice mail server, a source marked by the user, a content provider, a Compact Disk (CD) player, a Digital Video Device (DVD) player, a cellular telephone, a personal digital assistant, a notebook, an audio player, a document server, a Personal Computer (PC), a Really Simple Syndication (RSS) feed, a social media site, a USB device, and a tablet device (paragraph 29 for using a search agent to search can access view streams sent to a set top box, a computer, and a mobile device that may be at another location as shown in figure 2 where the search agent element 210 goes through the network element 112 to search the mobile device element 220 and the computer element 168, see also paragraph 43 for the user network environment using tablets, PDAs and wireless phones on the network as mobile devices).

Regarding Claims 7 and 17, Bangalore teaches the method as shown above. Bangalore does not explicitly teach wherein the displayed one or more media items are organized based at least one of: a media type, a most viewed, a favorites list, a last viewed, a most recently added, a most recently visited, a most recently played, and a most recently purchased. Thomas has methods for providing guidance to users for finding media (abstract) and teaches wherein the displayed one or more media items are organized based at least one of: a media type, a most viewed, a favorites list, a last viewed, a most recently added, a most recently visited, a most recently played, and a most recently purchased (paragraph 75 for having a criteria for selecting media based on favorites list). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the number determination as taught by Thomas in the media method of Bangalore in order to configuring a menu screen according to a user's preferences (Thomas, paragraph 77).

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding Claims 20, Bangalore discloses a non-transient computer readable medium having stored thereon instructions that cause a processor to execute a method (paragraph 24 for having an IPTV system to access media and display on the TV device element 124 with figure 1 element 104 for an application tier with applications or computer readable programs), the method comprising: instructions to search a network to identify a plurality media sources (paragraph 29 for the IPTV system having a private network element 110, a public network element 112 and a search agent element 210 with paragraph 30 for the search agent or search engine means element 210 searching video streams sent to the set top box element 116); instructions to have media items associated with the media sources (paragraph 35 for the search agent element 210 finding items associated with a website for purchase and searching other media sources such as social network websites and news websites and outputting the results associated with the keywords); instructions to identify metadata associated with the determined number of media items (paragraph 32 for getting metadata from the video stream and updating the user profile with the metadata and paragraph 37 for analyzing the metadata from the video streams); instructions to store the metadata in a memory (paragraph 32 for storing the metadata to update the user profile and store the metadata in the user profile repository); instructions to receive a request from a user to display the one or more media items (paragraph 26 for the user requesting video on demand content and accessing the video from a set top box, or over the network on a computer and the user interface to the TV2 server); and instructions to display the media items based on the stored metadata (paragraph 35 for allowing users to navigate the information and purchase the products or select and offer and allowing the user to access a list of coupons, products or headlines or displayed items and paragraph 32 for displaying user profile or metadata collected from streaming video). Bangalore does not explicitly disclose determining a number of media items associated with media sources. Thomas has methods for providing guidance to users for finding media (abstract) and discloses determining a number of media items associated with media sources (paragraph 74 for searching media items based on user's define search strings, and paragraph 77 for having a number of media items associated with groups or sub-groups of media sources based on user preferences). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the number determination as taught by Thomas in the media system of Bangalore in order to configuring a menu screen according to a user's preferences (Thomas, paragraph 77).

Claims 4, 9, 14, and 19 lack an inventive step under PCT Article 33(3) as being obvious over Bangalore in view of Thomas, and further in view of LaFreniere et al, hereinafter LaFreniere.

Regarding Claims 4 and 14, Bangalore teaches wherein at least one of the displayed one or more media items is a link to a social media site and wherein the link to the social media site (paragraph 35 for using keywords to search a social media site and providing the information to the set top box). Bangalore and Thomas do not explicitly teach comprises at least one of a link to a most recent posting by the user, a link to a most recently accessed social media site, a link to a favorite social media site, a link to a recently added social media site, a link to a last view social media site. LaFreniere has a system and method for updating viewing status between a set-top box and one or more social networks (abstract) and teaches teach comprises at least one of a link to a most recent posting by the user, a link to a most recently accessed social media site, a link to a favorite social media site, a link to a recently added social media site, a link to a last view social media site (paragraph 47 for using the television system for updating information on a social network and posting viewing information to the user's Facebook and Twitter account). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the link as taught by LaFreniere in the media system of Bangalore in order to update user's viewing information to a social network (LaFreniere, paragraph 47).

Regarding Claims 9 and 19, Bangalore teaches the method as shown above. Bangalore does not explicitly teach wherein the user approves the identified plurality of media sources. LaFreniere has a system and method for updating viewing status between a set-top box and one or more social networks (abstract) and teaches wherein the user approves the identified plurality of media sources (paragraph 51 for the user having permission rules or approval of the media that communicates with the set top box for allowing certain family member to see the media). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the permission as taught by LaFreniere in the media method of Bangalore in order to allow permission for family member to access the media (LaFreniere, paragraph 51).

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Claims 6, 8, 16, and 18 lack an inventive step under PCT Article 33(3) as being obvious over Bangalore in view of Thomas, and further in view of Bachman et al, hereinafter Bachman.

Regarding Claims 6 and 16, Bangalore and Thomas teach the method as shown above. Bangalore and Thomas do not explicitly teach wherein at least one of the media sources is a device that is temporarily connected to the network. Bachman has Playlists having media items from more than one source (abstract) and teaches wherein at least one of the media sources is a device that is temporarily connected to the network (paragraph 24 for having an online store where the user has temporary access to the media or temporary adding media to viewing options due to ownership by another source). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the permission as taught by LaFreniere in the media method of Bangalore in order to allow a second source to provide the media items (Bachman, paragraph 24).

Regarding Claims 8 and 18, Bangalore and Thomas teach the method as shown above. Bangalore and Thomas do not explicitly teach wherein the user can temporarily add a media source to the plurality of media sources. Bachman has Playlists having media items from more than one source (abstract) and teaches wherein the user can temporarily add a media source to the plurality of media sources (paragraph 24 for having an online store where the user has temporary access to the media or temporary adding media to viewing options due to ownership by another source). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the permission as taught by LaFreniere in the media method of Bangalore in order to allow a second source to provide the media items (Bachman, paragraph 24).

Claim 10 lacks an inventive step under PCT Article 33(3) as being obvious over Bangalore in view of Thomas, and further in view of Egli et al, hereinafter Egli.

Regarding Claims 10, Bangalore and Thomas teach the method as shown above. Bangalore and Thomas do not explicitly teach wherein the user can identify a media item to be translated when accessed in the future. Egli has an online media delivery system incorporating combining on-the-fly media reformatting (abstract) and teaches wherein the user can identify a media item to be translated when accessed in the future (paragraph 33 for translating a media object for storage on a target device and storing the media object in the front side cache, therefore having it available for future access with paragraph 70 for using the objects in future requests). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the translation as taught by Egli in the media method of Bangalore in order to transform media items to client devices (Egli, paragraph 33).

Claims 1-20 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: Scott Weitzel
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, Colorado 80202
United States of America

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference 6583-471-PCT	Date of mailing *(day/month/year)* 30 AUG 2013 **FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. PCT/US13/36678	International filing date *(day/month/year)* 16 April 2013 (16.04.2013)
Applicant Flextronics AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Shane Thomas PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-471-PCT	**FOR FURTHER ACTION**	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US13/36678	International filing date *(day/month/year)* 16 April 2013 (16.04.2013)	(Earliest) Priority Date *(day/month/year)* 14 June 2012 (14.06.2012)
Applicant Flextronics AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 14

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

Form PCT/ISA/210 (first sheet) (July 2009)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US13/36678

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - G06F 3/0481, 3/0482 (2013.01)
USPC - 725/37
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8): G06F 03/00, 03/02, 3/041, 3/0481, 3/0482, 3/0484, 13/00; H04N 5/445, 7/08, 7/16 (2013.01)
USPC: 345/169; 715/747; 725/25, 37, 39, 43, 52, 56, 57, 59, 61, 86, 87

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
MicroPatent (US-G, US-A, EP-A, EP-B, WO, JP-bib, DE-C,B, DE-A, DE-T, DE-U, GB-A, FR-A); DialogPRO; IEEE; Google/Google Scholar; displaying*, electronic*, *device*, user*, interface*, number*, setting*, operating*, parameter*, functional*, silo*, input*, event*, applying*, delay*, exit*, preserving*

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2011/0093888 A1 (ARAKI, J et al.) April 21, 2011, Figures 1, 2, 3A, 3B, 4-8, Abstract, Paragraphs [0023], [0076], [0077], [0093], [0097], [0098], [0100], [0130], [0143]-[0146], [0180], [0197].	1-20
Y	US 2011/0016492 A1 (MORITA, Y) January 20, 2011, Figure 10, Paragraph [0157].	1-20
Y	US 2012/0120316 A1 (LEE, C) May 17, 2012, Paragraph [0257].	6, 20
Y	US 7,577,923 B2 (BEAM, TK et al.) August 18, 2009, Figures 8, 9, Column 9, Lines 20-38.	14
A	US 7,233,316 B2 (SMITH, GC et al.) June 19, 2007, entire document.	1-20
A	US 2011/0219395 A1 (MOSHIRI, N et al.) September 8, 2011, entire document.	1-20
A	US 2003/0151621 A1 (MCEVILLY, C et al.) August 14, 2003, entire document.	1-20

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
20 August 2013 (20.08.2013)	30 AUG 2013
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: Scott Weitzel
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, Colorado 80202
United States of America

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	30 AUG 2013
Applicant's or agent's file reference 6583-471-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US13/36678	16 April 2013 (16.04.2013)	14 June 2012 (14.06.2012)

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - G06F 3/0481, 3/0482 (2013.01)
USPC - 725/37

Applicant Flextronics AP, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 *bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	20 August 2013 (20.08.2013)	Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/36678

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

      ☐ on paper

      ☐ in electronic form

   b. (time)

      ☐ in the international application as filed

      ☐ together with the international application in electronic form

      ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/36678

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	1-20	YES
	Claims	NONE	NO
Inventive step (IS)	Claims	NONE	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	NONE	NO

2. Citations and explanations:

Claims 1-5, 7-13, and 15-19 lack an inventive step under PCT Article 33(3) as being obvious over US 2011/0093888 A1 to Araki et al. (hereinafter 'Araki') in view of US 2011/0016492 A1 (Morita).

As to claims 1 and 15, Araki discloses a method, comprising and non-transitory machine readable medium with instructions to cause the machine to perform (a method, including and interactive television hardware and software; Abstract and paragraph [0180]): displaying, on an electronic device, a user interface of the electronic device, the user interface comprising a number of settings associated with a number of operating parameters of the electronic device and further associated with a functional silo of the electronic device (displaying, on an interactive television (electronic device), visual user interface of the interactive television, user interface includes settings related to the functions of the display of the interactive television associated including inputs, and device utility applications (silo of the electronic device); paragraphs [0076], [0100], [0197]); receiving, at an input interface of the electronic device, a user interface event associated with the user interface (providing, at an input to the user interface of the display's interactive television, a user-effected "click event" (user interface event) related to a graphical user interface; Figure 1 and paragraphs [0080], [0083]); upon the user interface event indicating a setting change to at least one setting, applying the setting change to the electronic device substantially without delay (user-effected "click event" representing an adjustment of settings (settings change) to a setting, selectable TV settings (applying the settings change) to the interactive television is responsive at all times (without delay); paragraphs [0097], [0100], [0143]). Araki fails to disclose upon receiving the user interface event indicating an exit function, preserving the setting change to the electronic device. Morita discloses upon receiving the user interface event indicating an exit function, preserving the setting change to the electronic device (selection (receiving the user interface event) of a done option (exit function) saves all the settings and changes made to the device parameters; paragraph [0157]). It would have been obvious to one skilled in the art at the time of the invention to modify the Araki system to include upon receiving the user interface event indicating an exit function, preserving the setting change to the electronic device, as taught by Morita, because doing so would make the Araki system provide for completion of the user adjusted settings function and return the user to the previous screen or the current program being watched.

As to claims 2 and 16, Araki, in view of Morita, discloses the method and instructions of claims 1 and 15, respectively. Additionally, Araki discloses wherein: the user interface, further comprises, a number of targets, substantially each of the number of targets being associated with at least one setting (Figure 8 shows where the user interface further includes a number of icons (targets), substantially each number of icons (targets) is associated with TV setting, parental control, network (settings); Figure 8 and paragraph [0097]) and the user interface event indicating a setting change, further comprises, the user interface event setting focus to a current target (and the user-effected "click event" (user interface event) representing a user adjustment of settings (settings change), further includes, the user-effected "click event" (user interface event) adjustment of setting selecting (focusing) a menu item/icon (target); Figure 8 and paragraphs [0097], [0100]); and the user interface event indicating the exit function, further comprises, the user interface event removing focus from the current target (and the user-effected "click event" (user interface event) representing the "exit input" (exit) function, further includes, the user-effected "click event" (user interface event) moving back to a prior navigation configuration (removing focus from the current target); paragraphs [0023], [0130], [0146]).

As to claims 3 and 17, Araki, in view of Morita, discloses the method and instructions of claims 2 and 16, respectively. Additionally, Araki discloses wherein displaying the user interface further comprises selectively presenting a number of sub-interfaces, each sub-interface presenting a portion of the number of targets (Figures 5-8 show when displaying the user interface further includes presenting a number of selectable sub-menus (sub-interfaces), each menu presenting a portion of the main icons (targets); Figures 5-8 and paragraphs [0097], [0098]).

As to claims 4 and 18, Araki, in view of Morita, discloses the method and instructions of claims 3 and 17, respectively. In addition, Araki discloses wherein the user interface event indicating the exit function (where the user-effected "click event" (user interface event) specifies an "exit input" function; paragraphs [0023], [0130], [0146]), further comprises, a user interface event removing focus from a current sub-interface (further includes, the user-effected "click event" (user interface event) moving back to the prior layer of the navigation GUI (removing focus from a current sub-interface); paragraphs [0023], [0130], [0146]).

-***-Continued Within the Next Supplemental Box-***-

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/36678

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

The description is objected to as containing the following defect(s) under PCT Rule 66.2(a)(iii) in the form or contents thereof: Paragraph [0007], line 2 recites the limitation "a silos", however, this limitation should recite "a silo".

Claim 10 is objected to under PCT Rule 66.2(a)(iii) as containing the following defect(s) in the form or contents thereof: Claim 10, line 3 recites the limitation "a silos", however, this limitation should recite "a silo".

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/36678

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

-***-Continued from Box No. V: Citations and Explanations-***-

As to claims 5 and 19, Araki, in view of Morita, discloses the method and instructions of claims 4 and 18, respectively. Araki fails to disclose wherein the user interface event indicating an exit function, further comprises a cancel function, whereby a settings change is backed out. Morita discloses wherein the user interface event indicating an exit function, further comprises a cancel function, whereby a settings change is backed out (user selection (user interface event) of cancel option (cancel function), where discard all the changes made in screen (settings changes is backed out); Figure 10 and paragraph [0157]). It would have been obvious to one skilled in the art at the time of the invention to modify the Araki system to include wherein the user interface event indicating an exit function, further comprises a cancel function, whereby a settings change is backed out, as taught by Morita, because doing so would make the Araki system discard of all the changes made in the user interface screen and return the user to the previous screen or show that was displayed.

As to claim 7, Araki, in view of Morita, discloses the method of claim 2. Additionally, Araki discloses wherein the user interface event indicating a setting change, further comprises, a supplemental user interface event indicating a value of the setting associated with the setting change (where the user interface for inputting elements specifying increasing or decreasing of a slide bar values (setting change), further includes, a inputting via a slider bar (supplemental user interface event) via a series of input elements specifying associated values of the controlled iTV function; paragraphs [0144]-[0145]).

As to claim 8, Araki, in view of Morita, discloses the method of claim 1. Additionally, Araki discloses wherein at least one silo is an input source to the electronic device (where device inputs (silo) is a device input such as an HDMI or USB to the interactive television (electronic device); paragraph [0100]).

As claim 9, Araki in view of Morita, discloses the method of claim 1. Araki discloses wherein at least one silo is an application executable by the electronic device (where an IP TV (silo) is an application executed by the interactive television (electronic device); paragraph [0100]).

As to claim 10, Araki discloses an electronic device (interactive television; Figures 1, 4-8 and paragraph [0076]), comprising: a display, operable to present a visual portion of a audio-visual presentation (a display, operable to show a visual part of an audio-video presentation; Figures 1, 2, 4-8 and paragraphs [0076], [0077]); a silo, representing at least one of an application and an source input (a silo, having applications and device source inputs such as an HDMI or USB to the interactive television (electronic device); paragraph [0100]); a settings dialog, operable to present a number of settings associated with the silo (Figure 8 shows a setting dialog, operable to present a number of setting related to an movies application and/or device input such as HDMI (silo); Figures 7, 8 and paragraph [0100]); the settings dialog further comprising a number of targets, at least one target associated with a value of a setting of an operating parameter of the electronic device (settings dialog including a number of hotspot menu options/icons (targets), a hotspot menu options/icons (target) related to a value of setting active pixels (operating parameter) of the interactive television (electronic device); Figures 3A, 3B and paragraphs [0093], [0144]); an input operable to receive a user input (an input device to activate a click event via a user; paragraph [0077]); and upon receiving a user input setting focus to first target, applying the associated value to the setting for the silo associated with the first target (and upon providing user selection of a menu option/icon (first target), setting the active pixel values via a slide bar (applying the associated value to the setting) for a movies application and device inputs such as HDMI (silo) related to a menu option/icon (first target); paragraphs [0100], [0144]).

As to claim 11, Araki, in view of Morita, discloses the electronic device of claim 10. In addition, Araki discloses wherein, upon receiving the user input deselecting the first target as part of a cancel function, removing the applied associated value from the setting for the silo (where, upon providing a click action input device (user input), such as an "exit input" (cancel) function, changing the values via decreasing and/or increasing slide bar values related to an application and/or a device source input such as HDMI (silo) and moving back to a prior navigation configuration; paragraphs [0144]-[0146]).

As to claim 12, Araki, in view of Morita, discloses the electronic device of claim 10. In addition, Araki discloses at least one of the number of targets further comprise a user-determined value associated with at least one setting of the electronic device (one of the menu options/icons (targets) further includes user setting active pixels via increasing and/or decreasing values of a slide-bar (user determined value) related to user controlled iTV functions (electronic device); paragraphs [0144]-[0145]).

As to claim 13, Araki, in view of Morita, discloses the electronic device of claim 10. In addition, Araki discloses at least one sub-interface visually containing the first target and additional targets (a hotspots of menu (sub-interface) visually having the menu/icon (first target) and additional menu items/icon (targets); Figures 4-8, paragraph [0097]), whereby setting focus from a first target within the sub-interface to a second target not within the sub-interface causes the applied value associated with the setting to be preserved (where selecting or mousing over the hotspots (setting focus from a first target) within the menu items/icons to another menu item/icon in various hotspots (second target not within the sub-interface) causes the user set values via the slide bar setting to be confirm (preserved); paragraphs [0130], [0144]).

-***-Continued Within the Next Supplemental Box-***-

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/36678

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:
-***-Continued from Previous Supplemental Box-***-

Claims 6 and 20 lack an inventive step under PCT Article 33(3) as being obvious over Araki in view of Morita, and further in view of US 2012/0120316 A1 (Lee).

As to claims 6 and 20, Araki, in view of Morita, discloses the method and instructions of claims 2 and 16, respectively. Araki, in view of Morita, fails to disclose wherein at least one of the number of targets is associated with settings which are preset settings. Lee discloses wherein at least one of the number of targets is associated with settings which are preset settings (where a number of menu screens or icons (targets) is related to preset items (settings which are preset settings); paragraph [0257]). It would have been obvious to one skilled in the art at the time of the invention to modify the Araki in view of Morita system to include wherein at least one of the number of targets is associated with settings which are preset settings, as taught by Lee, because doing so would make the Araki in view of Morita system provide for menu item setting in which the user is not permitted to edit.

Claim 14 lacks an inventive step under PCT Article 33(3) as being obvious over Araki in view of Morita and in further view of US 7,577,923 B2 to Beam, et al. (hereinafter 'Beam').

As to claim 14, Araki, in view of Morita, discloses the electronic device of claim 13. Araki, in view of Morita, fails to disclose setting focus from the first target to a third target, the third target being one of the additional targets within the sub-interface, causes the settings associated with the first target to be overwritten by the settings associated with the third target. Beam discloses setting focus from the first target to a third target, the third target being one of the additional targets within the sub-interface, causes the settings associated with the first target to be overwritten by the settings associated with the third target (selecting a view mode with a preferred setting (setting focus from the first target) within that view mode (additional targets within the sub-interface), causes the settings related to a mode (first) to toggle between an available mode and a preferred setting when selected and changes upon activation to indicate the currently selected mode (first target to be overwritten by the settings associated with the third target); Column 9, Lines 20-38). It would have been obvious to one skilled in the art at the time of the invention to modify the Araki in view of Morita system to include setting focus from the first target to a third target, the third target being one of the additional targets within the sub-interface, causes the settings associated with the first target to be overwritten by the settings associated with the third target, as taught by Beam, because doing so would make the Araki in view of Morita system provide for a preferred setting for each available view mode by changing the preferred setting via a user selection.

Claims 1-20 have industrial applicability as defined by PCT Article 33(4) because the subject matter can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: DOUGLAS W. SWARTZ
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

	Date of mailing *(day/month/year)* 01 JUL 2013
Applicant's or agent's file reference 6583-472-PCT	**FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. PCT/US2013/036804	International filing date *(day/month/year)* 16 April 2013
Applicant FLEXTRONICS AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-472-PCT	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US2013/036804	International filing date *(day/month/year)* 16 April 2013	(Earliest) Priority Date *(day/month/year)* 14 June 2012
Applicant FLEXTRONICS AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 14A

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☒ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/036804

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H04N 7/173 (2013.01)
USPC - 725/43
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) - H04N 5/45, 5/445; H04N 7/173 (2013.01)
USPC - 348/564, 565; 725/43, 51

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
CPC- H04N 5/45, 5/445; H04N 7/173 (2013.01)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Google, Orbit, Google Patents

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X -- Y	US 2008/0098433 A1 (HARDACKER et al) 24 April 2008 (24.04.2008) entire document.	1, 5, 6, 14, 21 ----- 2-4, 7-13, 15-20
Y	US 6,493,038 B1 (SINGH et al) 10 December 2002 (10.12.2002) entire document.	2, 7-13, 16-20
Y	US 2004/0237108 A1 (DRAZIN et al) 25 November 2004 (25.11.2004) entire document.	3, 4, 15
Y	WO 01/06788 A1 (ELLIS et al) 25 January 2001 (25.01.2001) entire document.	12, 13, 18, 19

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
05 June 2013	01 JUL 2013
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: DOUGLAS W. SWARTZ
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	01 JUL 2013
Applicant's or agent's file reference 6583-472-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US2013/036804	16 April 2013	14 June 2012

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H04N 7/173 (2013.01)
USPC - 725/43

Applicant FLEXTRONICS AP, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	05 June 2013	Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/036804

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

   ☐ on paper

   ☐ in electronic form

   b. (time)

   ☐ in the international application as filed

   ☐ together with the international application in electronic form

   ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/036804

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	2-4, 7-13, 15-20	YES
	Claims	1,5, 6, 14, 21	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-21	NO
Industrial applicability (IA)	Claims	1-21	YES
	Claims	None	NO

2. Citations and explanations:

Claims 1, 5, 6, 14, 21, lack novelty under PCT Article 33(2) as being anticipated by Hardacker et al., hereinafter referred to as Hardacker.

Regarding claim 1, Hardacker discloses an Electronic Programming Guide (EPG) display for an intelligent television (TV), comprising a display on the intelligent TV, (figs.5 & 8 shows a television device 102 that accesses websites by utilizing the internet 702 and further a server constructs an Electronic Programming Guide (EPG) which is displayed on the television display 102 [interpreted as intelligent television], para 0246, 0247; figs 2 & 3 shows an EPG screenshot that displays television programming schedule on the EPG screen of the on screen displays (OSD's), para 0045, 0048), the display comprising:
a schedule portion accessible and/or configurable using an input device to display a schedule including past, current, and/or upcoming TV programs (figs 2 & 3 show an EPG guide with a section 60 [schedule portion] which provides the users television programs at particular date and time over a two week period of time [interpreted as a schedule including upcoming TV programs] with options to page from right to left and top to bottom to access contents and also provides the channel names for the respective television programs, para 0043, 0045-0047; a remote control which includes hot keys to access the screen is used to send commands to the set top box 106 by accessing the EPG, para 0048, 0075, 0076; a remote control includes buttons and has the functionality of clicking on the screen to select an icon on the menu, and further when a guide button is pressed on a remote control device the recorder becomes aware of the scheduled content is to be browsed from the EPG [interpreted as schedule portion accessible using an input device], para 0100, 0193);
and a banner portion configured to display EPG information related to a selected TV program in the schedule portion (figs 2 & 3 show an EPG guide with a section 64 [banner portion] which provides information content related to the television program being highlighted by the users selection in the EPG section 60 [schedule portion], and the section 64 provides entire detailed program information for the highlighted program [as we can see in the fig.2 the section 64 provides information about the television program "THREE WISHES" which is selected on the section 60], para 0047, 0074),
wherein the schedule and the displayed EPG information are built using EPG information aggregated from a plurality of EPG information sources (the receiver device such as a TV creates a database from information provided by the access device such as a set top box, each screen of the EPG is run and data is extracted, data includes name of the programs [EPG information source], obtaining the virtual numbers for channels such as HBO or CNN [EPG information source] and their content [EPG information sources], the TV stores this information in its own metadata database [aggregated EPG information] it uses these information to create its own EPG [EPG is built] and creates timers, further all the data which includes the scheduling data required to create the EPG comes from the access device, para 0048-0050; fig. 8 shows a OCR process initialization at step 354 service provider channel database is initialized and at step 358 it is determined that the 2 week guide for television channel information is out of date and updates it by getting data from the service provider database, para 0144, 0150, 0156-0162; figs 2 & 3 shows an EPG guide with a section 60 [schedule portion] which provides the users television programs at particular date and time over a two week period of time [interpreted as a schedule including upcoming TV programs] with options to page from right to left and top to bottom to access contents and also provides the channel names for the respective television programs, para 0043, 0045-0047).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/036804

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding claim 14, Hardacker discloses a method of displaying Electronic Programming Guide (EPG) information on a intelligent television (TV) (a method is shown in figs.5 & 8 for a television device 102 that accesses websites by utilizing the internet 702 and further a server constructs an Electronic Programming Guide (EPG) which is displayed on the television display 102 [interpreted as intelligent television], abstract, para 0246, 0247; figs 2 & 3 shows an EPG screenshot that displays television programming schedule on the EPG screen of the on screen displays (OSD's), para 0045, 0048), comprising:
building and displaying aggregated EPG information from a plurality of EPG sources on a screen of the intelligent TV, the EPG sources comprise one or more of embedded EPG information in a content feed, an Internet EPG information source, and an EPG channel (the receiver device such as a TV creates a database from information provided by the access device such as a set top box, each screen of the EPG is run and data is extracted, data includes name of the programs [in reference to the Applicant's Specification on para 0171 which states that the embedded EPG information contains information which includes show name interpreted as embedded EPG information in a content feed], obtaining the virtual numbers for channels such as HBO or CNN [EPG information source] and their content [EPG information sources], the TV stores this information in its own metadata database [aggregated EPG information] it uses these information to create its own EPG [EPG is built] and creates timers, further all the data which includes the scheduling data required to create the EPG comes from the access device, para 0048-0050; fig. 8 shows a OCR process initialization at step 354 service provider channel database is initialized and at step 358 it is determined that the 2 week guide for television channel information is out of date and updates it by getting data from the service provider database, para 0144, 0150, 0156-0162; figs 2 & 3 shows an EPG guide displayed with a section 60 which provides the users television programs at particular date and time over a two week period of time with options to page from right to left and top to bottom to access contents and also provides the channel names for the respective television programs, para 0043, 0045-0047).

Regarding claim 5, Hardacker further teaches wherein the banner portion comprises one or more of a thumbnail, a name, a detailed description, a start and stop time, and a video and/or audio format for the selected TV program (figs 2 & 3 show an EPG guide with a section 64 [banner portion] which provides information content related to the television program being highlighted by the users selection in the EPG section 60 [schedule portion], and the section 64 provides entire detailed program information for the highlighted program [as we can see in the fig.2 the section 64 provides information about the television program "THREE WISHES" [interpreted as a name of the television program] which is selected on the section 60], para 0047, 0074).

Regarding claim 6, Hardacker further teaches wherein the EPG information sources comprise one or more of embedded EPG information in a content feed, an Internet EPG information source, and an EPG channel (the receiver device such as a TV creates a database from information provided by the access device such as a set top box, each screen of the EPG is run and data is extracted, data includes name of the programs [in reference to the Applicant's Specification on para 0171 which states that the embedded EPG information contains information which includes show name interpreted as embedded EPG information in a content feed], obtaining the virtual numbers for channels such as HBO or CNN [EPG information source] and their content [EPG information sources], the TV stores this information in its own metadata database [aggregated EPG information] it uses these information to create its own EPG [EPG is built] and creates timers, further all the data which includes the scheduling data required to create the EPG comes from the access device, para 0048-0050).

Regarding claim 21, Hardacker further teaches a tangible and non-transient computer readable medium comprising microprocessor executable instructions that, when executed by the microprocessor, perform the steps of claim 14 (a computer readable storage medium includes a processor for executing programming instructions, para 0285).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/036804

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Claims 2, 7-11, 16, 17, 20, lack an inventive step under PCT Article 33(3) as being obvious over Hardacker in view of Singh et al., hereinafter referred to as Singh.

Regarding claim 7, Hardacker discloses an Electronic Programming Guide (EPG) display for an intelligent television (TV), comprising a partial-screen display of the intelligent TV (figs.5 & 8 shows a television device 102 that accesses websites by utilizing the internet 702 and further a server constructs an Electronic Programming Guide (EPG) which is displayed on the television display 102 [interpreted as intelligent television], para 0246, 0247; figs 2 & 3 shows an EPG screenshot that displays television programming schedule on the EPG screen of the on screen displays (OSD's) [fig 2 further shows a part of screen which includes an active video which is being played, and the other part includes the program channel guide information interpreted as partial screen display], para 0045, 0048),
the partial-screen display comprising displayed EPG information regarding a TV program (figs 2 & 3 show an EPG guide with a section 60 which provides the users television programs at particular date and time over a two week period of time with options to page from right to left and top to bottom to access contents and also provides the channel names for the respective television programs, and further section 64 provides information content related to the television program being highlighted by the users selection in the EPG section 60 [fig 2 further shows a part of screen which includes an active video which is being played, and the other part includes the program channel guide information interpreted as partial screen display], para 0043, 0045-0047),
wherein the displayed EPG information is built using EPG information aggregated from a plurality of EPG information sources, the EPG information sources comprising one or more of embedded EPG information in a content feed, an Internet EPG information source, and an EPG channel (the receiver device such as a TV creates a database from information provided by the access device such as a set top box, each screen of the EPG is run and data is extracted, data includes name of the programs [in reference to the Applicant's Specification on para 0171 which states that the embedded EPG information contains information which includes show name interpreted as embedded EPG information in a content feed], obtaining the virtual numbers for channels such as HBO or CNN [EPG information source] and their content [EPG information sources], the TV stores this information in its own metadata database [aggregated EPG information] it uses these information to create its own EPG [EPG is built] and creates timers, further all the data which includes the scheduling data required to create the EPG comes from the access device, para 0048-0050; fig. 8 shows a OCR process initialization at step 354 service provider channel database is initialized and at step 358 it is determined that the 2 week guide for television channel information is out of date and updates it by getting data from the service provider database, para 0144, 0150, 0156-0162; figs 2 & 3 shows an EPG guide with a section 60 which provides the users television programs at particular date and time over a two week period of time with options to page from right to left and top to bottom to access contents and also provides the channel names for the respective television programs, para 0043, 0045-0047), but lacks the teaching of a partial-screen display on an in-use display of the intelligent TV.
Singh is in the field of a television receiver that displays two video programs and an electronic program guide simultaneously as a split screen (abstract, fig.4) and teaches a partial-screen display on an in-use display of the intelligent TV (fig. 4 shows a television receiver with two on board tuners [intelligent TV] provides an output screen 21 with a left hand screen 22 [an in-use display] which contains a first video program received from a video source, and the right half screen 23 [a partial-screen display] contains the interactive EPG which the user can scroll through and select a program from a plurality of program channels which is viewed on the picture in picture (PIP) simultaneously with the video source 1 being viewed, col.2, lines 57- 67- col.3, lines 1-30), the partial-screen display comprises EPG information regarding a TV program (the right half screen 23 [a partial-screen display] contains the interactive EPG which the user can scroll through and select a program from a plurality of program channels which is viewed on the picture in picture (PIP) simultaneously with the video source 1 being viewed, col.2, lines 57- 67- col.3, lines 1-30). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Singh to incorporate a partial-screen display on an in-use display of the intelligent TV, the partial-screen display comprising displayed EPG information regarding a TV program into the invention of Hardacker. The motivation would have been to provide the user with the function to watch a video program while scrolling through an interactive EPG for selecting programs (see Singh, Col. 1, lines 39-53).

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Regarding claim 2, Hardacker further teaches wherein the display is a full-screen display and wherein the full-screen display further comprises a TV portion configured to display a TV program (figs 2 & 3 show an EPG guide [full screen display] with a section 60 which provides the users television programs at particular date and time over a two week period of time with options to page from right to left and top to bottom to access contents and also provides the channel names for the respective television programs, and further a window on the top right is show which provides active video [interpreted as TV portion configured to display a TV program], para 0043, 0045-0047), but lacks the teaching of comprises a live TV portion configured to display a selected TV program.
Singh is in the field of a television receiver that displays two video programs and an electronic program guide simultaneously as a split screen (abstract, fig.4) and teaches comprises a live TV portion configured to display a selected TV program (fig. 4 shows a television receiver with two on board tuners [intelligent TV] provides an output screen 21 with a left hand screen 22 [an in-use display] which contains a first video program received from a video source, in the section 23 the user can scroll through and select a program from a plurality of program channels which is viewed on the picture in picture (PIP) simultaneously with the video source 1 being viewed, the EPG includes the PIP window and displays a currently telecast program and the viewer changes the program in the PIP by cursoring through the list of currently telecast programs [live TV portion] in the EPG, col.1, lines 39-49, col.2, lines 57- 67- col.3, lines 1-30). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Singh to incorporate comprises a live TV portion configured to display a selected TV program into the invention of Hardacker. The motivation would have been to provide the user with the function to watch a video program while scrolling through an interactive EPG for selecting programs (see Singh, Col. 1, lines 39-53).

Regarding claim 8, Hardacker lacks the teaching of wherein the partial-screen display overlays the in-use display of the intelligent TV.
Singh is in the field of a television receiver that displays two video programs and an electronic program guide simultaneously as a split screen (abstract, fig.4) and teaches wherein the partial-screen display overlays the in-use display of the intelligent TV (fig. 4 shows a television receiver with two on board tuners [intelligent TV] provides an output screen 21 with a left hand screen 22 [an in-use display] which contains a first video program received from a video source, and the right half screen 23 [a partial-screen display] contains the interactive EPG which the user can scroll through and select a program from a plurality of program channels which is viewed on the picture in picture (PIP) simultaneously with the video source 1 being viewed [fig. 4 shows the partial screen display overlays the in use display], col.2, lines 57- 67- col.3, lines 1-30). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Singh to incorporate wherein the partial-screen display overlays the in-use display of the intelligent TV into the invention of Hardacker. The motivation would have been to provide the user with the function to watch a video program while scrolling through an interactive EPG for selecting programs (see Singh Col. 1, lines 39-53).

Regarding claim 9, Hardacker lacks the teaching of wherein the in-use display comprises a currently playing TV program.
Singh is in the field of a television receiver that displays two video programs and an electronic program guide simultaneously as a split screen (abstract, fig.4) and teaches wherein the in-use display comprises a playing TV program (fig. 4 shows a television receiver with two on board tuners [intelligent TV] provides an output screen 21 with a left hand screen 22 [an in-use display] which contains a first video program received from a video source, and the right half screen 23 [a partial-screen display] contains the interactive EPG, the section 22 which is the in-use display receives a video program from an on board tuner and provides the video source 1 [interpreted as playing a TV program], col.2, lines 57- 67- col.3, lines 1-30). Furthermore, Singh teaches wherein the display comprises a currently playing TV program (in the section 23 the user can scroll through and select a program from a plurality of program channels which is viewed on the picture in picture (PIP) simultaneously with the video source 1 being viewed, the EPG includes the PIP window and displays a currently telecast program and the viewer changes the program in the PIP by cursoring through the list of currently telecast programs in the EPG, col.1, lines 39-49, col.2, lines 57- 67- col.3, lines 1-30). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Singh to incorporate wherein the in-use display comprises a currently playing TV program into the invention of Hardacker. The motivation would have been to provide the user with the function to watch a video program while scrolling through an interactive EPG for selecting programs (see Singh, Col. 1, lines 39-53).

Regarding claim 10, Hardacker lacks the teaching of wherein the partial-screen display resizes the in-use display.
Singh is in the field of a television receiver that displays two video programs and an electronic program guide simultaneously as a split screen (abstract, fig.4) and teaches herein the partial-screen display resizes the in-use display (a television is provided with a remote control unit to control the television and scan through the EPG, the remote includes an EPG button upon pressing that button the EPG section of the screen comes up to present an multi window screen to the user as shown in fig.4 [as upon the user selection of the EPG button the screen becomes and multi window screen it is inherent that the partial screen display is resizes the in use display], col.3, lines 11-30; fig. 4 shows a television receiver with two on board tuners provides an output screen 21 with a left hand screen 22 [an in-use display] which contains a first video program received from a video source, and the right half screen 23 [a partial-screen display] contains the interactive EPG, the section 22 which is the in-use display receives a video program from an on board tuner and provides the video source 1, col.2, lines 57- 67- col.3, lines 1-30). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Singh to incorporate wherein the partial-screen display resizes the in-use display into the invention of Hardacker. The motivation would have been to provide the user with the function to watch a video program while scrolling through an interactive EPG for selecting programs (see Singh, Col. 1, lines 39-53).

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Regarding claim 11, Hardacker lacks the teaching of wherein the partial-screen display comprises a banner located at a top of the in-use display.
Singh is in the field of a television receiver that displays two video programs and an electronic program guide simultaneously as a split screen (abstract, fig.4) and teaches wherein the partial-screen display comprises a banner located at the top of the display (fig. 4 shows a television receiver with two on board tuners provides an output screen 21 with a left hand screen 22 [an in-use display] which contains a first video program received from a video source, and the right half screen 23 [a partial-screen display] contains the interactive EPG which the user can scroll through and select a program from a plurality of program channels which is viewed on the picture in picture (PIP) display [the PIP is interpreted as banner located on the top of the display], col.2, lines 57- 67- col.3, lines 1-30; the PIP part of the image is arbitrarily positioned anywhere within the main picture and can be resized, col.1, lines 25-30). Furthermore, to establish the banner to be located on top of the in-use display is a matter of design choice and would have been a known practice in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Singh to incorporate wherein the partial-screen display comprises a banner located at a top of the in-use display into the invention of Hardacker. The motivation would have been to provide the user with the function to watch a video program while scrolling through an interactive EPG for selecting programs (see Singh, Col. 1, lines 39-53).

Regarding claim 16, Hardacker lacks the teaching of further comprising displaying an in-use portion on the screen, wherein displaying the aggregated EPG information comprises displaying the aggregated EPG information on a partial-screen portion of the screen in combination with the in-use portion.
Singh is in the field of a television receiver that displays two video programs and an electronic program guide simultaneously as a split screen (abstract, fig.4) and teaches comprising displaying an in-use portion on the screen, wherein displaying the aggregated EPG information comprises displaying the aggregated EPG information on a partial-screen portion of the screen in combination with the in-use portion (fig. 4 shows a television receiver with two on board tuners provides an output screen 21 with a left hand screen 22 [an in-use display] which contains a first video program received from a video source, and the right half screen 23 [a partial-screen display] contains the interactive EPG, the section 22 which is the in-use display receives a video program from an on board tuner and provides the video source 1 [interpreted as displaying in use portion in combination with the partial screen portion], col.2, lines 57- 67- col.3, lines 1-30). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Singh to incorporate w comprising displaying an in-use portion on the screen, wherein displaying the aggregated EPG information comprises displaying the aggregated EPG information on a partial-screen portion of the screen in combination with the in-use portion into the invention of Hardacker. The motivation would have been to provide the user with the function to watch a video program while scrolling through an interactive EPG for selecting programs (see Singh, Col. 1, lines 39-53).

Regarding claim 17, Hardacker lacks the teaching of wherein the in-use portion comprises a currently playing TV program.
Singh is in the field of a television receiver that displays two video programs and an electronic program guide simultaneously as a split screen (abstract, fig.4) and teaches wherein the in-use display comprises a playing TV program (fig. 4 shows a television receiver with two on board tuners [intelligent TV] provides an output screen 21 with a left hand screen 22 [an in-use display] which contains a first video program received from a video source, and the right half screen 23 [a partial-screen display] contains the interactive EPG, the section 22 which is the in-use display receives a video program from an on board tuner and provides the video source 1 [interpreted as playing a TV program], col.2, lines 57- 67- col.3, lines 1-30). Furthermore, Singh teaches wherein the display comprises a currently playing TV program (in the section 23the user can scroll through and select a program from a plurality of program channels which is viewed on the picture in picture (PIP) simultaneously with the video source 1 being viewed, the EPG includes the PIP window and displays a currently telecast program and the viewer changes the program in the PIP by cursoring through the list of currently telecast programs in the EPG, col.1, lines 39-49, col.2, lines 57- 67- col.3, lines 1-30). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Singh to incorporate wherein the in-use display comprises a currently playing TV program into the invention of Hardacker. The motivation would have been to provide the user with the function to watch a video program while scrolling through an interactive EPG for selecting programs (see Singh, Col. 1, lines 39-53).

Regarding claim 20, Hardacker lacks the teaching of wherein the partial-screen portion comprises a banner located at a top of the in-use portion.
Singh is in the field of a television receiver that displays two video programs and an electronic program guide simultaneously as a split screen (abstract, fig.4) and teaches wherein the partial-screen display comprises a banner located at the top of the display portion (fig. 4 shows a television receiver with two on board tuners provides an output screen 21 with a left hand screen 22 [an in-use display] which contains a first video program received from a video source, and the right half screen 23 [a partial-screen display] contains the interactive EPG which the user can scroll through and select a program from a plurality of program channels which is viewed on the picture in picture (PIP) display [the PIP is interpreted as banner located on the top of the display], col.2, lines 57- 67- col.3, lines 1-30; the PIP part of the image is arbitrarily positioned anywhere within the main picture and can be resized, col.1, lines 25-30). Furthermore, to establish the banner to be located on top of the in-use portion is a matter of design choice and would have been a known practice in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Singh to incorporate wherein the partial-screen display comprises a banner located at a top of the in-use portion into the invention of Hardacker. The motivation would have been to provide the user with the function to watch a video program while scrolling through an interactive EPG for selecting programs (see Singh, Col. 1, lines 39-53).

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Claims 3, 4, 15, lack an inventive step under PCT Article 33(3) as being obvious over Hardacker in view of Drazin et al., hereinafter referred to as Drazin.

Regarding claim 3, Hardacker lacks the teaching of wherein the display further comprises hot key functionalities accessible for one or more TV programs in the schedule.
Drazin is in the field of an electronic program guide for television programs presenting a list of programs on screen (abstract) and teaches wherein the display further comprises hot key functionalities accessible for one or more TV programs in the schedule (figs. 14b & 14c shows an EPG guide and which includes a button 720 "Keep" [interpreted as hot keys] which is displayed on the top of the screen here, a user selects the button 720 which results in action of labeling a program or series title which is in focus as kept and causes the programs to be kept in stack of 'kept' programs, para 0184). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Drazin to incorporate wherein the display further comprises hot key functionalities accessible for one or more TV programs in the schedule into the invention of Hardacker. The motivation would have been to provide an improved and effective EPG for a television system (see Drazin para 0001-0004).

Regarding claim 4, Hardacker lacks the teaching of wherein the hot key functionalities comprises one or more of displaying currently playing TV programs, assigning categories to the selected TV program, managing the selected TV program, and marking the selected TV program.
Drazin is in the field of an electronic program guide for television programs presenting a list of programs on screen (abstract) and teaches wherein the hot key functionalities comprises one or more of displaying currently playing TV programs, assigning categories to the selected TV program, managing the selected TV program, and marking the selected TV program (figs. 14b & 14c shows an EPG guide and which includes a button 720 "Keep" [interpreted as hot keys] which is displayed on the top of the screen here, a user selects the button 720 which results in action of labeling a program or series title which is in focus as kept and causes the programs to be kept in stack of 'kept' programs [the action of labeling is interpreted as marking the selected TV program], para 0184). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Drazin to incorporate wherein the hot key functionalities comprises one or more of displaying currently playing TV programs, assigning categories to the selected TV program, managing the selected TV program, and marking the selected TV program into the invention of Hardacker. The motivation would have been to provide an improved and effective EPG for a television system (see Drazin para 0001-0004).

Regarding claim 15, Hardacker further teaches wherein displaying the aggregated EPG information comprises displaying a combination of the aggregated EPG information and a schedule including current, and upcoming TV programs on a full-screen portion of the screen (figs 2 & 3 show an EPG guide with a section 60 [schedule portion] which provides the users television programs at particular date and time over a two week period of time [interpreted as a schedule including upcoming TV programs] with options to page from right to left and top to bottom to access future television programing contents and also provides the channel names for the respective television programs, para 0043, 0045-0047; the receiver device such as a TV creates a database from information provided by the access device such as a set top box, each screen of the EPG is run and data is extracted, data includes name of the programs, obtaining the virtual numbers for channels such as HBO or CNN and their content, the TV stores this information in its own metadata database [aggregated EPG information] it uses these information to create its own EPG which displays all the available current and future contents [current and upcoming TV programs], further all the data which includes the scheduling data required to create the EPG comes from the access device, para 0048-0050), wherein the schedule is accessible and configurable using an input device (a remote control which includes hot keys to access the screen is used to send commands to the set top box 106 by accessing the EPG, para 0048, 0075, 0076; a remote control includes buttons and has the functionality of clicking on the screen to select an icon on the menu, and further when a guide button is pressed on a remote control device the recorder becomes aware of the scheduled content is to be browsed from the EPG [interpreted as schedule portion accessible using an input device], para 0100, 0193), and wherein the schedule is built from the aggregated EPG information (the receiver device such as a TV creates a database from information provided by the access device such as a set top box, each screen of the EPG is run and data is extracted, data includes name of the programs, obtaining the virtual numbers for channels such as HBO or CNN [EPG information source] and their content, the TV stores this information in its own metadata database [aggregated EPG information] it uses these information to create its own EPG [EPG is built] and creates timers, further all the data which includes the scheduling data required to create the EPG comes from the access device, para 0048-0050), but lacks the teaching of the schedule includes past TV programs and wherein the schedule is accessible and configurable using an input device. Drazin is in the field of an electronic program guide for television programs presenting a list of programs on screen (abstract) and teaches wherein the schedule is accessible and configurable using an input device (a user moves a cursor [input device] onto a desired program and selects the "schedule" option in the EPG of fig.10, here the highlighted program "Football Italia" is to be repeated for the user and the viewer is presented with the option of recording the program and upon selection of "record" the program is setup to be recorded, para 0158, 0159, 0171). Furthermore, EPG schedules having past TV programs would have been a well known practice in the art and a matter of design choice. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Drazin to incorporate wherein the schedule is accessible and configurable using an input device into the invention of Hardacker. The motivation would have been to provide an improved and effective EPG for a television system and to provide the users informention on recently broadcast TV programs (see Drazin para 0001-0004).

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Claims 12, 13, 18, 19, lack an inventive step under PCT Article 33(3) as being obvious over Hardacker in view of Singh and further in view of Ellis et al., hereinafter referred to as Ellis.

Regarding claim 12, Hardacker lacks the teaching of wherein the partial-screen display comprises an EPG information portion displaying the displayed EPG information located to the side of the in-use display and comprising a button portion having selectable buttons for accessing one or more of scenes, audio tracks, and subtitle tracks in the currently playing TV program.
Singh is in the field of a television receiver that displays two video programs and an electronic program guide simultaneously as a split screen (abstract, fig.4) and teaches wherein the partial-screen display comprises an EPG information portion displaying the displayed EPG information located to the side of the in-use display (fig. 4 shows a television receiver with two on board tuners provides an output screen 21 with a left hand screen 22 [an in-use display] which contains a first video program received from a video source, and the right half screen 23 [a partial-screen display] contains the interactive EPG which the user can scroll through and select a program from a plurality of program channels which is viewed on the picture in picture (PIP) simultaneously with the video source 1 being viewed on the side, col.2, lines 57- 67- col.3, lines 1-30) and comprising a button portion having selectable buttons for accessing the currently playing TV program (in the section 23the user can scroll through and select a program from a plurality of program channels which is viewed on the picture in picture (PIP) simultaneously with the video source 1 being viewed, the EPG includes the PIP window and displays a currently telecast program and the viewer changes the program in the PIP by cursoring through the list of currently telecast programs in the EPG, col.1, lines 39-49, col.2, lines 57- 67- col.3, lines 1-30). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Singh to incorporate wherein the partial-screen display comprises an EPG information portion displaying the displayed EPG information located to the side of the in-use display into the invention of Hardacker. The motivation would have been to provide the user with the function to watch a video program while scrolling through an interactive EPG for selecting programs (see Singh, Col. 1, lines 39-53).
Ellis is in the field of an interactive television program guide that provides users with opportunity to select languages for playing television programs (abstract) and teaches wherein the display comprises information portion comprising a button portion having selectable buttons for accessing one or more of scenes, audio tracks, and subtitle tracks in the TV program (figs 7a & 7b shows a information screen 161 which provides information for a program, the user gets more information about a program that he is watching by the info key and the user accesses various program guide functions and this includes button 157 which provides the user to select different languages which the user desires from a list of languages available to the user [select from a list of language is interpreted as selectable buttons for accessing audio tracks], page 25, lines 7-35, page 26, lines 1-11). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Ellis to incorporate wherein the display comprises information portion comprising a button portion having selectable buttons for accessing one or more of scenes, audio tracks, and subtitle tracks in the TV program into the invention of Hardacker. The motivation would have been to provide the users with an optimized information guide for better accessibility.

Regarding claim 13, Hardacker further teaches comprising a schedule for a channel playing the currently playing TV program (figs 2 & 3 show an EPG guide with a section 60 [schedule portion] which provides the users television programs at particular date and time over a two week period of time [interpreted as a schedule] with options to page from right to left and top to bottom to access contents and also provides the channel names for the respective television programs [fig. 2 shows the schedule for currently selected channel 4 NBC which is currently playing the television program "Three Wishes"], para 0043, 0045-0047; fig. 14 shows an image displaying details of a currently playing program channel and provides the schedule for it, para 0195, 0222).

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Regarding claim 18, Hardacker lacks the teaching of wherein the partial-screen portion is located to the side of the in-use portion and further comprises a button portion having at least one selectable button for accessing one or more of scenes, audio tracks, and subtitle tracks in the currently playing TV program.
Singh is in the field of a television receiver that displays two video programs and an electronic program guide simultaneously as a split screen (abstract, fig.4) and teaches wherein the partial-screen display comprises an EPG information portion displaying the displayed EPG information located to the side of the in-use display (fig. 4 shows a television receiver with two on board tuners provides an output screen 21 with a left hand screen 22 [an in-use display] which contains a first video program received from a video source, and the right half screen 23 [a partial-screen display] contains the interactive EPG which the user can scroll through and select a program from a plurality of program channels which is viewed on the picture in picture (PIP) simultaneously with the video source 1 being viewed on the side, col.2, lines 57- 67- col.3, lines 1-30) and comprising a button portion having selectable buttons for accessing the currently playing TV program (in the section 23the user can scroll through and select a program from a plurality of program channels which is viewed on the picture in picture (PIP) simultaneously with the video source 1 being viewed, the EPG includes the PIP window and displays a currently telecast program and the viewer changes the program in the PIP by cursoring through the list of currently telecast programs in the EPG, col.1, lines 39-49, col.2, lines 57- 67- col.3, lines 1-30). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Singh to incorporate wherein the partial-screen display comprises an EPG information portion displaying the displayed EPG information located to the side of the in-use display into the invention of Hardacker. The motivation would have been to provide the user with the function to watch a video program while scrolling through an interactive EPG for selecting programs (see Singh, Col. 1, lines 39-53).
Ellis is in the field of an interactive television program guide that provides users with opportunity to select languages for playing television programs (abstract) and teaches wherein the display comprises information portion comprising a button portion having selectable buttons for accessing one or more of scenes, audio tracks, and subtitle tracks in the TV program (figs 7a & 7b shows a information screen 161 which provides information for a program, the user gets more information about a program that he is watching by the info key and the user accesses various program guide functions and this includes button 157 which provides the user to select different languages which the user desires from a list of languages available to the user [select from a list of language is interpreted as selectable buttons for accessing audio tracks], page 25, lines 7-35, page 26, lines 1-11). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Ellis to incorporate wherein the display comprises information portion comprising a button portion having selectable buttons for accessing one or more of scenes, audio tracks, and subtitle tracks in the TV program into the invention of Hardacker. The motivation would have been to provide the users with an optimized information guide for better accessibility.

Regarding claim 19, Hardacker further teaches wherein the partial-screen portion further comprises a schedule for a channel playing the currently playing TV program (figs 2 & 3 show an EPG guide with a section 60 [schedule portion] which provides the users television programs at particular date and time over a two week period of time [interpreted as a schedule] with options to page from right to left and top to bottom to access contents and also provides the channel names for the respective television programs [fig. 2 shows the schedule for currently selected channel 4 NBC which is currently playing the television program "Three Wishes"], para 0043, 0045-0047; fig. 14 shows an image displaying details of a currently playing program channel and provides the schedule for it, para 0195, 0222).

Claims 1-21 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: Thaine Lennox-Gentle
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, CO 80202
United States of America

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference 6583-478-PCT	Date of mailing *(day/month/year)* 17 JAN 2014 **FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. PCT/US13/55405	International filing date *(day/month/year)* 16 August 2013 (16.08.2013)
Applicant Flextronics AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Shane Thomas PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-478-PCT	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US13/55405	International filing date *(day/month/year)* 16 August 2013 (16.08.2013)	(Earliest) Priority Date *(day/month/year)* 17 August 2012 (17.08.2012)
Applicant Flextronics AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 14A

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

Form PCT/ISA/210 (first sheet) (July 2009)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US13/55405

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - G06F 3/048; H04N 21/40; H04B 1/16 (2014.01)
USPC - 715/836; 715/835; 348/553
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) Classification(s): G06F 3/048; H04N 21/40; H04B 1/16 (2014.01)
USPC Classification(s): 715/836, 835; 348/553

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
MicroPatent (US-G, US-A, EP-A, EP-B, WO, JP-bib, DE-C,B, DE-A, DE-T, DE-U, GB-A, FR-A); Google Patents; Google Scholar; ProQuest; KEYWORDS: television, tv, selection, favorite, history, previous, system, channel

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 2009/0204929 A1 (BAURMANN, T. et al.) August 13, 2009; figure 1-3; paragraph [0008, 0013, 0014, 0016-0020, 0024-0032, 0039, 0063]	1-4, 7-17 ---- 5, 6, 18-20
Y	US 6,629,077 B1 (ARLING, P. et al.) September 30, 2003; abstract; figure 3 and 4; column 2, line 16; column 3, line 25; column 4, lines 1-10	5, 6, 18, 19
Y	US 2009/0199237 (WHITE, S. et al.) August 6, 2009; figure 7; column 2, line 47	20

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
5 January 2014 (05.01.2014)	17 JAN 2014
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: Thaine Lennox-Gentle
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, CO 80202
United States of America

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	17 JAN 2014
Applicant's or agent's file reference 6583-478-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US13/55405	16 August 2013 (16.08.2013)	17 August 2012 (17.08.2012)

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - G06F 3/048; H04N 21/40; H04B 1/16 (2014.01)
USPC - 715/836; 715/835; 348/553

Applicant Flextronics AP, LLC

1. This opinion contains indications relating to the following items:

- [x] Box No. I Basis of the opinion
- [ ] Box No. II Priority
- [ ] Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- [ ] Box No. IV Lack of unity of invention
- [x] Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- [ ] Box No. VI Certain documents cited
- [ ] Box No. VII Certain defects in the international application
- [ ] Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 *bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	05 January 2014 (05.01.2014)	Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55405

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:
   - ☒ the international application in the language in which it was filed.
   - ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:
   a. (means)
      - ☐ on paper
      - ☐ in electronic form
   b. (time)
      - ☐ in the international application as filed
      - ☐ together with the international application in electronic form
      - ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55405

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	5, 6, 18-20	YES
	Claims	1-4, 7-17	NO
Inventive step (IS)	Claims	NONE	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	NONE	NO

2. Citations and explanations:

Claims 1-4 and 7-17 lack novelty under PCT Article 33(2) as being anticipated by US 2009/0204929 A1 to BAURMANN, T. et al. (hereinafter 'Baurmann').

As per claim 1, Baurmann discloses a television system comprising: a screen (television screen [screen]; figure 2; paragraph [0008]); a memory (memory [memory]; figure 1; paragraph [0013]); a user input module for receiving a user navigation input from a user input source (IR receiver for receiving wireless signal from hand-held remote [user input module]; paragraph [0014]); a navigable user interface comprising: a list of two or more subsets of selectable channel tiles on the screen (favorite objects displayed in plurality of sub-groups on screen [two or more subsets]; figure 2; paragraph [0063]), the list being displayed laterally on the screen in a single row (list is displayed laterally [displayed laterally]; figure 2) and each of the subsets of selectable channel tiles containing at least one selectable channel tile (each sub-group contains one selectable tile [at least one selectable channel tile]; figure 2; paragraph [0063]); and a focus responsive to a user navigation input and indicating a selectable channel tile to be selected (focused icon in response to a user command [focus]; figure 2; paragraph [0008, 0018, 0019]); wherein each selectable channel tile is associated with a channel available for display by the television system (favorite objects are associated with respective TV channels to display [channel tile associated with channel]; figure 2, 3; paragraph [0016-0018]) and selection of a selectable channel tile causes the television system to display the channel associated with the selected channel tile (should the user manipulate, e.g., the enter key on the remote, the processor automatically causes the TV channel associated with the object to be tuned to and displayed [selection causes channel to be displayed]; figure 2; paragraph [0018]).

As per claim 2, Baurmann discloses the system of claim 1. Baurmann further discloses wherein only a portion of the list of two or more subsets of selectable channel tiles are displayed on the screen (only portion of favorite object displayed at edges of lateral menu [only portion displayed]; figure 2).

As per claim 3, Baurmann discloses the system of claim 1. Baurmann further discloses wherein the user data comprises at least a user-defined list of favorite channels (list of favorite channels selected by user [user-defined list of favorite channels]; figure 2, 3; paragraph [0016]) and a history of channels previously viewed by a user (history list [history of channels]; paragraph [0020, 0024]), and further wherein the two or more subsets of selectable channel tiles contain at least a first and second subset of selectable channel tiles (plurality of favorite objects contain plurality of selectable channel tiles [first and second subset of selectable channel tiles]; figure 2; paragraph [0063]), the first subset containing a list of selectable channel tiles corresponding to the user-defined list of favorite channels (favorite channel list displayed under TV channel favorite object [first subset favorite list]; figure 2; paragraph [0025-0032]) and the second subset containing a dynamically defined list of selectable channel tiles, the channel tiles of the second subset being defined based upon one or more of the user-defined list of favorite channels and a history of channels previously viewed by a user (favorite list and history list displayed under TV channel favorite object [second subset one or more of favorite list and history of channels]; figure 2, 3; paragraph [0020, 0024-0032, 0039]).

As per claim 4, Baurmann discloses the system of claim 1. Baurmann further discloses wherein the user input source is a remote control comprising a directional pad and a selection button (remote with D-pad [remote]; figure 1).

As per claim 7, Baurmann discloses a method of providing a user-interface for a television system comprising: displaying a list of two or more selectable channel tiles on a display (favorite objects displayed in plurality of sub-groups on screen [two or more subsets]; figure 2; paragraph [0063]); displaying a focus on a first of the two or more selectable channel tiles (focused icon in response to a user command [focus]; figure 2; paragraph [0008, 0018, 0019]); receiving a user input from a user input source (IR receiver for receiving wireless signal from hand-held remote [user input module]; paragraph [0014]); determining the type of user input received (processor determines the type of input received [determining input received]; figure 1, 3; paragraph [0014, 0017, 0018, 0022, 0024]); changing the focus from the first selectable channel tile to a second selectable channel tile when the user input indicates a directional change of the focus (user can manipulate remote control until object is focused object available for selection [changing focus using direction change]; figure 2; paragraph [0007]); displaying the channel associated with the currently focused selectable channel tile when the user input indicated selection of the currently focused selectable channel tile (should the user manipulate, e.g., the enter key on the remote, the processor automatically causes the TV channel associated with the object to be tuned to and displayed [selection causes channel to be displayed]; figure 2; paragraph [0018]).

-***-Continued Within the Next Supplemental Box-***-

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55405

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

-***-Continued from Box V: Citations and Explanations-***-

As per claim 8, Baurmann discloses the method of claim 7. Baurmann further discloses wherein the step of displaying a list of two or more selectable channel tiles on a display further comprises: categorizing the list of two or more selectable channel tiles into two subsets of selectable channel tiles (plurality of favorite objects contain plurality of selectable channel tiles [first and second subset of selectable channel tiles]; figure 2; paragraph [0063]); defining the first subset from a list of favorite channels (favorite channel list displayed under TV channel favorite object [first subset favorite list]; figure 2; paragraph [0025-0032]) and defining the second subset based upon one or more of the list of favorite channels and a history of channels previously viewed by a user (favorite list and history list displayed under TV channel favorite object [second subset one or more of favorite list and history of channels]; figure 2, 3; paragraph [0020, 0024-0032, 0039]); displaying the two subsets of selectable channel tiles laterally on the display in a single row (list is displayed laterally [displayed laterally] in a single row; figure 2) and displaying a demarcation indicator between the two subsets of selectable channel tiles (focused channel separates plurality of unselected objects in lateral row [displaying demarcation indicator]; figure 2).

As per claim 9, Baurmann discloses the method of claim 7. Baurmann further discloses, wherein changing the focus to an adjacent selectable tile results in only a portion of the list of two or more selectable channel tiles being displayed on the screen (only portion of favorite object displayed at edges of lateral menu [only portion displayed]; figure 2).

As per claim 10, Baurmann discloses the method of claim 7. Baurmann further discloses wherein the user input source is a remote control comprising at least a directional pad and a selection button (remote with D-pad and selection button [remote]; figure 1), further wherein the user input indicating a directional change of the focus is indicated by the directional pad and the user input indicating a selection of the currently focused selectable channel tile is indicated by the selection button (user can manipulate remote control until object is focused object available for selection by selection button [changing focus using direction change and selecting with selection button]; figure 2; paragraph [0007]).

As per claim 11, Baurmann discloses a non-transitory, tangible computer readable storage medium (memory [memory]; figure 1; paragraph [0013]), encoded with processor readable instructions (processor for processing software [processor readable instructions]; paragraph [0013]) which cause a computer to perform a method of providing a user-interface for a television system, the instructions comprising: instructions to display a list of two or more selectable channel tiles on a display (favorite objects displayed in plurality of sub-groups on screen [two or more subsets]; figure 2; paragraph [0063]); instructions to display a focus on a first of the two or more selectable channel tiles (focused icon in response to a user command [focus]; figure 2; paragraph [0008, 0018, 0019]); instructions to receive a user input from a user input source (IR receiver for receiving wireless signal from hand-held remote [user input module]; paragraph [0014]); instructions to determine the type of user input received (processor determines the type of input received [determining input received]; figure 1, 3; paragraph [0014, 0017, 0018, 0022, 0024]); instructions to change the focus from the first selectable channel tile to a second selectable channel tile when the user input indicates a directional change of the focus (user can manipulate remote control until object is focused object available for selection by selection button [changing focus using direction change and selecting with selection button]; figure 2; paragraph [0007]); and instructions to display the channel associated with the currently focused selectable channel tile when the user input indicated selection of the currently focused selectable channel tile (should the user manipulate, e.g., the enter key on the remote, the processor automatically causes the TV channel associated with the object to be tuned to and displayed [selection causes channel to be displayed]; figure 2; paragraph [0018]).

As per claim 12, Baurmann discloses the non-transitory, tangible computer readable storage medium of claim 11. Baurmann further discloses wherein the list of two or more selectable channel tiles are displayed laterally on the display in a single row (list is displayed laterally [displayed laterally]; figure 2).

As per claim 13, Baurmann discloses the non-transitory, tangible computer readable storage medium of claim 11. Baurmann further discloses wherein changing the focus to an adjacent selectable tile results in only a portion of the list of two or more selectable channel tiles being displayed on the screen (only portion of favorite object displayed at edges of lateral menu [only portion displayed]; figure 2).

As per claim 14, Baurmann discloses the non-transitory, tangible computer readable storage medium of claim 12. Baurmann further discloses wherein the list of two or more selectable channel tiles contains at least two subsets of selectable channel tiles (plurality of favorite objects contain plurality of selectable channel tiles [first and second subset of selectable channel tiles]; figure 2; paragraph [0063]).

As per claim 15, Baurmann discloses the non-transitory, tangible computer readable storage medium of claim 14. Baurmann further discloses wherein the at least two subsets of selectable channel tiles contain a first and second subset of selectable channel tiles (plurality of favorite objects contain plurality of selectable channel tiles [first and second subset of selectable channel tiles]; figure 2; paragraph [0063]), the first subset containing a static list of selectable channel tiles (favorite channel list displayed under TV channel favorite object where list is specified by user and cannot be changed unless manually changed by user [first subset favorite list]; figure 2; paragraph [0025-0032]) and the second subset containing a dynamically chosen list of selectable tiles (favorite list and history list displayed under TV channel favorite object where history list continually changes based upon recently viewed channels [second subset one or more of favorite list and history of channels]; figure 2, 3; paragraph [0020, 0024-0032, 0039]).

-***-Continued Within the Next Supplemental Box-***-

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55405

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

-***-Continued from Previous Supplemental Box-***-

As per claim 16, Baurmann discloses the non-transitory, tangible computer readable storage medium of claim 15. Baurmann further discloses the instructions including: instructions to define the first subset from a list of favorite channels (favorite channel list displayed under TV channel favorite object [first subset favorite list]; figure 2; paragraph [0025-0032]) and; instructions to define the second subset by recommending channels based upon one or more of the list of favorite channels and a history of channels previously viewed by a user (favorite list and history list displayed under TV channel favorite object [second subset one or more of favorite list and history of channels]; figure 2, 3; paragraph [0020, 0024-0032, 0039]).

As per claim 17, Baurmann discloses the non-transitory, tangible computer readable storage medium of claim 11. Baurmann further discloses wherein the user input source is a remote control comprising at least a directional pad and a selection button (remote with D-pad and selection button [remote]; figure 1), and further wherein the user input indicating a directional change of the focus is indicated by the directional pad and the user input indicating a selection of the currently focused selectable channel tile is indicated by the selection button (user can manipulate remote control until object is focused object available for selection by selection button [changing focus using direction change and selecting with selection button]; figure 2; paragraph [0007]).

Claims 5, 6, 18, and 19 lack an inventive step under PCT Article 33(3) as being obvious over Baurmann in view of US 6,629,077 B1 to ARLING, P. et al. (hereinafter 'Arling').

As per claims 5 and 18, Baurmann discloses the system and non-transitory, tangible computer readable storage medium of claims 1 and 11, respectively. However, Baurmann fails to disclose further comprising a microphone, and wherein the user input source is a voice command. However, Arling discloses further comprising a microphone, and wherein the user input source is a voice command (voice command received by microphone within universal remote [microphone for receiving voice command]; abstract; figure 3 and 4; column 4, lines 1-10). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the system and non-transitory, tangible computer readable storage medium of Baurmann to include further comprising a microphone, and wherein the user input source is a voice command, as taught by Arling, because it is advantageous to have the ability to simplify remote input by utilizing voice commands.

As per claims 6 and 19, Baurmann discloses the system and non-transitory, tangible computer readable storage medium of claims 1 and 11, respectively. Baurmann fails to disclose wherein at least a portion of the screen is capable of receiving a touch input and the user input source is a touch input. However, Arling discloses wherein at least a portion of the screen is capable of receiving a touch input and the user input source is a touch input (touch screen input means [touch screen]; column 2, line 16; column 3, line 25). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the system and non-transitory, tangible computer readable storage medium of Baurmann to include wherein at least a portion of the screen is capable of receiving a touch input and the user input source is a touch input, as taught by Arling, because it is advantageous to have the ability to simplify remote input by utilizing touch screen and touch screen input commands.

Claim 20 lacks an inventive step under PCT Article 33(3) as being obvious over Baurmann in view of US 2009/0199237 A1 to WHITE, S. et al. (hereinafter 'White').

As per claim 20, Baurmann discloses the non-transitory, tangible computer readable storage medium of claim 16. However, Baurmann fails to disclose wherein at least one of the channel tiles in the second subset of channel tiles is associated with a channel that is currently playing a program containing recommended content. However, White discloses wherein at least one of the channel tiles in the second subset of channel tiles is associated with a channel that is currently playing a program containing recommended content (outputting program recommendations to user via display [recommended content tile]; figure 7; column 2, line 47). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the non-transitory, tangible computer readable storage medium of Baurmann to include wherein at least one of the channel tiles in the second subset of channel tiles is associated with a channel that is currently playing a program containing recommended content, as taught by White, because it is advantageous to automatically suggest personalized recommendations to television users for the purpose of increasing ease of use for television users.

Claims 1-20 have industrial applicability as defined by PCT Article 33(4) because the subject matter can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: DEAN N. REINHARDT
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

	Date of mailing *(day/month/year)* 11 MAR 2014
Applicant's or agent's file reference 6583-479-PCT	**FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. PCT/US2013/055278	International filing date *(day/month/year)* 16 August 2013
Applicant FLEXTRONICS AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-479-PCT	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US2013/055278	International filing date *(day/month/year)* 16 August 2013	(Earliest) Priority Date *(day/month/year)* 17 August 2012
Applicant FLEXTRONICS AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 14

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/055278

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H04N 7/00 (2014.01)
USPC - 725/46
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) - G06F 3/00; G06Q 30/00; H04N 5/00, 7/00 (2014.01)
USPC - 725/1, 37, 46, 86

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
CPC - G06Q 30/00, H04N 5/00, 7/00 (2013.01)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
PatBase, Google Patents, ProQuest

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2010/0050219 A1 (ANGIOLILLO et al) 25 February 2010 (25.02.2010) entire document.	1-21
Y	US 2011/0047572 A1 (HILL et al) 24 February 2011 (24.02.2011) entire document.	1-21
Y	US 7,904,924 B1 (DE HEER et al) 08 March 2011 (08.03.2011) entire document.	7-9, 14-16, 19, 20
A	US 2010/0180292 A1 (EPSTEIN et al) 15 July 2010 (15.07.2010) entire document.	1-21
A	US 2007/0061724 A1 (SLOTHOUBER et al) 15 March 2007 (15.03.2007) entire document.	1-21
A	US 2003/0084449 A1 (CHANE et al) 01 May 2003 (01.05.2003) entire document.	1-21
A	US 2004/0117831 A1 (ELLIS et al) 17 June 2004 (17.06.2004) entire document.	1-21
A	US 2003/0226146 A1 (THURSTON et al) 04 December 2003 (04.12.2003) entire document.	1-21

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
17 February 2014	11 MAR 2014
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: DEAN N. REINHARDT
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	11 MAR 2014
Applicant's or agent's file reference 6583-479-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US2013/055278	16 August 2013	17 August 2012

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H04N 7/00 (2014.01)
USPC - 725/46

Applicant FLEXTRONICS AP, LLC

1. This opinion contains indications relating to the following items:

- [x] Box No. I Basis of the opinion
- [ ] Box No. II Priority
- [ ] Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- [ ] Box No. IV Lack of unity of invention
- [x] Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- [ ] Box No. VI Certain documents cited
- [ ] Box No. VII Certain defects in the international application
- [ ] Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	17 February 2014	Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055278

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

   ☐ on paper

   ☐ in electronic form

   b. (time)

   ☐ in the international application as filed

   ☐ together with the international application in electronic form

   ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
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Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	1-21	YES
	Claims	None	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-21	NO
Industrial applicability (IA)	Claims	1-21	YES
	Claims	None	NO

2. Citations and explanations:

Claims 1-6, 10-13, 17, 18, 21 lack an inventive step under PCT Article 33(3) as being obvious over Angiolillo et al., hereinafter referred to as Angiolillo and in view of Hill et al., hereinafter referred to as Hill.

Regarding claims 1, 12, 17 Angiolillo discloses a non-transitory computer readable storage medium having stored thereon instructions that cause a processor to execute a method (the last application system 100 includes hardware [last application system is interpreted as comprising a processor] and software with tangible physical media capable of storing software [i.e. storage storing instructions], para.0014, 0015) of organizing applications on a television display (the last application system 100 displays one or more applications on display device 108 such as television, based on user inputs and request messages, para.0020, Fig.1), the method comprising the steps of:
[Claim 12] A television system (the network is a cable television network, para.0024; Fig.1 shows display device 108 [interpreted as television], Fig.1), comprising: a display (a display module 206 is configured to control display of last application information and/or various graphical user interfaces at the display device 108, para.0052); a memory (the system 100 includes memory for storing software, para.0015); a processor in communication with the memory and the display (the last application system 100 includes a display device 108, hardware [last application system is interpreted as comprising a processor] and software with tangible physical media capable of storing software [i.e. storage storing instructions for execution], para.0014, 0015), the processor operable to:
[Claim 17] A method for organizing applications on a television (the last application system 100 displays one or more applications on display device 108 such as television, based on user inputs and request messages, para.0020, Fig.1), the method comprising:
receiving input to activate an application center (the last application graphical user interface is displayed in response to a viewer request to view the last applications graphical user interface 400. The viewer may use the input device 112 to generate a request for the set top box 106 to cause the display of the last applications graphical user interface 400 at the display device 108 [receiving request to display applications interface is interpreted as receiving input to activate application center], para.0059, Fig.1, 4);
retrieving application usage information from a storage medium (the last applications system may output to the user one or more last applications based on usage data, para.0018; The priority module 212 may include software and hardware configured to prioritize one or more last applications based on usage data. Usage data may include data that indicates the amount of time a user viewed or accessed a last application, the amount of time that has past since a user has viewed or accessed a last application, the number of times a user has viewed or accessed a last application, and any other data that may be used to indicate last application usage, para.0041);
determining which applications to display based on the retrieved application usage information (the priority module 212 may select a finite number of last applications to be displayed in a scroll bar of last applications based on the usage data. Usage data may include data that indicates the amount of time a user viewed or accessed a last application, the amount of time that has past since a user has viewed or accessed a last application, the number of times a user has viewed or accessed a last application, and any other data that may be used to indicate last application usage, para.0041, 0042); and
displaying on the television display one or more applications in the application center (The viewer may use the input device 112 to select the "Last Applications Scroll Bar" request field 402 or the "Last Applications Menu" request field 406. When the user selects "Last Applications Scroll Bar", the viewer is displayed and allowed to access and view a finite number of last applications stored based on priority determined by the priority module 212. The viewer may use the input device 112 to select a desired last application by moving the indicator 606 next to the last application of interest, para.0060, 0065, 0066, Fig.4, 6; the priority module 212 may select a finite number of last applications to be displayed in a scroll bar of last applications based on the usage, para.0042).
[Claim 12] wherein the application usage information comprises at least one of a last used application, a second last used application, a most used application, a second most used application, a newest application, and a second newest application (one or more last applications are displayed to user based on the usage data [thus usage information is interpreted as comprising information of last used application]. Usage data may include data that indicates the amount of time a user viewed or accessed a last application, the number of times a user has viewed or accessed a last application, and any other data that may be used to indicate last application usage [i.e. last used application], para.0041, 0042).
Angiolillo lacks the teaching of displaying application icons in the application center.
Hill discloses an internet enabled TV listing various content genres (Abstract) and teaches application icons in the application center (Fig.2 shows various application icons such as a photograph icon 34, a music icon 36, a video icon 38, a TV icon 40, a game icon 42, and a network icon 44 presented on cross media bar (XMB) 32 [cross media bar is interpreted as the application center on which application icons are displayed], para.0023, 0024, Fig.2).
It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Hill for displaying application icons in application center in the invention of Angiolillo.
The motivation would have been to organize and present the applications to users in the form of icons (para.0023, Hill).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

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Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding claim 2, Angiolillo teaches that the application usage information comprises at least one of a last used application; a second last used application; a most used application; a second most used application; a newest application; and a second newest application (one or more last applications are displayed to user based on the usage data [thus usage information is interpreted as comprising information of last used application]. Usage data may include data that indicates the amount of time a user viewed or accessed a last application, the number of times a user has viewed or accessed a last application, and any other data that may be used to indicate last application usage [i.e. last used application], para.0041, 0042).

Regarding claim 3, Angiolillo teaches receiving input to launch an application selected from the one or more applications displayed in the application center [interface] (When the user selects "Last Applications Scroll Bar", the viewer is displayed and allowed to access and view a finite number of last applications stored based on priority determined by the priority module 212 [i.e. one or more applications displayed in the application center]. The viewer may use the input device 112 to select a desired last application by moving the indicator 606 next to the last application of interest and the viewer may press an input key on the input device 112 to generate a select message requesting that the set top box 106 access and display the last application associated with the request [i.e. receiving input to access or launch selected application from the one or more applications], para.0065, 0066, Fig.6); and launching the application selected (A user can access and view one or more last applications outputted by the last applications system [user accessing and view the last application is interpreted as last application system launching the user selected application], para.0019; the display module 206 receive instructions from the input device 112, and retrieves and tune to a particular last application based on the received instructions, and causes display of the particular last application at the display device 108 [i.e. launching selected application], para.0052).
Angiolillo lacks the teaching of application icons displayed in the application center.
Hill teaches application icons displayed in the application center (Fig.2 shows various application icons such as a photograph icon 34, a music icon 36, a video icon 38, a TV icon 40, a game icon 42, and a network icon 44 presented on cross media bar (XMB) 32 [cross media bar is interpreted as the application center on which application icons are displayed], para.0023, 0024, Fig.2).
It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Hill for displaying application icons in application center in the invention of Angiolillo.
The motivation would have been to organize and present the applications to users in the form of icons (para.0023, Hill).

Regarding claims 4, 13, 18 Angiolillo teaches receiving input for information about an application (upon receiving a request message from the user via the input device [i.e. receiving input], the update data associated with one or more last applications is displayed at the display device 108. Update data includes video data, audio data, text data, and/or other types of visual and/or audible information [update data is interpreted as the information about the application], para.0022) selected from the one or more applications displayed in the application center [interface] (The viewer may use the input device 112 to select a desired last application by moving the indicator 606 next to the last application of interest and the viewer may press an input key on the input device 112 to generate a select message requesting that the set top box 106 access and display the last application associated with the request [i.e. selecting application from the one or more applications in the last applications scroll bar GUI wherein last applications scroll bar GUI is interpreted as the application center], para.0066, Fig.6); retrieving application information about the selected application (upon receiving a request message from the user via the input device, the update data associated with one or more last applications is accessed and retrieved from the server 102 and displayed at the display device 108. Update data includes video data, audio data, text data, and/or other types of visual and/or audible information, para.0022); and displaying on the television display the retrieved application information (The display module 206 may include software and/or hardware configured to control display of last application information such as visual and audible representation of one or more last applications, para.0052) in an information panel (Fig.6 shows a rotatable scroll bar 602 displaying information about last applications [rotatable scroll bar is interpreted as the information panel displaying application information such as name and category], para.0066, Fig.6).
Angiolillo lacks the teaching of application icons displayed in the application center.
Hill teaches application icons displayed in the application center (Fig.2 shows various application icons such as a photograph icon 34, a music icon 36, a video icon 38, a TV icon 40, a game icon 42, and a network icon 44 presented on cross media bar (XMB) 32 [cross media bar is interpreted as the application center on which application icons are displayed], para.0023, 0024, Fig.2).
It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Hill for displaying application icons in application center in the invention of Angiolillo.
The motivation would have been to organize and present the applications to users in the form of icons (para.0023, Hill).

Regarding claims 5, 21 Angiolillo teaches receiving input to launch the application displayed in the information panel (Fig.6 shows a rotatable scroll bar 602 displaying information about last applications [rotatable scroll bar is interpreted as the information panel displaying application information such as name and category]. The viewer may use the input device 112 to select a desired last application by moving the indicator 606 next to the last application of interest and the viewer may press an input key on the input device 112 to generate a select message requesting that the set top box 106 access and display the last application associated with the request [i.e. receiving input to access or launch selected application from the one or more applications], para.0066, Fig.6); and launching the application (A user can access and view one or more last applications outputted by the last applications system [user accessing and view the last application is interpreted as last application system launching the user selected application], para.0019; the display module 206 receive instructions from the input device 112, and retrieves and tune to a particular last application based on the received instructions, and causes display of the particular last application at the display device 108 [i.e. launching selected application], para.0052).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

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Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding claim 6, Angiolillo teaches that the application information comprises at least one of a thumbnail; a name; a description; a version; a revision date; a developer name; a category name; a user rating; and a content rating (Fig.6 shows a rotatable scroll bar 602 displaying information about last applications including name and category, para.0066, Fig.6; the last applications scroll bar graphical user interface 600 may display one or more images of one or more last applications. For example, the last applications scroll bar graphical user interface 600 may display the last frame viewed of a VOD Movie, the image of a Chat Session, the current image of a TV Channel broadcast program, etc. [i.e. displaying thumbnail], para.0067).

Regarding claim 10, Angiolillo lacks the teaching wherein if the selected application icon is a widget icon, retrieving widget information from a storage medium; determining which widgets to display based on the retrieved widget information; and displaying on the television display one or more widgets in a widget panel.
Angiolillo however teaches determining which applications to display based on the retrieved information (the priority module 212 may select a finite number of last applications to be displayed in a scroll bar of last applications based on the usage data. Usage data may include data that indicates the amount of time a user viewed or accessed a last application, the amount of time that has past since a user has viewed or accessed a last application, the number of times a user has viewed or accessed a last application, and any other data that may be used to indicate last application usage, para.0041, 0042); and displaying on the television display one or more applications in a panel (Fig.6 shows a rotatable scroll bar 602 [rotatable scroll bar is the panel] displaying last applications, para.0066, Fig.6).
Hill teaches application as widget icons (Widgets includes application such as clocks, event countdowns, auction-tickers, stock market tickers, flight arrival information, daily weather etc. Widget icon can be selected to display the selected widget on the display, para.0035, Fig.5); retrieving widget information (by hovering the cursor over weather widget icon, current weather information is provided by weather widget through the network interface, para.0041) from a storage medium (TV processor 18 can access one or more storage media 20 for retrieving information, para.0021, Fig.1); and displaying one or more widgets on television display (one or more widget icons are displayed on the display, para.0035, Fig.5).
It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Hill for incorporating widget icons in the invention of Angiolillo.
The motivation would have been for representing applications in a different form such as widgets as per user desire.

Regarding claim 11, Angiolillo teaches identifying a user associated with the request (a request module 210 receives one or more request messages to display and access one or more last applications. The system identifies each requesting user, as each user of the household has separate login identification and password, para.0050, 0038);
wherein the retrieved application usage information is associated with the identified user (each user of the household may be associated with a separate last application user profile indicating one or more last applications associated with that user. Once the set top box 106 receives login information and password associated with a particular user, the set top box 106 can store and retrieve the last application data associated with the user separate from other last application data associated with other users, para.0038).

Claims 7-9, 14-16, 19, 20 lack an inventive step under PCT Article 33(3) as being obvious over Angiolillo in view of Hill and in view of De Heer et al., hereinafter referred to as De Heer.

Regarding claims 7, 14, 19 Angiolillo teaches the information panel including a first list of one or more applications (Fig.6 shows a rotatable scroll bar 602 displaying information about last applications [rotatable scroll bar is interpreted as the information panel displaying list of applications with information such as name and category], para.0066, Fig.6) but lacks the teaching of recommended applications.
De Heer discloses generating video-on-demand recommendations based on television history data (Abstract) and teaches recommending applications (one or more lists of recommended VOD titles are displayed to user, col.6, lines 14-22, Fig.3, 4).
It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of De Heer for displaying recommendations in the invention of Angiolillo.
The motivation would have been for automatically generating recommendation to user based on user history (col.1, lines 46-56, De Heer).

Regarding claim 8, Angiolillo lacks the teaching of receiving a selection of a recommended application displayed in the first list; and connecting to an application store to purchase or rent the selected recommended application.
De Heer teaches of receiving a selection of a recommended application displayed in the first list (one or more lists of recommended VOD titles are displayed to user. The user selects one of the displayed recommended titles (e.g., "8 Mile") and a description of the VOD content is displayed in the description area 418 of the user interface, col.6, lines 14-22, 47-50, Fig.3, 4); and connecting to an application store to purchase or rent the selected recommended application (the user selects the purchase button 420 and a VOD purchase process is initiated for the title that is currently selected. Upon selecting the purchase button, VOD purchase application 220 is launched [launching application is interpreted as connecting to application store for purchasing recommendation], col.6, lines 51-55, Fig.4, 5, 6).
It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of De Heer for selecting and purchasing displayed recommendation in the invention of Angiolillo.
The motivation would have been allowing users to view and access recommended programs.

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

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Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding claims 9, 15, 20 Angiolillo lacks the teaching of receiving input to list more recommended applications; and displaying on the television display a second list of one or more recommended applications in a recommended application panel.
De Heer teaches receiving input to list recommended applications (Fig.3 shows a user interface 302 through which user may request VOD recommendations. The user can select the VOD recommendations button 306 to cause one or more lists of recommended titles to be displayed, col5, lines 62-64, col.6, lines 14-16, Fig.3); and displaying on the television a list of one or more recommended applications in a recommended application panel (The VOD recommendations button 306, when selected, causes one or more lists of recommended VOD titles to be displayed. a viewer may be presented with three types of recommendations, represented by the recommendations tab 402, the critics' picks tab 404, and the last chance tab 406, col.6, lines 14-16, 26-28, Fig.4).
Furthermore, requesting more recommendations was a well-known practice in the art and the specifics would have been a matter of design choice.
It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of De Heer for requesting and listing requested recommendations and providing more recommendations in the invention of Angiolillo.
The motivation would have been for allowing users to view and access more recommendations that can be purchased.

Regarding claim 16, Angiolillo teaches receiving input to launch the application displayed in the information panel (Fig.6 shows a rotatable scroll bar 602 displaying information about last applications [rotatable scroll bar is interpreted as the information panel displaying application information such as name and category]. The viewer may use the input device 112 to select a desired last application by moving the indicator 606 next to the last application of interest and the viewer may press an input key on the input device 112 to generate a select message requesting that the set top box 106 access and display the last application associated with the request [i.e. receiving input to access or launch selected application from the one or more applications], para.0066, Fig.6); and launching the selected application (A user can access and view one or more last applications outputted by the last applications system [user accessing and view the last application is interpreted as last application system launching the user selected application], para.0019; the display module 206 receive instructions from the input device 112, and retrieves and tune to a particular last application based on the received instructions, and causes display of the particular last application at the display device 108 [i.e. launching selected application], para.0052).

Claims 1-21 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: Kristen Gruber
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, Colorado 80202
United States of America

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Date of mailing *(day/month/year)*	08 NOV 2013
Applicant's or agent's file reference: 6583-481-PCT	**FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No.: PCT/US13/55509	International filing date *(day/month/year)*: 19 August 2013 (19.08.2013)
Applicant: Flextronics AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Shane Thomas PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-481-PCT	**FOR FURTHER ACTION**	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US13/55509	International filing date *(day/month/year)* 19 August 2013 (19.08.2013)	(Earliest) Priority Date *(day/month/year)* 17 August 2012 (17.08.2012)
Applicant Flextronics AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 16

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US13/55509

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H04N 5/445, 71/73; G06F 13/14 (2013.01)
USPC - 725/43, 45, 47
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
USPC Classifications: 725/37, 38, 39, 40, 43, 44, 45, 46, 47, 105, 110, 114, 115, 116, 117, 118, 131, 134
IPC(8) Classifications: G06F 3/01, 13/14; H04N 5/445, 71/73 (2013.01)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
MicroPatent (US-G, US-A, EP-A, EP-B, WO, JP-bib, DE-C,B, DE-A, DE-T, DE-U, GB-A, FR-A); DialogPro (Derwent, INSPEC, NTIS, PASCAL, Current Contents Search, Dissertation Abstracts Online, Inside Conferences); IP.com; Google; display, show, present, television, TV, content, program, global panel, interface, menu, according, based, depend, user, viewer, person, select, indicate, identify

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 7900228 B2 (STARK, K et al.) March 1, 2011; abstract; figures 1-3, 16; column 2, lines 41-67; column 3, lines 1-66; column 4, lines 5-24, 53-61; column 5, lines 48-64; column 6, lines 3-67, 58-62; column 7, line 1; column 9, lines 34-37; column 10, lines 11-24; column 16, lines 60-67; column 17, lines 1-6; column 42, lines 15-40; claim 1	1, 4-7, 9, 11, 14-17, 19, 21, 22 --- 2, 3, 8, 10, 12, 13, 18, 20
Y	US 8166511 B2 (GRIGGS, T) April 24, 2012; figure 9; column 2, lines 50-56; column 9, lines 62-67; column 10, lines 1-9; claim 1	2, 3, 12, 13
Y	US 7685520 B2 (RASHKOVSKIY, O et al.) March 23, 2010; figure 1; column 1, lines 63-67; column 2, lines 1, 53-63	8, 10, 18, 20
A	US 7908635 B2 (BARTON, J et al.) March 15, 2011; see entire document	1-22
A	US 7880077 B2 (PAUWS, S et al.) February 1, 2011; see entire document	1-22

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
30 October 2013 (30.10.2013)	08 NOV 2013

Name and mailing address of the ISA/US	Authorized officer:
Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: Kristen Gruber
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, Colorado 80202
United States of America

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	08 NOV 2013
Applicant's or agent's file reference 6583-481-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US13/55509	19 August 2013 (19.08.2013)	17 August 2012 (17.08.2012)

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H04N 5/445, 71/73; G06F 13/14 (2013.01)
USPC - 725/43, 45, 47

Applicant Flextronics AP, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 *bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	30 October 2013 (30.10.2013)	Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55509

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

      ☐ on paper

      ☐ in electronic form

   b. (time)

      ☐ in the international application as filed

      ☐ together with the international application in electronic form

      ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55509

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	2, 3, 8, 10, 12, 13, 18, 20	YES
	Claims	1, 4-7, 9, 11, 14-17, 19, 21, 22	NO
Inventive step (IS)	Claims	NONE	YES
	Claims	1-22	NO
Industrial applicability (IA)	Claims	1-22	YES
	Claims	NONE	NO

2. Citations and explanations:

Claims 1, 4-7, 9, 11, 14-17, 19, 21 and 22 lack novelty under PCT Article 33(2) as being anticipated by US 7,900,228 B2 to Stark et al. (hereinafter 'Stark').

As per claims 1, 11 and 21, Stark discloses a method of displaying content on a television, a non-transitory computer readable information storage medium having stored thereon instructions that cause a computing system to execute a method of displaying content on a television, and a system for displaying content on a television (a graphical user interface ("GUI") for a content management system is provided, such as to present television program information and/or information associated with other forms of multimedia content; abstract; figure 1; column 2, lines 41-50; column 5, lines 48-64), comprising: receiving an indication associated with a selection by a user (one or more users may make various types of selections that affect the information being displayed; abstract; column 2, lines 51-56); determining, based on the received indication, a global panel to display via the television (in some situations various techniques are employed to maintain a state of the GUI (global panel) that is focused on one or more current selections as changes occur, such as to coordinate information display between multiple distinct information panes or other view areas of the GUI, to alter the information to be displayed in the GUI based on a selected piece of content, and/or to enable identification of a selected piece of content from within a large number of pieces of content; abstract; column 2, lines 51-61); retrieving from memory, a first content information for display in the global panel (the computing system 300 interacts with the media center 350 in a variety of ways (e.g., via a direct connection, as part of local network 385, or as part of another network, not shown), including to receive information about current and/or future television programming related content 360a and/or other content 360a; in the illustrated embodiment, the computing system includes a CPU 305 or other processor(s), various I/O devices 310, storage 320, and memory 330, and the illustrated I/O devices include a display 311, a network connection 312, a computer-readable media drive 313, and other I/O devices 315; an embodiment of the CM system 335 is executing in memory 330; the CM system provides information about the available content to one or more users (e.g., one or more of the consumers in the home environment), such as via a GUI (global panel) that is displayed on the display device 311 and/or on one or more of the content presentation devices 370 or 380 or other computing systems 390; figure 1; column 6, lines 3-38); and displaying, via the television, the retrieved content information in the specified global panel (the home environment includes an STB or other media center 350 receiving external content 360a that is available to one or more consumers in the home environment 395, such as television programming-related content 360a for presentation on a television 370; in the illustrated embodiment, the CM system does not itself present the external content 360a to the user(s), instead interacting with the media center 350 to control the display of the content to the user via the TV and/or one or more of the other content presentation devices; figure 1; column 2, lines 41-64; column 5, lines 53-58; column 6, lines 31-38, 58-62).

As per claims 4 and 14, Stark discloses the method of claim 1 and the non-transitory computer-readable medium of claim 11, further comprising: receiving a second indication associated with a selection by a user (the primary content-type navigation tab for "Television" 110a (the first indication) continues to be currently selected, the secondary content type-specific navigation tab for "Live TV" 115a (second indication) continues to be currently selected; figure 3; column 10, lines 11-24); determining, based on the second indication, a source of content information to be displayed in the global panel (click the Guide View button to display a TV Guide-like grid of program bubbles; click the arrow next to the Guide View button to display the menu; figure 3; column 42, lines 15-35) based; retrieving at least a portion of content information from the determined source (menu selections are small, medium, or large; if you select Small, the program bubbles in the TV grid will show only the program title; by selecting Medium, the program bubbles expand to display information about the programs; by selecting Large, the program bubbles expand to display the maximum amount of information about the programs; figure 3; column 42, lines 15-40); and displaying, via the television, the content information associated with the determined source (the GUI is displaying program listing information for live TV in a view area 140; figures 2, 3; column 9, lines 34-37; column 10, lines 11-24).

As per claim 5, Stark discloses the method of claim 1, wherein the global panel comprises information from at least two different panel types (in some situations, the GUI (global panel) displays various types of information about multiple pieces of content that are currently appropriate for display, such as based on those pieces of content having presentation times or other associated times that correspond to a currently selected time period and/or based on those pieces of content having other appropriate characteristics; as one example, in at least some embodiments the metadata information displayed in a single view area for multiple pieces of content may be displayed using different types of views; abstract; column 2, lines 65-67 to column 3, lines 1-66).

-***-Continued Within the Next Supplemental Box-***-

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55509

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

Defect: Claims Defective:

Claims 4 and 14 are objected to under PCT Rule 66.2(a)(iii) as containing the following defect(s) in the form or contents thereof: the word "based" in line 4 of claim 4, and line 5 of claim 14, should be stricken.

Claim 16 is objected to under PCT Rule 66.2(a)(iii) as containing the following defect in the form or contents thereof: claim 16 should depend on claim 11 instead of claim 1.

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55509

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

-***-Continued from Box V: Citations and Explanations-***-

As per claims 6, 16 and 22, Stark discloses the method of claim 1, the non-transitory computer-readable medium of claim 11, and the system of claim 21, further comprising: identifying at least one of a content source and a content information currently being displayed via a television (in at least some embodiments the CM system GUI displays information such that a state of the GUI is focused based on one or more current selections; for example, in some embodiments one or more pieces of content may be currently selected (e.g., based on one or more prior selections by a user), and if so, at least portions of the GUI may be focused to reflect those currently selected pieces of content, such as by simultaneously displaying various types of information related to the currently selected pieces of content in a coordinated manner in multiple distinct display areas of the GUI; column 4, lines 5-24); selecting a panel type based on the identified at least one of content source and content information currently being displayed via the television (in addition, when such information in one or more such display areas of the GUI changes, the changed information may also be displayed in such a manner as to include or emphasize a currently selected piece of content on which the GUI state is focused (e.g., when possible, such as when the changed information includes information for the currently selected piece of content, or instead always, such as to cause information for the currently selected piece of content to be included in the changed information); column 4, lines 53-61); retrieving, from memory, content information based on the selected panel type (an embodiment of the CM system 335 is executing in memory 330; the CM system may, for example, provide some or all of the stored content metadata 322 to the users and allow the user to manipulate the content in a variety of ways (e.g., to select content for current presentation, for future recording, etc.), as well as in some embodiments maintaining a state of the GUI as displayed information changes; column 6, lines 31-43); and displaying, via the television, the retrieved content information in the global panel based on the selected panel type (the CM system displays information about the retrieved content via a GUI (global panel) on a display device 370 (television), content presentation devices 380, or computing system 390; column 5, lines 48-64; column 6, lines 31-67 to column 7, line 1).

As per claims 7 and 17, Stark discloses the method of claim 6 and the non-transitory computer-readable medium of claim 16, further comprising: receiving a second indication associated with a selection by a user (the primary content-type navigation tab for "Television" 110a (the first indication) continues to be currently selected, the secondary content type-specific navigation tab for "Live TV" 115a (second indication) continues to be currently selected; figure 3; column 10, lines 11-24); selecting a panel type based on the second indication (the user clicks the LIVE TV tab 115a (panel type); figure 3; column 10, lines 21-23; column 42, lines 15-30); retrieving, from memory, content information based on the selected panel type and the second indication (an embodiment of the CM system is executing in memory 330; the CM system may, for example, provide some or all of the stored content metadata 322 to the users and allow the user to manipulate the content in a variety of ways (e.g., to select content for current presentation, for future recording, etc.), as well as in some embodiments maintaining a state of the GUI as displayed information changes; multimedia content metadata is received, such as if the computing system 300 receives EPG metadata information (i.e., as part of television programming-related content 360a) from a head-end and stores the information as content metadata 322 in the storage unit 320; column 6, lines 31-43; column 24, lines 31-36); and displaying, via the television, the retrieved content information in the global panel (when the user clicks the LIVE TV tab, the Navigation tabs Guide View screen appears and the GUI is rendered on a suitable display device; figure 3; column 24, lines 36-40; column 42, lines 15-30).

As per claims 9 and 19, Stark discloses the method of claim 7 and the non-transitory computer-readable medium of claim 17, wherein the retrieved content information comprises information associated with content information recently viewed (the information area 165 includes information about the current status of selected content, including content being currently recorded (if any), recently recorded programs, and upcoming scheduled recordings; figure 16; column 16, lines 60-67 to column 17, lines 1-6).

As per claim 15, Stark discloses the non-transitory computer-readable medium of claim 11, further comprising retrieving from memory a second content information for display in the global panel (receiving metadata information for multiple television programs (first and second content information); identifying a first distinct group of the multiple television programs for a graphical user interface such that received meta data information for the first distinct group of television programs will be included in the graphical user interface, the first distinct group including multiple television programs that satisfy a search request of television programs and that are identified based at least in part on a corresponding first category of television programs; claim 1); and displaying, via the television, the retrieved first content information and the retrieved second content information in the specified global panel (displaying to a user of the computing device a graphical window that includes the graphical user interface, the graphical user interface having a state based at least in part on the identified group, the displayed graphical user interface having: multiple distinct display areas including a first display area and a second display area, such that metadata information for a first portion of the identified first distinct group of television programs is displayed in the first display area and metadata information for a selected television program is displayable in the second display area; claim 1).

-***-Continued Within the Next Supplemental Box-***-

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55509

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:
-***-Continued from Previous Supplemental Box-***-

Claims 2, 3, 12 and 13 lack an inventive step under PCT Article 33(3) as being obvious over Stark in view of US 8,166,511 B2 (GRIGGS).

As per claims 2 and 12, Stark discloses the method of claim 1 and the non-transitory computer-readable medium of claim 11. Stark does not disclose further comprising: identifying a user associated with the received indication; retrieving one or more settings associated with the identified user; retrieving, from memory, content information associated with the identified user; and displaying, via the television, the retrieved content information in the specified global panel. Griggs does disclose further comprising: identifying a user associated with the received indication (according to a preferred embodiment of the instant invention, an authorized user may access their account on the system server by a log-in process, whereby the user provides a unique user identification to identify themselves as an authorized user to the system; column 2, lines 50-54; claim 1); retrieving one or more settings associated with the identified user (once into the account, the user can preferably modify user preferences and preferably view other account information; column 2, lines 54-56; claim 1); retrieving, from memory, content information associated with the identified user (when a request is submitted from the control device 12, the display logic 16 creates a graphical display frame in its memory with the appropriate content; the display frame is sent to the streaming media mixer logic 13; figure 9; column 9, lines 62-65); and displaying, via the television, the retrieved content information in the specified global panel (the streaming media mixer logic 13 compresses the new combined display frame and sends the combine display frame to the viewing device 25; figure 9; column 9, lines 65-67 to column 10, lines 1-9). It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system of Stark with Griggs's teaching, because by doing so, Stark's content management system would have provided for programming that is tailored to individual consumers needs, and provide the flexibility for consumers to quickly change the scope of services and/or program availabilities.

As per claims 3 and 13, Stark discloses the method of claim 1 and the non-transitory computer-readable medium of claim 11. Stark does not disclose further comprising: identifying a user associated with the received indication; retrieving, from memory, one or more settings associated with the identified user; retrieving, from memory, content information associated with the identified user and the one or more settings associated with the user; and displaying, via the television, the retrieved content information in the specified global panel. Griggs does disclose further comprising: identifying a user associated with the received indication (according to a preferred embodiment of the instant invention, an authorized user may access their account on the system server by a log-in process, whereby the user provides a unique user identification to identify themselves as an authorized user to the system; column 2, lines 50-54; claim 1); retrieving, from memory, one or more settings associated with the identified user (once into the account, the user can preferably modify user preferences and preferably view other account information; column 2, lines 54-56; claim 1); retrieving, from memory, content information associated with the identified user and the one or more settings associated with the user (granting access to the user account via the Internet; selecting the customized programming schedule from a plurality of customized programming schedules based on a determination that the separate device corresponds to the device indicator; transmitting, to the separate device, display data for displaying the customized programming schedule; column 9, lines 62-67 to column 10, lines 1-9; claim 1); and displaying, via the television, the retrieved content information in the specified global panel (the streaming media mixer logic 13 compresses the new combined display frame and sends the combine display frame to the viewing device 25; receiving, from the separate device, a selection signal for selecting one of the plurality of digital video programs; figure 9; column 9, lines 65-67 to column 10, lines 1-9; claim 1). It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system of Stark with Griggs's teaching, because by doing so, Stark's content management system would have provided for programming that is tailored to individual consumers needs, and provide the flexibility for consumers to quickly change the scope of services and/or program availabilities.

Claims 8, 10, 18 and 20 lack an inventive step under PCT Article 33(3) as being obvious over Stark in view of US 7,685,520 B2 to Rashkovskiy et al. (hereinafter 'Rashkovskiy').

As per claims 8 and 18, Stark discloses the method of claim 7 and the non-transitory computer-readable medium of claim 17. Stark does not disclose wherein the retrieved content information comprises information associated with content information marked as favorite. Rashkovskiy does disclose wherein the retrieved content information comprises information associated with content information marked as favorite (a graphical user interface 10 for implementing an electronic content guide includes a plurality of selectable category icons 12 represented as "virtual" file folders; each category icon 12 may be predefined or may be user definable; category icon 12a is provided for favorite programs; figure 1; column 1, lines 63-67 to column 2, line 1). It would have been obvious to a person of ordinary skill in the art at the time of the invention, to modify Stark's system and method with Rashkovskiy's user interface, because by doing so, Stark's platform would have been more user-friendly by enabling viewers to save a specific channel by marking it as a favorite.

As per claims 10 and 20, Stark discloses the method of claim 7 and the non-transitory computer-readable medium of claim 17. Stark does not disclose wherein the retrieved content information comprises information associated with content information marked as favorite and further comprises information associated with content information recently viewed. Rashkovskiy does disclose wherein the retrieved content information comprises information associated with content information marked as favorite and further comprises information associated with content information recently viewed (a graphical user interface 10 for implementing an electronic content guide includes a plurality of selectable category icons 12 represented as "virtual" file folders; each category icon 12 may be predefined or may be user definable; category icon 12a is provided for favorite programs; a plurality of programs 22 are listed as entries in two columns 20a and 20b; these programs 22 are either currently in progress or just beginning, in keeping with the selection of currently available programs, through the icon 12c, and favorites among currently available programs through the selection of the icon 14; thus, the X-Files program 22, runs from 7:00 to 9:00 as indicated by the indicia 18 and 19; the bar indicia 19 graphically indicates how much of the program has already been displayed or broadcast in the past using differently color indicia 18 and 19; figure 1; column 1, lines 63-67 to column 2, line 1; column 2, lines 53-63). It would have been obvious to a person of ordinary skill in the art at the time of the invention, to modify Stark's system and method with Rashkovskiy's user interface, because by doing so, Stark's platform would have been more user-friendly by enabling viewers to save a specific channel by marking it as a favorite, and a user would have been able to determine the program timing to determine how much of the program is left to view, and how much was missed.

Claims 1-22 have industrial applicability as defined by PCT Article 33(4) because the subject matter can be made or used in industry.

Electronic Acknowledgement Receipt

EFS ID:	18728672
Application Number:	13968665
International Application Number:	
Confirmation Number:	7370
Title of Invention:	PANEL USER INTERFACE FOR AN INTELLIGENT TELEVISION
First Named Inventor/Applicant Name:	Sanjiv Sirpal
Customer Number:	111285
Filer:	Douglas W. Swartz/Robert Roe-Pachirat
Filer Authorized By:	Douglas W. Swartz
Attorney Docket Number:	6583-488
Receipt Date:	10-APR-2014
Filing Date:	16-AUG-2013
Time Stamp:	14:58:50
Application Type:	Utility under 35 USC 111(a)

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		6583-488_IDS_01.pdf	833137 4788c45f809061fac245e6649792bfdb3f5c855f	yes	16

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Transmittal Letter	1	5
	Information Disclosure Statement (IDS) Form (SB08)	6	16

Warnings:					
Information:					
2	Foreign Reference	CN1832534.pdf	778984 0be81925051284f3fa12887f73373f2c3366d0be	no	14
Warnings:					
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3	Foreign Reference	CN101472102.pdf	857058 02b88116749bf64a5fe57856a71e508e3aba7367	no	20
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4	Foreign Reference	CN101540850.pdf	680825 75742f65ca8d332f5dc32dc2e297c519fd3f8129	no	16
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5	Foreign Reference	CN101567992.pdf	1194690 bf46f105611fa2484a7585b6f63161caebcd55bf	no	30
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6	Foreign Reference	CN201937743.pdf	545708 c256647860b47360dca0b1eeec558cd5eb75c742	no	9
Warnings:					
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7	Foreign Reference	EP1031929.pdf	453330 d025d183bce10936e26fa1649196f70d1ba69605	no	11
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8	Foreign Reference	EP1067458.pdf	1272251 b7927884fa1672a7004a569ebc0548187691c8e3	no	25
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9	Foreign Reference	EP1770956.pdf	1027331 31ced4d6713b45de975eae153f455244d552fbc3	no	21
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10	Foreign Reference	EP1865723.pdf	1010546 b19ec29121477d06c60e0d38c0c626f83a8457d9	no	21
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11	Foreign Reference	EP2328346.pdf	4264682 15e2ef3dfb6462b5fa38ab4ecd228f6f8f97c19f	no	84
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12	Foreign Reference	EP2348724.pdf	1890757 aa6575dd022b3a686d9d753c7bf921004b2acc41	no	13
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13	Foreign Reference	EP2439935.pdf	3837306 1a9c5d6c07bd2a252a45da0d540ab9b14c510684	no	82
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14	Foreign Reference	EP2487922.pdf	6993060 a893123170fb9600e0dfc0c33d8b057fe5f303b9	no	165
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15	Foreign Reference	WO9921308.pdf	5557561 b97c49ac9a64891a6a22fd4ec555e5f0977c88e2	no	82
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16	Foreign Reference	WO9935849.pdf	1398584 30f739ebac6eb6269239aa0eb1e4709a5718867b	no	41
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17	Foreign Reference	WO0005884.pdf	1915309 5e4dc87ec62cce39f11dfc0bbc6b59cfb32c98f9	no	46
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18	Foreign Reference	WO0106784.pdf	2587052 79fe7e590b10c3c864ab74aa66b8794faec4ce46	no	87
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19	Foreign Reference	WO0106788.pdf	3723021 28f192f466175d1fe483b81e41285e5870746f17	no	105
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20	Foreign Reference	WO02080552.pdf	811244 0d93b26e771b79c000f5e2eb209c164cc8ab0a6d	no	15
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21	Foreign Reference	WO03044755.pdf	3364541 5df9a9f993c735e4fcc50bdae795c1023497f24c	no	74
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22	Foreign Reference	WO2007137611.pdf	1242364 b5aa611723609b65fc685e2fde728b626a1aa404	no	34
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23	Foreign Reference	WO2011148054.pdf	1359046 af6a68b17a9b889d90c5d2d3d662cc1f992fab53	no	32
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25	Foreign Reference	WO2012030024.pdf	5042326 0e2a497a47f6245e53b1a89de2f7a0f30c4e2fe0	no	120
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27	Foreign Reference	WO2012073027.pdf	16319897 f7476b18bf4423fc85ff61319ac4a7862d397f85	no	301
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28	Foreign Reference	WO2012094247.pdf	5903581 94e3a2c38c7c51ebca8fc0398bee53529bb4ca38	no	148
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30	Foreign Reference	WO2014026640.pdf	6403100 d6b14245914b21e4053c58320482638133 8f23f6	no	137
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31	Foreign Reference	WO2014028067.pdf	3778154 f21665eff3ff6e644d5cdffe0fe6a8e6dc3a493d	no	77
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32	Foreign Reference	WO2014028068.pdf	4149485 d1cdbcc34ef85783e40bcfb57971b2be19639d43	no	88
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33	Foreign Reference	WO2014028069.pdf	3760658 df9fb9920464aee9dfb6a11f161a1c808160b1ab	no	79
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34	Foreign Reference	WO2014028071.pdf	3612626 14915d2b99a528f3d3004eced349c2d7f7b53452	no	79
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35	Foreign Reference	WO2014028074.pdf	4340517 a6560fe3e4f7aa58102ce0fbb301c1b06c846848	no	98
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36	Foreign Reference	TVONICSUK_TVonics_How_to_use_the_EPG.pdf	61177 63af30c7c6211a00d1f1b2d069700d8aa64569dd	no	1
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37	Non Patent Literature	6583-424-PCT_ISR-WO_06-28-2013.pdf	870524 9a15706e69cbee3eb1264a1adace0ce8b6a3ed35	no	8
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38	Non Patent Literature	6583-425-PCT_ISR-WO_06-28-2013.pdf	917587 a10100df496a3fa2357df6212309c00de3c5ab7a	no	8
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39	Non Patent Literature	6583-430-PCT_ISR-WO_06-17-2013.pdf	537850 48391f78da25db13e9d4ac10c6fd622a2903af4b	no	8
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40	Non Patent Literature	6583-436-PCT_ISR-WO_12-19-2013.pdf	460416 dc3fc0b2374843558824334faf0684d6e50ac9f5	no	9
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41	Non Patent Literature	6583-444-PCT_ISR-WO_12-02-2013.pdf	457550 04e5b59692938eab93608b27f5efdcb2d275a533	no	7
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42	Non Patent Literature	6583-445-PCT_ISR-WO_12-02-2013.pdf	586155 e65439b4e41ab080f398eb692f96a21b657ec6d8	no	9
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43	Non Patent Literature	6583-446-PCT_ISR-WO_12-02-2013.pdf	436946 00cca8c74ed17168ac08bbb7c7d4e6ab36d336b0	no	8
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44	Non Patent Literature	6583-447-PCT_ISR-WO_12-11-2013.pdf	515296 5e726d6ad1a88887d0f1498ec4fc282741bfbfb5	no	8
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45	Non Patent Literature	6583-448-PCT_ISR-WO_01-14-2014.pdf	610447 35dd3208b30fbecaa9ba399ca6ee029a2b6ca059	no	12
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47	Non Patent Literature	6583-450-PCT_ISR-WO_12-02-2013.pdf	749906 d9e802b8e78ab027aa18c6ab9b7930d6a7199f3a	no	10
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48	Non Patent Literature	6583-451-PCT_ISR-WO_11-29-2013.pdf	631308 b70a97b345b4ef4efd2f20af4d7aa07a3832303e	no	9
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49	Non Patent Literature	6583-452-PCT_ISR-WO_11-07-2013.pdf	595678 2183c6ca29ebb90785d255cc109adf01aa545bd8	no	9
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50	Non Patent Literature	6583-453-PCT_ISR-WO_06-28-2013.pdf	1688189 ec30effd39fbfbe76605f0237beb0cd383f298d7	no	12
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51	Non Patent Literature	6583-454-PCT_ISR-WO_02-10-2014.pdf	560582 2639ce02c2658422a6d53570c01dbdce52f2f1a8	no	10
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53	Non Patent Literature	6583-469-PCT_ISR-WO_06-17-2013.pdf	1343555 0dc13ffbe0cf8b5eedfdd679cdf53b337d3ddec6	no	9
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54	Non Patent Literature	6583-470-PCT_ISR-WO_06-28-2013.pdf	1115422 cf88f56579c2bbd4e784905739250485af18d6ef	no	9
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55	Non Patent Literature	6583-471-PCT_ISR-WO_08-30-2013.pdf	494204 bad31705e8a28f145402b38c71617883566c7714	no	9
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56	Non Patent Literature	6583-472-PCT_ISR-WO_07-01-2013.pdf	913982 9705acccbfd0012050c79b31865df280bcb6dc60	no	13
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57	Non Patent Literature	6583-478-PCT_ISR-WO_01-17-2014.pdf	505455 1102803c83cfbaac16eca5137f25bb8f2751a6cd	no	8
Warnings:					
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58	Non Patent Literature	6583-479-PCT_ISR-WO_03-11-2014.pdf	595581 dcca0da05495a7ccc238f5a76b008b442ae9db2b	no	9
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59	Non Patent Literature	6583-481-PCT_ISR-WO_11-08-2013.pdf	573053 de7d06c195fb91fa9d2cd6297eb0643e0d16e6ea	no	9
Warnings:					
Information:					
		Total Files Size (in bytes):	123682600		

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 the Application of:	)	Group Art Unit: 2421
Sanjiv Sirpal	)	Confirmation No.: 7370
Serial No.: 13/968,665	)	Examiner: James R Marandi
Filed: August 16, 2013	)	INFORMATION DISCLOSURE STATEMENT
Atty. File No.: 6583-488	)	
Entitled: "Panel User Interface for an Intelligent Television"	)	*Electronically Submitted*

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

Dear Commissioner:

The references cited on attached Form PTO/SB08 are being called to the attention of the Examiner.

☒ Copies of the cited non-patent and/or foreign references are enclosed herewith.

☐ Copies of the cited U.S. patents and/or patent applications are enclosed herewith.

☒ Copies of the cited U.S. patents/unpublished patent applications/patent application publications are not enclosed in accordance with 37 C.F.R. § 1.98(a).

☐ Copies of the cited references are not enclosed, in accordance with 37 C.F.R. § 1.98(d), because the references were cited by or submitted to the U.S. Patent and Trademark Office in prior application Serial No. _____ filed _____, which is relied upon for an earlier filing date under 35 U.S.C. § 120.

☒ To the best of applicants' belief, the pertinence of the foreign-language references is believed to be summarized in the attached English abstracts and/or in the figures, although applicants do not necessarily vouch for the accuracy of the translation.

☒ Examiner's attention is drawn to the following related applications:

- Serial No. 13/864,206 filed 04/16/13 (Attorney's Ref. No. 6583-425)
- Serial No. 13/969,846 filed 08/19/13 (Attorney's Ref. No. 6583-426)
- Serial No. 13/969,857 filed 08/19/13 (Attorney's Ref. No. 6583-427)
- Serial No. 13/969,869 filed 08/19/13 (Attorney's Ref. No. 6583-428)
- Serial No. 13/969,875 filed 08/19/13 (Attorney's Ref. No. 6583-429)
- Serial No. 13/969,880 filed 08/19/13 (Attorney's Ref. No. 6583-431)
- Serial No. 13/969,884 filed 08/19/13 (Attorney's Ref. No. 6583-432)

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- Serial No. 13/969,887 filed 08/19/13 (Attorney's Ref. No. 6583-433)
- Serial No. 13/969,482 filed 08/16/13 (Attorney's Ref. No. 6583-434)
- Serial No. 13/969,485 filed 08/16/13 (Attorney's Ref. No. 6583-435)
- Serial No. 13/970,388 filed 08/19/13 (Attorney's Ref. No. 6583-436)
- Serial No. 13/970,398 filed 08/19/13 (Attorney's Ref. No. 6583-437)
- Serial No. 13/970,409 filed 08/19/13 (Attorney's Ref. No. 6583-438)
- Serial No. 13/970,420 filed 08/19/13 (Attorney's Ref. No. 6583-439)
- Serial No. 13/970,427 filed 08/19/13 (Attorney's Ref. No. 6583-440)
- Serial No. 13/970,442 filed 08/19/13 (Attorney's Ref. No. 6583-441)
- Serial No. 13/970,450 filed 08/19/13 (Attorney's Ref. No. 6583-442)
- Serial No. 13/970,453 filed 08/19/13 (Attorney's Ref. No. 6583-443)
- Serial No. 13/968,858 filed 08/16/13 (Attorney's Ref. No. 6583-444)
- Serial No. 13/968,884 filed 08/16/13 (Attorney's Ref. No. 6583-445)
- Serial No. 13/968,876 filed 08/16/13 (Attorney's Ref. No. 6583-446)
- Serial No. 13/968,867 filed 08/16/13 (Attorney's Ref. No. 6583-447)
- Serial No. 13/968,913 filed 08/16/13 (Attorney's Ref. No. 6583-448)
- Serial No. 13/968,983 filed 08/16/13 (Attorney's Ref. No. 6583-449)
- Serial No. 13/968,948 filed 08/16/13 (Attorney's Ref. No. 6583-450)
- Serial No. 13/968,929 filed 08/16/13 (Attorney's Ref. No. 6583-451)
- Serial No. 13/969,588 filed 08/18/13 (Attorney's Ref. No. 6583-452)
- Serial No. 13/864,120 filed 04/16/13 (Attorney's Ref. No. 6583-453)
- Serial No. 13/969,505 filed 08/17/13 (Attorney's Ref. No. 6583-454)
- Serial No. 13/969,487 filed 08/16/13 (Attorney's Ref. No. 6583-455)
- Serial No. 13/969,490 filed 08/16/13 (Attorney's Ref. No. 6583-456)
- Serial No. 13/969,491 filed 08/16/13 (Attorney's Ref. No. 6583-457)
- Serial No. 13/969,492 filed 08/16/13 (Attorney's Ref. No. 6583-458)
- Serial No. 13/969,493 filed 08/16/13 (Attorney's Ref. No. 6583-459)
- Serial No. 13/969,494 filed 08/16/13 (Attorney's Ref. No. 6583-460)
- Serial No. 13/969,499 filed 08/16/13 (Attorney's Ref. No. 6583-461)
- Serial No. 13/969,502 filed 08/17/13 (Attorney's Ref. No. 6583-462)
- Serial No. 13/970,000 filed 08/19/13 (Attorney's Ref. No. 6583-463)
- Serial No. 13/970,355 filed 08/19/13 (Attorney's Ref. No. 6583-464)
- Serial No. 13/864,214 filed 04/16/13 (Attorney's Ref. No. 6583-469)
- Serial No. 13/969,503 filed 08/17/13 (Attorney's Ref. No. 6583-477)
- Serial No. 13/969,179 filed 08/16/13 (Attorney's Ref. No. 6583-478)

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- Serial No. 13/968,767 filed 08/16/13 (Attorney's Ref. No. 6583-479)
- Serial No. 13/969,506 filed 08/17/13 (Attorney's Ref. No. 6583-480)
- Serial No. 13/970,374 filed 08/19/13 (Attorney's Ref. No. 6583-481)
- Serial No. 13/968,897 filed 08/16/13 (Attorney's Ref. No. 6583-489)
- Serial No. 13/968,969 filed 08/16/13 (Attorney's Ref. No. 6583-498)
- Serial No. 13/969,190 filed 08/16/13 (Attorney's Ref. No. 6583-490)
- Serial No. 13/968,652 filed 08/16/13 (Attorney's Ref. No. 6583-491)
- Serial No. 13/968,681 filed 08/16/13 (Attorney's Ref. No. 6583-492)
- Serial No. 13/968,709 filed 08/16/13 (Attorney's Ref. No. 6583-493)
- Serial No. 13/969,201 filed 08/16/13 (Attorney's Ref. No. 6583-494)
- Serial No. 13/968,903 filed 08/16/13 (Attorney's Ref. No. 6583-495)
- Serial No. 13/970,234 filed 08/19/13 (Attorney's Ref. No. 6583-496)
- Serial No. 13/969,205 filed 08/16/13 (Attorney's Ref. No. 6583-497)
- Serial No. 13/968,610 filed 08/16/13 (Attorney's Ref. No. 6583-499)
- Serial No. 13/968,732 filed 08/16/13 (Attorney's Ref. No. 6583-500)
- Serial No. 13/969,777 filed 08/19/13 (Attorney's Ref. No. 6583-501)
- Serial No. 13/968,618 filed 08/16/13 (Attorney's Ref. No. 6583-502)
- Serial No. 13/968,625 filed 08/16/13 (Attorney's Ref. No. 6583-503)
- Serial No. 13/968,630 filed 08/16/13 (Attorney's Ref. No. 6583-504)
- Serial No. 13/968,638 filed 08/16/13 (Attorney's Ref. No. 6583-505)
- Serial No. 13/968,644 filed 08/16/13 (Attorney's Ref. No. 6583-506)
- Serial No. 13/969,507 filed 08/17/13 (Attorney's Ref. No. 6583-508)
- Serial No. 13/968,937 filed 08/16/13 (Attorney's Ref. No. 6583-509)
- Serial No. 13/969,508 filed 08/17/13 (Attorney's Ref. No. 6583-510)
- Serial No. 13/969,510 filed 08/17/13 (Attorney's Ref. No. 6583-511)
- Serial No. 13/970,243 filed 08/19/13 (Attorney's Ref. No. 6583-519)
- Serial No. 13/970,247 filed 08/19/13 (Attorney's Ref. No. 6583-520)
- Serial No. 13/969,504 filed 08/17/13 (Attorney's Ref. No. 6583-526)

☐ Other:_____

Submission of the above information is not intended as an admission that any item is citable under the statutes or rules to support a rejection, that any item disclosed represents analogous art, or that those skilled in the art would refer to or recognize the pertinence of any reference without the benefit of hindsight, nor should an inference be drawn as to the pertinence of the references based on the order in which they are presented. Submission of this statement should not be taken as an indication that a search has been conducted, or that no better art exists.

It is respectfully requested that the cited information be expressly considered during the prosecution of this application and the references made of record therein.

FEES

☒	**37 CFR 1.97(b)**: No fee is believed due in connection with this submission, because the information disclosure statement submitted herewith is satisfied by one of the following conditions ("X" indicates satisfaction): ☐ Within three months of the filing date of a national application other than a continued prosecution application under 37 CFR 1.53(d), or ☐ Within three months of the date of entry of the national stage as set forth in § 1.491 in an international application, or ☒ Before the mailing date of a first Office Action on the merits, or ☐ Before the mailing of a first Office action after the filing of a request for continued examination under 37 CFR 1.114. Although no fee is believed due, if any fee is deemed due in connection with this submission, please charge such fee to Deposit Account 19-1970.
☐	**37 CFR 1.97(c)**: The information disclosure statement transmitted herewith is being filed after all the above conditions (37 CFR 1.97(b)), but before the mailing date of any one of the following conditions: (1) a final action under 37 C.F.R. 1.113, or (2) a notice of allowance under 37 C.F.R. 1.311, or (3) an action that otherwise closes prosecution in the application. This Information Disclosure Statement is accompanied by: ☐ A Certification (below) as specified by 37 C.F.R. 1.97(e). Although no fee is believed due, if any fee is deemed due in connection with this submission, please charge such fee to Deposit Account 19-1970. OR ☐ Please charge Deposit Account 19-1970 in the amount of $180.00 for the fee set forth in 37 C.F.R. 1.17(p) for submission of an information disclosure statement. Please credit any overpayment or charge any underpayment to Deposit Account 19-1970.
☐	**37 CFR 1.97(d)**: This Information Disclosure Statement is being submitted after the period specified in 37 CFR 1.97(c). ☐ This information Disclosure Statement includes a Certification (below) as specified by 37 C.F.R. 1.97(e) AND ☐ Applicants hereby requests consideration of the reference(s) disclosed herein. Please charge Deposit Account 19-1970 in the amount of $180.00 under 37 C.F.R. 1.17(p). Please credit any overpayment or charge any underpayment to Deposit Account 19-1970. Election to pay the fee should not be taken as an indication that applicant(s) cannot execute a certification.

Certification (37 C.F.R. 1.97(e))
(Applicable only if checked)

☐ The undersigned certifies that:

☐ Each item of information contained in the Information Disclosure Statement submitted herewith 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 this statement. 37 C.F.R. 1.97(e)(1).

☐ A copy of the communication from the foreign patent office is enclosed.

OR

☐ No item of information contained in the Information Disclosure Statement submitted herewith was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in the Information Disclosure Statement was known to any individual designated in 37 C.F.R. 1.56(c) more than three months prior to the filing of this statement. 37 C.F.R. 1.97(e)(2).

Respectfully submitted,

SHERIDAN ROSS P.C.

By: /Douglas W. Swartz/
Douglas W. Swartz
Registration No. 37,739
1560 Broadway, Suite 1200
Denver, Colorado 80202-5141
(303) 863-9700

Date: April 10, 2014

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LG Electronics, Inc. / Page 3032 of 3394

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: **100101**

A0601,Huibin Building
No.8,Beichen Dong(East) Street Chao Yang District Beijing,China

LIU，SHEN&ASSOCIATES

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

	Date of mailing *(day/month/year)* **28 Nov. 2013 (28.11.2013)**
Applicant's or agent's file reference **F13W4862**	**FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. **PCT/CN2013/081639**	International filing date *(day/month/year)* **16 Aug. 2013(16.08.2013)**
Applicant **FLEXTRONICS AP, LLC et al.**	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20,Switzerland, Facsimile No.: +41 22 338 82 70

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:
   - ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.
   - ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90*bis*.1 and 90*bis*.3, respectively, before the completion of the technical preparations for international publication.

The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. These comments would also be made available to the public but not before the expiration of 30 months from the priority date.

Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later);otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the PCT *Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/CN The State Intellectual Property Office, the P.R.China 6 Xitucheng Rd., Jimen Bridge, Haidian District, Beijing, China 100088 Facsimile No. (86-10)62019451	Authorized officer **GAO,Jing** Telephone No. (86-10)**010-62413457**

Form PCT/ISA/220 (July 2009) *(See notes on accompanying sheet)*

EX. 1002
LG Electronics, Inc. / Page 3033 of 3394

NOTES TO FORM PCT/ISA/220

These Notes are intended to give the basic instructions concerning the filing of amendments under Article 19. The Notes are based on the requirements of the Patent Cooperation Treaty, the Regulations and the Administrative Instructions under that Treaty. In case of discrepancy between these Notes and those requirements, the latter are applicable. For more detailed information, see also the *PCT Applicant's Guide*.

In these Notes, "Article," "Rule" and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions, respectively.

INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report and the written opinion of the International Searching Authority, one opportunity to amend the claims of the international application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be amended during the international preliminary examination procedure, there is usually no need to file amendments of the claims under Article 19except where, e.g. the applicant wants the latter to be published for the purposes of provisional protection or has another reason for amending the claims before international publication. Furthermore, it should be emphasized that provisional protection is available in some States only (see *PCT Applicant's Guide*).

The attention of the applicant is drawn to the fact that amendments to the claims under Article 19 are not allowed where the International Searching Authority has declared, under Article 17(2), that no international search report would be established (see *PCT Applicant's Guide*, paragraph 296).

What parts of the international application may be amended ?

Under Article 19, only the claims may be amended.

During the international phase, the claims may also be amended (or further amended) under Article 34 before the International Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the International Preliminary Examining Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable, Article 41.

When ? Within 2 months from the date of transmittal of the international search report or 16 months from the priority date, whichever time limit expires later. It should be noted, however, that the amendments will be considered as having been received on time if they are received by the International Bureau after the expiration of the applicable time limit but before the completion of the technical preparations for international publication (Rule 46.1).

Where not to file the amendments ?

The amendments may only be filed with the International Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been/is filed, see below.

How ? Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement sheet or sheets containing a complete set of claims in replacement of all the claims previously filed must be submitted.

Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are renumbered, they must be renumbered consecutively in Arabic numerals (Section 205(a)).

The amendments must be made in the language in which the international application is to be published.

What documents must/may accompany the amendments ?

Letter (Section 205(b)):

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the international application is French, the letter must be in French.

NOTES TO FORM PCT/ISA/220 (continued)

The letter must indicate the differences between the claims as filed and the claims as amended. It must, in particular, indicate, in connection with each claim appearing in the international application (it being understood that identical indications concerning several claims may be grouped), whether

(i) the claim is unchanged;
(ii) the claim is cancelled;
(iii) the claim is new;
(iv) the claim replaces one or more claims as filed;
(v) the claim is the result of the division of a claim as filed.

The following examples illustrate the manner in which amendments must be explained in the accompanying letter:

1. [Where originally there were 48 claims and after amendment of some claims there are 51]:
   "Claims 1 to 29, 31, 32, 34, 35, 37 to 48 replaced by amended claims bearing the same numbers; claims 30, 33 and 36 unchanged; new claims 49 to 51 added."
2. [Where originally there were 15 claims and after amendment of all claims there are 11]:
   "Claims 1 to 15 replaced by amended claims 1 to 11."
3. [Where originally there were 14 claims and the amendments consist in cancelling some claims and in adding new claims]:
   "Claims 1 to 6 and 14 unchanged; claims 7 to 13 cancelled; new claims 15, 16 and 17 added." or
   "Claims 7 to 13 cancelled; new claims 15, 16 and 17 added; all other claims unchanged."
4. [Where various kinds of amendments are made]:
   "Claims 1-10 unchanged; claims 11 to 13, 18 and 19 cancelled; claims 14, 15 and 16 replaced by amended claim 14; claim 17 subdivided into amended claims 15, 16 and 17; new claims 20 and 21 added."

"Statement under Article 19(1)" (Rule 46.4)

The amendments may be accompanied by a statement explaining the amendments and indicating any impact that such amendments might have on the description and the drawings (which cannot be amended under Article 19(1)).

The statement will be published with the international application and the amended claims.

It must be in the language in which the international application is to be published.

It must be brief, not exceeding 500 words if in English or if translated into English.

It should not be confused with and does not replace the letter indicating the differences between the claims as filed and as amended. It must be filed on a separate sheet and must be identified as such by a heading, preferably by using the words "Statement under Article 19(1)."

It may not contain any disparaging comments on the international search report or the relevance of citations contained in that report. Reference to citations, relevant to a given claim, contained in the international search report may be made only in connection with an amendment of that claim.

Consequence if a demand for international preliminary examination has already been filed

If, at the time of filing any amendments and any accompanying statement, under Article 19, a demand for international preliminary examination has already been submitted, the applicant must preferably, at the time of filing the amendments (and any statement) with the International Bureau, also file with the International Preliminary Examining Authority a copy of such amendments (and of any statement) and, where required, a translation of such amendments for the procedure before that Authority (see Rules 55.3(a) and 62.2, first sentence). For further information, see the Notes to the demand form (PCT/IPEA/401).

If a demand for international preliminary examination is made, the written opinion of the International Searching Authority will, except in certain cases where the International Preliminary Examining Authority did not act as International Searching Authority and where it has notified the International Bureau under Rule 66.1*bis*(b), be considered to be a written opinion of the International Preliminary Examining Authority. If a demand is made, the applicant may submit to the International Preliminary Examining Authority a reply to the written opinion together, where appropriate, with amendments before the expiration of 3 months from the date of mailing of FormPCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later (Rule 43*bis*.1(c)).

Consequence with regard to translation of the international application for entry into the national phase

The applicant's attention is drawn to the fact that, upon entry into the national phase, a translation of the claims as amended under Article 19 may have to be furnished to the designated/elected Offices, instead of, or in addition to, the translation of the claims as filed.

For further details on the requirements of each designated/elected Office, see the *PCT Applicant's Guide* , National Chapters.

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	**FOR FURTHER ACTION**	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
F13W4862		
International application No.	International filing date *(day/month/year)*	(Earliest)Priority date *(day/month/year)*
PCT/CN2013/081639	16 Aug. 2013(16.08.2013)	17 Aug. 2012(17.08.2012)
Applicant		
FLEXTRONICS AP, LLC et al.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed

☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6bis(a)).

c. ☐ With regard to any **nucleotide and /or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II)

3. ☐ **Unity of invention is lacking** (see Box No. III)

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

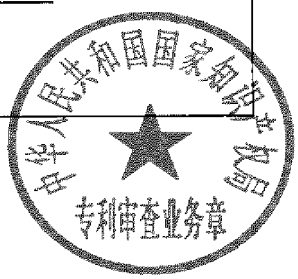
a. The figure of the **drawings** to be published with the abstract is Figure No. 17

☐ as suggested by the applicant

☒ as selected by this Authority, because the applicant failed to suggest a figure

☐ as selected by this Authority, because this figure better characterizes the invention

b. ☐ none of the figures is to be published with the abstract



Form PCT/ISA/210(first sheet)(July 2009)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/CN2013/081639

A. CLASSIFICATION OF SUBJECT MATTER

H04N 5/445 (2011.01) i

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC: H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPI; EPODOC; CPRS; CNKI; REMIND, PRESENT, TV, TELEVISION, DISPLAY, SCREEN, PORTION, CHANNEL, CONTENT, PROGRAM, SELECT, SOURCE, INPUT

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	CN 101540850 A (SHENZHEN TCL NEW TECHNOLOGY LTD.) 23 Sep. 2009 (23.09.2009) page 3, lines 4-9, lines 14-15, lines 20-21, page 4, lines 1-4, page 5, lines 19-22 in the description, figures 1, 2, 5	1-20
Y	CN 101567992 A (ALI CORP.) 28 Oct. 2009 (28.10.2009) page 5, lines 27-30 in the description	1-20
A	CN 201937743 U (SVA TECHNOLOGIES CO., LTD.) 17 Aug. 2011 (17.08.2011) the whole document	1-20

☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim (S) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
05 Nov. 2013 (05.11.2013)	**28 Nov. 2013 (28.11.2013)**
Name and mailing address of the ISA/CN The State Intellectual Property Office, the P.R.China 6 Xitucheng Rd., Jimen Bridge, Haidian District, Beijing, China 100088 Facsimile No. 86-10-62019451	Authorized officer GAO,Jing Telephone No. (86-10)010-62413457

Form PCT/ISA /210 (second sheet) (July 2009)

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INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/CN2013/081639

Patent Documents referred in the Report	Publication Date	Patent Family	Publication Date
CN 101540850 A	23.09.2009	WO 2009117009 A1	24.09.2009
		EP 2253133 A1	24.11.2010
		US 2011010738 A1	13.01.2011
CN 101567992 A	28.10.2009	US 2009265738 A1	22.10.2009
CN 201937743 U	17.08.2011	None	

Form PCT/ISA /210 (patent family annex) (July 2009)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

100101

A0601,Huibin Building No.8,Beichen Dong(East) Street Chao Yang District Beijing,China

LIU，SHEN&ASSOCIATES

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43 *bis*.1)

Date of mailing *(day/month/year)*	28 Nov. 2013 (28.11.2013)
Applicant's or agent's file reference: F13W4862	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/CN2013/081639	16 Aug. 2013(16.08.2013)	17 Aug. 2012(17.08.2012)

International Patent Classification (IPC) or both national classification and IPC
H04N 5/445 (2011.01) i

Applicant
FLEXTRONICS AP, LLC et al.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No.II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No.VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No.VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of **3** months from the date of mailing of Form PCT/ISA/220 or before the expiration of **22** months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/CN	Date of completion of this opinion	Authorized officer
The State Intellectual Property Office, the P.R.China 6 Xitucheng Rd., Jimen Bridge, Haidian District, Beijing, China 100088 Facsimile No. 86-10-62019451	14 Nov. 2013 (14.11.2013)	GAO,Jing Telephone No. (86-10)010-62413457

Form PCT/ISA/237(cover sheet)(July 2009)

EX. 1002
LG Electronics, Inc. / Page 3039 of 3394

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/CN2013/081639

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.
   ☐ a translation of the international application into _____ , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91(Rule 43bis.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application ,this opinion has been established on the basis of :

   a. a sequence listing filed or furnished
      ☐ on paper
      ☐ in electronic form

   b. time of filing or furnishing
      ☐ contained in the applicant as filed
      ☐ filed together with the application in electronic form
      ☐ furnished subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No. PCT/CN2013/081639

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement:

Novelty (N)	Claims	1-20	YES
	Claims	None	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	None	NO

2. Citations and explanations

Reference is made to the following documents:

D1: CN 101540850 A (SHENZHEN TCL NEW TECHNOLOGY LTD.) 23 Sep. 2009 (23.09.2009)

D2: CN 101567992 A (ALI CORP.) 28 Oct. 2009 (28.10.2009)

I. Novelty and Inventive step

I.1 Independent claim 1 relates to a method. D1 (see page 3, lines 4-9, lines 14-15, lines 20-21, page 4, lines 1-4, page 5, lines 19-22 in the description, figures 1, 2, 5) is regarded as the closest prior art, and discloses a method for selecting media source as follows.

The electronic device 100 comprises at least one receptor 102 (e.g., a cable inlet, device inlet, or an antenna), a tuner 104, a processor 106, a memory 108, a display 110, a controller 112 (e.g., remote control), and various peripheral inputs 114,116, and 118. The memory 108 may comprise a tangible machine-readable medium adapted to hold machine-readable computer code that causes the processor 106 to perform an exemplary method in accordance with present embodiments. For example, the memory 108 and the processor 106 may cooperate to operate as a control system that provides an on-screen selection interface (corresponding to "reminder") in accordance with present embodiments (see page 3, lines 4-9 in the description and figure 1 of D1).

This UI or on-screen selection interface may be referred to as a tab-based content source selection system (TCSSS) (see page 3, lines 14-15 in the description of D1).

An interpreted "content" command from a remote control may initiate or activate the TCSSS on a television (corresponding to "receiving a reminder presentation input at the intelligent TV") (see page 3, lines 20-21 in the description of D1).

The TCSSS may provide several graphic items that appear to be overlapping graphical shapes (e.g., columns or tabs) on the television display 110. For example, FIG. 2 illustrates a screen 200 (corresponding to "the first portion of the display") of a television display (e.g., the display 110) that includes a menu 202 positioned on an edge of the display (corresponding to "the second portion of the display, wherein the second portion of the display at least partially overlaps the first portion"). The menu 202 includes four overlapping columns in accordance with present embodiments (see page 4, lines 1-4 in the description and figure 2 of D1).

FIG. 5 is an illustration of the TCSSS when the fourth column 210 is active. As set forth above, the fourth column 210 displays user-selected channels referred to as "favorites" when it is active. The fourth column 210 of the illustrated embodiment enables users to define it to include any source of input and any channel on a single menu tab (corresponding to "the reminder presentation dialog includes information relative to a specific program"). This will enable a user to conveniently switch between favorite channels and favorite sources of input within a single menu tab or column (see page 5, lines 19-22 in the description and figure 5 of D1).

D1 does not disclose the following features of claim 1: TV content presented to a first portion of the display. Thus D1 does not disclose all the features of claim 1 and the subject matter of claim 1 is new in the sense of PCT Article 33(2).

However, D2 (see page 5, lines 27-30 in the description) provides a method for displaying assistance data and discloses the following features: when digital channel content is broadcast, assistance information is displayed to a portion the screen 400. That is, D2 gives the teach to display TV content in a first portion and to display reminding assistance information in a second portion which overlaps the first portion. Thus, it is obvious for a person skilled in the art to apply the teaching of the D2 to D1 and arrive at this solution. Therefore the solution of claim 1 does not involve an inventive step, and does not meet the criteria set out in PCT Article 33(3).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/CN2013/081639

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**

Continuation of : Box No. V Citations and explanations

I.2 Independent claim 13 relates to a tangible, non-transitory computer readable medium having instructions stored thereon that, when executed by a processor, performed the method as the same as claim 1. D1 (see page 3, lines 7-8 in the description) also discloses that: The memory 108 may comprise a tangible machine-readable medium adapted to hold machine-readable computer code that causes the processor 106 to perform an exemplary method in accordance with present embodiments. Thus, referring to the explanations on claim 1, claim 13 is also new in the sense of PCT Article 33(2), and does not involve an inventive step in the sense of PCT Article 33(3).

I.3 Since the subject matter of claims 1, 13 involves novelty, the subject matter of their dependent claims 2-12, 14-19 also involves novelty in the sense of PCT Article 33(2).

Additional features of claims 2, 14 are also disclosed by D1(see page 5, lines 19-22 in the description and figure 5). Thus the subject matter of claims 2, 14 does not involve an inventive step in the sense of PCT Article 33(3).

Additional features of claims 3-12, 15-19 only relate to normal implementation measures or minor design details in the art. The features thus, either alone or in combination, do not seem to add anything of inventive significance to any of claims 3-12, 15-19, and they do not meet the criteria set out in PCT Article 33(3).

I.4 Independent claim 20 relates to a system. D1 (see page 3, lines 4-9, lines 14-15, lines 20-21, page 4, lines 1-4, page 5, lines 19-22 in the description, figure 1, 2, 5) is regarded as the closest prior art, and discloses a system for selecting media source as follows.

The electronic device 100 comprises at least one receptor 102 (e.g., a cable inlet, device inlet, or an antenna), a tuner 104, a processor 106, a memory 108, a display 110, a controller 112 (e.g., remote control), and various peripheral inputs 114,116, and 118. The memory 108 may comprise a tangible machine-readable medium adapted to hold machine-readable computer code that causes the processor 106 to perform an exemplary method in accordance with present embodiments. For example, the memory 108 and the processor 106 may cooperate to operate as a control system that provides an on-screen selection interface (corresponding to "reminder") in accordance with present embodiments (see page 3, lines 4-9 in the description and figure 1 of D1).

This UI or on-screen selection interface may be referred to as a tab-based content source selection system (TCSSS) (see page 3, lines 14-15 in the description of D1).

An interpreted "content" command from a remote control may initiate or activate the TCSSS on a television (corresponding to "receiving a reminder presentation input at the intelligent TV") (see page 3, lines 20-21 in the description of D1).

The TCSSS may provide several graphic items that appear to be overlapping graphical shapes (e.g., columns or tabs) on the television display 110. For example, FIG. 2 illustrates a screen 200 (corresponding to "the first portion of the display") of a television display (e.g., the display 110) that includes a menu 202 positioned on an edge of the display (corresponding to "the second portion of the display, wherein the second portion of the display at least partially overlaps the first portion"). The menu 202 includes four overlapping columns in accordance with present embodiments (see page 4, lines 1-4 in the description and figure 2 of D1).

FIG. 5 is an illustration of the TCSSS when the fourth column 210 is active. As set forth above, the fourth column 210 displays user-selected channels referred to as "favorites" when it is active. The fourth column 210 of the illustrated embodiment enables users to define it to include any source of input and any channel on a single menu tab (corresponding to "the reminder presentation dialog includes information relative to a specific program"). This will enable a user to conveniently switch between favorite channels and favorite sources of input within a single menu tab or column (see page 5, lines 19-22 in the description and figure 5 of D1).

D1 does not disclose the following features of claim 20: (1) the tuner is configured to receive and convert broadcast content signals to be displayed by the display; (2) TV content presented to a first portion of the display. Thus D1 does not disclose all the features of claim 20 and the subject matter of claim 20 is new in the sense of PCT Article 33(2).

However, the aforementioned feature (1) is common design in the art. As for feature (2), D2 (see page 5, lines 27-30 in the description) provides a method for displaying assistance data and discloses the following features: when digital channel content is broadcast, assistance information is displayed to a portion the screen 400. That is, D2 gives the teach to display TV content in a first portion and to display reminding assistance information in a second portion which overlaps the first portion. Thus, it is obvious for a person skilled in the art to apply the teaching of the D2 and common desigh in the art to D1 and arrive at this solution. Therefore the solution of claim 20 does not involve an inventive step, and does not meet the criteria set out in PCT Article 33(3).

II. Industrial applicability

The invention of claims 1-20 can find industrial applicability in the technical field of TV broadcast, and meets the criteria set out in PCT Article 33(4).

EX. 1002
LG Electronics, Inc. / Page 3042 of 3394

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: KENDRIA E. PEARSON
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

	Date of mailing *(day/month/year)* 05 DEC 2013
Applicant's or agent's file reference 6583-488-PCT	**FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. PCT/US2013/055303	International filing date *(day/month/year)* 16 August 2013
Applicant FLEXTRONICS AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-488-PCT	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US2013/055303	International filing date *(day/month/year)* 16 August 2013	(Earliest) Priority Date *(day/month/year)* 17 August 2012
Applicant FLEXTRONICS AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 20A

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

Form PCT/ISA/210 (first sheet) (July 2009)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/055303

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H04N 7/173 (2013.01)
USPC - 725/27
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) - G06F 3/00; H04N 7/16, 173 (2013.01)
USPC - 715/ 709, 738, 760; 725/27

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
CPC - G06F 3/00; H04N 7/16, 173 (2013.01)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Google, Orbit, Google Patents

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2011/0289419 A1 (YU et al) 24 November 2011 (24.11.2011) entire document	1-20
A	US 2012/0200574 A1 (HILL et al) 09 August 2012 (09.08.2012) entire document	1-20
A	WO 99/21308 (MUGURA et al) 29 April 1999 (29.04.1999) entire document	1-20
A	US 2008/0022309 A1 (BEGEJA et al) 24 January 2008 (24.01.2008) entire document	1-20

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
11 November 2013	05 DEC 2013
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: KENDRIA E. PEARSON
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	05 DEC 2013
Applicant's or agent's file reference 6583-488-PCT	FOR FURTHER ACTION See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US2013/055303	16 August 2013	17 August 2012

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H04N 7/173 (2013.01)
USPC - 725/27

Applicant FLEXTRONICS AP, LLC

1. This opinion contains indications relating to the following items:

- [X] Box No. I Basis of the opinion
- [ ] Box No. II Priority
- [ ] Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- [ ] Box No. IV Lack of unity of invention
- [X] Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- [ ] Box No. VI Certain documents cited
- [ ] Box No. VII Certain defects in the international application
- [ ] Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	11 November 2013	Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055303

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

a. (means)

☐ on paper

☐ in electronic form

b. (time)

☐ in the international application as filed

☐ together with the international application in electronic form

☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055303

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	None	YES
	Claims	1-20	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	None	NO

2. Citations and explanations:

See Supplemental Box

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055303

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.
Continuation of:

Claims 1-20 lack novelty under PCT Article 33(2) as being anticipated by Yu et al., hereinafter referred to as Yu.

Regarding claims 1, 10, 16, Yu discloses a method for displaying content on a television (a user platform 140 comprises a television 142, para 0071; figs 17, 18 & 20 shows a method for the user to access television content items via a TV portal, abstract, para 0115, 0122), a non-transitory computer readable information storage medium having stored thereon instructions that cause a computing system to execute a method of displaying content on a television [claim 10] (the computer system 5600 includes a display, and the disk drive unit 5616 includes a non-transitory machine readable medium 5622 and stored on it are instructions and data e.g, software 5624 in a memory 5604 within the processor 5602 executed by the computer system, para 0228, 0229), a system for displaying content on a television, comprising: an input device associated with the television, a memory, and a microprocessor operable [claim 16] (the computer system 5600 includes a display, and the disk drive unit 5616 includes a non-transitory machine readable medium 5622 and stored on it are instructions, para 0228, 0229; figs 17, 18 & 20 shows a method wherein the television content is provided as a listing which can be accessed by the user by manipulating a conventional television remote control device by position the selection box 2022 around a desired TV content item [receiving a first directional input], para 0115, 0122) comprising: receiving a first directional input via an input device associated with the television (a user platform 140 comprises a television 142, para 0071; figs 17, 18 & 20 shows the user access television content items via a TV portal, the television content is provided as a listing which can be accessed by the user by manipulating a conventional television remote control device by position the selection box 2022 around a desired TV content item [receiving a first directional input], para 0115, 0122; fig. 18 displays a content listing area 1820 [screen channel changer/ electronic program guide] which lists the available contents with the time slots which includes the programming channels, which the users can highlights/select a particular content using an input device which upon selection delivers the content, para 0119, 0123); determining, based on a first direction associated with the first directional input, a content panel to display via the television (the user selects the listed TV content by the selection box 2022 by activating a selection button on a remote control device, upon selection of the desired TV content 2022 the user is presented with a TV content overview page 2100 [a content panel to display via the television] as shown in fig.21, para 0122); retrieving, from a memory, a first content information for displaying in the content panel (the user selects the listed TV content by the selection box 2022 by activating a selection button on a remote control device, upon selection of the desired TV content 2022 the user is presented with a TV content overview page 2100 [the page 2100 provides 2114, 2112, 2122 and 2124 contents which are displayed interpreted as first content information for displaying in the content panel] as shown in fig.21, para 0122; fig.6 shows a data processor 111 causes the provision module 117 to retrieve the contents from the assets stored within the service provider database 112 and makes the content accessible to the interface device 644 [interpreted as retrieving, from a memory, a content information for displaying in the content panel] via the network 120, para 0060); identifying at least one of a content source and a second content information currently being displayed via the television (the display 2100 displays the button 2114, the button 2114 "Cast & Crew" being selected by the user [selecting by the user is interpreted as identifying the content source] upon which displays the screen 2200 of fig.22, para 0125); selecting a panel type based on the identified at least one of content source and second content information currently being displayed via the television (upon the user selecting the option of 2114 "Cast & Crew" [content source] on fig.21 the user is provided with a display 2200 which provides the users with a cast page which represents detailed information 2222 related to the selected content item in this case is "Lost" television program [displaying the 2200 page which is square shaped panel including the contents 2222 upon the user selecting the 2114 is interpreted as selecting a panel type based on the identified content source], para 0125); retrieving, from memory, a third content information based on the selected panel type (upon the user selecting the option of 2114 "Cast & Crew" on fig.21 the user is provided with a display 2200 which provides the users with a cast page which represents detailed information 2222 [third content information] related to the selected content item in this case is "Lost" television program [displaying the 2200 page which is square shaped panel including the contents 2222 upon the user selecting the 2114 is interpreted as selecting a panel type based on the identified content source], para 0125; fig.6 shows a data processor 111 causes the provision module 117 to retrieve the contents from the assets stored within the service provider database 112 and makes the content accessible to the interface device 644 [interpreted as retrieving, from a memory, a content information for displaying in the content panel] via the network 120, para 0060); and displaying, via the television, the retrieved first content information and the third content information in the content panel based on the selected panel type (the user selects the listed TV content by the selection box 2022 by activating a selection button on a remote control device, upon selection of the desired TV content 2022 the user is presented with a TV content overview page 2100 [the page 2100 provides 2114, 2112, 2122 and 2124 contents which are displayed interpreted as first content information for displaying in the content panel] as shown in fig.21, para 0122; upon the user selecting the option of 2114 "Cast & Crew" on fig.21 the user is provided with a display 2200 which provides the users with a cast page which represents detailed information 2222 [third content information] related to the selected content item in this case is "Lost" television program [displaying the 2200 page which is square shaped panel including the contents 2222 upon the user selecting the 2114 is interpreted as selecting a panel type based on the identified content source], para 0125; a user platform 140 comprises a television 142, para 0071; figs 17, 18 & 20 shows the user to access television content items via a TV portal, para 0115,0122).

Regarding claims 2, 11, 17, Yu further teaches comprising: retrieving, from a memory, a first image that is representative of the at least one of content source and second content information (the user selects the listed TV content by the selection box 2022 by activating a selection button on a remote control device, upon selection of the desired TV content 2022 the user is presented with a TV content overview page 2100 [the page 2100 provides 2114, 2112, 2122 and 2124 contents which are displayed interpreted as a first image representative of a content source] as shown in fig.21, para 0122; fig.6 shows a data processor 111 causes the provision module 117 to retrieve the contents from the assets stored within the service provider database 112 and makes the content accessible to the interface device 644 [interpreted as retrieving, from a memory, a content information for displaying in the content panel] via the network 120, para 0060); and displaying, via the television, the first image in the content panel (the user selects the listed TV content by the selection box 2022 by activating a selection button on a remote control device, upon selection of the desired TV content 2022 the user is presented with a TV content overview page 2100 [the page 2100 provides 2114, 2112, 2122 and 2124 contents which are displayed] as shown in fig.21, para 0122; a user platform 140 comprises a television 142, para 0071; figs 17, 18 & 20 shows the user to access television content items via a TV portal, para 0115,0122).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055303

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.
Continuation of:

Regarding claims 3, 12, 18, Yu further teaches wherein the content panel is an application panel (the user selects the listed TV content by the selection box 2022 by activating a selection button on a remote control device, upon selection of the desired TV content 2022 the user is presented with a TV content overview page 2100 [the page 2100 provides 2114, 2112, 2122 and 2124 contents which are displayed interpreted as application panel] as shown in fig.21, para 0122; fig. 18 displays a content listing area 1820 which lists the available contents with the time slots which includes the programming channels, which the users can highlights/select a particular content [application panel] using an input device which upon selection delivers the content, para 0119, 0123).

Regarding claim 4, Yu further teaches comprising: receiving a second directional input via the input device (a user platform 140 comprises a television 142, para 0071; figs 17, 18 & 20 shows the user access television content items via a TV portal, the television content is provided as a listing which can be accessed by the user by manipulating a conventional television remote control device by position the selection box 2022 around a desired TV content item [receiving a first directional input], further the user selects the listed TV content by the selection box 2022 by activating a selection button on a remote control device [receiving a second directional input], upon selection of the desired TV content 2022 the user is presented with a TV content overview page 2100 as shown in fig.21, para 0115, 0122); and determining, based on a second direction associated with the second directional input, a second content panel to display via the television (the user selects the listed TV content by the selection box 2022 by activating a selection button on a remote control device [receiving a second directional input], upon selection of the desired TV content 2022 the user is presented with a TV content overview page 2100 [second content panel to display] as shown in fig.21, para 0115, 0122).

Regarding claims 5, 14, 19, Yu further teaches comprising: receiving a second directional input via the input device (a user platform 140 comprises a television 142, para 0071; figs 17, 18 & 20 shows the user access television content items via a TV portal, the television content is provided as a listing which can be accessed by the user by manipulating a conventional television remote control device by position the selection box 2022 around a desired TV content item [receiving a first directional input], further the user selects the listed TV content by the selection box 2022 by activating a selection button on a remote control device [receiving a second directional input], upon selection of the desired TV content 2022 the user is presented with a TV content overview page 2100 as shown in fig.21, para 0115, 0122); determining, based on a second direction associated with the second directional input, a source of at least one content information to be displayed in the content panel based on the selected panel type (the user selects the listed TV content by the selection box 2022 by activating a selection button on a remote control device [receiving a second directional input], upon selection of the desired TV content 2022 which in this case is LOST TV program, the user is presented with a TV content overview page 2100 which provides information on the "Lost" TV program [interpreted as determining a source of a content information displayed], as shown in fig.21 , para 0115, 0122); retrieving at least a portion of the at least one content information from the determined source (fig.6 shows a data processor 111 causes the provision module 117 to retrieve the contents from the assets stored within the service provider database 112 and makes the content accessible to the interface device 644 [interpreted as retrieving, from a memory, a content information for displaying in the content panel] via the network 120, para 0060); and displaying, via the television, the content information associated with the determined source (the user selects the listed TV content by the selection box 2022 by activating a selection button on a remote control device [receiving a second directional input], upon selection of the desired TV content 2022 which in this case is LOST TV program, the user is presented with a TV content overview page 2100 which provides information on the "Lost" TV program [interpreted as determining a source of a content information displayed], as shown in fig.21 , para 0115, 0122).

Regarding claims 6, 13, 20, Yu further teaches wherein the third content information comprises information associated with content information marked as favorite (upon the user selecting the option of Bookmark 2124 [third content information] on fig.21 the user is enabled to add the content item to a list of favorite content items [content information marked as favorite] and further can also bookmark the content item for easy access, para 0125).

Regarding claim 7, Yu further teaches wherein the third content information comprises information associated with TV series episode content information (upon the user selecting the option of 2114 "Cast & Crew" on fig.21 the user is provided with a display 2200 which provides the users with a cast page which represents detailed information 2222 [third content information] related to the selected content item in this case is "Lost" television program, and further displays "show synopsis" option which provides details of the television program LOST [TV series episode content information], para 0125).

Regarding claim 8, Yu further teaches wherein the selected panel type is a search panel (figs.33, 34 & 35 shows on the display 3300 the user selects the search option 1715, and is presented with the search panel 3400, where the user types in the search terms 3422 and searches, para 0139, 0140).

Regarding claim 9, Yu further teaches wherein the selected panel type is a recommended panel (figs.33, 34 & 35 shows on the display 3300 the user selects the search option 1715, and is presented with the search panel 3400, where the user types in the search terms 3422 and searches, further based on the search query the user is provided with suggestions in the suggestions box 3424 [recommended panel], para 0139, 0140).

Regarding claim 15, Yu further teaches wherein the third content information comprises information associated with TV series episode content information (upon the user selecting the option of 2114 "Cast & Crew" on fig.21 the user is provided with a display 2200 which provides the users with a cast page which represents detailed information 2222 [third content information] related to the selected content item in this case is "Lost" television program, and further displays "show synopsis" option which provides details of the television program LOST [TV series episode content information], para 0125), and wherein the selected panel type is an info panel associated with the TV series episode content information (fig.18 shows the TV content listing with the option 1826 which the user activates by selecting, upon which the user is presented with the window 2100 on fig.21 which provides the user with the "show synopsis" option which provides details of the television program LOST [TV series episode content information], para 0123, 0125).

Claims 1-20 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: DEAN N. REINHARDT
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

	Date of mailing *(day/month/year)* 10 JAN 2014
Applicant's or agent's file reference 6583-489-PCT	**FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. PCT/US2013/055280	International filing date *(day/month/year)* 16 August 2013
Applicant FLEXTRONICS AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

Filing of amendments and statement under Article 19:
The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-489-PCT	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US2013/055280	International filing date *(day/month/year)* 16 August 2013	(Earliest) Priority Date *(day/month/year)* 17 August 2012
Applicant FLEXTRONICS AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 21

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/055280

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H04N 7/173 (2013.01)
USPC - 725/27
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) - G06F 3/00; H04N 7/16, 173 (2013.01)
USPC -715/ 709, 738, 760; 725/27

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
CPC - G06F 3/00; H04N 7/16, 173 (2013.01)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Google, Orbit, Google Patents

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2011/0289419 A1 (YU et al) 24 November 2011 (24.11.2011) entire document	1-20
A	US 2012/0200574 A1 (HILL et al) 09 August 2012 (09.08.2012) entire document	1-20
A	WO 99/21308 (MUGURA et al) 29 April 1999 (29.04.1999) entire document	1-20

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
25 December 2013	10 JAN 2014
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: DEAN N. REINHARDT
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	10 JAN 2014
Applicant's or agent's file reference 6583-489-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US2013/055280	16 August 2013	17 August 2012

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H04N 7/173 (2013.01)
USPC - 725/27

Applicant FLEXTRONICS AP, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	25 December 2013	Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055280

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

      ☐ on paper

      ☐ in electronic form

   b. (time)

      ☐ in the international application as filed

      ☐ together with the international application in electronic form

      ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055280

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	8	YES
	Claims	1-7, 9-20	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	None	NO

2. Citations and explanations:

Claims 1-7, 9-20 lack novelty under PCT Article 33(2) as being anticipated by Yu et al., hereinafter referred to as Yu.

Regarding claims 1, 17, Yu discloses a non-transitory computer readable storage medium having stored thereon instructions that cause a processor to execute [claim 1] (a computer implemented system and method for using a processor to execute a browser engine and a machine or computer instructions used to cause a processor which is programmed with the instructions to perform various steps, abstract, para 0235; 0229) a method of displaying a media center panel on a television display, the method comprising the steps of [claim 1] (figs.1 & 2 shows a user platform 140 for receiving content information, and the user platform comprises a television (TV) 142, a personal computer 142, para 0056; fig.17 shows a user platform which displays a content browsing and selection user interface which includes a root page 1900 which shows a command option area 1710 wherein a user selects a TV command option 1713 which enables the user to view a television content portal 2000 [displaying a media center panel] displayed in fig.20, para 0115, 0121) a method for organizing media item metadata on a television, the method comprising [claim 17] (figs.1 & 2 shows a user platform 140 for receiving content information, and the user platform comprises a television (TV) 142, a personal computer 142, para 0056; fig.17 shows a user platform which displays a content browsing and selection user interface which includes a root page 1900 which shows a command option area 1710 wherein a user selects a TV command option 1713 which enables the user to view a television content portal 2000 which includes media contents [organizing media item metadata] displayed in the content area 2020 in fig.20, para 0115, 0121):receiving a request to activate the media center panel (the user selects the command option 1713 on the command option area 1710, and in response to the user selecting the TV command option 1713 [receiving a request to activate] from the root page 1900 the system displays a TV portal 2000 [activate the media center panel] shown in the fig.20, para 0121, 0122); determining a type of media center panel requested (the user selects the command option 1713 on the command option area 1710, and in response to the user selecting the TV command option 1713 [receiving a request to activate] from the root page 1900 the system displays a TV portal 2000 [determining a type of media center panel] shown in the fig.20, para 0121, 0122; fig. 26 shows the user selects a movies option on the command option area 1710 and upon the selection the system displays 2700 [determining a type of media center panel] with a list of movies in fig.27 [based on the type of option selected by the user in the command option area a corresponding display panel is displayed interpreted as determining a type of media center panel requested], para 0130, 0131); retrieving, from memory, metadata based on the type of media center panel requested (fig.20 shows once the TV portal 2000 is selected by the user [based on the type of media center panel] the service provider 110 accesses a content catalog or content database 112 to obtain a listing of collections of content, content information and metadata associated [retrieving, from memory, metadata] with the television content for selection from the TV portal 2000, the contents displayed includes an image, textual description of the TV content item displayed in the content item area 2020, para 0084, 0121, 0122); and displaying on the television display the retrieved metadata in the media center panel (fig.20 shows once the TV portal 2000 is selected by the user the service provider 110 accesses a content catalog or content database 112 to obtain a listing of collections of content, content information and metadata associated with the television content for selection from the TV portal 2000, the contents displayed includes an image, textual description of the TV content item such as "Lost" is displayed in the content item area 2020 [displaying on the television display retrieved metadata] and can be selected by using a selection box 2022, para 0084, 0121, 0122).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055280

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding claim 12, A television system, comprising: a display; a memory; a processor in communication with the memory and the display (a computer implemented system and method for using a processor to execute a browser engine and a machine or computer instructions used to cause a processor which is programmed with the instructions to perform various steps, abstract, para 0235, 0229; figs.1 & 2 shows a user platform 140 for receiving content information, and the user platform comprises a television (TV) 142, a personal computer 142, para 0056; fig.17 shows a user platform which displays a content browsing and selection user interface which includes a root page 1900 which shows a command option area 1710 wherein a user selects a TV command option 1713, para 0121), the processor operable to: to: receive a request to activate a media center panel (the user selects the command option 1713 on the command option area 1710, and in response to the user selecting the TV command option 1713 [receiving a request to activate] from the root page 1900 the system displays a TV portal 2000 [activate the media center panel] shown in the fig.20, para 0121, 0122); determine the type of media center panel requested (the user selects the command option 1713 on the command option area 1710, and in response to the user selecting the TV command option 1713 [receiving a request to activate] from the root page 1900 the system displays a TV portal 2000 [determining a type of media center panel] shown in the fig.20, para 0121, 0122; fig. 26 shows the user selects a movies option on the command option area 1710 and upon the selection the system displays 2700 [determining a type of media center panel] with a list of movies in fig.27 [based on the type of option selected by the user in the command option area a corresponding display panel is displayed interpreted as determining a type of media center panel requested], para 0130, 0131); retrieve, from memory, metadata based on the type of media center panel requested (fig.20 shows once the TV portal 2000 is selected by the user [based on the type of media center panel] the service provider 110 accesses a content catalog or content database 112 to obtain a listing of collections of content, content information and metadata associated [retrieving, from memory, metadata] with the television content for selection from the TV portal 2000, the contents displayed includes an image, textual description of the TV content item displayed in the content item area 2020, para 0084); and display, on the television display, the retrieved metadata in the media center panel, wherein the metadata comprises at least one of a thumbnail, a title, a description, a rating, and a run time (fig.20 shows once the TV portal 2000 is selected by the user the service provider 110 accesses a content catalog or content database 112 to obtain a listing of collections of content, content information and metadata associated with the television content for selection from the TV portal 2000, the contents displayed includes an image, textual description of the TV content item such as "Lost" [a thumbnail, a title] is displayed in the content item area 2020 [displaying on the television display retrieved metadata] and can be selected by using a selection box 2022, para 0084).

Regarding claim 2, Yu further teaches wherein the type of media center panel comprises at least one of: an information panel; a favorite panel; a last viewed panel; a most viewed panel; a search panel; and a new panel (figs.33-35 shows a root page 3300 wherein a user highlights a command option 1715 "Search" command option area 1710 of the root page 3300 [a search panel], and the search command enables the user to search particular content items by using a user generated search query, and fig.35 shows a search result 3521, para 0139, 0140).

Regarding claim 3, Yu further teaches wherein the metadata comprises at least one of: a thumbnail; a title; a description; a rating; and a run time (fig.20 shows once the TV portal 2000 is selected by the user the service provider 110 accesses a content catalog or content database 112 to obtain a listing of collections of content, content information and metadata associated with the television content for selection from the TV portal 2000, the contents displayed includes an image r textual description of the TV content item such as "Lost" [a thumbnail, a title] is displayed in the content item area 2020 [displaying on the television display retrieved metadata] and can be selected by using a selection box 2022, para 0084).

Regarding claim 4, 13, Yu further teaches further comprising: receiving a selection of a media item from one or more media items displayed in the media center panel (fig.20 shows once the TV portal 2000 is selected by the user, media contents are displayed which includes an image, textual description of the TV content item such as "Lost" is displayed in the content item area 2020 which is selected by using a selection box 2022, upon the selection the user is presented with a panel 2100 [receiving a selection of a media item], which provides a user selectable buttons 2124, 2122 and the button 2122 enables the user to watch the selected content item, para 0121, 0124); and presenting content associated with the selected media item (fig.20 shows once the TV portal 2000 is selected by the user, media contents are displayed which includes an image, textual description of the TV content item such as "Lost" is displayed in the content item area 2020 which is selected by using a selection box 2022 [presenting content associated with the selected media], upon the selection the user is presented with a panel 2100, which provides a user selectable buttons 2124, 2122 and the button 2122 enables the user to watch the selected content item, para 0121, 0124).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055280

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding claim 5, Yu further teaches comprising: receiving a request to activate a second media center panel (fig.20 shows once the TV portal 2000 is selected by the user, media contents are displayed which includes an image, textual description of the TV content item such as "Lost" is displayed in the content item area 2020 which is selected by using a selection box 2022 [receiving a request to activate a second media center panel], upon the selection the user is presented with a panel 2100, which provides a user selectable buttons 2124, 2122 and the button 2122 enables the user to watch the selected content item, para 0121, 0124); determining the type of media center panel requested (fig.20 shows once the TV portal 2000 is selected by the user, media contents are displayed which includes an image, textual description of the TV content item such as "Lost" is displayed in the content item area 2020 which is selected by using a selection box 2022, upon the selection the user is presented with a panel 2100, which provides a user selectable buttons 2124, 2122associated with the selected media content [determining the type of media center panel] and the button 2122 enables the user to watch the selected content item, para 0121, 0124); retrieving, from memory, metadata based on the type of the second media center panel (fig.20 shows once the TV portal 2000 is selected by the user [based on the type of media center panel] the service provider 110 accesses a content catalog or content database 112 to obtain a listing of collections of content, content information and metadata associated [retrieving, from memory, metadata] with the television content for selection from the TV portal 2000, para 0084; fig.20 shows the content item area 2020 which is selected by using a selection box 2022, upon the selection the user is presented with a panel 2100, which provides a user selectable buttons 2124, 2122 associated with the selected media content [second media center panel] and the button 2122 enables the user to watch the selected content item, para 0121, 0124); and displaying on the television display the retrieved metadata in the second media center panel (fig.20 shows the content item area 2020 which is selected by using a selection box 2022, upon the selection the user is presented with a panel 2100 [second media center panel], which provides a user selectable buttons 2124, 2122 associated with the selected media content [displaying on the television display in the second media center panel] and the button 2122 enables the user to watch the selected content item, para 0121, 0124).

Regarding claims 6, 16, Yu further teaches comprising: receiving a selection of a media item from one or more media items displayed in the second media center panel (fig.20 shows once the TV portal 2000 is selected by the user, content item such as "Lost" is displayed in the content item area 2020 which is selected by using a selection box 2022, upon the selection the user is presented with a panel 2100 [second media center panel], which provides a user selectable buttons 2124, 2122 associated with the selected media content and the button 2122 enables the user to watch [receiving a selection of a media item], listen or consume the selected content item, para 0121, 0124); and presenting content associated with the selected media item (upon the selection the user is presented with a panel 2100, which provides a user selectable buttons 2124, 2122 associated with the selected media content and the button 2122 enables the user to watch [enable the user to watch the content is interpreted as receiving a selection of a media item to present content associated], listen or consume the selected content item, para 0121, 0124).

Regarding claims 7, 14, Yu further teaches wherein the media center panel includes a list of one or more related media items (fig.23 shows a user interface panel 2300 which includes detailed information area 2320 related to the actor selected, the area 2320 includes content items/movies related [list of one or more related media items] to the actor selected, para 0126).

Regarding claim 9, Yu further teaches including retrieving, from a data subservice, metadata based on the type of media center panel requested (fig.20 shows once the TV portal 2000 is selected by the user [based on the type of media center panel] the service provider 110 accesses a content catalog or content database 112 to obtain a listing of collections of content, content information and metadata associated [retrieving, from data subservice metadata] with the television content for selection from the TV portal 2000, the contents displayed includes an image, textual description of the TV content item displayed in the content item area 2020, para 0084, 0121, 0122).

Regarding claim 10, Yu further teaches comprising after receiving the request to activate the media center panel: identifying a user associated with the request (the users can log into the accounts maintained by the system 200, a user profile/ user identifier associated with the user to include user behavior information corresponding to a content information accessed by the user is stored in database 112, fig.20 shows a "For You" command option that displays a list of TV content items in the content item area 2020 that are likely of interest to a particular user based his profile [identifying a user associated with the request], para 0076, 0080, 0122); and retrieving metadata associated with the identified user from memory for display by the media center panel (fig.20 shows a "For You" command option that displays a list of TV content items [retrieving metadata associated] displayed in the content item area 2020 [display by the media center panel] that are likely of interest to a particular user/viewer based on a previously generated user profile and based on a historical pattern of previously viewed contents stored in a database 112, para 0080, 0122).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055280

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding claim 11, Yu further teaches further comprising after receiving the request: determining whether the request is a first request to activate a media center panel from a current user interface (the user selects the command option 1713 on the command option area 1710, and in response to the user selecting the TV command option 1713 [receiving a request to activate] from the root page 1900 the system displays a TV portal 2000 [activate the media center panel] shown in the fig.20, once the TV portal 2000 is selected by the user, the service provider 110 accesses a content catalog or database 112 to obtain a listing of the collections of contents [after receiving the request determining a first request to activate a media center panel], content information associated with the television content and if the content items are not available in the content database 112 then pre-defined links are used to obtain the content items, para 0122) or if the request is not the first request to activate the media center panel from the current user interface; if the request is a first request: determining the type of media center panel requested (the user selects the command option 1713 on the command option area 1710, and in response to the user selecting the TV command option 1713 [receiving a request to activate] from the root page 1900 the system displays a TV portal 2000 [determining a type of media center panel] shown in the fig.20, para 0121, 0122; fig. 26 shows the user selects a movies option on the command option area 1710 and upon the selection the system displays 2700 [determining a type of media center panel] with a list of movies in fig.27 [based on the type of option selected by the user in the command option area a corresponding display panel is displayed interpreted as determining a type of media center panel requested], para 0130, 0131); retrieving, from memory, metadata based on the type of media center panel requested (fig.20 shows once the TV portal 2000 is selected by the user [based on the type of media center panel] the service provider 110 accesses a content catalog or content database 112 to obtain a listing of collections of content, content information and metadata associated [retrieving, from memory, metadata] with the television content for selection from the TV portal 2000, the contents displayed includes an image, textual description of the TV content item displayed in the content item area 2020, para 0084, 0121, 0122); and displaying on the television display the retrieved metadata in the media center panel (fig.20 shows once the TV portal 2000 is selected by the user the service provider 110 accesses a content catalog or content database 112 to obtain a listing of collections of content, content information and metadata associated with the television content for selection from the TV portal 2000, the contents displayed includes an image, textual description of the TV content item such as "Lost" is displayed in the content item area 2020 [displaying on the television display retrieved metadata] and can be selected by using a selection box 2022, para 0084, 0121, 0122); if the request is not the first request: determining the type of media center panel last displayed in the current user interface; retrieving, from memory, metadata based on the type of media center panel last displayed in the current user interface; and displaying on the television display the retrieved metadata in the media center panel.

Regarding claims 15, 18, Yu further teaches wherein the processor is further operable to: receive a second request to launch a second media center panel based on a media item selected from one or more media items displayed in the media center panel (fig.20 shows once the TV portal 2000 is selected by the user [a first request], media contents are displayed which includes an image, textual description of the TV content item such as "Lost" is displayed in the content item area 2020 which is selected by using a selection box 2022 [receiving a second request to launch a second media center panel], upon the selection the user is presented with a panel 2100, which provides a user selectable buttons 2124, 2122 and the button 2122 enables the user to watch the selected content item, para 0121, 0124); determine the type of media center panel requested (fig.20 shows once the TV portal 2000 is selected by the user, media contents are displayed which includes an image, textual description of the TV content item such as "Lost" is displayed in the content item area 2020 which is selected by using a selection box 2022, upon the selection the user is presented with a panel 2100, which provides a user selectable buttons 2124, 2122associated with the selected media content [determining the type of media center panel] and the button 2122 enables the user to watch the selected content item, para 0121, 0124); retrieve, from memory, metadata based on the type of the second media center panel (fig.20 shows once the TV portal 2000 is selected by the user [based on the type of media center panel] the service provider 110 accesses a content catalog or content database 112 to obtain a listing of collections of content, content information and metadata associated [retrieving, from memory, metadata] with the television content for selection from the TV portal 2000, para 0084; fig.20 shows the content item area 2020 which is selected by using a selection box 2022, upon the selection the user is presented with a panel 2100, which provides a user selectable buttons 2124, 2122 associated with the selected media content [second media center panel] and the button 2122 enables the user to watch the selected content item, para 0121, 0124); and display on the television display the retrieved metadata in the second media center panel (fig.20 shows the content item area 2020 which is selected by using a selection box 2022, upon the selection the user is presented with a panel 2100 [second media center panel], which provides a user selectable buttons 2124, 2122 associated with the selected media content [displaying on the television display in the second media center panel] and the button 2122 enables the user to watch the selected content item, para 0121, 0124).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055280

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding claim 19, Yu further teaches, wherein the media center panel includes a first list of one or more related media items (fig.23 shows a user interface panel 2300 which includes detailed information area 2320 related to the actor selected, the area 2320 includes content items/movies related [first list of one or more related media items] to the actor selected, para 0126); and the second media center panel includes a second list of one or more related media (figs.29-30 shows a user interface panel 3000 [second media center panel] which includes detailed information area 3020 [second list of one or more related media] content items/movies related to the actor selected related to the actor selected in the window 2900, para 0135, 0136).

Regarding claim 20, Yu further teaches comprising: receiving a selection of a media item from one or more media items displayed in the media center panel (fig.20 shows once the TV portal 2000 is selected by the user, content item such as "Lost" is displayed in the content item area 2020 which is selected by using a selection box 2022, upon the selection the user is presented with a panel 2100, which provides a user selectable buttons 2124, 2122 associated with the selected media content and the button 2122 enables the user to watch [receiving a selection of a media item], listen or consume the selected content item, para 0121, 0124); and presenting content associated with the selected media item (upon the selection the user is presented with a panel 2100, which provides a user selectable buttons 2124, 2122 associated with the selected media content and the button 2122 enables the user to watch [enable the user to watch the content is interpreted as receiving a selection of a media item to present content associated], listen or consume the selected content item, para 0121, 0124).

Claim 8 lacks an inventive step under PCT Article 33(3) as being obvious over Yu.

Regarding claim 8, Yu further teaches comprising: receiving a selection of a media item displayed in the list (fig.20 shows once the TV portal 2000 is selected by the user, content item such as "Lost" is displayed in the content item area 2020 which is selected by using a selection box 2022, upon the selection the user is presented with a panel 2100, which provides a user selectable buttons 2124, 2122 associated with the selected media content and the button 2122 enables the user to watch [receiving a selection of a media item], listen or consume the selected content item, para 0121, 0124), but lacks the teaching of determining if the selected media item is stored on a connected storage medium or available to purchase or rent from a content provider if the selected media item is stored on the connected storage medium, presenting content associated with the selected media item; if the selected media item is available to purchase or rent, connecting to the content provider to purchase or rent the selected media item; and presenting content associated with the selected media item.
However, Yu teaches determining if the media item is stored on a connected storage medium (figs.33-35 shows a search page 3400 which is accessed by the user and the user enters a search query which is "12 Monkeys" and a search is performed to match the entered search query with content information associated with the content items in the database 112, and in fig.35 the matching search result 3521 is presented and the user can select the item positioning the selection box 3522 on the desired content item and upon activation displays the content, para 0140) and if the media item is stored on the connected storage medium, presenting content associated with the selected media item (figs.33-35 shows a search page 3400 which is accessed by the user and the user enters a search query which is "12 Monkeys" and a search is performed to match the entered search query with content information associated with the content items in the database 112, and in fig.35 the matching search result 3521 is presented and the user can select the item positioning the selection box 3522 on the desired content item and upon activation displays the content, para 0140).
Further, Yu teaches that media content may be rented or purchased (para 108), and presenting presenting content associated with the selected media item.(content for purchase or rent, para 128-130).
It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings to incorporate determining if the selected media item is stored on a connected storage medium or available to purchase or rent from a content provider if the selected media item is stored on the connected storage medium, presenting content associated with the selected media item into the invention of Yu. The motivation would have been to provide the users with an optimized user interface for better access to media contents.

Claims 1-20 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: Yiu F. Au
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, Colorado 80202
United States of America

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference 6583-490-PCT	Date of mailing *(day/month/year)* 13 NOV 2013 **FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. PCT/US13/55383	International filing date *(day/month/year)* 16 August 2013 (16.08.2013)
Applicant Flextronics AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Shane Thomas PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-490-PCT	**FOR FURTHER ACTION**	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US13/55383	International filing date *(day/month/year)* 16 August 2013 (16.08.2013)	(Earliest) Priority Date *(day/month/year)* 17 August 2012 (17.08.2012)
Applicant Flextronics AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 9 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 14

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US13/55383

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H04N 7/10 (2013.01)
USPC - 725/34
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8): G06F 3/048; H04N 7/10, 5/445 (2013.01)
USPC: 715/854; 725/34, 37, 44, 47, 61

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
MicroPatent (US-G, US-A, EP-A, EP-B, WO, JP-bib, DE-C,B, DE-A, DE-T, DE-U, GB-A, FR-A); Google/Google Scholar; IEEE; DialogPRO; intelligent, television, TV, smart, interactive, user, action, request, schedule, event, predefined, defined, format, organize, arrange, list, relevant, related, associated, content, video, program, display, temporary, non-permanent, store, sqlite, database

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 2012/0174039 A1 (RHOADS J et al.) July 5, 2012, paragraphs [0036], [0046], [0063], [0074], [0075], [0079]	1-6, 8 and 10-20 --- 7 and 9
Y	WO 2012/068438 A1 (CALVERT K) May 24, 2012, page 8, lines 30-31, page 10, lines 10-14	7
Y	US 2002/0152267 A1 (LENNON A) October 17, 2002, paragraph [0181]	9

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
05 November 2013 (05.11.2013)	13 NOV 2013
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: Yiu F. Au
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, Colorado 80202
United States of America

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	13 NOV 2013
Applicant's or agent's file reference 6583-490-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US13/55383	16 August 2013 (16.08.2013)	17 August 2012 (17.08.2012)

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H04N 7/10 (2013.01)
USPC - 725/34

Applicant Flextronics AP, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 *bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Fom PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	05 November 2013 (05.11.2013)	Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55383

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

      ☐ on paper

      ☐ in electronic form

   b. (time)

      ☐ in the international application as filed

      ☐ together with the international application in electronic form

      ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55383

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	7 and 9	YES
	Claims	1-6, 8 and 10-20	NO
Inventive step (IS)	Claims	NONE	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	NONE	NO

2. Citations and explanations:

Claims 1-6, 8 and 10-20 lack novelty under PCT Article 33(2) as being anticipated by US 2012/0174039 A1 to Rhoads et al. (hereinafter 'Rhoads').

As per claim 1, Rhoads discloses a method of providing content for an Intelligent television (TV) (content provided to HDTV (intelligent television) or 3D display TV, paragraph [0053]), comprising: loading an internal content provider module responsive to a user action or a scheduled event on the Intelligent TV (provide program guides (scheduled events) on HDTV of a user, paragraphs [0053], [0075] and [0076]); communicating and receiving data relevant to the requested content from a corresponding subservice or a content provider module of the Intelligent TV (receiving content according to user request, paragraph [0036] and [0076]); organizing the received data as the content according to a pre-defined format (organize programs on a TV screen according to a media format such as a VOD format, figures 1 and 2 and paragraphs [0027]-[0030]); and providing the content to video hardware or display of the Intelligent TV or to a content provider module or application of the Intelligent TV (providing and displaying media content to a TV, paragraphs [0046], [0063], [0074] and [0079]).

As per claim 12, Rhoads discloses a data service system in an Intelligent Television (TV) (content provided by a server to HDTV (intelligent television) or 3D display TV, paragraphs [0053] and [0064]), comprising: an internal content provider module configured to provide content to video hardware or display of the in Intelligent TV or to a content provider module or application of the Intelligent TV (providing and displaying media content to a TV, paragraphs [0046], [0063], [0074] and [0079]); and a subservice configured to provide the internet content provider module with requested data for a pre-defined data model (a client-server internet connection with request from the user for a format like video on-demand content, paragraphs [0064] and [0067]), wherein the internal content provider module is loaded on the Intelligent TV responsive to a user action or a schedule event on the Intelligent TV (provide program guides (scheduled events) on HDTV of a user, paragraphs [0053], [0075] and [0076]), and wherein the internal content provider module organizes the received data from the subservice as the content according to a pre-defined format (organize programs on a TV screen according to a media format such as a VOD format, figures 1 and 2 and paragraphs [0027]-[0030]).

As per claim 19, Rhoads discloses an Intelligent Television (TV) comprising a data service system (content provided by a server to HDTV (intelligent television) or 3D display TV, paragraphs [0053] and [0064]), the data service system comprising: an internal content provider module configured to provide content to video hardware or display of the in Intelligent TV or to a content provider module or application of the Intelligent TV (providing and displaying media content to a TV, paragraphs [0046], [0063], [0074] and [0079]); and a subservice configured to provide the internet content provider module with requested data for a pre-defined data model (a client-server internet connection with request from the user for a format like video on-demand content, paragraphs [0064] and [0067]), wherein the internal content provider module is loaded on the Intelligent TV responsive to a user action or a schedule event on the Intelligent TV (provide program guides (scheduled events) on HDTV of a user, paragraphs [0053], [0075] and [0076]), and wherein the internal content provider module organizes the received data from the subservice as the content according to a pre-defined format (organize programs on a TV screen according to a media format such as a VOD format, figures 1 and 2 and paragraphs [0027]-[0030]).

As per claim 2, Rhoads further discloses wherein the pre-defined format comprises one of a VOD data model, an EPG data model, and a media data model (a video-on-demand (VOD) system, paragraph [0025]).

As per claim 3, Rhoads further discloses wherein the subservice comprises one of a VOD subservice, an EPG subservice, and a media subservice (a video-on-demand (VOD) system, paragraph [0025]).

As per claims 4, 13 and 20, Rhoads further discloses wherein the internal content provider module comprises an EPG data provider, a media data provider, a media browser, a media scanner, or a thumbnail engine (media provider, figure 2 and paragraphs [0028], [0030] and [0074]).

As per claims 5 and 14, Rhoads further discloses wherein the EPG data provider is configured to serve one or more applications of the Intelligent TV with EPG information in a read-only format (a program guide (format) that stored in read-only memory, paragraphs [0051], [0077] and [0078]).

As per claims 6 and 15, Rhoads further discloses wherein the media data provider is configured to provide media metadata personalized for a user (a metadata source for providing metadata to the user, paragraph [0139]).

-***-Continued Within the Next Supplemental Box-***-

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55383

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

Claims 13 and 20 are objected to under PCT Rule 66.2(a)(iii) as containing the following defect(s) in the form or contents thereof:
Claims 13 and 20, line 3, the phrase "and or" should read "and/or".

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55383

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fu lly supported by the description, are made:

Claims 1, 12 and 19 are objected to under PCT Rule 66.2(a)(v) as lacking clarity under PCT Article 6 because claims 1, 12 and 19 are indefinite for the following reason(s):
Claim 1, line 5, the phrase "the requested content" lacks antecedent basis.
Claim 12, line 9, the phrase "the received data" lacks antecedent basis.
Claim 19, line 10, the phrase "the received data" lacks antecedent basis.

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55383

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:
-***-Continued from Box V: Citations and Explanations-***-

As per claims 8 and 16, Rhoads further discloses wherein the media browser is configured to provide a real-time view of media sources of the Intelligent TV (content displayed on a TV can be a live performance or live video, paragraphs [0025] and [0046]) and maintain a list of connected media sources of the Intelligent TV (media content listings displayed on a TV, paragraphs [0043] and [0046]).

As per claims 10 and 17, wherein the media scanner is configured to populate a media table using data retrieved by the media browser and rescan for new media periodically (a media navigator (scanner) from a list of media identifiers to transmit a query with the selected media identifier to retrieve additional media listings and/or media assets for presentation to the user and downloading media listings on a periodic basis, paragraphs [0055], [0056], [0064] and [0088]).

As per claims 11 and 18, Rhoads further discloses wherein the thumbnail engine is configured to provide thumbnails for media, applications, or other contents (small images displayed as a last row of the screen associated with media applications, figures 1 and 2 and paragraph [0028]).

Claim 7 lacks an inventive step under PCT Article 33(3) as being obvious over Rhoads in view of WO 2012/068438 A1 (Calvert).

As per claim 7, Rhoads does not teach wherein the media data provider is further configured to store the media metadata in a sqlite database. However, Calvert teaches wherein the media data provider is further configured to store the media metadata in a sqlite database (storing content metadata in a sqlite database, page 8, lines 30-31 and page 10, lines 10-14). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to improve Rhoads's system to include the media data provider is further configured to store the media metadata in a sqlite database, as taught by Calvert, to store the metadata in a specific database to protect an integrity of the metadata. .

Claim 9 lacks an inventive step under PCT Article 33(3) as being obvious over Rhoads in view of US 2002/0152267 A1 (Lennon).

As per claim 9, Rhoads does not teach wherein the media browser maintains a non-permanent storage. However, Lennon teaches the media browser maintains a non-permanent storage (media browser 101 determines whether the specified description is available (maintain) in the description cache (temporary storage), paragraph [0181]).Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to improve Rhoads's system to include the media browser maintains a non-permanent storage, as taught by Lennon, to provide a temporary storage in order to manage types of stored content.

Claims 1-20 have industrial applicability as defined by PCT Article 33(4) because the subject matter can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: JASON H. VICK
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference 6583-491-PCT	Date of mailing *(day/month/year)* 11 MAR 2014 **FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. PCT/US2013/055344	International filing date *(day/month/year)* 16 August 2013
Applicant FLEXTRONICS AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-491-PCT	**FOR FURTHER ACTION**	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US2013/055344	International filing date *(day/month/year)* 16 August 2013	(Earliest) Priority Date *(day/month/year)* 17 August 2012
Applicant FLEXTRONICS AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 14

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/055344

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H04N 5/445 (2014.01)
USPC - 348/564
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) - G06F3/048, G06F17/30, H04N5/00, H04N 5/445 (2014.01)
USPC - 348/564, 348/E5.105, 715/762, 725/39, 725/40, 725/41, 725/43, 725/44

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
CPC - G06F3/0482, H04N21/4312, H04N21/4622, H04N21/4782 (2013.01)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
PatBase, Google Patents, Google, Dow Jones Factiva

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X ---- Y	US 2012/0147270 A1 (KIM et al) 14 June 2012 (14.06.2012) entire document	1, 6-10, 11, 16-20 ---------- 2-5, 12-15
Y	US 2004/0119815 A1 (SOLOFF) 24 June 2004 (24.06.2004) entire document	2-5, 12-15

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
16 February 2014	11 MAR 2014
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: JASON H. VICK
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	11 MAR 2014
Applicant's or agent's file reference 6583-491-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US2013/055344	16 August 2013	17 August 2012

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H04N 5/445 (2014.01)
USPC - 348/564

Applicant FLEXTRONICS AP, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	16 February 2014	Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No. PCT/US2013/055344

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

      ☐ on paper

      ☐ in electronic form

   b. (time)

      ☐ in the international application as filed

      ☐ together with the international application in electronic form

      ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055344

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	2-5, 9, 12-15, 19	YES
	Claims	1, 6-8, 10, 11, 16-18, and 20	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	None	NO

2. Citations and explanations:

Claims 1, 6-8, 10, 11, 16-18, and 20 lack novelty under PCT Article 33(2) as being anticipated by Kim et al. (hereinafter Kim).

Regarding claim 1 Kim discloses a method of managing an application panel on an intelligent TV (abstract) comprising:
detecting a request to invoke the application panel (para. [0123], [0125], "Upon receipt of a return-to-home screen input, the controller 670 may control display of the home screen on the display 680...The home screen may further include an application menu including at least one application that can be executed.");
detecting one or more of displayed content on the intelligent TV and context information (para. [0123], "The home screen may include a plurality of card objects classified according to content sources.");
determining information to display in the application panel based on the one or more of displayed content on the intelligent TV and the context information (para. [0127], "When a card object is selected from among the card objects on the home screen, the controller 670 may control display of an image corresponding to the selected card object on the display 680.");
and displaying the application panel on a display of the intelligent TV including the determined information (para. [0132], "If an application view menu item is selected, the controller 670 may control display of applications or a list of applications that are present in the image display").

Regarding claim 11, Kim discloses a system to manage an application panel on an intelligent TV (abstract) comprising:
a processor adapted to detect a request to invoke the application panel (para. [0044], "application data processor 104);
a panel controller adapted to detect one or more of displayed content on the intelligent TV and context information (para. [0202]. "Through the application layer 1150, the user may navigate a desired menu by manipulating the remote controller while viewing a broadcast program.");
a silo application adapted to determine information to display in the application panel based on the one or more of displayed content on the intelligent TV and the context information (para. [0245], "The application list 1510 may include an icon representing each application and a brief description of the application.");
and a display controller adapted to display the application panel on a display of the intelligent TV including the determined information (para. [0132] If an application view menu item is selected, the controller 670 may control display of applications or a list of applications that are present in the image display device 600.").

Regarding claim 20. Kim discloses a system that manages an application panel on an intelligent TV (abstract) comprising:
means for detecting a request to invoke the application panel (para. [0123], [0125], "Upon receipt of a return-to-home screen input, the controller 670 may control display of the home screen on the display 680...The home screen may further include an application menu including at least one application that can be executed.");
means for detecting one or more of displayed content on the intelligent TV and context information (para. [0123], "The home screen may include a plurality of card objects classified according to content sources.");
means for determining information to display in the application panel based on the one or more of displayed content on the intelligent TV and the context information (para. [0127], "When a card object is selected from among the card objects on the home screen, the controller 670 may control display of an image corresponding to the selected card object on the display 680.");
and means for displaying the application panel on a display of the intelligent TV including the determined information (para. [0132], "If an application view menu item is selected, the controller 670 may control display of applications or a list of applications that are present in the image display").

Regarding claims 6, 16. Kim discloses further comprising determining and providing one or more sub-categories of information in the application panel (para. [0123], "The home screen may include a plurality of card objects classified according to content sources. The card objects may include at least one of a card object representing a thumbnail list of broadcast channels, a card object representing a broadcast program guide, a card object representing a program reservation list or a program recording list, or a card object representing a media list of a device connected to the image display device.").

Continued.

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055344

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding claims 7, 17, Kim discloses further comprising determining and providing one or more sub-categories of selectable information in the application panel (para. [0125] "The home screen may further include an application menu including at least one application that can be executed. Accordingly, the game application according to the one embodiment may be designed in a format selectable through the application menu of the above-described home screen.").

Regarding claims 8 and 18, Kim discloses wherein the application panel includes executable portions (para. [0125], "The home screen may further include an application menu including at least one application that can be executed.").

Regarding claim 10. Kim discloses a non-transitory computer readable information storage media having stored thereon instructions, that when executed by one or more processors, cause to be performed the method steps in claim 1 (para. [0217], "The platforms of FIGS. 11 and 12 may be stored or loaded in the memory 640, the controller 670, or any other processor (not shown)...To execute applications, an additional application processor (not shown) may be further provided.").

Claims 9 and 19 lack an inventive step under PCT Article 33(3) as being obvious over Kim et al. (hereinafter Kim).

Regarding claims 9 and 19, Kim teaches wherein the application panel includes an information portion (para. [0128] "The controller 670 may control display of an input broadcast image and an object representing information about the broadcast image in a card object representing broadcast images"), a new portion, a recommended portion, a genre portion, an electronic program guide (para. [0203], "The application layer...may further include at least one of a TV guide application"), a category portion [para. 0268], "Fig. 21 to Fig. 23 respectively illustrate process steps for categorizing downloaded applications and displaying the categorized applications in the network TV..."), a favorites portion (para. [0302], "a Favorite Applications group") and a search portion (para. [0211] Using the applications of the application layer 1155, a variety of functions such as an ...application search service may be performed through network access.").
Kim does not explicitly teach wherein the application panel includes a new portion, a recommended portion, or a genre portion.
At the time of the invention, it would have obvious to one of ordinary skill in the art to include a new portion, a recommended portion, and a genre portion as they are examples of other categories already taught by Kim such as "applications related to Games, applications related to News, applications related to Sports, applications related to Health, applications related to Convenient Lifestyles, and so on," (para. [0292]). The motivation would have been to include selections for the user based on interest.

Claims 2-5 and 12-15 lack an inventive step under PCT Article 33(3) as being obvious over Kim et al. (hereinafter Kim) in view of Soloff.

Regarding claims 2 and 12, Kim teaches wherein an image hovers above a background and is partially transparent (Fig. 23, para. [0271], "in order to ensure the user's visibility, the network TV may be designed so that one of the image data 2311 and the unique number 2312 can be semi-transparent.").
Kim does not explicitly teach that the image is the application panel.
Soloff, also in the field of interactive television, teaches an application panel hovering above background content and is partially transparent (Fig. 7, para. [0045], "The maximum screen image 130, represents the screen with the transparent bar across the top, with icons and user instructions.").
At the time of the invention, it would have obvious to one of ordinary skill in the art to extent the image transparency taught by Kim to the entire application panel as taught by Soloff to provide an informative, instructive, manageable and interactive user interface (Soloff, para. [0010]).

Regarding claim 3. Kim does not explicitly teach continuing to display active background content.
Soloff teaches continuing to display active background content (paras. [0032]-[0038], "a textual description of what image the current camera is showing.").
At the time of the invention, it would have obvious to one of ordinary skill in the art to continue to display active background content as taught by Soloff in the invention taught by Kim in order to "allow the user to seamlessly navigate between" the various menu options (Soloff, para. [0045]).

Regarding claim 13. Kim does not explicitly teach wherein active background content is displayed.
Soloff teaches wherein active background content is displayed (paras. [0032]-[0038], "a textual description of what image the current camera is showing.").
At the time of the invention, it would have obvious to one of ordinary skill in the art to display active background content as taught by Soloff in the invention taught by Kim in order to "allow the user to seamlessly navigate between" the various menu options (Soloff, para. [0045]).

Regarding claims 4 and 14, Kim does not explicitly teach wherein the background content is Live TV, on demand content, media center content, applications or content from other inputs.
Soloff teaches wherein the background content is Live TV, on demand content, media center content, applications or content from other inputs (paras. [0033-0034], "broadcast").
At the time of the invention, it would have obvious to one of ordinary skill in the art to use Live TV, on demand content, media center content, applications or content from other inputs as the background content as taught by Soloff with the invention taught by Kim to provide an informative, instructive, manageable and interactive user interface (Soloff, para. [0010]).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055344

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding claims 5 and 15, Kim does not explicitly teach wherein the application panel is dynamically updated based on the background content.
Soloff teaches wherein the application panel is dynamically updated based on the background content (paras. [0040]-[0042], "One piece of information that will always be present in the menu is the Camera Placement screen 110, shown in FIG. 3, which allows the subscriber to know where the various cameras are situated within the venue.").
At the time of the invention, it would have obvious to one of ordinary skill in the art to dynamically update the application panel based on the background content as taught by Soloff in the invention taught by Kim to allow the user to access the information that was bundled along with the video information (Soloff, para. [0040]).

Claims 1-20 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: JASON H. VICK
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Date of mailing *(day/month/year)*	06 DEC 2013
Applicant's or agent's file reference 6583-492-PCT	**FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. PCT/US2013/055345	International filing date *(day/month/year)* 16 August 2013
Applicant FLEXTRONICS AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-492-PCT	**FOR FURTHER ACTION**	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US2013/055345	International filing date *(day/month/year)* 16 August 2013	(Earliest) Priority Date *(day/month/year)* 17 August 2012
Applicant FLEXTRONICS AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 8 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 5

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

PCT/US2013/055345 06.12.2013

International application No.
PCT/US2013/055345

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H04N 5/00 (2013.01)
USPC - 725/38
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) - H04N 5/00, 5/445, 7/173 (2013.01)
USPC -725/37, 38, 39, 60, 61

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
CPC - H04N 5/00, 5/445, 7/173 (2013.01)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Orbit, Google Patents, Google Scholar

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2009/0210910 A1 (SMITH et al) 20 August 2009 (20.08.2009) entire document	1-20
Y	EP 1 865 723 A1 (MARTIN et al) 12 December 2007 (12.12.2007) entire document	1-20
A	US 2012/0069131 A1 (ABELOW) 22 March 2012 (22.03.3012) entire document	1-20
A	US 2007/0096939 A1 (WALRATH) 03 May 2007 (03.05.2007) entire document	1-20
A	WO 02/080552 A2 (VAN EE) 10 October 2002 (10.10.2002) entire document	1-20

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
12 November 2013	06 DEC 2013
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: JASON H. VICK
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	06 DEC 2013
Applicant's or agent's file reference 6583-492-PCT	FOR FURTHER ACTION See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US2013/055345	16 August 2013	17 August 2012

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H04N 5/00 (2013.01)
USPC - 725/38

Applicant FLEXTRONICS AP, LLC

1. This opinion contains indications relating to the following items:

- [X] Box No. I Basis of the opinion
- [ ] Box No. II Priority
- [ ] Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- [ ] Box No. IV Lack of unity of invention
- [X] Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- [ ] Box No. VI Certain documents cited
- [ ] Box No. VII Certain defects in the international application
- [ ] Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	12 November 2013	Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055345

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

   ☐ on paper

   ☐ in electronic form

   b. (time)

   ☐ in the international application as filed

   ☐ together with the international application in electronic form

   ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055345

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	1-20	YES
	Claims	None	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	None	NO

2. Citations and explanations:

Claims 1-20 lack an inventive step under PCT Article 33(3) as being obvious over Smith et al., hereinafter referred to as Smith and in view of Martin et al., hereinafter referred to as Martin.

Regarding claims 1, 11 and 20, Smith discloses a method of managing one or more silo on an intelligent TV [claim 1], a system to manage one or more silo on an intelligent TV [claims 11, 20] (high density interactive media guide interface for selection of a source [intelligent TV] from a dense array of available sources, abstract), comprising:
a processor adapted to detect a request to access a silo, the silo representing an application resident on either the intelligent TV or remotely (Grid Guide interface 200, para 0022, see fig. 2; user selects a particular cell 240 [request for the programme chosen], para 0024, see fig, 2);
a silo manager adapted to detect whether another silo is already active on the intelligent TV (top row icons 310 represent different types of programming guides, featured services, and PVR functions, recorded items list, web browser, music wherein the functions will change according to the current active mode and current focus item [detecting what is active on TV], fig. 3, para 0030);
a silo transition controller adapted to transition, using a sliding effect, to displaying the silo (upon left-click on another mode icon, transition to that mode, para 0035, see fig. 3; scrolling horizontally [sliding effect] channel column 105 remains fixed and the time slot header 108 and displayed elements 110 scroll horizontally, para 0020, see fig. 1).
Smith lacks the teaching of a user interface application adapted to enable content associated with the silo and display the silo on a display of the intelligent TV.
Martin is in the field of video-on-demand system (abstract, title) and teaches switching from one silo to another (select the electronic programme guide 44 or linear live TV stream 42, para 0068-0070, see fig. 4), user interface application adapted to enable content associated with the silo and display the silo on a display (once user selects the particular category of video-on-demand 46 in display page 40, using user interface 18 user scrolls programmes 62 and the selected video data of the video-on-demand programme is streamed, para 0075-0079, see fig. 5, 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Martin to incorporate silo features in the invention of Smith for the purpose of selecting a video-on-demand when a limited amount of linear live TV is available (Martin, para 0070).

Regarding claims 2 and 12, Smith lacks the teaching wherein the silo corresponds to Live TV, on demand content, media center content, applications or content from other inputs. Martin teaches wherein the silo corresponds to Live TV, on demand content (select the electronic programme guide 44 or linear live TV stream 42, para 0068-0070, see fig. 4). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Martin to incorporate silo features in the invention of Smith for the purpose of selecting a video-on-demand when a limited amount of linear live TV is available (Martin, para 0070).

Regarding claims 3 and 13, Smith teaches wherein available silo are displayed in a strip or grid (Grid Guide Interface 200, para 0022, see fig. 2).

Regarding claims 4 and 14, Smith teaches shrinking another silo into the strip or the grid and expanding a selected silo from the strip or the grid to full screen (use selected cell 240 causes it to expand [as scroll to next, that expands shrinking the previous selection], para 0024, see fig. 2).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055345

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.
Continuation of:

Regarding claims 5 and 15, Smith teaches maintaining an order of a plurality of silo displayed in a strip or a grid (the horizontal scrolling occurs for channel column with elements displayed for different time slots, para 0020, see fig. 1 [in a time order as Zena princess warrior in the 8:00-9:00PM slot and World news in 9:00-10:00Pm slot]).

Regarding claims 6 and 16, Smith teaches a notification panel that provides an indication of a selected silo (when a row is invoked, the currently selected/viewed mode is highlighted/pulsing 340 and displayed 350, para 0033, see fig. 3).

Regarding claims 7 and 17, Smith teaches displaying a placeholder image during the transitioning (individual entries in column 105 acts as visual tags or placeholders representing channels or sources, para 0015).

Regarding claims 8 and 18, Smith teaches enabling dynamic content within a displayed silo(as user moves back and forth between various mode icons 310, highlight and enlarge and possibly exhibit dynamic animated behaviors, para 0034).

Regarding claims 9 and 19, Smith lacks the teaching wherein the silo displays selectable content and the silo includes one or more subcategories of information.
Martin teaches wherein the silo displays selectable content (select the electronic programme guide 44 or linear live TV stream 42, para 0068-0070, see fig. 4), silo includes one or more subcategories of information (once user selects the particular category of video-on-demand 46 [subcategories in EPG 44 like TV series 46, game zone 48] in display page 40, using user interface 18 user scrolls programmes 62 and the selected video data of the video-on-demand programme is streamed, para 0075-0079, see fig. 5, 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Martin to incorporate silo features in the invention of Smith for the purpose of selecting a video-on-demand when a limited amount of linear live TV is available (Martin, para 0070).

Regarding claim 10, Smith teaches a non-transitory computer readable information storage media having stored thereon instructions, that when executed by one or more processors, cause to be performed the method steps in claim 1 (the Interactive Overview Visualization Model display interface for use with a computer, para 0086).

Claims 1-20 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: Jason H. Vick
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, Colorado 80202
United States of America

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Date of mailing *(day/month/year)*	08 NOV 2013
Applicant's or agent's file reference: 6583-493-PCT	**FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No.: PCT/US13/55371	International filing date *(day/month/year)*: 16 August 2013 (16.08.2013)
Applicant: Flextronics AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

Filing of amendments and statement under Article 19:
The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Shane Thomas PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-493-PCT	**FOR FURTHER ACTION**	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US13/55371	International filing date *(day/month/year)* 16 August 2013 (16.08.2013)	(Earliest) Priority Date *(day/month/year)* 17 August 2012 (17.08.2012)
Applicant Flextronics AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 53

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

Form PCT/ISA/210 (first sheet) (July 2009)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US13/55371

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - G06F 3/00, 13/00; H04N 5/445, 7/14 (2013.01)
USPC - 725/037, 39; 348/14.07
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8):G06T 15/00; G06F 3/00, 13/00; H04N 5/445, 7/14 (2013.01); USPC: 345/419; 725/037, 39; 348/14.03, 14.07

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
MicroPatent (US-G, US-A, EP-A, EP-B, WO, JP-bib, DE-C,B, DE-A, DE-T, DE-U, GB-A, FR-A); DialogPro (Derwent, INSPEC, NTIS, PASCAL, Current Contents Search, Dissertation Abstracts Online, Inside Conferences); IP.com; Google Scholar; intelligent, tv, television, smart, panel, display, detect, location, transparent, opaque, overlay, background, menu, guide

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,539,479 A (BERTRAM, R et al.) July 23, 1996, column 2, lines 38-40, column 33, lines 28-33, column 37, lines 52-66, column 38, lines 45-49, column 37, line 66 through column 38, line 2	1-20
A	US 6,661,468 B2 (ALTEN, J et al.) December 9, 2003, entire document	1, 11, 20

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
23 October 2013 (23.10.2013)	08 NOV 2013
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: Jason H. Vick
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, Colorado 80202
United States of America

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	08 NOV 2013
Applicant's or agent's file reference 6583-493-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US13/55371	16 August 2013 (16.08.2013)	17 August 2012 (17.08.2012)

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - G06F 3/00, 13/00; H04N 5/445, 7/14 (2013.01)
USPC - 725/037, 39; 348/14.07

Applicant Flextronics AP, LLC

1. This opinion contains indications relating to the following items:

- [X] Box No. I Basis of the opinion
- [ ] Box No. II Priority
- [ ] Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- [ ] Box No. IV Lack of unity of invention
- [X] Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- [ ] Box No. VI Certain documents cited
- [ ] Box No. VII Certain defects in the international application
- [ ] Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 *bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	23 October 2013 (23.10.2013)	Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55371

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

a. (means)

☐ on paper

☐ in electronic form

b. (time)

☐ in the international application as filed

☐ together with the international application in electronic form

☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55371

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	NONE	YES
	Claims	1-20	NO
Inventive step (IS)	Claims	NONE	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	NONE	NO

2. Citations and explanations:

Claims 1-20 lack novelty under PCT Article 33(2) as being anticipated by US 5,539,479 A Bertram.

As to claims 1, 11 and 20, Bertram discloses a method of managing a panel on an intelligent TV comprising (a system of menus (panels) which interact with the cursor (managing a panel/menu) on television receivers may be incorporated directly into which are here called intelligent television receivers, column 2, lines 38-40 and column 33, lines 28-33): detecting a location of the panel and one or more of: displayed content on the intelligent TV and context information (each menu level in the user interface is represented by a graphic and text display (display content) similar to a paper index card drawn on the screen. The title of the Card is "Menu 1" and the selectable items are "Weather" Selection A and "Sports" Selection B (context information), figures 11 and 12, column 37, lines 52-66); determining information to display in the panel based at least on the location of the panel (a paper index card (information displayed) drawn on the screen (location on a panel). The title of the Card is "Menu 1" and the selectable items are "Weather" Selection A, figures 11 and 12, column 37, lines 52-66); and displaying the panel on a display of the intelligent TV including the determined information (If "Weather" is selected, it creates Card2, since this is the action in the "Selection A" line. Card2 is a flow card which immediately displays Card3 since the condition "1=-1" is true, column 37, line 66 through column 38, line 2).

As to claims 2 and 12, Bertram discloses the method of claims 1 and 11, wherein the panel hovers above background content and is partially transparent (a user may cause a first level of menu to appear in overlay over the video stream (the panel hovers above background content) and where the comparator may also be used to provide a pixel plane effect, to give transparent colors (partially transparent), column 37, lines 61-62 and column 19, lines 43-46).

As to claims 3 and 13, Bertram discloses the method of claims 2 and 12, further comprising continuing to display active background content (a first level of menu (panel) to appear in overlay over (hovers above) the video stream image (active background content), column 37, lines 61-62).

As to claims 4 and 14, Bertram discloses the method of claims 2 and 12, wherein the background content is Live TV, on demand content, media center content, applications or content from other inputs (From the display of a full motion video image as received from a video/audio stream source such as broadcast television (live tv), a user may cause a first level of menu to appear in overlay over the video stream image, column 37, lines 58-60).

As to claims 5 and 15, Bertram discloses the method of claim 4, wherein the panel is dynamically updated based on the location and background content (the user may manipulate the cursor or pointer 135 (FIGS. 13 through 18) to be positioned over an indicated item, such as item 1 for "Weather", and again actuate the selection feature of the remote control 20. Thereupon the user interface will respond by creating the next level, Level 2, column 38, lines 2-7).

As to claims 6 and 16, Bertram discloses the method of claims 1 and 11, further comprising determining and providing one or more sub-categories of information in the panel (The application begins by displaying Card1. The title of the Card is "Menu 1" and the selectable items are "Weather" (Selection A) and "Sports" (Selection B). If "Weather" is selected, it creates Card2, since this is the action in the "Selection A" line. Card2 is a flow card which immediately displays Card3 since the condition "1=-1" is true, column 37, line 52 through column 38, line 2).

As to claims 7 and 17, Bertram discloses the method of claims 1 and 11, further comprising determining and providing one or more sub-categories of selectable information in the panel (The application begins by displaying Card1. The title of the Card is "Menu 1" and the selectable items are "Weather" (Selection A) and "Sports" (Selection B). If "Weather" is selected, it creates Card2, since this is the action in the "Selection A" line. Card2 is a flow card which immediately displays Card3 since the condition "1=-1" is true, column 37, line 52 through column 38, line 2).

As to claims 8 and 18, Bertram discloses the method of claims 1 and 11, wherein the panel includes executable portions (The title of the Card is "Menu 1" and the selectable (executable portions) items are "Weather" (Selection A) and "Sports" (Selection B), column 37, lines 64-66).

-***-Continued Within the Next Supplemental Box-***-

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55371

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:
-***-Continued from Previous Supplemental Box-***-

As to claims 9 and 19, Bertram discloses the method of claims 1 and 11, wherein the location of the panel is top, bottom, left side or right side (the human observer to move a cursor image to a menu item, select for displacement a menu item overlain by the cursor image, and move a selected menu item across the visual image (the panel can be moved to any location) displayed by the visual display device, column 40, lines 52-57).

As to claim 10, Bertram discloses a non-transitory computer readable information storage media having stored thereon instructions, that when executed by one or more processors, cause to be performed the method steps in claims 1 and 11 (the video processor 39, a video recording/ playback device 40 data storage device such as a disk drive for magnetic or optical disks, a tape backup drive, or the like. In the illustrated form, an upper bay 92 is adapted to receive peripheral drives of a first size (such as those known as 3.5 inch drives). A floppy disk drive, a removable media direct access storage device capable of receiving a diskette inserted there into and using the diskette to receive, store and deliver data, column 7, lines 50-51 and column 34, lines 1-8).

Claims 1-20 have industrial applicability as defined by PCT Article 33(4) because the subject matter can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: Yiu F. Au
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, Colorado 80202
United States of America

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference 6583-494-PCT	Date of mailing *(day/month/year)* 10 MAR 2014 **FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. PCT/US13/55389	International filing date *(day/month/year)* 16 August 2013 (16.08.2013)
Applicant Flextronics AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Shane Thomas PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-494-PCT	**FOR FURTHER ACTION**	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US13/55389	International filing date *(day/month/year)* 16 August 2013 (16.08.2013)	(Earliest) Priority Date *(day/month/year)* 17 August 2012 (17.08.2012)
Applicant Flextronics AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

   a. With regard to the **language**, the international search was carried out on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

   b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

   c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

   ☒ the text is approved as submitted by the applicant.

   ☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

   ☒ the text is approved as submitted by the applicant.

   ☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

   a. the figure of the **drawings** to be published with the abstract is Figure No. 14

   ☒ as suggested by the applicant.

   ☐ as selected by this Authority, because the applicant failed to suggest a figure.

   ☐ as selected by this Authority, because this figure better characterizes the invention.

   b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT PCT/US2013/055389 10.03.2014

International application No.
PCT/US13/55389

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H04N 21/2343 (2014.01)
USPC - 348/E5.002; 725/37
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) Classification(s): H04N 21/2343, 21/436, 19/00 (2014.01)
USPC Classification(s): 348/E5.002, E5.096, 552; 725/37

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
MicroPatent (US-G, US-A, EP-A, EP-B, WO, JP-bib, DE-C,B, DE-A, DE-T, DE-U, GB-A, FR-A); ProQuest; IEEE; Google/Google Scholar

Keywords: Video on Demand, Intelligent TV, Set top box, Convert, Content Provider, Plug In

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X -- Y	US 2012/0086857 A1 (KIM, S. et al.), 12 April 2012; paragraphs [0065], [0066], [0083], [0097], [0110], [0175], [0176]	1-3, 5-6, 8-9, 12-18 --- 4, 7, 10-11, 19-20
Y	US 2012/0176546 A1 (YOON, J.), 12 July 2012; paragraphs [0339], [0341]	4
Y	WO 99/35849 A1 (WUGOFSKI, T.) 15 July 1999; page 8, lines 23-29	7
Y	US 2011/0125755 A1 (KAILA, A. et al.), 26 May 2011; paragraphs [0015], [0026], [0047], [0059]	10-11, 19-20
Y	US 2006/0064716 A1 (SULL, S. et al.), 23 March 2006; claims 1, 7, paragraph [0245]	10-11, 19-20

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
03 February 2014 (03.02.2014)	10 MAR 2014
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: Yiu F. Au
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, Colorado 80202
United States of America

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	10 MAR 2014
Applicant's or agent's file reference 6583-494-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US13/55389	16 August 2013 (16.08.2013)	17 August 2012 (17.08.2012)

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H04N 21/2343 (2014.01)
USPC - 348/E5.002; 725/37

Applicant Flextronics AP, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 *bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	03 February 2014 (03.02.2014)	Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55389

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

      ☐ on paper

      ☐ in electronic form

   b. (time)

      ☐ in the international application as filed

      ☐ together with the international application in electronic form

      ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55389

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	4, 7, 10-11, 19-20	YES
	Claims	1-3, 5-6, 8-9, 12-18	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	None	NO

2. Citations and explanations:

Claims 1-3, 5-6, 8-9, and 12-18 lack novelty under PCT Article 33(2) as being anticipated by US 2012/0086857 A1 Kim et al. (hereinafter "Kim").

As to claim 1, Kim discloses a method of processing data from an external content provider for an intelligent television (TV), comprising: loading, on the Intelligent TV, a source plugin configured for processing the data from the external content provider (the service control manager/delivery manager on the smart TV (source plugin loaded on the Intelligent TV) takes control of received data from a content provider (from the external content provider), and feeds the data back to the server (configured for processing the data), paragraph [0066]); communicating and receiving, through the source plugin, the data from the external content provider (the service control manager/delivery manager (the source plug in) controls the received service data from a content provider (communicating and receiving the data from the external content provider), paragraphs [0065], [0066]); converting the received data from the external content provider into a data model format (the demodulation module performs demodulation and channel decoding of the received digital signal from a content provider (converting the received data from the external content provider) and outputs a video signal, an audio signal, and a data signal (into a data model format), paragraphs [0083], [0086]); processing the converted data by a subservice corresponding to the source plugin and the data model format (the video decoder receives video on demand data from the service control/delivery manager (a subservice corresponding to the source plugin and the data model format) decodes the multiplex video signal and performs scaling to output resolution (processing the converted data), paragraphs [0175], [0176]); and communicating with and providing the converted data to an internal content provider module configured to provide the converted data as content to the Intelligent TV (the video decoders performs the scaling of the data resolution (communicating with and providing the converted data) through the display module (to an internal content provider module) to be displayed as an image on the smart TV (configured to provide the converted data as content to the intelligent TV), paragraphs [0110], [0176]).

As to claim 12, Kim discloses a data service system in an intelligent television (TV), comprising: a source plugin, the source plugin configured to communicate with and receive data from an external content provider (the service control manager/delivery manager (a source plug in) controls the received service data from a content provider (communicating and receiving the data from the external content provider), paragraphs [0065], [0066]); and processing the received data into a data model format (the demodulation module performs demodulation and channel decoding of the received digital signal (processing the received data) and outputs a video signal, an audio signal, and a data signal (into a data model format), paragraphs [0083], [0086]); and a subservice corresponding to the source plugin, the subservice configured to communicate with and provide the converted data to an internal content provider module configured to provide the converted data as content to the Intelligent TV (the video decoder receives video on demand data from the service control/delivery manager (the subservice corresponding to the source plugin) decodes the multiplex video signal and performs scaling to output resolution through the display module (configured to communicate with and provide the converted data to an internal content provider module),to be displayed as an image on the smart TV (configured to provide the converted data as content to the intelligent TV), paragraphs [0110], [0175], [0176]).

As to claims 2, 13 and 15, Kim discloses the method of processing data of claim 1 and the data service system of claim 12. Kim further discloses a wherein the source plugin comprises one of a video-on-demand (VOD) source plugin, an electronic programming guide (EPG) source plugin, and a media source plugin (the service control/delivery manager provides video-on-demand (VOD) (wherein the source plugin comprises video-on-demand (VOD)), paragraph [0075]), wherein the data model format comprises one or a VOD data model, an EPG data model, and a media data model (the system receives data contents including VOD (wherein the data model format comprises VOD (paragraph [0097]), and wherein the subservice comprises one of a VOD subservice, an EPG subservice, and a media subservice (the video decoder decodes the multiplex video signal and performs scaling to output resolution (wherein the subservice) for VOD (comprises a VOD subservice), paragraphs [0097], [0175], [0176]).

As to claims 3 and 14, Kim discloses the method of processing data of claim 1 and the data service system of claim 12. Kim further discloses a method further comprising storing the received data or the converted data into a database by the source plugin or the subservice (the decoder (the subservice) makes a database for the service information and stores the database (storing the received data into a database), paragraph [0069]).

As to claims 5 and 16, Kim discloses the method of processing data of claim 1 and the data service system of claim 12. Kim further discloses a method of processing data wherein the source plugin is configured to work with an interface defined by the corresponding subservice (service/control delivery manager selects and controls (wherein the source plugin is configured to work) the VOD service using IGMP or RTSP interface (with an interface defined by the corresponding subservice), paragraph [0075]).

-***-Continued Within the Next Supplemental Box-***-

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55389

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

Claims 13 and 15 are objected to under PCT Rule 66.2(a)(iii) as containing the following defect(s) in the form or contents thereof:

Claim 13, line 3, recites "comprises one or a"; however, this appears to be a typographical error. For purposes of this opinion, the limitation is interpreted to recite "comprises one of a".

Claim 15 comprises the same limitations and has the same dependency as claim 13.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55389

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fu lly supported by the description, are made:

Claim 4 is objected to under PCT Rule 66.2(a)(v) as lacking clarity under PCT Article 6 because Claim 4 is indefinite for the following reason:

Claim 4 recites the limitation "the database" in line 1. There is insufficient antecedent basis for this limitation in the claim. However, claim 3 recites "a database", and thus for purposes of this opinion, claim 4 is interpreted to depend upon the method of processing data of claim 3.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55389

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

-***-Continued from Box V: Citations and Explanations-***-

As to claims 6 and 17, Kim discloses the method of processing data of claim 1 and the data service system of claim 12. Kim further discloses a method wherein the source plugin is configured to communicate with a plurality of different external content provider modules (the service control manager (source plugin) selects and controls the service (configured to communicate) from content providers such as a cable system operator, a multiple system operator, a satellite broadcaster (with a plurality of different external content providers) and selects the appropriate protocol (modules), paragraphs [0034], [0072], [0074], [0075]).

As to claim 8, Kim discloses the method of processing data of claim 6. Kim further discloses a method wherein the source plugin is configured to communicate with a number of different external content provider modules (the service control manager (source plugin) selects and controls the service (configured to communicate) from content providers such as a cable system operator, a multiple system operator, a satellite broadcaster (with a number of different external content providers) and selects the appropriate protocol (modules), paragraphs [0034], [0072], [0074], [0075]).

As to claims 9, and 18, Kim discloses the method of processing data of claim 1 and the data service system of claim 12. Kim further discloses a method further comprising communicating with a resource arbitrator to gain access and provide content to hardware of the Intelligent TV (the intelligent TV system includes a resource manager (communicating with a resource arbitrator) for efficient management of system resources, memory management, and interface for hardware, and schedule management (to gain access and provide content to hardware of the intelligent TV), paragraphs [0194], [0208]), wherein the hardware includes a local network, a cloud service, a display, and/or a video hardware (the intelligent TV system includes a network interface module that provides an interface for connecting the display device with a wireless LAN (wherein the hardware includes a local network), an interface to the Internet (a cloud service) a display device (a display), paragraphs [0041], [0094]).

Claim 4 lacks an inventive step under PCT Article 33(3) as being obvious over Kim in view of US 2012/0176546 A1 (Yoon).

As to claim 4, Kim discloses the method of processing data of claim 3. However, Kim fails to disclose a method wherein the database comprises a sqlite database. Yoon discloses a method wherein the database comprises a sqlite database (the library region (database) includes SQlite (comprises a sqlite database), paragraphs [0339], [0341]). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the method of Kim to include wherein the database comprises a sqlite database, as taught by Yoon, for the benefit of using an open source lightweight database.

Claim 7 lack an inventive step under PCT Article 33(3) as being obvious over Kim in view of WO 99/35849 A1 (Wugofski).

As to claim 7, Kim discloses the method of processing data of claim 6. However, Kim fails to disclose a method wherein the external content provider modules include providers for a particular service in one or more geographic zones. Wugofski discloses a method wherein the external content provider modules include providers for a particular service in one or more geographic zones (EPG content services module include content providers for EPG (Electronic Program Guide) (wherein the external content provider modules for a particular service); the channel region table identifies countries or local regions in which each channel is accessible (include providers in one or more geographic zones), page 8, lines 23-29). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the method of Kim to include wherein the external content provider modules include providers for a particular service in one or more geographic zones, as taught by Wugofski, for the benefit of providing content from different geographic regions to the customer.

Claims 10-11 and 19-20 lack an inventive step under PCT Article 33(3) as being obvious over Kim in view of US 2011/0125755 A1 to Kaila et al. (hereinafter "Kaila"), and further in view of US 2006/0064716 A1 to Sull et al. (hereinafter "Sull").

As to claims 10 and 19, Kim discloses the method of processing data of claim 1 and the data service system of claim 12. Kim further discloses a method further comprising: thumbnail images associated with the received data (the thumbnail image may be generated from the demodulation stream signal output (thumbnail images associated with the received data), paragraph [0133]), a storage of the intelligent TV (the memory module (storage) of the display device (intelligent TV), paragraphs [0103], [0033]), configured to create and store the thumbnail images (channel browsing processor extracts image from the stream signal output to generate thumbnail image (configured to create the thumbnail images) and contents stored in the memory module (and store), paragraphs [0103], [0133]). However, Kim fails to disclose a method further comprising communicating with a thumbnail cache manager to manage thumbnail images, and storing the thumbnail images in a storage, wherein the thumbnail cache manager, and wherein the thumbnail images include movie thumbnails, posters, and TV channel logos. Kaila discloses a method further comprising communicating with a thumbnail cache manager to manage thumbnail images (users may sort and group images via a user interface(communicating with); thumbnail provider has a centralized cache to manage images (a thumbnail cache manager to manage thumbnail images), paragraphs [0015], [0026]) and storing the thumbnail images (thumbnails are stored in a storage device (storing the thumbnail images), paragraph [0059]), wherein the thumbnail cache manager (the thumbnail provider (the thumbnail cache manager), paragraphs [0015], [0026]). Sull discloses a method wherein the thumbnail images include movie thumbnails, posters, and TV channel logos (the thumbnail images generated (thumbnail images include) from video streams (movie thumbnails), a poster of the movie (posters), and TV channel logo), claims 1, 7, paragraph [0245]). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the method of Kim to include communicating with a thumbnail cache manager to manage thumbnail images, and storing the thumbnail images, wherein the thumbnail cache manager, as taught by Kaila, for the benefit of creating and storing thumbnail images for the viewer. Further, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the method of Kim to include the thumbnail images include movie thumbnails, posters, and TV channel logos, as taught by Sull, for the benefit of creating appropriate thumbnails for the content.

-***-Continued Within the Next Supplemental Box-***-

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55389

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

-***-Continued from Previous Supplemental Box-***-

As to claim 11, the combination of Kim, Kaila, and Sull discloses the method of processing data of claim 10. However, Kim fails to disclose the method further comprising periodically purging a portion of the thumbnail images from the storage. Kaila discloses a method further comprising periodically purging a portion of the thumbnail images from the storage (the system may implement a cache clearing process to clear thumbnails from the cache (periodically purging a portion of the thumbnail images from the storage), paragraph [0047]). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the method of Kim to include periodically purging a portion of the thumbnail images from the storage, as taught by Kaila, for the benefit of keeping the thumbnail storage up to date.

As to claim 20, Kim discloses an intelligent television (TV) comprising a data service system, the data service system comprising: a source plugin, the source plugin configured for communicating with and receiving data from an external content provider (the service control manager/delivery manager (a source plug in) controls the received service data from a content provider (communicating and receiving the data from the external content provider), paragraphs [0065], [0066]); and processing the received data into a data model format (the demodulation module performs demodulation and channel decoding of the received digital signal (processing the received data) and outputs a video signal, an audio signal, and a data signal (into a data model format), paragraphs [0083], [0086]); a subservice corresponding to the source plugin, the subservice configured to communicate with and provide the converted data to an internal content provider module configured to provide the converted data as content to the Intelligent TV (the video decoder receives video on demand data from the service control/delivery manager (the subservice corresponding to the source plugin) decodes the multiplex video signal and performs scaling to output resolution through the display module (configured to communicate with and provide the converted data to an internal content provider module),to be displayed as an image on the smart TV (configured to provide the converted data as content to the intelligent TV), paragraphs [0110], [0175], [0176]); a database configured to store the received data or the converted data by the source plugin or the subservice (the decoder (the subservice) makes a database for the service information and stores the database (storing the received data into a database), paragraph [0069]); a resource arbitrator configured to provide access to the subservice to provide content to hardware of the Intelligent TV (the intelligent TV system includes a resource manager (a resource arbitrator) for efficient management of system resources, memory management, and interface for hardware, the decoder, and schedule management (to provide access to the sub service and provide content to hardware of the intelligent TV), paragraphs [0194], [0208]), wherein the hardware includes a local network, a cloud service, a display, and/or a video hardware (the intelligent TV system includes a network interface module that provides an interface for connecting the display device with a wireless LAN (wherein the hardware includes a local network), an interface to the Internet (a cloud service) a display device (a display), paragraphs [0041], [0094]); thumbnail images associated with the received data (the thumbnail image may be generated from the demodulation stream signal output (thumbnail images associated with the received data), paragraph [0133]), a storage of the intelligent TV (the memory module (storage) of the display device (intelligent TV), paragraphs [0103], [0033]), configured to create and store the thumbnail images (channel browsing processor extracts image from the stream signal output to generate thumbnail image (configured to create the thumbnail images) and contents stored in the memory module (and store), paragraphs [0103], [0133]). However, Kim fails to disclose an intelligent television comprising: and a thumbnail cache manager configured to manage thumbnail images and to store the thumbnail images, wherein the thumbnail images include movie thumbnails, posters, and TV channel logos. Kaila discloses a method further a thumbnail cache manager to manage thumbnail images (thumbnail provider has a centralized cache to manage images (a thumbnail cache manager to manage thumbnail images), paragraphs [0015], [0026]) and to store the thumbnail images (thumbnails are stored in a storage device (to store the thumbnail images), paragraph [0059]). Sull discloses a method wherein the thumbnail images include movie thumbnails, posters, and TV channel logos (the thumbnail images generated (thumbnail images include) from video streams (movie thumbnails), a poster of the movie (posters), and TV channel logo), claims 1, 7, paragraph [0245]). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the method of Kim to include a thumbnail cache manager to manage thumbnail images, and to store the thumbnail images, as taught by Kaila, for the benefit of managing and storing thumbnail images for the viewer. Further, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the method of Kim to include the thumbnail images include movie thumbnails, posters, and TV channel logos, as taught by Sull, for the benefit of creating appropriate thumbnails for the content.

Claims 1-20 have industrial applicability as defined by PCT Article 33(4) because the subject matter can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: DEAN N. REINHARDT
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference 6583-495-PCT	Date of mailing *(day/month/year)* 04 MAR 2014 **FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. PCT/US2013/055283	International filing date *(day/month/year)* 16 August 2013
Applicant FLEXTRONICS AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-495-PCT	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US2013/055283	International filing date *(day/month/year)* 16 August 2013	(Earliest) Priority Date *(day/month/year)* 17 August 2012
Applicant FLEXTRONICS AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 9 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 15

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

Form PCT/ISA/210 (first sheet) (July 2009)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/055283

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - G06Q 30/00 (2014.01)
USPC - 715/810
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) - G06F 3/00; G06Q 30/00; H04N 5/00, 7/00 (2014.01)
USPC - 725/1, 37, 46, 86

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
CPC - G06Q 30/00, H04N 5/00, 7/00 (2013.01)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
PatBase, ProQuest, Google Patents, Google Scholar

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X -- Y	US 2011/0289452 A1 (JORDAN et al) 24 November 2011 (24.11.2011) entire document	1-8, 11-18 ----- 9-10, 19-20
Y	WO 2000005884 A1 (WILF et al) 3 February 2000 (03.02.2000) entire document	10, 20
Y	EP 2439935 A1 (JEONG) 11 April 2012 (11.04.2012) entire document	9-10, 19-20
A	WO 2007137611 A1 (CONTIN et al) 06 December 2007 (06.12.2007) entire document	1-20

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
19 February 2014	0 4 MAR 2014
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: DEAN N. REINHARDT
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	04 MAR 2014
Applicant's or agent's file reference 6583-495-PCT	FOR FURTHER ACTION See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US2013/055283	16 August 2013	17 August 2012

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - G06Q 30/00 (2014.01)
USPC - 715/810

Applicant FLEXTRONICS AP, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	19 February 2014	Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055283

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

a. (means)

☐ on paper

☐ in electronic form

b. (time)

☐ in the international application as filed

☐ together with the international application in electronic form

☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055283

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	9-10, 19-20	YES
	Claims	1-8, 11-18	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	None	NO

2. Citations and explanations:

Claims 1-8, 11-18 lack novelty under PCT Article 33(2) as being anticipated by Jordan et al., hereinafter referred to as Jordan.

Regarding claim 1, Jordan discloses a non-transitory computer readable storage medium having stored thereon instructions that cause a processor to execute (fig. 25, para 127) a method for accessing media on a television (method for content browsing on television, abstract, Fig. 1, para 42; see Fig. 15), the method comprising the steps of: searching a network connected to the television to identify a plurality of media sources (step 1510, Fig. 15; para 97-98); determining a number of media items associated with the plurality of media sources (processing content information, step 1512, Fig. 15; para 97-98); identifying metadata associated with the determined number of media items (content information and metadata associated with the content, para 100, 33); storing the metadata in a memory (storing metadata, para 33); receiving a request from a user to display one or more of the media items (user requests search and selects content item, step 1514, Fig. 15, para 97-98); and displaying on the television display the one or more media items based on the stored metadata (selected item presented to user, step 1516, Fig. 15, para 98; para 33).

Regarding claim 11, Jordan discloses a television system (Fig. 1, para 42), comprising: a display (2510, Fig. 25); a memory (main memory 2504, Fig. 25); a processor in communication with the memory and the display (processor 2502, Fig. 25), the processor operable to: search a network connected to the television to identify a plurality of media sources (step 1510, Fig. 15; para 97-98); determine a number of media items associated with the plurality of media sources (processing content information, step 1512, Fig. 15; para 97-98); identify metadata associated with the determined number of media items (content information and metadata associated with the content, para 100, 33); store the metadata in the memory (storing metadata, para 33); receive a request from a user to display one or more of the media items (user requests search and selects content item, step 1514, Fig. 15, para 97-98); and display on the display the one or more media items based on the stored metadata (selected item presented to user, step 1516, Fig. 15, para 98; para 33).

Regarding claim 17, Jordan discloses a method for accessing media on a television (method for content browsing on television, abstract, Fig. 1, para 42; see Fig. 15), the method comprising: searching a network connected to the television to identify a plurality of media sources (step 1510, Fig. 15; para 97-98); the plurality of media sources comprising at least one of: a video server, an audio server, a digital video recorder, a set-top box, a social media site, a voice mail server, a source marked by the user, a content provider (see Fig. 1-2, content source from service provider, para 39-40), a compact disk player, a digital video device player, a cellular telephone, a personal digital assistant, a notebook, an audio player, a document server, a personal computer, a really simple syndication feed, a social media site, a universal serial bus device, an internet site (Netflix, para 42), and a tablet device; determining a number of media items associated with the plurality of media sources (processing content information, step 1512, Fig. 15; para 97-98); identifying metadata associated with the determined number of media items (content information and metadata associated with the content, para 100, 33); storing the metadata in a memory (storing metadata, para 33); receiving a request from a user to display one or more of the media items (user requests search and selects content item, step 1514, Fig. 15, para 97-98); and displaying on the television display the one or more media items based on the stored metadata (selected item presented to user, step 1516, Fig. 15, para 98; para 33).

Regarding claims 2, 12, 18, Jordan discloses receiving a search request from the user for an individual media item (user search request, step 1514, Fig. 15); identifying multiple media sources in the plurality of media sources that have the individual media item (content gathered from multiple media sources, para 97-98, 33, Fig. 15); presenting a list of offers from the multiple media sources to the user for the individual item (content item displayed to user, Fig. 15-16, para 97-98; content items offered to consumer, para 71); receiving a selection by the user of an individual offer from the list of offers (para 71, 97-98); and providing access to the individual item (access content items offered, para 71).

Regarding claims 3, 13, Jordan discloses wherein the list of offers comprises at least one of: an offer to play the individual media item, an offer to view the individual media item, a pay per view offer to view the individual media item, an offer to rent the individual media item, an offer to purchase a ticket to a movie theater showing the individual media item, an offer to purchase the individual media item, a trial access offer to the individual media item, an offer to check out the individual media item, and an offer to access the individual media item on a social media site (enable a consumer to browse, access, purchase, and download particular content items offered by the particular content source 130, para 71, Fig. 8).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055283

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.
Continuation of:

Regarding claims 4, 14, Jordan discloses wherein the plurality of media sources comprises at least two of: a video server, an audio server, a digital video recorder, a set-top box, a social media site, a voice mail server, a source marked by the user, a content provider (see Fig. 1-2, content source from service provider, para 39-40), a compact disk player, a digital video device player, a cellular telephone, a personal digital assistant, a notebook, an audio player, a document server, a personal computer, a really simple syndication feed, a social media site, a universal serial bus device, an internet site (Netflix, para 42), and a tablet device.

Regarding claims 5-6, 15-16, Jordan discloses wherein at least one of the media sources is a device that can be temporarily connected to the network, and wherein one of the at least one temporarily connected devices is not connected to the network (devices such as network attached storage device, or computer, para 42, Fig. 1-2).

Regarding claim 7, Jordan discloses wherein the one or more media items displayed includes at least one recommended media item based on the stored metadata (recommendation of content items, para 60, 65-66).

Regarding claim 8, Jordan discloses after receiving the request, identifying the user associated with the request, wherein the one or more media items displayed are based on stored metadata related to the identified user (content items recommended based on user behavior and user profile information, para 66-68).

Claims 9, 19 lack an inventive step under PCT Article 33(3) as being obvious over Jordan in view of Jeong.

Regarding claims 9, 19, Jordan discloses the invention above, but fails to disclose wherein identifying metadata comprises: performing a first scan of the determined number of media items; retrieving basic metadata associated with the determined number of media items; identifying media items that need a second scan; and performing the second scan after the first scan is completed. Jeong is in the field of Television signal processing and smart tv's in general and presents methods for accessing multimedia documents ([0054)] performing a first scan of the determined number of media items ([0111] The external device interface module 135 is connected to external devices such as Digital Versatile Disks (DVD), Blu-rays, game devices, cameras, camcorders, computers (e.g., notebook computers), etc. through wire/wireless cables.); retrieving basic metadata associated with the determined number of media items ([0097] The metadata manager 712 manages metadata related to the service and stores the metadata in the SI and Metadata DB 711); identifying media items that need a second scan; and performing the second scan after the first scan is completed ([0190] Fig. 9 shows a communication procedure performed between a display device and one or more other devices. As illustrated in Fig. 9, display device 100 can perform communication with a broadcasting station 210, a network server 220, or an external device 230). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Jeong and incorporate the above features in the invention of Jordan in order to provide a system for providing multitude of ways in which multimedia content can be accessed (Jeong, [0110] The external device interface module 135 may connect an external device to the display device 100. To this end, external device interface module 135 may include an A/V input/output unit (not shown) or a wireless communication unit).

Claims 10, 20 lack an inventive step under PCT Article 33(3) as being obvious over Jordan in view of Wilf et al., hereinafter referred to as Wilf, and further in view of Jeong.

Regarding claims 10, 20, Jordan discloses the invention above, but fails to disclose wherein storing the metadata in memory comprises: assigning a unique media source identifier to each of the plurality of media sources; assigning a unique media item identifier to each of the determined number of media items; creating a personal metadata table to record media items viewed and media items tagged as a favorite; creating a media source table to record metadata for all connected and disconnected media sources; and creating a media data table to record all other identified metadata. Wilf is in the field of accessing media on a television (Fig. 11 – Television Signal)and teaches assigning a unique media source identifier to each of the plurality of media sources (Pg. 18 Lines 8 to 11, As mentioned above, the method for computing attribute-specific indexing data and for querying these attributes can be implemented by methods known in the art.); assigning a unique media item identifier to each of the determined number of media items (Pg. 17 Lines 21 to 29, The search menu consists of a set of content-based attributes such as visual attributes 710. audio attributes 720, topic-related attributes 730, and special attributes 740 such as breaking news or explosions.); creating a personal metadata table to record media items viewed and media items tagged as a favorite (Pg. 20 Lines 3 to 27; Pg. 21 Lines 9 to 17); and creating a media data table to record all other identified metadata (Pg. 21 Lines 9 to 17, Interactive television systems establish a database of viewer preferences based on particular characteristics previously delivered to the viewer.). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the metadata identifier features as taught in Wilf with the invention of Jordan in order to tag favorite content items.
Jeong is in the field of Television signal processing and smart tv's in general and presents methods for accessing multimedia documents ([0054)] wherein storing the metadata in memory comprises (Fig. 5, Block 711 – SI & Metadata DB & Block 712 – Metadata Manager; [0097]: The metadata manager 712 manages metadata related to the service and stores the metadata in the SI and Metadata DB 711. The SI and Metadata DB 711 stores the service information decoded by the PSI and (PSIP and/or SI) decoder 704, the metadata managed by the metadata manager 712, and the information required to select the service provider provided by the service discovery manager 710.) ; creating a media source table to record metadata for all connected and disconnected media sources ([0097] The metadata manager 712 manages metadata related to the service and stores the metadata in the SI and Metadata DB 711. The SI and Metadata DB 711 stores the service information decoded by the PSI and (PSIP and/or SI) decoder 704, the metadata managed by the metadata manager 712, and the information required to select the service provider provided by the service discovery manager 710.);
It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Jeong and incorporate the above features in the invention of Jordan in order to add additional aspects of storing of metadata and providing enhanced services (Jeong, Fig. 5, Block 711 – SI & Metadata DB & Block 712 – Metadata Manager; [0097]).

Claims 1-20 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: Yiu F. Au
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, Colorado 80202
United States of America

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

	Date of mailing *(day/month/year)* 22 NOV 2013
Applicant's or agent's file reference 6583-496-PCT	**FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. PCT/US13/55564	International filing date *(day/month/year)* 19 August 2013 (19.08.2013)
Applicant Flextronics AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450	Authorized officer Shane Thomas
Facsimile No. 571-273-3201	Telephone No. PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-496-PCT	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US13/55564	International filing date *(day/month/year)* 19 August 2013 (19.08.2013)	(Earliest) Priority Date *(day/month/year)* 17 August 2012 (17.08.2012)
Applicant Flextronics AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 8 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 15

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US13/55564

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H04N 7/00 (2013.01)
USPC - 725/141
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8): G06F 3/048; H04N 7/00 (2013.01)
USPC: 715/854; 725/55, 141

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
MicroPatent (US-G, US-A, EP-A, EP-B, WO, JP-bib, DE-C,B, DE-A, DE-T, DE-U, GB-A, FR-A); Google Scholar; IEEE; DialogPRO; television, intelligent, TV, smart, interactive, high-definition, HDTV, aggregate, combine, sum, electronic, programming, guide, EPG, poll, search, collect, update, modify, change, manage, control, relevant, related, retrieve

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2012/0174039 A1 (RHOADS J et al.) July 5, 2012, paragraphs [0025], [0028]-[0035], [0043], [0053], [0075], [0077], [0127], [0128], [0131], [0145], [0148]	1-20

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
14 November 2013 (14.11.2013)	22 NOV 2013

Name and mailing address of the ISA/US	Authorized officer:
Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: Yiu F. Au
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, Colorado 80202
United States of America

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	22 NOV 2013
Applicant's or agent's file reference 6583-496-PCT	FOR FURTHER ACTION See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US13/55564	19 August 2013 (19.08.2013)	17 August 2012 (17.08.2012)

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H04N 7/00 (2013.01)
USPC - 725/141

Applicant Flextronics AP, LLC

1. This opinion contains indications relating to the following items:

- [x] Box No. I Basis of the opinion
- [ ] Box No. II Priority
- [ ] Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- [ ] Box No. IV Lack of unity of invention
- [x] Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- [ ] Box No. VI Certain documents cited
- [ ] Box No. VII Certain defects in the international application
- [ ] Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 *bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to th IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Fom PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	14 November 2013 (14.11.2013)	Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55564

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

      ☐ on paper

      ☐ in electronic form

   b. (time)

      ☐ in the international application as filed

      ☐ together with the international application in electronic form

      ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55564

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	NONE	YES
	Claims	1-20	NO
Inventive step (IS)	Claims	NONE	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	NONE	NO

2. Citations and explanations:

Claims 1-20 lack novelty under PCT Article 33(2) as being anticipated by US 2012/0174039 A1 to Rhoads et al. (hereinafter 'Rhoads').

As per claim 1, Rhoads discloses a method of managing Electronic Programming Guide (EPG) information for an Intelligent television (TV) (a control circuitry for controlling (managing) a television program guide for a HDTV (intelligent TV), paragraphs [0025], [0043], [0053], [0075] and [0077]), comprising: polling and retrieving a plurality of EPG sources for updated EPG information (navigating (polling) and retrieving updated program guide information, paragraphs [0127], [0128], [0131], [0145] and [0148]); aggregating the EPG information from the plurality of EPG sources (combining (aggregating) media guidance data for content from different types of content sources, paragraph [0031]); and providing a relevant portion of the EPG information to an application of the Intelligent TV (providing options within the region 126 is related (relevant) to features in program listings (applications) of the grid 102 in the HDTV, paragraphs [0035], [0043] and [0053]).

As per claim 9, Rhoads discloses an EPG data service for an Intelligent TV (a control circuitry for controlling a television program guide for a HDTV (intelligent TV), paragraphs [0025], [0043], [0053], [0075] and [0077]), comprising: a plurality of source plugins configured to poll and retrieve updated EPG information from a plurality of respective EPG information sources (media sources for navigating (polling) and retrieving updated program guide information, paragraphs [0056], [0127], [0128], [0131], [0145] and [0148]); and an EPG subservice configured to receive the EPG information retrieved by the plurality of source plugins (media sources retrieve plurality of program guide information, paragraphs [0056], [0064], [0088] and [0108]), aggregate the EPG information (combining (aggregating) media guidance data for content from different types of content sources, paragraph [0031]), and provide a relevant portion of the EPG information to an application of the Intelligent TV (providing options within the region 126 is related (relevant) to features in program listings (applications) of the grid 102 in the HDTV, paragraphs [0035], [0043] and [0053]).

As per claim 17, Rhoads discloses an Intelligent TV (a HDTV (intelligent TV), paragraphs [0043] and [0053]) comprising: an EPG display application configured to generate an EPG display for the Intelligent TV (a TV program guide displayed on a HDTV screen, figure 1 and paragraphs [0028]-[0035] and [0092]); and an EPG data service (television program guide that receives program guide data, paragraph [0075]), the EPG data service comprises a plurality of source plugins configured to poll and retrieve updated EPG information from a plurality of respective EPG information sources (media sources for navigating (polling) and retrieving updated program guide information, paragraphs [0056], [0127], [0128], [0131], [0145] and [0148]) and an EPG subservice configured to receive the EPG information retrieved by the plurality of source plugins (media sources retrieve plurality of program guide information, paragraphs [0056], [0064], [0088] and [0108]), aggregate the EPG information (combining (aggregating) media guidance data for content from different types of content sources, paragraph [0031]), and provide a relevant portion of the EPG information to the EPG display application (providing options within the region 126 is related (relevant) to features in program listings (applications) of the grid 102 in the HDTV, paragraphs [0035], [0043] and [0053]).

As per claims 2 and 10, Rhoads further discloses wherein for an EPG source with substantially no updated EPG information (a regular daily broadcast TV programs like ABC or HOB programs that needed no to be updated, paragraph [0074]), the polling and retrieving step/ the respective source plugin comprises associating the EPG information from the EPG source with dummy EPG data (a content source 416 is the originator of content (dummy EPG data) such as a television broadcaster, a Webcast provider or is not originator of content such as an on demand content provider, an Internet provider of content of broadcast programs for downloading, wherein the content source 416 may include cable sources, satellite providers, on-demand providers, Internet providers, over-the-top content providers, or other providers of content, paragraph [0074]).

As per claim 3, Rhoads further discloses wherein the polling and retrieving step is activated by the Intelligent TV at a default or user-defined interval (the navigating and retrieving HDTV programs is selected (activated) by a user-defined action, paragraphs [0028], [0043] and [0053]).

As per claim 4, Rhoads further discloses wherein the polling and retrieving step is activated after a channel scanning operation by the Intelligent TV (a navigating and retrieving of TV program happened after the HDTV display the favorite channels (scanning operation by the Intelligent TV), paragraphs [0043] and [0053]).

-***-Continued Within the Next Supplemental Box-***-

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55564

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.
Continuation of:
-***-Continued from Previous Supplemental Box-***-

As per claim 5, Rhoads further discloses wherein the polling and retrieving step comprises sending to an Internet or cloud EPG source a channel name list of the Intelligent TV (a list of channels of the HDTV is provided on cloud source or on an internet, paragraphs [0035], [0043], [0053], [0078], [0083]-[0086], [0090] and [0092]) and retrieving EPG information from the Internet or cloud EPG source that matches channels in the channel name list (acquiring the channels from list or menu that that match user-defined list of channels, paragraphs [0035], [0043], [0053], [0078], [0083]-[0086], [0090] and [0092], [0117] and [0118]).

As per claim 6, Rhoads further discloses wherein the polling and retrieving step further comprises retrieving EPG information for only selected programs and/or channels from the EPG sources (displaying descriptive information of the selected channels programs, paragraphs [0051], [0056], [0088], [0096], [0101] and [0110]).

As per claims 7 and 15, Rhoads further discloses wherein the aggregating step/the EPG subservice comprises aggregating the updated EPG information from the plurality of EPG sources (combining (aggregating) new or updated media guidance data for content from different types of content sources, paragraphs [0031], [0127] and [0128]) and resolving conflicts between duplicate EPG information from the plurality of EPG sources according to a plurality of rules (a condition (rule) is set when a user desires to traverse a same path that led the user to a media asset, paragraphs [0025], [0063] and [0137]).

As per claims 8 and 16, Rhoads further discloses wherein the resolving conflicts step/ the EPG subservice comprises using EPG information from a first EPG source as a primary source (a media source that displays a main TV program menu, paragraph [0035]) and overwriting conflicting EPG information from the primary source with a second EPG source that is considered more reliable (replacing or updating a TV program menu from one media source with another TV program menu from different media source, paragraphs [0053], [0056], [0127], [0128], [0131], [0145] and [0148]).

As per claims 11 and 18, Rhoads further discloses wherein one or more of the plurality of source plugins is configured to poll and retrieve the updated EPG information at a default or user-defined interval (TV programs are retrieved from media sources using TV programs selected (activated) by a user-defined action, paragraphs [0028], [0043], [0053], [0056], [0127], [0128], [0131], [0145] and [0148]).

As per claim 12, Rhoads further discloses one or more of the plurality of source plugins is configured to poll and retrieve the updated EPG information after a channel scanning operation by the Intelligent TV (using the media source, a navigating and retrieving of TV program happened after the HDTV display the favorite channels (scanning operation by the Intelligent TV), paragraphs [0043], [0053], [0056], [0127], [0128], [0131], [0145] and [0148]).

As per claims 13 and 19, Rhoads further discloses wherein an Internet or cloud source plugin of the plurality of source plugins is configured to send to an Internet or cloud EPG source a channel name list of the Intelligent TV (using media source, a list of channels of the HDTV is provided on cloud source or on an internet, paragraphs [0035], [0043], [0053], [0056], [0078], [0083]-[0086], [0090], [0092], [0127], [0128], [0131], [0145] and [0148]).

As per claim 14, Rhoads further discloses wherein one or more of the plurality of source plugins are configured to poll and retrieve the updated EPG information for only selected programs and/or channels from the EPG sources (using media source, displaying descriptive information of the selected channels programs, paragraphs [0051], [0053], [0056], [0088], [0096], [0101] and [0110], [0127], [0128], [0131], [0145] and [0148]).

As per claim 20, Rhoads further discloses a tangible and non-transient computer readable medium comprising microprocessor executable instructions that, when executed by the microprocessor, perform the steps of claim 1 (microprocessor for executing instructions stored in a memory, paragraphs [0049] and [0077]).

Claims 1-20 have industrial applicability as defined by PCT Article 33(4) because the subject matter can be made or used in industry.

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-497-PCT	**FOR FURTHER ACTION**	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US13/55379	International filing date *(day/month/year)* 16 August 2013 (16.08.2013)	(Earliest) Priority Date *(day/month/year)* 17 August 2012 (17.08.2012)
Applicant Flextronics AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 17

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US13/55379

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H04W 80/04 (2013.01)
USPC - 370/331
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) - H04W 80/04; H04W 92/04; H04W 36/00; H04N 21/00; G06F 15/16; G06F 15/173 (2013.01)
USPC - 709/231; 370/331; 709/219; 709/227; 709/224; 707/10

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
MicroPatent (US-G, US-A, EP-A, EP-B, WO, JP-bib, DE-C,B, DE-A, DE-T, DE-U, GB-A, FR-A); Google/ Google patents; IEEE; Proquest.

Keywords: DLNA; Status; UPnP

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 2009/0129340 A1 (HANDA, M) 21 May 2009; Abstract; Paragraphs [0008], [0036], [0037], [0047], [0050], [0054], [0055], [0078]-[0080], [0099], [0140], [0209], [0214], [0219], [0220].	1, 5-8, 13 and 15-18 --- 2-4, 9-12, 14, 19 and 20
Y	US 2012/0151006 A1 (MCINERNEY, J et al.) 14 June 2012; Abstract; Paragraphs [0016], [0021], [0044], [0050], [0055].	2-4, and 14
Y	US 2010/0306402 A1 (RUSSELL, R et al.) 2 December 2010; Abstract; Paragraphs [0039], [0040], [0043], [0073], [0133], [0136].	9-12, 19 and 20

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
7 November 2013 (07.11.2013)	06 DEC 2013
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: Yiu F. Au
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, Colorado 80202
United States of America

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	06 DEC 2013
Applicant's or agent's file reference 6583-497-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US13/55379	16 August 2013 (16.08.2013)	17 August 2012 (17.08.2012)

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H04W 80/04 (2013.01)
USPC - 370/331

Applicant Flextronics AP, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 *bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	7 November 2013 (07.11.2013)	Shane Thomas PCT Helpdesk: 571-272-4300. PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55379

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

      ☐ on paper

      ☐ in electronic form

   b. (time)

      ☐ in the international application as filed

      ☐ together with the international application in electronic form

      ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55379

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	2-4, 9-12, 14, 19 and 20	YES
	Claims	1, 5-8, 13 and 15-18	NO
Inventive step (IS)	Claims	NONE	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	NONE	NO

2. Citations and explanations:

Claims 1, 5-8, 13 and 15-18 lack novelty under PCT Article 33(2) as being anticipated by US 2009/0129340 A1 (Handa).

As per Claims 1, 8 and 13, Handa discloses a method, an intelligent television (TV) and DLNA subservice module, comprising: a Digital Living Network Alliance (DLNA) subservice module (the service determination unit 301a (DLNA subservice module) of the controller sends a confirm message to the digital television and the storage server in reply to live status confirmation, paragraph [0209]) configured to retrieve status data from a plurality of DLNA devices connected through a network (the system includes controllers 12 and 32 that may be integrally constituted by an apparatus that provides a data receiving service, such as the digital television 11 (Intelligent TV) that has a digital media player and digital media server (DLNA devices) that is connected to a home network having a network interface via a controlling protocol DLNA and by a service determination unit 301a that determines the status of the connected DLNA devices (status data), with respect to the digital television and the storage devices, paragraphs [0008], [0036], [0037], [0047], [0050], [0065], [0209]); updating an internal status data for the external devices in the Intelligent TV using the retrieved status (the storage server (external device) is connected to a home network to which the digital television 11 provides the service data retrieved from the DLNA control protocol and the service determination unit 301a (DLNA subservice module) of the controller that determines the status of the network connection (status data) and sends a confirm message to the digital television and the storage server in reply to live status confirmation, paragraphs [0038], [0065], [0209]); and notifying an internal content provider module of the Intelligent TV with the updated internal status data (the controller 12, which may be integrally constituted with the digital television (intelligent TV), has a SIP control unit (internal content provider) that sends a signal for ending confirmation data request in response to information from the service determination unit 301a (notification) that a DLNA device is unavailable (internal status data), paragraphs [0054], [0055], [0080], [0099], [0140], [0214]).

As per Claims 5 and 16, Handa discloses the method and DLNA subservice of claims 1 and 13, wherein the external device is a Digital Living Network Alliance (DLNA) device and communicates with the Intelligent TV using the Universal Plug and Play (UPnP) protocol (the storage server (external device) communicates with the controller that may be integrally constituted by an apparatus that provides a data receiving service, such as the digital television 11 (Intelligent TV) via DLNA in which UPnP is used to recognize each device connected to home network 1, paragraphs [0037], [0047], [0078], [0079]).

As per Claims 6 and 17, Handa discloses the method and DLNA subservice of claims 1 and 13, wherein the retrieved status data is sent by the external device on one or more of a connection of the external device to the network, a disconnection of the external device from the network, and a change of status to the external device (a SIP control unit in the controller adds information data request (update internal status data) that it receives from the DLNA control protocol via SIP session control protocol that is used to communicate between the storage devices on the storage server (external device) and the digital television; it further sends signal to connect the storage server (external device) with the home network and sends a disconnect signal to end the service request to the storage server (external device), paragraphs [0054], [0055], [0099], [0140], [0219], [0220]).

As per Claims 7 and 18, Handa discloses the method and DLNA subservice of claims 1 and 13, wherein the status data comprises one or more of device discovery data, device disconnection data, and media data (service determination unit 301a determines whether DLNA devices connected to the network are available or disconnected (device discovery and disconnection data), paragraphs [0038], [0065], [0209]-[0213]).

As per Claim 15, Handa discloses the DLNA subservice of claim 13, wherein the internal content provider module comprises one or more of a media scanner and a media browser (SIP control unit (internal content provider module) communicates with respect to the availability of DLNA devices on the home networks (media scanner), paragraphs [0008], [0039], [0052], [0054], [0080], [0214]).

-***-Continued Within the Next Supplemental Box-***-

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55379

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:
Claims 14 - 20 are objected to under PCT Rule 66.2(a)(iii) as containing the following defect(s) in the form or contents thereof: Claims 14 - 20 have a typo error ("DNLA"). It should be DLNA.

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55379

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

-***-Continued from Previous Supplemental Box-***-

Claims 2-4 and 14 lack an inventive step under PCT Article 33(3) as being obvious over Handa in view of US 2012/0151006 A1 to McInerney et al. (hereinafter 'McInerney').

As per Claims 2 and 14, Handa discloses the method and DLNA subservice module of managing external devices of claims 1 and 13. Handa fails to disclose further comprising aggregating the updated internal status data with status data for other devices connected through the network as a unified data. McInerney disclose further comprising aggregating the updated internal status data with status data for other devices connected through the network as a unified data (the method providing a status list (aggregating) may have update data (unified data) of DLNA rendering devices (external devices) that reflects changes to the list (internal status data) that may originate from the mobile content relay device which can be a digital media player or from another device in the local network (such as a DLNA server or controller) based on the local network status of the DLNA renderer devices (external devices), paragraphs [0016], [0044], [0050]). It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify Handa's method and DLNA subservice module to manage external devices include wherein aggregating the updated internal status data with status data for other devices connected through the network as a unified data, as taught by McInerney, for the advantage of centralizing status data for all connected devices, allowing more efficient management of external devices.

As per Claim 3, the combination of Handa and McInerney discloses the method of managing external devices of claim 2. However, Handa fails to disclose wherein the aggregating the updated internal status data with status data for other devices connected through the network is performed by an internal content provider module of the Intelligent TV. McInerney further discloses wherein the aggregating the updated internal status data with status data for other devices connected through the network is performed by an internal content provider module of the Intelligent TV (a method providing the status list (aggregating) that may have update data of DLNA rendering devices (external devices) that reflects changes to the list (internal status data) that may originate from the mobile content relay device which can be a digital media player (Intelligent TV) based on the local network status of the DLNA renderer devices (external devices) and the mobile content relay device which includes a presence status monitor (internal content provider module) can communicate the received content list with the DLNA server, paragraphs [0016], [0031], [0044], [0050], [0055]). It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify Handa's method to manage external devices include wherein the aggregating the updated internal status data with status data for other devices connected through the network is performed by an internal content provider module of the Intelligent TV, as taught by McInerney, for the advantage of centralizing status data for all connected devices, allowing more efficient management of external devices.

As per Claim 4, Handa discloses the method of claim 3, wherein the internal content provider module comprises one or more of a media scanner and a media browser (SIP control unit (internal content provider module) communicates with respect to the availability of DLNA devices on the home networks (media scanner), paragraphs [0008], [0039], [0052], [0054], [0080], [0214]).

Claims 9-12, 19 and 20 lack an inventive step under PCT Article 33(3) as being obvious over Handa in view of US 2010/0306402 A1 to Russell et al. (hereinafter 'Russell').

As per Claims 9 and 19, Handa disclose the Intelligent TV and DLNA subservice module of claims 8 and 15. Handa further fails to disclose wherein the internal content provider module comprises a media browser configured to provide a real-time view of media sources of the Intelligent TV. Russell discloses wherein the internal content provider module comprises a media browser configured to provide a real-time view of media sources of the Intelligent TV (the method and apparatus include content providers (internal content provider module) that are used to download media data on the client devices such as set-top box connected to TV (Intelligent TV) in the home network that support DLNA, downloads content from media providers and makes the content available to PlayStation via DLNA in which the media can be searched using Content browser (media browser) and the game client (media sources) that may be integrated within a TV to provide video in real time via the Internet, paragraphs [0039], [0040], [0043], [0073], [0133], [0136]). It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify Handa's system that includes an Intelligent TV wherein the internal content provider module comprises a media browser configured to provide a real-time view of media sources of the Intelligent TV as taught by Russell, for the advantage of displaying to the user in a friendly fashion the available media sources.

As per Claim 10, the combination of Handa and Russell discloses the Intelligent TV of claim 9. Handa fails to disclose wherein the media browser comprises a plug-in configured to retrieve metadata from the plurality of DLNA devices that are DLNA content servers. Russell further discloses wherein the media browser comprises a plug-in configured to retrieve metadata from the plurality of DLNA devices that are DLNA content servers (the method and apparatus include content providers that are used to download media data on the client devices such as set-top box connected to TV (Intelligent TV) or home computer (DLNA devices) in the home network that support DLNA, downloads content from media providers and makes the content available to PlayStation via DLNA in which the media can be searched using Content browser (media browser) that includes information described in the Content source information (plug-in) that can access other servers (DLNA content servers) with information regarding media, such as Media Metadata database, paragraphs [0043], [0073]). It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify Handa's system that includes the Intelligent TV wherein the media browser comprises a plug-in configured to retrieve metadata from the plurality of DLNA devices that are DLNA content servers as taught by Russell, for the advantage of providing easier access to connected DLNA media sources.

-***-Continued Within the Next Supplemental Box-***-

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55379

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:
-***-Continued from Previous Supplemental Box-***-

As per Claims 11 and 20, the combination of Handa and Russell discloses the Intelligent TV and DLNA subservice module of claims 9 and 19. Handa fails to disclose further comprising a media scanner configured to populate a media table using data retrieved by the media browser. Russell discloses further comprising a media scanner configured to populate a media table using data retrieved by the media browser (the media data on the client devices such as set-top box connected to TV (Intelligent TV) or home computer (DLNA devices) downloads content from media providers and makes the content available to PlayStation via DLNA in which the media can be searched using Content browser (media browser) which includes content source information accessed through Content Manager 610 (media scanner) that determines how to retrieve content for the user that can be obtained from internal media library 606 (media table), or from the Internet via Content Loader (DLNA subservice module), paragraphs [0043], [0070], [0073]). It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify Handa's system that includes an Intelligent TV further comprising a media scanner configured to populate a media table using data retrieved by the media browser as taught by Russell, for the advantage of entire media monitoring process.

As to Claim 12, the combination of Handa and Russell discloses the Intelligent TV of Claim 11. Handa fails to disclose wherein the media scanner is further configured to aggregate data of DLNA and non-DLNA devices as a unified metadata. Russell discloses wherein the media scanner is further configured to aggregate data of DLNA and non-DLNA devices as a unified metadata (Content Manager 610 contains information about available media on local sources, network sources which may be DLNA devices, and internet sources (non-DLNA devices), through centralized media metadata, paragraphs [0043], [0069], [0073]). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Intelligent TV disclosed in Handa to include wherein the media scanner is further configured to aggregate data of DLNA and non-DLNA devices as a unified metadata, as taught in Russell, for the benefit of centralizing media information, improving efficiency of access.

Claims 1-20 have industrial applicability as defined by PCT Article 33(4) because the subject matter can be made or used in industry.

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-498-PCT	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US2013/055349	International filing date *(day/month/year)* 16 August 2013	(Earliest) Priority Date *(day/month/year)* 17 August 2012
Applicant FLEXTRONICS AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 36

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/055349

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H04N 5/445 (2013.01)
USPC - 725/39
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) - H04N 5/445, 7/173 (2013.01)
USPC - 348/E5.104, E5.105, E5.112; 725/39, 40, 43, 44, 47

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
CPC - H04N 5/45, 5/44543, 21/47, 21/482, 21/4316, 21/4626 (2013.01)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
PatBase, Google Patents, Google

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/0067376 A1 (MARTIN et al) 06 June 2002 (06.06.2002) entire document	1-20
A	US 2001/0056577 A1 (GORDON et al) 27 December 2001 (27.12.2001) entire document	1-20
A	US 2011/0145860 A1 (WEI) 16 June 2011 (16.06.2011) entire document	1-20
A	US 8,220,021 B1 (LOOK et al) 10 July 2012 (10.07.2012) entire document	1-20

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
20 November 2013	29 NOV 2013
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: THAINE LENNOX-GENTLE
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	29 NOV 2013
Applicant's or agent's file reference 6583-498-PCT	FOR FURTHER ACTION See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US2013/055349	16 August 2013	17 August 2012

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H04N 5/445 (2013.01)
USPC - 725/39

Applicant FLEXTRONICS AP, LLC

1. This opinion contains indications relating to the following items:

- [x] Box No. I Basis of the opinion
- [ ] Box No. II Priority
- [ ] Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- [ ] Box No. IV Lack of unity of invention
- [x] Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- [ ] Box No. VI Certain documents cited
- [ ] Box No. VII Certain defects in the international application
- [ ] Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	20 November 2013	Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055349

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

a. (means)

☐ on paper

☐ in electronic form

b. (time)

☐ in the international application as filed

☐ together with the international application in electronic form

☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055349

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	None	YES
	Claims	1-20	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	None	NO

2. Citations and explanations:

Claims 1-20 lack novelty under PCT Article 33(2) as being anticipated by Martin et al. hereinafter referred to as Martin.
Regarding Claim 1, Martin discloses a method, comprising: running, via a processor associated with an intelligent television (TV) (Para. [0049] regarding processor; Para. [0005] regarding systems and methods described herein relate to a portal for simultaneously viewing video channels, launching interactive applications, and/or interfacing with locally or remotely stored content), a live TV application, wherein the live TV application is configured to control one or more interactive user functions of the intelligent TV (Para. [0055] regarding Central processor 220 may be adapted to run a number of applications defining the functionality of STB; Para. [0122] regarding When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed with details on the selected subject); presenting, simultaneously via a display of the intelligent TV, live TV broadcast content (Fig. 7A regarding talkshow video 700; Para. [0088] regarding A given page may display a composite program consisting entirely of live video cells, a composite program containing some live video combined with locally displayed content), wherein the live TV broadcast content is presented to a first portion of the display (Fig. 7A regarding talkshow video 700 over the entire display); receiving a live TV application input at the intelligent TV (Para. [0122] regarding When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed); determining, by the processor and in response to receiving the live TV application input, a live TV application feature to present via the display, wherein the one or more interactive user functions of the intelligent TV are controlled via the live TV application feature (Para. [0122] regarding When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed); and presenting, via the display, the live TV application feature to a second portion of the display (Fig. 7A regarding info content 704, 706, 708 within semitransparent bar 702; Fig. 7B regarding info cell 710, overlay 712), wherein the second portion of the display overlaps at least a portion of the presented live TV broadcast content (Para. [0122] regarding a semi-transparent bar 702 across the bottom of the screen that includes an information icon... the text may be in a semi-transparent background overlaid in the upper left comer of screen 700).

Regarding Claim 2, Martin discloses the method of claim 1, and further discloses wherein the live TV broadcast content includes at least one of a TV episode, a TV special, a movie, a sport event, and a radio program (Fig. 7A regarding talkshow video 700).

Regarding Claim 3, Martin discloses the method of claim 1, and further discloses wherein the live TV application input is provided automatically via the processor associated with the intelligent TV (Para. [0051] regarding Central processor 220 generally handles the processing of data within STB 1140. In the case of received audio and video signals, the MPEG packets containing these signals are demultiplexed and filtered).

Regarding Claim 4, Martin discloses the method of claim 1, and further discloses wherein live TV application input is provided by a user via a remote control associated with the intelligent TV (Para. [0122] regarding When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed).

Regarding Claim 5, Martin discloses the method of claim 1, and further discloses wherein presenting the live TV application feature further comprises presenting views and dialogs via the display of the intelligent TV (Para. [0122] regarding When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed with details on the selected subject; Para. [0055] regarding program guide applications).

Regarding Claim 6, Martin discloses the method of claim 1, and further discloses wherein the one or more interactive user functions of the intelligent TV include at least one of channel changing, channel viewing, program information viewing, setting reminders, clearing reminders, setting favorites, and clearing favorites (Para. [0122] regarding When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed with details on the selected subject; Para. [0055] regarding program guide applications).

Regarding Claim 7, Martin discloses the method of claim 1, and further discloses wherein the live TV application is configured to communicate with at least one manager and provider of an operating system framework associated with the intelligent TV (Para. [0054] regarding a virtual machine interacting via an interface layer with a lower level operating system implemented in the hardware components... a device manager layer 304).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055349

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.
Continuation of:

Regarding Claim 8, Martin discloses the method of claim 1, and further discloses wherein the live TV application is configured to communicate with a system user interface (UI) application associated with the intelligent TV (Para. [0084] regarding All of the control data for configuring the mosaic is input via a graphical user interface).

Regarding Claim 9, Martin discloses the method of claim 8, wherein the system UI application is configured to automatically format one or more applications for use by the live TV application (Para. [0084] regarding The portal computer generates an MPEG-2 private mosaic table and injects it into the MPEG transport along with the composite program).

Regarding Claim 10, Martin discloses a tangible, non-transitory computer readable medium having instructions stored thereon that, when executed by a processor (Para. [0049] regarding processor; Para. [0051] regarding The memory of STB 1140 may include EEPROM, host RAM, flash memory for software and data), perform the method comprising: running, via a processor associated with an intelligent television (TV), a live TV application, wherein the live TV application is configured to control one or more interactive user functions of the intelligent TV (Para. [0055] regarding Central processor 220 may be adapted to run a number of applications defining the functionality of STB; Para. [0122] regarding When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed with details on the selected subject); presenting, simultaneously via a display of the intelligent TV, live TV broadcast content (Fig. 7A regarding talkshow video 700; Para. [0088] regarding A given page may display a composite program consisting entirely of live video cells, a composite program containing some live video combined with locally displayed content), wherein the live TV broadcast content is presented to a first portion of the display (Fig. 7A regarding talkshow video 700 over the entire display); receiving a live TV application input at the intelligent TV (Para. [0122] regarding When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed); determining, by the processor and in response to receiving the live TV application input, a live TV application feature to present via the display, wherein the one or more interactive user functions of the intelligent TV are controlled via the live TV application feature (Para. [0122] regarding When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed); and presenting, via the display, the live TV application feature to a second portion of the display (Fig. 7A regarding info content 704, 706, 708 within semitransparent bar 702; Fig. 7B regarding info cell 710, overlay 712), wherein the second portion of the display overlaps at least a portion of the presented live TV broadcast content (Para. [0122] regarding a semi-transparent bar 702 across the bottom of the screen that includes an information icon... the text may be in a semi-transparent background overlaid in the upper left comer of screen 700).

Regarding Claim 11, Martin discloses the tangible, non-transitory computer readable medium of claim 10, and further discloses wherein the live TV broadcast content includes at least one of a TV episode, a TV special, a movie, a sport event, and a radio program (Fig. 7A regarding talkshow video 700).

Regarding Claim 12, Martin discloses the tangible, non-transitory computer readable medium of claim 10, and further discloses wherein the live TV application input is provided automatically via the processor associated with the intelligent TV (Para. [0051] regarding Central processor 220 generally handles the processing of data within STB 1140. In the case of received audio and video signals, the MPEG packets containing these signals are demultiplexed and filtered).

Regarding Claim 13, Martin discloses the tangible, non-transitory computer readable medium of claim 10, and further discloses wherein live TV application input is provided by a user via a remote control associated with the intelligent TV (Para. [0122] regarding When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed).

Regarding Claim 14, Martin discloses the tangible, non-transitory computer readable medium of claim 10, and further discloses wherein presenting the live TV application feature further comprises presenting views and dialogs via the display of the intelligent TV (Para. [0122] regarding When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed with details on the selected subject; Para. [0055] regarding program guide applications).

Regarding Claim 15, martin discloses the tangible, non-transitory computer readable medium of claim 10, and further discloses wherein the one or more interactive user functions of the intelligent TV include at least one of channel changing, channel viewing, program information viewing, setting reminders, clearing reminders, setting favorites, and clearing favorites (Para. [0122] regarding When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed with details on the selected subject; Para. [0055] regarding program guide applications).

Regarding Claim 16, Martin discloses the tangible, non-transitory computer readable medium of claim 10, and further discloses wherein the live TV application is configured to communicate with at least one manager and provider of an operating system framework associated with the intelligent TV (Para. [0054] regarding a virtual machine interacting via an interface layer with a lower level operating system implemented in the hardware components... a device manager layer 304).

Regarding Claim 17, Martin discloses the tangible, non-transitory computer readable medium of claim 10, and further discloses wherein the live TV application is configured to communicate with a system user interface (UI) application associated with the intelligent TV (Para. [0084] regarding All of the control data for configuring the mosaic is input via a graphical user interface).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055349

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.
Continuation of:

Regarding Claim 18, Martin discloses the tangible, non-transitory computer readable medium of claim 17, and further discloses wherein the system UI application is configured to automatically format one or more applications for use by the live TV application (Para. [0084] regarding The portal computer generates an MPEG-2 private mosaic table and injects it into the MPEG transport along with the composite program).

Regarding Claim 19, Martin discloses a system, comprising: an intelligent television (TV) having a display (Para. [0005] regarding systems and methods described herein relate to a portal for simultaneously viewing video channels, launching interactive applications, and/or interfacing with locally or remotely stored content) and a tuner (Para. [0050] regarding STB 1140 also includes a tuner 24), wherein the tuner is configured to receive and convert broadcast content signals to be displayed by the display (Para. [0050] regarding STB 1140 also includes a tuner 242 and demodulator 244 (e.g., a 256 QAM demodulator) to receive and demodulate the received transmissions which are then filtered and demultiplexed by unit 240); an input device associated with the intelligent TV (Para. [0122] regarding When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed); a memory (Para. [0049] regarding STB 1140 includes a central processor 220 including associated memory elements); and a microprocessor (Para. [0049] regarding STB 1140 includes a central processor 220 including associated memory elements and adapted to receive input data from...remote) operable to: run a live TV application (Para. [0049] regarding processor; Para. [0005] regarding systems and methods described herein relate to a portal for simultaneously viewing video channels, launching interactive applications, and/or interfacing with locally or remotely stored content), wherein the live TV application is configured to control one or more interactive user functions of the intelligent TV (Para. [0055] regarding Central processor 220 may be adapted to run a number of applications defining the functionality of STB; Para. [0122] regarding When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed with details on the selected subject); present, simultaneously via the display of the intelligent TV, live TV broadcast content (Fig. 7A regarding talkshow video 700; Para. [0088] regarding A given page may display a composite program consisting entirely of live video cells, a composite program containing some live video combined with locally displayed content), wherein the live TV broadcast content is presented to a first portion of the display (Fig. 7A regarding talkshow video 700 over the entire display); receive a live TV application input at the intelligent TV (Para. [0122] regarding When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed); determine, in response to receiving the live TV application input, a live TV application feature to present via the display, wherein the one or more interactive user functions of the intelligent TV are controlled via the live TV application feature (Para. [0122] regarding When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed); and present, via the display, the live TV application feature to a second portion of the display (Fig. 7A regarding info content 704, 706, 708 within semitransparent bar 702; Fig. 7B regarding info cell 710, overlay 712), wherein the second portion of the display overlaps at least a portion of the presented live TV broadcast content (Para. [0122] regarding a semi-transparent bar 702 across the bottom of the screen that includes an information icon... the text may be in a semi-transparent background overlaid in the upper left corner of screen 700).

Regarding Claim 20, Martin discloses the system of claim 19, and further discloses wherein live TV application input is provided by a user via the input device associated with the intelligent TV (Para. [0122] regarding When an entry is selected using "OK" key 330 on remote control 230, a new overlay 712 is displayed).

Claims 1-20 meet the criteria set out in PCT Article 33(4), and thus industrial applicability has been met because the subject matter claimed can be made or used in industry.

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-499-PCT	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US2013/055312	International filing date *(day/month/year)* 16 August 2013	(Earliest) Priority Date *(day/month/year)* 17 August 2012
Applicant FLEXTRONICS AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 14

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/055312

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H04N 17/00 (2013.01)
USPC - 725/9
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) - H04L 67/22; H04N 7/16, 7/173, 17/00, 21/20, 21/23, 21/47 (2013.01)
USPC - 348/180; 725/9, 14, 39, 61

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
CPC - H04L 41/509, 67/22; H04N 21/4667 (2013.01)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
PatBase, Google Patents, Google

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X -- Y	WO 01/06784 A2 (KNEE et al) 25 January 2001 (25.01.2001) entire document	1, 9, 10, 16 ---- 2-8, 11-15, 17-20
Y	US 4,284,849 A (ANDERSON et al) 18 August 1981 (18.08.1981) entire document	2, 15, 17, 18
Y	US 2011/0273552 A1 (WANG et al) 10 November 2011 (10.11.2011) entire document	3, 4, 11, 12
Y	US 5,964,839 A (JOHNSON et al) 12 October 1999 (12.10.1999) entire document	5-7, 14, 19, 20
Y	WO 03/044755 A1 (KUTZIK et al) 30 May 2003 (30.05.2003) entire document	8, 13

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
18 November 2013	05 DEC 2013
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: SCOTT WEITZEL
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	05 DEC 2013
Applicant's or agent's file reference 6583-499-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US2013/055312	16 August 2013	17 August 2012

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H04N 17/00 (2013.01)
USPC - 725/9

Applicant FLEXTRONICS AP, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	18 November 2013	Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055312

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

      ☐ on paper

      ☐ in electronic form

   b. (time)

      ☐ in the international application as filed

      ☐ together with the international application in electronic form

      ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055312

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	2-8, 11-15, 17-20	YES
	Claims	1, 9, 10, 16	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	None	NO

2. Citations and explanations:

Claims 1, 9, 10, 16 lack novelty under PCT Article 33(2) as being anticipated by Knee et al. (hereafter Knee).

Regarding claim 1, Knee discloses a method of electronic component operation (Title and Abstract), whereby the component (server 36 or server 56; pg. 10, ln. 30 – pg. 11, ln. 28) performs:
capturing data associated with an activity of a television (Fig. 10, step 134; pg. 10, ln. 30 – pg. 11, ln. 28 describes collecting data on the user's activities with respect to the interactive television applications, which is part of the monitoring of Fig. 10, step 134, described in pg. 25, lns. 7-10);
storing the data (Fig. 10, step 134 describes monitoring the user's activities, where data can be stored on control circuitry 92 as described on pg. 19, lns. 30-32);
generating a report aggregating the data (Fig. 10, step 136 shows the user may be provided with an opportunity to authorize the submission of a report containing information on the user's interactions with the interactive television program guide and other user activities, described in pg. 25, lns. 11-15); and
transmitting the report (Fig. 10, step 138 shows transmitting the report as described on pg. 25, ln. 17-21).

Regarding claim 9, Knee discloses an electronic device (Fig. 1 & 6), comprising:
an activity monitor (control circuitry 92 includes circuitry to monitor interactive television applications as described on pg. 19, lns. 11-32);
a storage (control circuitry 94 can include memory or other storage device as described on pg. 19, lns. 11-32);
a report generator (Fig. 10, step 136 shows a means for providing a user the opportunity to authorize the submission of a report, where the report can be automatically generated in the form shown in Fig. 11 and described on pg. 25, ln. 25 – pg. 26, ln. 4);
a transmitter (Fig. 10, step 138 shows a means for transmitting the report to the data collection facility, described on pg. 25, lns. 5-21);
wherein the activity monitor (92) is operable to identify an activity of a television (display 100; Fig. 6; pg. 20, lns. 1-8) and store information associated with the activity in the storage (94; Fig. 6; pg. 19, lns. 11-32 describes using the control circuitry 92 for monitoring the interactive television applications, where the information may be stored on the storage control circuitry 94);
wherein the report generator is operable to accesses the information in the storage (94) and generate a usage report (pg. 25, lns. 5-21 describes monitoring the television activities, and automatically generating a report based upon the data from the monitoring as described on pg. 25, ln. 25 – pg. 26, ln. 4); and
wherein the transmitter is operable to transmit the usage report to a receiver (Fig. 10, step 138 shows a transmission of the report where it is received by a data collection facility, described on pg. 25, lns. 5-21).

Regarding claim 10, Knee discloses the device of claim 9, and Knee further discloses a television (display 100; Fig. 6; pg. 20, lns. 1-8 describes the display 100 may be a television).

Regarding claim 16, Knee discloses an electronic system (Fig. 1 & 6), comprising:
a television (display 100; Fig. 6; pg. 20, lns. 1-8), operable to execute at least one application (pg. 19, ln. 11 – pg. 20, ln. 8 describes the display 100 can be a television to display an interactive television application);
an activity monitor (control circuitry 92), operable to monitor an activity of the application (control circuitry 92 includes circuitry to monitor interactive television applications as described on pg. 19, lns. 11-32; Fig. 6);
a storage (control circuitry 94), operable to store information about the activity (control circuitry 94 can include memory or other storage device as described on pg. 19, lns. 11-32; Fig. 6);
a report generator, operable to access the stored information and generate a report (Fig. 10, step 136 shows a means for providing a user the opportunity to authorize the submission of a report using the data from monitoring, where the report can be automatically generated in the form shown in Fig. 11 and described on pg. 25, ln. 25 – pg. 26, ln. 4); and
a transmitter, operable to transmit the report to a server (data collection facility 13 in Fig. 1; Fig. 10, step 138 shows a means for transmitting the report to the data collection facility, described on pg. 25, lns. 5-21).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055312

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Claims 2, 15, 17, 18 lack an inventive step under PCT Article 33(3) as being obvious over Knee et al. (hereafter Knee) in view of Anderson et al. (hereafter Anderson).

Regarding claim 2, Knee discloses the method of claim 1, but Knee fails to explicitly disclose upon completion of the transmitting of the report, receiving a failure indicator associated with transmitting the report; and
determining a number of attempted retransmissions is below a previously determined threshold and (i) retransmitting the report and (ii) incrementing the number of attempted retransmissions.
Anderson teaches of a monitoring and signaling system, comprising upon completion of the transmitting of a report (col. 10, ln. 23 – col. 11, ln. 17 describes using a sensor S and signals to monitor the status of a television receiver), receiving a failure indicator associated with transmitting the report (col. 13, lns. 26-66 describes an activity timer that measures the signals from the sensors and sounds an alarm via the CPU if a criteria is met, described in col. 14, lns. 32-50, where the alarm is a type of report; col. 17, lns. 3-44 describes using the CPU to reach the centralized communications center CCC, where several attempts can be made to establish communication with the CCC to provide the alarm; a reattempt at communication would indicate that transmitting the alarm had failed); and
determining a number of attempted retransmissions is below a previously determined threshold and (i) retransmitting the report and (ii) incrementing the number of attempted retransmissions (col. 17, lns. 3-44 describes making repeated attempts at communication with the CCC, where the number of attempts are counted; after eight attempts, the system stops trying to communicate with the CCC using a first telephone number).
It would have been obvious to one of skill in the art at the time of invention to modify the invention of Knee to include determining a transmission has failed and retransmitting up to a predetermined number of times as taught by Anderson as this allows the system to retransmit the report after a failure occurs, but does not continue to keep retransmitting in the same way if multiple failures continue to occur.

Regarding claim 15, Knee discloses the device of claim 9, but Knee fails to explicitly disclose wherein the transmitter transmits the usage report to a receiver upon a trigger event associated with, at least one of, the passage of time and a number of attempted transmissions of the report.
Anderson teaches of a monitoring and signaling system, wherein a transmitter (central processing unit CPU) transmits a usage report to a receiver (centralized communications center CCC) upon a trigger event associated with, at least one of, the passage of time (col. 10, ln. 23 – col. 11, ln. 17 describes using a sensor S and signals to monitor the status of a television receiver; col. 13, lns. 26-66 describes an activity timer that measures the signals from the sensors and sounds an alarm via the CPU if a criteria is met based upon the activity timer AT, described in col. 14, lns. 32-50, where the alarm is a type of report; col. 17, lns. 3-44 describes using the CPU to reach the centralized communications center CCC) and a number of attempted transmissions of the report.
It would have been obvious to one of skill in the art at the time of invention to modify the invention of Knee to include transmitting the report based upon a trigger as taught by Anderson as this allows the report to be transmitted at the appropriate time, rather than at a less useful time.

Regarding claims 17, 18, Knee discloses the device of claim 16, but Knee fails to explicitly disclose [claim 17] wherein the storage is further operable to store reports that were unsuccessfully transmitted to the server; and,
[claim 18] a trigger operable to cause the transmitter to retransmit stored reports in the storage.
Anderson teaches of a monitoring and signaling system, [claim 17] wherein a storage (memory 20; col. 12, ln. 41 – col. 13, ln. 24 describes the memory 20 storing information related to the sensor system) is further operable to store reports that were unsuccessfully transmitted to a server (centralized communications center CCC; Fig. 1 & 2; col. 10, ln. 23 – col. 11, ln. 17 describes using a sensor S and signals to monitor the status of a television receiver; col. 13, lns. 26-66 describes an activity timer that measures the signals from the sensors and sounds an alarm via the CPU if a criteria is met, described in col. 14, lns. 32-50, where the alarm is a type of report; col. 17, lns. 3-44 describes using the CPU to reach the centralized communications center CCC, where several attempts can be made to establish communication with the CCC to provide the alarm; essentially, the memory 20 would store the alarm information until communication with the CCC is established); and,
[claim 18] a trigger operable to cause the transmitter (CPU) to retransmit stored reports in the storage (20; col. 17, lns. 3-44 describes making repeated attempts at communication with the CCC, where the number of attempts are counted; the trigger would be a failure to establish communication with the CCC, in which case communication would be reattempted).
It would have been obvious to one of skill in the art at the time of invention to modify the invention of Knee to include storing the reports until a trigger causes a retransmit of the reports as taught by Anderson as this allows the reports to remain intact until they are finally transmitted correctly, rather than lose the report if a transmission fails on an initial attempt.

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055312

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Claims 3, 4, 11, 12 lack an inventive step under PCT Article 33(3) as being obvious over Knee et al. (hereafter Knee) in view of Wang et al. (hereafter Wang).

Regarding claims 3, 4, Knee discloses the method of claim 1, but Knee fails to explicitly disclose [claim 3] wherein capturing the data further comprises capturing a most used application activity of the television; and,
[claim 4] wherein capturing the data further comprises capturing a last used application activity of the television.
Wang teaches of a method for accessing exercise while watching TV, [claim 3] wherein capturing data further comprises capturing a most used application activity of a television (40; Fig. 1 & 2; para. 0024 describes providing shortcuts on a remote to play the last used or most user exercise program; playing a selected program functions in the same manner as an application, while having a shortcut button to play a last used or most used program inherently captures data related to the television usage, as the last used and most used programs can only be determined by collecting data related to said programs); and,
[claim 4] wherein capturing data further comprises capturing a last used application activity of a television (40; Fig. 1 & 2; para. 0024 describes providing shortcuts on a remote to play the last used or most user exercise program; playing a selected program functions in the same manner as an application, while having a shortcut button to play a last used or most used program inherently captures data related to the television usage, as the last used and most used programs can only be determined by collecting data related to said programs).
It would have been obvious to one of skill in the art at the time of invention to modify the invention of Knee to include capturing the most used and last used application activity of the TV as taught by Wang as this allows the system to understand the habits of the user based upon application use. This information can then be used to provide advertising and other content based upon the known habits of the television user.

Regarding claims 11, 12, Knee discloses the device of claim 9, but Knee fails to explicitly disclose [claim 11] wherein the activity monitor identifies a most used activity of the television; and,
[claim 12] wherein the activity monitor identifies a last used activity of the television.
Wang teaches of a method for accessing exercise while watching TV, [claim 11] wherein an activity monitor identifies a most used activity of a television (40; Fig. 1 & 2; para. 0024 describes providing shortcuts on a remote to play the last used or most user exercise program; in order to determine the most used and last used programs, the activity of playing said programs must inherently be monitored); and,
[claim 12] wherein an activity monitor identifies a last used activity of the television (40; Fig. 1 & 2; para. 0024 describes providing shortcuts on a remote to play the last used or most user exercise program; in order to determine the most used and last used programs, the activity of playing said programs must inherently be monitored).
It would have been obvious to one of skill in the art at the time of invention to modify the invention of Knee to include capturing the most used and last used application activity of the TV as taught by Wang as this allows the system to understand the habits of the user based upon application use. This information can then be used to provide advertising and other content based upon the known habits of the television user.

Claims 5-7, 14, 19, 20 lack an inventive step under PCT Article 33(3) as being obvious over Knee et al. (hereafter Knee) in view of Johnson et al. (hereafter Johnson).

Regarding claims 5, 6, Knee discloses the method of claim 1, but Knee fails to explicitly disclose [claim 5] wherein capturing the data further comprises capturing an uninstalled application activity of the television; and,
[claim 6] wherein, upon the capturing of an uninstalled application activity, triggering the generating of the report and the transmitting of the report.
Johnson teaches of a method for monitoring information flow and performing data collection, [claim 5] wherein capturing data further comprises capturing an uninstalled application activity of a television (Fig. 1 shows the system for data collection, including activities from a television 36 and a cable television system 52, described in col. 4, lns. 30-67; col. 5, lns. 56 – 63 describes how the specifics of data communication can applied to the devices of Fig. 1; col. 14, lns. 1-8 describes how after an application has been removed, the application's activity record is updated); and,
[claim 6] wherein, upon the capturing of an uninstalled application activity, triggering a generating of a report and transmitting of the report (Fig. 1 shows the system for data collection, including activities from a television 36 and a cable television system 52, described in col. 4, lns. 30-67; col. 5, lns. 56 – 63 describes how the specifics of data communication can applied to the devices of Fig. 1; col. 14, lns. 1-8 describes how after an application has been removed, the application's activity record is updated and the record is transferred to disk; the activity record is essentially the report and its transfer to disk is the transmission of said report).
It would have been obvious to one of skill in the art at the time of invention to modify the invention of Knee to include capturing an uninstalled application activity data and transmitting a report of said data as taught by Johnson as this allows data related to the uninstalled application to be sent to be analyzed. This can allow the reason for the application being removed to be determined, such as said application was rarely used.

Regarding claim 7, Knee discloses the method of claim 1, but Knee fails to explicitly disclose wherein capturing the data further comprises capturing an availability application associated with installed applications of the television.
Johnson teaches of a method for monitoring information flow and performing data collection, wherein capturing data further comprises capturing an availability application associated with installed applications of a television (Fig. 1 shows the system for data collection, including activities from a television 36 and a cable television system 52, described in col. 4, lns. 30-67; col. 5, lns. 56 – 63 describes how the specifics of data communication can applied to the devices of Fig. 1; col. 13, ln. 54 – col. 14, ln. 8 describes an application list that determines what applications have been added or removed, which in turn allows the system to determine the installed applications and each application's activity information).
It would have been obvious to one of skill in the art at the time of invention to modify the invention of Knee to include capturing the availability of installed applications as taught by Johnson as this can help determine what type of applications the user installs, to get a better sense of the habits of said user.

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055312

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding claim 14, Knee discloses the device of claim 9, but Knee fails to explicitly disclose wherein the activity monitor identifies an uninstalled application activity of the television.
Johnson teaches of a method for monitoring information flow and performing data collection, wherein an activity monitor identifies an uninstalled application activity of a television (Fig. 1 shows the system for data collection, including activities from a television 36 and a cable television system 52, described in col. 4, lns. 30-67; col. 5, lns. 56 – 63 describes how the specifics of data communication can applied to the devices of Fig. 1; col. 14, lns. 1-8 describes how after an application has been removed, the application's activity record is updated).
It would have been obvious to one of skill in the art at the time of invention to modify the invention of Knee to include capturing an uninstalled application activity data as taught by Johnson as this allows data related to the uninstalled application to be sent to be analyzed. This can allow the reason for the application being removed to be determined, such as said application was rarely used.

Regarding claims 19, 20, Knee discloses the electronic system of claim 16, but Knee fails to explicitly disclose [claim 19] wherein the activity monitor is operable to monitor the activity of the application further comprises monitoring, at least one of, the installation of the application on the television and the removal of the application from the television; and,
[claim 20] wherein, upon the activity monitor monitoring the, at least one of, the installation of the application on the television and the removal of the application from the television, causing the report generator to generate a report and the transmitter to transmit the report.
Johnson teaches of a method for monitoring information flow and performing data collection, [claim 19] wherein an activity monitor is operable to monitor an activity of an application further comprises monitoring, at least one of, the installation of the application on the television and the removal of the application from the television (Fig. 1 shows the system for data collection, including activities from a television 36 and a cable television system 52, described in col. 4, lns. 30-67; col. 5, lns. 56 – 63 describes how the specifics of data communication can applied to the devices of Fig. 1; col. 13, ln. 54 – col. 14, ln. 8 describes an application list that determines what applications have been added or removed, as well as monitoring each application's activity information); and,
[claim 20] wherein, upon the activity monitor monitoring the, at least one of, the installation of the application on the television and the removal of the application from the television (Fig. 1 shows the system for data collection, including activities from a television 36 and a cable television system 52, described in col. 4, lns. 30-67; col. 5, lns. 56 – 63 describes how the specifics of data communication can applied to the devices of Fig. 1; col. 13, ln. 54 – col. 14, ln. 8 describes an application list that determines what applications have been added or removed, as well as monitoring each application's activity information),
causing a report generator to generate a report and a transmitter to transmit the report (col. 14, lns. 1-8 describes how after an application has been removed, the application's activity record is updated and the record is transferred to disk using the system of Fig. 1; the activity record is essentially the report and its transfer to disk is the transmission of said report).
It would have been obvious to one of skill in the art at the time of invention to modify the invention of Knee to include capturing an uninstalled application activity data and transmitting a report of said data as taught by Johnson as this allows data related to the uninstalled application to be sent to be analyzed. This can allow the reason for the application being removed to be determined, such as said application was rarely used.

Claims 8, 13 lack an inventive step under PCT Article 33(3) as being obvious over Knee et al. (hereafter Knee) in view of Kutzik et al. (hereafter Kutzik).

Regarding claim 8, Knee discloses the method of claim 1, but Knee fails to explicitly disclose upon transmitting of the report, resetting a reporting period.
Kutzik teaches of monitoring a daily living activity and analyzing data related, comprising upon transmitting of a report, resetting a reporting period (pg. 35, lns. 9-30 describes monitoring of TV habits; pg. 23, ln. 24 – pg. 24, ln. 4 describes providing scheduled periodic user activity reports based upon information gathered from any of the monitored activities).
It would have been obvious to one of skill in the art at the time of invention to modify the invention of Knee to include resetting a reporting period after transmitting a report as taught by Kutzik as this allows reports to be sent on a schedule, at pre-determined times, in an automatic fashion.

Regarding claim 13, Knee discloses the device of claim 9, but Knee fails to explicitly disclose wherein the activity monitor identifies a duration of a last activity of the television.
Kutzik teaches of monitoring a daily living activity and analyzing data related, wherein an activity monitor identifies a duration of a last activity of a television (pg. 35, lns. 9-30 describes monitoring of TV habits so as to log the duration of television viewing throughout the day; pg. 23, ln. 24 – pg. 24, ln. 4 describes providing scheduled periodic user activity reports based upon information gathered from any of the monitored activities).
It would have been obvious to one of skill in the art at the time of invention to modify the invention of Knee to include monitoring a duration of the last activity of the television as taught by Kutzik as this information is also used to determine the habits of the user, for later use in advertisements and personalized content.

Claims 1-20 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: Jason H. Vick
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, Colorado 80202
United States of America

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference 6583-500-PCT	Date of mailing *(day/month/year)* 12 NOV 2013 **FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. PCT/US13/55374	International filing date *(day/month/year)* 16 August 2013 (16.08.2013)
Applicant Flextronics AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Shane Thomas PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-500-PCT	**FOR FURTHER ACTION**	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US13/55374	International filing date *(day/month/year)* 16 August 2013 (16.08.2013)	(Earliest) Priority Date *(day/month/year)* 17 August 2012 (17.08.2012)
Applicant Flextronics AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 14

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US13/55374

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H04N 21/47 (2013.01)
USPC - 715/825
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) - G06F 17/00; H04H 60/33; H04N 21/47 (2013.01)
USPC - 715/825; 725/14; 725/39

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
MicroPatent (US-G, US-A, EP-A, EP-B, WO, JP-bib, DE-C,B, DE-A, DE-T, DE-U, GB-A, FR-A); Google Patents, DialogPro, IEEE, Google Scholar; smart tv, icon, menu, usage, set top box, statistics, metric

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 2007/0050733 A1 (LEE, S et al.) 1 March 2007; Abstract, Figure 1, Paragraphs [0035], [0043], [0044], [0049], [0053], and [0061].	1-4, 7, 10-14, 17 and 20 --- 5, 6, 8, 9, 15, 16, 18 and 19
Y	US 2012/0096264 A1 (TRAVERSAT, B et al.) 19 April 2012; Abstract, Paragraphs [0019]-[0021], [0036], [0046], [0053] and [0068].	5, 6, 8, 9, 15, 16, 18 and 19

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
29 October 2013 (29.10.2013)	12 NOV 2013
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: Jason H. Vick
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, Colorado 80202
United States of America

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	12 NOV 2013
Applicant's or agent's file reference 6583-500-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US13/55374	16 August 2013 (16.08.2013)	17 August 2012 (17.08.2012)

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H04N 21/47 (2013.01)
USPC - 715/825

Applicant Flextronics AP, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 *bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	29 October 2013 (29.10.2013)	Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55374

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

      ☐ on paper

      ☐ in electronic form

   b. (time)

      ☐ in the international application as filed

      ☐ together with the international application in electronic form

      ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55374

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	5, 6, 8, 9, 15, 16, 18 and 19	YES
	Claims	1-4, 7, 10-14, 17 and 20	NO
Inventive step (IS)	Claims	NONE	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	NONE	NO

2. Citations and explanations:

Claims 1-4, 7, 10-14, 17 and 20 lack novelty under PCT Article 33(2) as being anticipated by 2007/0050733 Al, Lee, et al. (hereinafter 'Lee').

As per Claims 1, 11 and 20, Lee discloses a method and systems to assemble and manage usage information with usage statistics provider in an intelligent TV comprising: assembling one or more of usage information and installation information (a set-top box associated with the television (intelligent TV) detects (assembles) which option is frequently executed (usage information) while using the videophone (usage statistics provider) wherein the application options are based on use frequency (usage statistics), paragraphs [0035], [0061]); querying the one or more of usage information and installation information to populate one or more of icons and information in a view on the intelligent TV (the set-top box associated with a television (intelligent TV) receives a user command (query) that detects the current application and accordingly arranges application in order of use frequency; a list is prepared based on the same with corresponding menu options (one or more icons), paragraphs [0061], [0067]); assembling the one or more of icons and information into a requested view and displaying the view on a display of the intelligent TV when user chooses button for dynamic menu construction (requested view), (when user chooses button for dynamic menu construction (requested view) the list of preferred applications are arranged in order of use frequency with corresponding menu options (one or more icons) and displays that menu accordingly, paragraphs [0060], [0061], [0067]).

As per Claim 2 and 12, Lee discloses the method and system of claims 1 and 11. Lee further discloses wherein the view includes a master view, a collection view and a detail view (an application related map (view) include upper executable applications (master view), the applications executable while in operation (collection view), such as Photo album and adding additional options when doing certain tasks (detail view) in an application, paragraphs [0055], [0056], [0065], [0066]).

As per Claims 3 and 13, Lee discloses the method and system of claims 1 and 11. Lee further discloses a method and system further comprising monitoring and tracking usage information for the intelligent TV (a set-top box associated with a television (intelligent TV) detects (assembles) which option is frequently executed (track usage information) while using the videophone, paragraphs [0035], [0061]).

As per Claims 4 and 14, Lee discloses the method and system of claims 1 and 11. Lee further discloses a method and system further comprising monitoring and tracking usage information for one or more applications installed on the intelligent TV (the set-top box detects which option is frequently executed (track usage information) while using the videophone (usage statistics provider) for selected applications, paragraphs [0043], [0044], [0061], [0067]).

As per Claims 7 and 17, Lee discloses the method of claims 1 and 11. Lee further discloses a method and system comprising a silo manager adapted to sort information in the view based at least on the one or more of usage information and installation information (a history of user application is listed (sorting information) in the order of use frequency (usage information) can be determined by a system manager (sorting or silo manager), paragraphs [0046], [0053]).

As per Claim 10, Lee discloses Claim 1. Lee further discloses a non-transitory computer readable information storage media having stored thereon instructions, that when executed by one or more processors, cause to be performed the method steps in Claim 1 (the set-top box 100 with controller 120 (computer) and internal storage 101 (non-transitory computer readable media) performs the steps of claim 1, paragraphs [0035], [0042]-[0044]).

Claims 5, 6, 8, 9, 15, 16, 18 and 19 lack an inventive step under PCT Article 33(3) as being obvious over Lee in view of US 2012/0096264 A1 Traversat et al. (hereinafter 'Traversat').

As per Claims 5 and 15, Lee discloses the method and system of claims 1 and 14. Lee fails to disclose further a method and system further comprising a system report handler adapted for reporting the usage information to one or more remote servers. Traversat discloses a method and system further comprising a system report handler adapted for reporting the usage information to one or more remote servers (the client usage data is obtained from the network device and the warehouse that has one or more servers (report handler) uses this client usage data to generate trends (report), paragraphs [0020], [0021], [0068]). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method and system disclosed in Lee to include a method and system further comprising a system report handler adapted for reporting the usage information to one or more remote servers, as taught in Traversat, for the benefit of allowing third parties such as application providers to adapt to customer usage.

-***-Continued Within the Next Supplemental Box-***-

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55374

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

Claim 18 is objected to under PCT Rule 66.2(a)(iii) as containing the following defect in the form or contents thereof: Claim 18 appears to be missing the word 'to' between the words 'adapted' and 'sort'. Claim 18 has been best understood to read, in relevant part, "a silo manager adapted to sort information".

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55374

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:
-***-Continued from Previous Supplemental Box-***-

As per Claims 6 and 16, Lee discloses the method and system of claims 1 and 11. Lee fails to further disclose a method and system comprising assembling a notification when a package is installed. Traversat discloses a method and system comprising assembling a notification when a package is installed (the application metrics (170) indicates (notification) information related to the number of times an application (package) has been installed or reinstalled, paragraph [0019], [0020], and [0021]). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method and system disclosed in Lee to include a method and system comprising assembling a notification when a package is installed, as taught in Traversat, for the benefit of allowing third parties such as application providers to adapt to customer usage.

As per Claims 8 and 18, Lee discloses the method of claims 1 and 11. Lee further discloses a method and system further comprising a silo manger adapted to sort information in at least one panel based at least on the one or more of usage information and installation information (a history of user application is listed (sorting information) in the order of use frequency (usage information) can be determined by a system manager (sorting or silo manager), paragraphs [0046], [0053]), but fails to disclose the at least one panel including a plurality of icons each representing an available app or content. Traversat discloses at least one panel including a plurality of icons each representing an available app or content (the application information will display when a user hovers over one or more icons associated with the application, paragraph [0036]). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method and system disclosed in Lee to include at least one panel including a plurality of icons each representing an available app or content, as taught in Traversat, for the benefit of indicating application function to a user visually as well as textually.

As per Claims 9 and 19, Lee discloses the method of claims 1 and 11. Lee further discloses a method and system comprising sorting information in at least one panel subcategory based at least on the one or more of usage information and installation information (a history of user application is listed (sorting information) in the order of use frequency (usage information) paragraphs [0046], [0053]), but fails to disclose the at least one subpanel panel including a plurality of icons each representing an available app or content. Traversat discloses the at least one subpanel panel including a plurality of icons each representing an available app or content (the application information will display when a user hovers over one or more icons associated with the application, paragraph [0036]). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method and system disclosed in Lee to include the at least one subpanel panel including a plurality of icons each representing an available app or content, as taught in Traversat, for the benefit of indicating application function to a user visually as well as textually.

Claims 1-20 have industrial applicability as defined by PCT Article 33(4) because the subject matter can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: Jason H. Vick
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, Colorado 80202
United States of America

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference 6583-501-PCT	Date of mailing *(day/month/year)* 10 MAR 2014 **FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. PCT/US13/55542	International filing date *(day/month/year)* 19 August 2013 (19.08.2013)
Applicant Flextronics AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Shane Thomas PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-501-PCT	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US13/55542	International filing date *(day/month/year)* 19 August 2013 (19.08.2013)	(Earliest) Priority Date *(day/month/year)* 17 August 2012 (17.08.2012)
Applicant Flextronics AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 7 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 14

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT PCT/US2013/055542 10.03.2014

International application No.
PCT/US13/55542

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H04N 21/431 (2014.01)
USPC - 725/44
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) Classification(s): G06F 3/048; H04N 21/431, 21/482 (2014.01)
USPC Classification(s): 725/43, 44, 46, 47

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
MicroPatent (US-G, US-A, EP-A, EP-B, WO, JP-bib, DE-C,B, DE-A, DE-T, DE-U, GB-A, FR-A); ProQuest; IEEE; Google/Google Scholar
Keywords: Smart TV, Display, Icon, Widget, Application, Third Party, Programs, Usage, Order

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	WO 2012/094247 A2, (DODSON, C. et al.), 12 July 2012; paragraphs [0034], [0035], [0040], [0047], [0051], [0057], [0058], [0102], [0154], [0190].	1, 10 --- 2-9, 11-20
Y	US 2011/0252446 A1, (JEONG Y. et al.), 13 October 2011; figures 15a, 16b, paragraphs [0048], [0144], [0242], [0275], [0278], [0442], [0443], [0444], [0475], [0492].	2-9, 11-20

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
04 February 2014 (04.02.2014)	10 MAR 2014
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: Jason H. Vick
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, Colorado 80202
United States of America

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	10 MAR 2014
Applicant's or agent's file reference 6583-501-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US13/55542	19 August 2013 (19.08.2013)	17 August 2012 (17.08.2012)

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H04N 21/431 (2014.01)
USPC - 725/44

Applicant Flextronics AP, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 *bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Fom PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	04 February 2014 (04.02.2014)	Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55542

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

      ☐ on paper

      ☐ in electronic form

   b. (time)

      ☐ in the international application as filed

      ☐ together with the international application in electronic form

      ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55542

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	2-9, 11-20	YES
	Claims	1, 10	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	None	NO

2. Citations and explanations:

Claims 1 and 10 lack novelty under PCT Article 33(2) as being anticipated by WO 2012/094247 A2 to Dodson et al. (hereinafter "Dodson").

As to claim 1, Dodson discloses a method to manage and display third party applications on an intelligent TV (a method for media guidance display on a smart TV (method to manage and display third party applications on an intelligent TV), paragraphs [0034], [0035], [0040) comprising: monitoring installation and usage of one or more third party applications on the intelligent TV (user activity or accesses on the smart TV is monitored to determine user preferences (monitoring installation and usage of one or more third party applications on the intelligent TV), paragraph [0047]); updating a most recently installed app value (any suitable mechanism for updating media identifiers may be used by filtering the media identifiers with additional criteria (updating a most recently installed app value), paragraph [0187]); detecting selection of a view (detect whether the location coordinates of a cursor are approaching the center (detecting selection) of a selectable media identifier (of a view), paragraph [0153]); applying a sort order to a plurality of icons each representing one of the one or more third party applications on the intelligent TV at least based on a usage value and the most recently installed app value (any suitable approach for determining the popularity or trending (applying a sort order) of media content may be used to select media content for display in the trending region on the smart TV display (to a plurality of icons representing one of the one or more third party applications on the intelligent TV) based on user activity (usage value) and filtering the media identifiers with additional criteria (and the most recently installed app value), paragraphs [0047], [0101], [0187]); populating the view with the plurality of icons (present the user with a two-dimensional selection region (populating the view) associated with a plurality of media identifiers (with the plurality of icons), paragraph [0057]); and displaying the plurality of icons on a display (displaying the media identifiers (displaying the plurality of icons) on a display screen (on a display), paragraphs [0057], [0058]).

As to claim 10, Dodson discloses a non-transitory computer readable information storage media having stored thereon instructions, that when executed by one or more processors, cause to be performed the method steps in claim 1 (processing circuitry of one or more processing units (one or more processors) execute the instructions (a non-transitory computer readable information) for a media guidance method (cause to be performed the method steps in claim 1) application stored in memory (storage media having stored thereon), paragraph [0051]).

-***-Continued Within the Next Supplemental Box-***-

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55542

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

Claim 13 is objected to under PCT Rule 66.2(a)(iii) as containing the following defect(s) in the form or contents thereof:

Claim 13, recites "input even dispatcher ", however, this appears to be a typographical error. For purposes of this opinion, the limitation is interpreted to recite " input event dispatcher ".

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55542

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

-***-Continued from Box V: Citations and Explanations-***-

Claims 2-9 and 11-20 lack an inventive step under PCT Article 33(3) as being obvious over Dodson in view of US 2011/0252446 A1 to Jeong et al. (hereinafter "Jeong").

As to claims 11 and 20, Dodson discloses a system to manage and display third party applications on an intelligent TV comprising (a system for media guidance display on a smart TV (system) to manage and display third party applications on an intelligent TV), paragraphs [0034], [0035], [0040]): a third party application support module adapted to monitor installation and usage of one or more third party applications on the intelligent TV (a media guidance application (a third party application support module) user activity or accesses on the smart TV is monitored to determine user preferences (to monitor installation and usage of one or more third party applications on the intelligent TV), paragraph [0047]); a processor adapted to detect selection of a view (a processor (processor) detect whether the location coordinates of a cursor are approaching the center (detecting selection) of a selectable media identifier (of a view), paragraphs [0051] [0153]); However, Dodson fails to disclose a system comprising: and update a most recently installed app value; and apply a sort order to a plurality of icons each representing one of the one or more third party applications on the intelligent TV at least based on a usage value and the most recently installed app value; and a panel manager and a silo manager that populate the view with the plurality of icons and display the plurality of icons on a display. Jeong discloses a system comprising: and update a most recently installed app value (the image display apparatus may arrange the applications which are recently downloaded (update a most recently app value), paragraph [0444]); and apply a sort order to a plurality of icons each representing one of the one or more third party applications on the intelligent TV (the image display apparatus displays the applications as icons (to a plurality of icons each representing one of the one or more third party applications) that can be arranged by different arrangement orders (apply a sort order) on the smart TV (on the intelligent TV), paragraphs [0422], [0492])at least based on a usage value and the most recently installed app value (the image display apparatus may arrange the application menu corresponding to applications most frequently used by the user (based on a usage value) or by applications recently downloaded (and the most recently installed app value), paragraph [0444]); and a panel manager and a silo manager that populate the view with the plurality of icons and display the plurality of icons on a display (the display manager apparatus (a panel manager and a silo manager) shows the screen in a first display of the application icons (panel) and a second display area displaying a card object representing a list of connected external devices (silo) and display icons associated with applications (display the plurality of icons on a display), paragraphs [0144], [0443], [0475]). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the system of Dodson to include and update a most recently installed app value; and apply a sort order to a plurality of icons each representing one of the one or more third party applications on the intelligent TV at least based on a usage value and the most recently installed app value; and a panel manager and a silo manager that populate the view with the plurality of icons and display the plurality of icons on a display, as taught by Jeong, for the benefit of changing the display order based on various parameters.

As to claims 2 and 12, Dodson discloses the method of claim 1 and Dodson and Jeong disclose the system of claim 11. However, Dodson fails to disclose a method further comprising placing fixed third party application and pre-installed applications first. Jeong discloses method further comprising placing fixed third party application and pre-installed applications first (applications may be categorized into user-undeletable applications (fixed third party applications); the content provider may provide various applications (pre-installed applications); the image display apparatus can set the display order based on installation order of applications (placing applications first), paragraphs [0048], [0242], [0422]). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the method of Dodson to include placing fixed third party application and pre-installed applications first, as taught by Jeong, for the benefit of displaying the fixed and pre-installed applications first.

As to claim 3, Dodson discloses the method of claim 1. However, Dodson fails to disclose a method further comprising allowing selection of an icon for execution of a third party application. Jeong discloses a method further comprising allowing selection of an icon for execution of a third party application (selecting an application icon using a pointer (selection of an icon); the selected third party application is executed (for execution of a third party application), figure 16b, paragraphs [0275], [0278], [0423]). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the method of Dodson to include allowing selection of an icon for execution of a third party application, as taught by Jeong, for the benefit of allowing a user to initiate execution of a third party application by selecting an icon.

As to claim 4, Dodson discloses the method of claim 1. However, Dodson fails to disclose a method further comprising detecting an uninstallation of one of the one or more third party applications. Jeong discloses a method further comprising detecting an uninstallation of one of the one or more third party applications (applications can be deleted (uninstallation) an application list is displayed from the applications stored in the image display apparatus (detecting an uninstallation of one or more of the third party applications), paragraphs [0042], [0277]). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the method of Dodson to include detecting an uninstallation of one of the one or more third party applications, as taught by Jeong, for the benefit of updating the display of the installed applications.

As to claims 5 and 15, Dodson discloses the method of claim 1 and Dodson and Jeong disclose the system of claim 11. However, Dodson fails to disclose a method further comprising wherein the view is a master view, a collection view or a detail view. Jeong discloses a method further comprising wherein the view is a master view, a collection view or a detail view (application list may include an icon and a brief description of the application (wherein the view is a detail view), figure 15a, paragraph [0275]). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the method of Dodson to include wherein the view is a master view, a collection view or a detail view, as taught by Jeong, for the benefit of offering view options to the user.

-***-Continued Within the Next Supplemental Box-***-

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55542

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:
-***-Continued from Previous Supplemental Box-***-

As to claim 6, Dodson discloses the method of claim 1. However, Dodson fails to disclose a method further comprising updating information in a panel. Jeong discloses a method further comprising updating information in a panel (a second display area (panel) is changed upon receiving a command to change (comprising updating information), paragraph [0010]). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the method of Dodson to include updating information in a panel, as taught by Jeong, for the benefit of updating the panel display.

As to claims 7 and 17, Dodson discloses the method of claim 1 and Dodson and Jeong disclose the system of claim 11. However, Dodson fails to disclose a method wherein an application framework supports the one or more third party applications. Jeong discloses a method wherein an application framework supports the one or more third party applications (the framework (wherein the application framework) includes programs on which applications are based and is compatible with any application (supports the one or more third party applications), paragraph [0240]). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the method of Dodson to include wherein an application framework supports the one or more third party applications, as taught by Jeong, for the benefit of allowing third party applications to be displayed and executed in the display apparatus.

As to claims 8 and 18, Dodson discloses the method of claim 1 and Dodson and Jeong disclose the system of claim 11. However, Dodson fails to disclose a method wherein a list of the one or more third party applications is dynamically updated. Jeong discloses a method wherein a list of the one or more third party applications is dynamically updated. (when the user selects the application list view, the list of applications stored in the image display apparatus is displayed (wherein a list of the one or more third party applications is dynamically updated), paragraph [0277]). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the method of Dodson to include wherein a list of the one or more third party applications is dynamically updated, as taught by Jeong, for the benefit of displaying the current updated list of third party applications.

As to claims 9 and 19, Dodson discloses the method of claim 1 and Dodson and Jeong disclose the system of claim 11. However, Dodson fails to disclose a method wherein a preference value persist at least two last installed third party applications or at least two last used applications or at least two most frequently used applications. Jeong discloses a method wherein a preference value persist at least two last installed third party applications or at least two last used applications or at least two most frequently used applications (the application items set by the user may be edited as frequently used application items (wherein a value persist at least two most frequently used applications), paragraph [0350]). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the method of Dodson to include wherein a preference value persist at least two last installed third party applications or at least two last used applications or at least two most frequently used applications, as taught by Jeong, for the benefit of displaying the applications based on frequency of use or newness.

As to claim 13, Dodson and Jeong disclose the system of claim 11. However Dodson fails to disclose a system further comprising an input event dispatcher that allows selection of an icon for execution of a third party application. Jeong discloses a system further comprising an input event dispatcher that allows selection of an icon for execution of a third party application (the middleware mad mediate between different hardware devices or different software programs (an input event dispatcher); upon selecting an application icon the selected third party application is executed (that allows selection of an icon for execution of a third party application), figure 16b, paragraphs [0231], [0275], [0278], [0423]). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the system of Dodson to include an input event dispatcher that allows selection of an icon for execution of a third party application, as taught by Jeong, for the benefit of launching the execution of an application after a user selects an icon.

As to claim 14, Dodson and Jeong disclose the system of claim 11. However, Dodson fails to disclose a system further comprising an application framework adapted to detect an uninstallation of one of the one or more third party applications. Jeong discloses a system further comprising an application framework adapted to detect an uninstallation of one of the one or more third party applications (the framework includes programs adapted to be displayed in the image display apparatus (wherein the application framework adapted to detect); applications can be deleted (uninstallation) an application list is displayed from the applications stored in the image display apparatus (detecting an uninstallation of one or more of the third party applications), paragraphs [0042], [0240], [0241], [0277]). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the system of Dodson to include an application framework adapted to detect an uninstallation of one of the one or more third party applications, as taught by Jeong, for the benefit of keeping the display of installed third party applications up to date.

As to claim 16, Dodson and Jeong disclose the system of claim 11. However, Dodson fails to disclose a system further comprising a panel manager adapted to update information in a panel. Jeong discloses a system further comprising a panel manager adapted to update information in a panel (the display manager apparatus (a panel manager) shows the screen in a first display of the application icons (panel); when the user selects the application list view, the list of applications stored in the image display apparatus is displayed (adapted to update information in a panel), paragraph [0277], paragraphs [0475]). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the system of Dodson to include a panel manager adapted to update information in a panel, as taught by Jeong, for the benefit of keeping the display of icons current.

Claims 1-20 have industrial applicability as defined by PCT Article 33(4) because the subject matter can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: Scott Weitzel
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, CO 80202
United States of America

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Date of mailing *(day/month/year)*	24 JAN 2014
Applicant's or agent's file reference: 6583-502-PCT	**FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No.: PCT/US13/55315	International filing date *(day/month/year)*: 16 August 2013 (16.08.2013)
Applicant: Flextronics AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Shane Thomas PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-502-PCT	**FOR FURTHER ACTION**	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US13/55315	International filing date *(day/month/year)* 16 August 2013 (16.08.2013)	(Earliest) Priority Date *(day/month/year)* 17 August 2012 (17.08.2012)
Applicant Flextronics AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 9 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**
   a. With regard to the **language**, the international search was carried out on the basis of:
      ☒ the international application in the language in which it was filed.
      ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).
   b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).
   c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,
   ☒ the text is approved as submitted by the applicant.
   ☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,
   ☒ the text is approved as submitted by the applicant.
   ☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,
   a. the figure of the **drawings** to be published with the abstract is Figure No. 14
      ☒ as suggested by the applicant.
      ☐ as selected by this Authority, because the applicant failed to suggest a figure.
      ☐ as selected by this Authority, because this figure better characterizes the invention.
   b. ☐ none of the figures is to be published with the abstract.

Form PCT/ISA/210 (first sheet) (July 2009)

INTERNATIONAL SEARCH REPORT

PCT/US2013/055315 24.01.2014

International application No.
PCT/US13/55315

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - G06F 12/00, 3/48; H04N 5/00 (2014.01)
USPC - 715/ 838, 722, 825
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) Classification(s): G06F 12/00, 17/00, 3/00; H04N 5/00 (2014.01)
USPC Classification(s): 711/118; 707/740; 715/ 838, 722, 825

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
MicroPatent (US Granted, US Applications, EP-A, EP-B, WO, JP, DE-G, DE-A, DE-T, DE-U, GB-A, FR-A); ProQuest (Derwent, INSPEC, NTIS, PASCAL, Current Contents Search, Dissertation Abstracts Online, Inside Conferences); IP.com; IEEE.com; Google Scholar, DVR, playlist, thumbnail generator, time stamp, video, expire, delete, unwatched recording

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 2006/0280449 A1 (OGAWA, H. et al.) December 14, 2006; Abstract, figures 9-12, paragraphs [0012]-[0035], [0058]-[0063], [0110]-[0147].	1-3, 5-6, 8, 12-14, 17-19 --- 4, 7, 9-11, 15-16, 20
Y	US 2012/0002951 A1 (REISMAN, R.) January 5, 2012; Figures 4 and 5, paragraphs [0022]-[0031], [0046]-[0048], [0094]-[0100], [0136]-[0166].	4, 7, 9, 15-16, 20
Y	US 8,006,201 B2 (BHATTACHARYA, S.) August 23, 2011; Abstract, figure 2A, column 1, line 40- column 2, line 25; column 4, line 20- column 6, line 34.	10-11

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
6 January 2014 (06.01.2014)	24 JAN 2014
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: Scott Weitzel
Sheridan Ross P.C.
1560 Broadway
Suite 1200
Denver, CO 80202
United States of America

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	24 JAN 2014
Applicant's or agent's file reference 6583-502-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US13/55315	16 August 2013 (16.08.2013)	17 August 2012 (17.08.2012)

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - G06F 12/00, 3/48; H04N 5/00 (2014.01)
USPC - 715/ 838, 722, 825

Applicant Flextronics AP, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 *bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	6 January 2014 (06.01.2014)	Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55315

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

      ☐ on paper

      ☐ in electronic form

   b. (time)

      ☐ in the international application as filed

      ☐ together with the international application in electronic form

      ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55315

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	4, 7, 9-11, 15-16, 20	YES
	Claims	1-3, 5-6, 8, 12-14, 17-19	NO
Inventive step (IS)	Claims	NONE	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	NONE	NO

2. Citations and explanations:

Claims 1-3, 5-6, 8, 12-14, and 17-19 lack novelty under PCT Article 33(2) as being anticipated by US 2006/0280449 A1 to Ogawa, et al. (Hereinafter Ogawa).

As for claim 1, Ogawa discloses the method of operation of a thumbnail engine of an electronic device (thumbnail forming unit 118 within video display device 100, abstract, figures 9-12, paragraphs [0012]-[0035], [0058]-[0063], [0110]-[0147]), comprising: accessing, by a processor associated with the electronic device (central processing unit 102 or 204 in the video display device 100, abstract, figures 9-12, paragraphs [0012]-[0035], [0058]-[0063], [0110]-[0147]), a thumbnail image in a storage (thumbnails are stored in thumbnail storage unit 112, abstract, figures 9-12, paragraphs [0012]-[0035], [0058]-[0063], [0110]-[0147]), the thumbnail image being associated with a media file (the thumbnail in storage unit 112 has related content in storage unit 110, abstract, figures 9-12, paragraphs [0012]-[0035], [0058]-[0063], [0110]-[0147]); and upon the occurrence of a thumbnail expiration event, marking the thumbnail image for deletion (at step S416, when there is no user operation for the prescribed time period (occurrence of a thumbnail expiration event), then at step S418, the thumbnails are deleted, abstract, figures 9-12, paragraphs [0012]-[0035], [0058]-[0063], [0110]-[0147]); and upon the occurrence of a delete event and determining the thumbnail image is identified for deletion, deleting the thumbnail image from the storage (at step S416, when there is no user operation for the prescribed time period (occurrence of a thumbnail expiration event), then at step S418, the thumbnails are deleted, abstract, figures 9-12, paragraphs [0012]-[0035], [0058]-[0063], [0110]-[0147]).

As for claim 2, Ogawa discloses the method of claim 1, further comprising retrieving a stored thumbnail image by a thumbnail identifier (at step S300 the central processing unit 204 determines whether a thumbnail request signal from the video display device has been received or not, and at S302 transmits the list of contents to the video display device with the content identification at step S306, abstract, figures 9-12, paragraphs [0012]-[0035], [0058]-[0063], [0110]-[0147]).

As for claim 3, Ogawa discloses the method of claim 2, further comprising: receiving requests for the thumbnail image; storing a timestamp of the receive request associated with the thumbnail image; and returning the thumbnail image (when the data and content identification is received on the side of the video display device 100 at step 406 (receiving requests for the thumbnail image), then at step S408 the thumbnail image is formed including the time point recorded at S410, at step S416 (storing a timestamp of the receive request associated with the thumbnail image), (returning the thumbnail image), when there is no user operation for the prescribed time period, then at step S418, the thumbnails are deleted, abstract, figures 9-12, paragraphs [0012]-[0035], [0058]-[0063], [0110]-[0147]).

As for claim 5, Ogawa discloses the method of claim 1, wherein the expiration event occurs upon determining the last access of the thumbnail image was prior to a threshold expiration value (at step S416, when there is no user operation for the prescribed time period (last access of the thumbnail image was prior to a threshold expiration value), then at step S418, the thumbnails are deleted, abstract, figures 9-12, paragraphs [0012]-[0035], [0058]-[0063], [0110]-[0147]).

As for claim 6, Ogawa discloses the method of claim 1, wherein the expiration event further comprises determining that the time the thumbnail was last accessed prior to the time another thumbnail was accessed at step S416, when there is no user operation for the prescribed time period (last accessed prior to the time another thumbnail was accessed), then at step S418, the thumbnails are deleted, abstract, figures 9-12, paragraphs [0012]-[0035], [0058]-[0063], [0110]-[0147]).

As for claim 8, Ogawa discloses the method of claim 1, further comprising: associating the thumbnail image with a media type in accord with a category associated with the media; and wherein marking the thumbnail image for deletion, further comprises, marking the thumbnail image for deletion upon determining the thumbnail image in accord with the media type (thumbnails for copy-never contents (media type) can be considered part of the contents (associated in accord with a category associated with the media) are deleted when a predetermined condition is satisfied, such as time passing from the last user operation within a prescribed time period (marketing the thumbnail image for deletion upon determining the thumbnail image in accord with the media), abstract, figures 9-12, paragraphs [0012]-[0035], [0058]-[0063], [0110]-[0147]).

-***-Continued Within the Next Supplemental Box-***-

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55315

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:
-***-Continued from Box V: Citations and Explanations-***-

As for claim 12, Ogawa discloses an electronic device (thumbnail forming unit 118 within video display device 100, abstract, figures 9-12, paragraphs [0012]-[0035], [0058]-[0063], [0110]-[0147]), comprising: a storage (central processing unit 102 or 204 in the video display device 100, abstract, figures 9-12, paragraphs [0012]-[0035], [0058]-[0063], [0110]-[0147]); a processor (central processing unit 102 or 204 in the video display device 100, abstract, figures 9-12, paragraphs [0012]-[0035], [0058]-[0063], [0110]-[0147]); wherein the storage contains a thumbnail associated with the media file (the thumbnail in storage unit 112 has related content in storage unit 110, abstract, figures 9-12, paragraphs [0012]-[0035], [0058]-[0063], [0110]-[0147]); and wherein the processor automatically marks the thumbnail for deletion upon the determination of an expiration event (at step S416, when there is no user operation for the prescribed time period (occurrence of a thumbnail expiration event), then at step S418, the thumbnails are deleted, abstract, figures 9-12, paragraphs [0012]-[0035], [0058]-[0063], [0110]-[0147]).

As for claim 13, Ogawa discloses the device of claim 12, wherein the processor retrieves the thumbnail upon receiving a request associated with an identifier associated with the thumbnail (at step S300 the central processing unit 204 determines whether a thumbnail request signal from the video display device has been received or not, and at S302 transmits the list of contents to the video display device with the content identification at step S306, abstract, figures 9-12, paragraphs [0012]-[0035], [0058]-[0063], [0110]-[0147]).

As for claim 14, Ogawa discloses the device of claim 12, wherein the processor automatically marks the thumbnail for deletion upon the determination of an expiration event associated with a category of the media (for no-copy media (category of the media) at step S416, when there is no user operation for the prescribed time period (occurrence of a thumbnail expiration event), then at step S418, the thumbnails are deleted, abstract, figures 9-12, paragraphs [0012]-[0035], [0058]-[0063], [0110]-[0147]).

As for claim 17, Ogawa discloses a non-transitory computer readable medium with instructions thereon to cause a computer to perform: creating a thumbnail image associated with a media (thumbnail forming unit 118 within video display device 100 forms thumbnails associated with content received thru transmission unit 108, abstract, figures 9-12, paragraphs [0012]-[0035], [0058]-[0063], [0110]-[0147]); storing a thumbnail image in a storage associated with the electronic device (thumbnails are stored in thumbnail storage unit 112, abstract, figures 9-12, paragraphs [0012]-[0035], [0058]-[0063], [0110]-[0147]); associating the thumbnail image with the media (the thumbnail in storage unit 112 has related content in storage unit 110, abstract, figures 9-12, paragraphs [0012]-[0035], [0058]-[0063], [0110]-[0147]); and upon the occurrence of a thumbnail expiration event marking the thumbnail image for deletion (at step S416, when there is no user operation for the prescribed time period (occurrence of a thumbnail expiration event), then at step S418, the thumbnails are deleted, abstract, figures 9-12, paragraphs [0012]-[0035], [0058]-[0063], [0110]-[0147]).

As for claim 18, Ogawa discloses the medium of claim 17, further comprising instructions to retrieve a stored thumbnail image by a thumbnail identifier (at step S300 the central processing unit 204 determines whether a thumbnail request signal from the video display device has been received or not, and at S302 transmits the list of contents to the video display device with the content identification at step S306, abstract, figures 9-12, paragraphs [0012]-[0035], [0058]-[0063], [0110]-[0147]).

As for claim 19, Ogawa discloses the medium of claim 17, further comprising instructions to: receive a request for the thumbnail image; store a timestamp of the receive request associated with the thumbnail image; and return the thumbnail image (when the data and content identification is received on the side of the video display device 100 at step 406 (receiving requests for the thumbnail image), then at step S408 the thumbnail image is formed including the time point recorded at S410, at step S416 (storing a timestamp of the receive request associated with the thumbnail image), (returning the thumbnail image), when there is no user operation for the prescribed time period, then at step S418, the thumbnails are deleted, abstract, figures 9-12, paragraphs [0012]-[0035], [0058]-[0063], [0110]-[0147]).

Claims 4, 7, 9, 15-16, and 20 lack an inventive step under PCT Article 33(3) as being obvious over Ogawa in view of US 2012/0002951 A1 to Reisman (Hereinafter Reisman).

As for claim 4, Ogawa discloses the method of claim 1, but Ogawa fails to disclose wherein the expiration event occurs upon determining the amount of free space in the storage is below a threshold free space value. However, Reisman discloses wherein the expiration event occurs upon determining the amount of free space in the storage is below a threshold free space value (progression deletion for media content to manage storage space and choose which content is deleted to managed the storage space, including deleting part of a cache or degrading quality of media to free storage space, the storage can be managed by profiles to specify the decay rate and endpoints based off the content such as time sensitive TV broadcasts such as the news, versus routine TV broadcasts or movies, figures 4 and 5, paragraphs [0022]-[0031], [0046]-[0048], [0136]-[0166]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Ogawa to include the free space determination of Reisman for the advantage of adaptively freeing space as needed based on the content desire and need to erase the content to get the maximum use out of storage space.

As for claim 7, Ogawa discloses the method of claim 1, but Ogawa fails to disclose wherein the expiration event further comprises determining the thumbnail image is associated with a media that has been deleted. However, Reisman discloses wherein the expiration event further comprises determining the thumbnail image is associated with a media that has been deleted (the media may be deleted layer by layer until the metadata, such as the thumbnail, is marked for deletion, with the content being progressively deleted as needed, figures 4 and 5, paragraphs [0022]-[0031], [0046]-[0048], [0094]-[0100], [0136]-[0166]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Ogawa to include the free space determination of Reisman for the advantage of adaptively freeing space as needed based on the content desire and need to erase the content to get the maximum use out of storage space.

-***-Continued Within the Next Supplemental Box-***-

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55315

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

-***-Continued from Previous Supplemental Box-***-

As for claim 9, Ogawa discloses the method of claim 8, but Ogawa fails to disclose wherein the category associated with the media is at least one of text, audio, video frame, a plurality of video frames, live programming, media provider, media creator, still image and interactive content. However, Reisman discloses wherein the category associated with the media is at least one of text, audio, video frame, a plurality of video frames, live programming, media provider, media creator, still image and interactive content (progression deletion for media content to manage storage space and choose which content is deleted to managed the storage space, including deleting part of a cache or degrading quality of media to free storage space, the storage can be managed by profiles to specify the decay rate and endpoints based off the content such as time sensitive TV broadcasts such as the news, versus routine TV broadcasts or movies, figures 4 and 5, paragraphs [0022]-[0031], [0046]-[0048], [0136]-[0166]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Ogawa to include the free space determination of Reisman for the advantage of adaptively freeing space as needed based on the content desire and need to erase the content to get the maximum use out of storage space.

As for claim 15, Ogawa discloses the device of claim 12, but Ogawa fails to disclose wherein the processor automatically marks the thumbnail for deletion upon the determination that the associated media has been deleted. However, Reisman discloses wherein the processor automatically marks the thumbnail for deletion upon the determination that the associated media has been deleted (the media may be deleted layer by layer until the metadata, such as the thumbnail, is marked for deletion, with the content being progressively deleted as needed, figures 4 and 5, paragraphs [0022]-[0031], [0046]-[0048], [0094]-[0100], [0136]-[0166]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Ogawa to include the free space determination of Reisman for the advantage of adaptively freeing space as needed based on the content desire and need to erase the content to get the maximum use out of storage space.

As for claim 16, Ogawa discloses the device of claim 12, but Ogawa fails to disclose wherein the processor deletes the thumbnail upon determining that the thumbnail is marked for deletion and the free space in the storage is below a threshold. However, Reisman discloses wherein the processor deletes the thumbnail upon determining that the thumbnail is marked for deletion and the free space in the storage is below a threshold (progression deletion for media content to manage storage space and choose which content is deleted to managed the storage space, marking the files for deletion but not deleting until the data is actually reassigned and overwritten, including deleting part of a cache or degrading quality of media to free storage space, the storage can be managed by profiles to specify the decay rate and endpoints based off the content such as time sensitive TV broadcasts such as the news, versus routine TV broadcasts or movies, figures 4 and 5, paragraphs [0022]-[0031], [0046]-[0048], [0136]-[0166]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Ogawa to include the free space determination of Reisman for the advantage of adaptively freeing space as needed based on the content desire and need to erase the content to get the maximum use out of storage space.

As for claim 20, Ogawa discloses the medium of claim 17, but Ogawa fails to disclose further comprising instructions to cause the deletion of the thumbnail image upon determining the thumbnail image is marked for deletion and amount of free space in the storage is below a threshold free space value. However, Reisman discloses wherein the processor deletes the thumbnail upon determining that the thumbnail is marked for deletion and the free space in the storage is below a threshold (progression deletion for media content to manage storage space and choose which content is deleted to managed the storage space, marking the files for deletion but not deleting until the data is actually reassigned and overwritten, including deleting part of a cache or degrading quality of media to free storage space, the storage can be managed by profiles to specify the decay rate and endpoints based off the content such as time sensitive TV broadcasts such as the news, versus routine TV broadcasts or movies, figures 4 and 5, paragraphs [0022]-[0031], [0046]-[0048], [0136]-[0166]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the medium of Ogawa to include the free space determination of Reisman for the advantage of adaptively freeing space as needed based on the content desire and need to erase the content to get the maximum use out of storage space.

Claims 10 and 11 lack an inventive step under PCT Article 33(3) as being obvious over Ogawa in view of US 8,006,201 B2 to Bhattacharya (Hereinafter Bhattacharya).

As for claim 10, Ogawa discloses the method of claim 1, but Ogawa fails to disclose further comprising: scanning the media; extracting a raw thumbnail image from the scanned media; processing the raw thumbnail image; and performing the creating of the thumbnail image from the processed raw thumbnail image. However, Bhattacharya discloses scanning the media (at step 210 one or more parameters for thumbnails are displayed and the user starts the generation of thumbnails from a video file or files, then at step 215 the frames are extracted from the video for the thumbnails, abstract, figure 2A, column 1, line 40- column 2, line 25; column 4, line 20- column 6, line 34); extracting a raw thumbnail image from the scanned media (at step 215 the frames are extracted from the video for the thumbnails, abstract, figure 2A, column 1, line 40- column 2, line 25; column 4, line 20- column 6, line 34); processing the raw thumbnail image (one or more parses and decoders can be used for extracting the frames for each thumbnail, abstract, figure 2A, column 1, line 40- column 2, line 25; column 4, line 20- column 6, line 34); and performing the creating of the thumbnail image from the processed raw thumbnail image (at step 220 or step 255 the thumbnails are stored in a buffer for the video files, abstract, figure 2A, column 1, line 40- column 2, line 25; column 4, line 20- column 6, line 34). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Ogawa to include the thumbnail processing of Bhattacharya for the advantage of being able to automate the thumbnail process to extract raw images from a video or media clip and create a thumbnail without human intervention.

-***-Continued Within the Next Supplemental Box-***-

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US13/55315

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:
-***-Continued from Previous Supplemental Box-***-

As for claim 11, Ogawa, in view of Bhattacharya, discloses the method of claim 10, wherein the processing of the raw thumbnail image comprises at least one of scaling, cropping and rotating. However, Bhattacharya discloses processing of the raw thumbnail image comprises at least one of scaling, cropping and rotating (the size of the thumbnail and the screen size can be configured for example the X and Y coordinates can be varied for the screen and thumbnail (cropping), abstract, figure 2A, column 1, line 40- column 2, line 25; column 4, line 20- column 6, line 34). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Ogawa to include the thumbnail processing of Bhattacharya for the advantage of being able to automate the thumbnail process to extract raw images from a video or media clip and create a thumbnail without human intervention.

Claims 1-20 have industrial applicability as defined by PCT Article 33(4) because the subject matter can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: SCOTT WEITZEL
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

	Date of mailing *(day/month/year)* 02 DEC 2013
Applicant's or agent's file reference 6583-503-PCT	**FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. PCT/US2013/055317	International filing date *(day/month/year)* 16 August 2013
Applicant FLEXTRONICS AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-503-PCT	**FOR FURTHER ACTION**	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US2013/055317	International filing date *(day/month/year)* 16 August 2013	(Earliest) Priority Date *(day/month/year)* 17 August 2012
Applicant FLEXTRONICS AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 14

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

PCT/US2013/055317 02.12.2013

International application No.
PCT/US2013/055317

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H04N 7/00 (2013.01)
USPC - 725/46
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) - H04N 7/00, 7/025, 7/10 (2013.01)
USPC -725/37, 46, 50

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
CPC - H04N 7/00, 7/025, 7/10 (2013.01)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Orbit, Google Patents, Google Scholar

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2008/0022309 A1 (BEGEJA et al) 24 January 2008 (24.01.2008) entire document	1-20
Y	EP 1 770 956 A1 (BRITISH TELECOMMUNICATIONS) 04 April 2007 (04.04.2007) entire document	1-20
Y	US 2010/0161506 A1 (BOSENICK et al) 24 June 2010 (24.06.2010) entire document	6, 8, 14, 20
A	US 2005/0188318 A1 (TAMIR et al) 25 August 2005 (25.08.2005) entire document	1-20

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
17 November 2013	02 DEC 2013
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: SCOTT WEITZEL
SHERIDAN ROSS P.C.
1560 BROADWAY
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PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	02 DEC 2013
Applicant's or agent's file reference 6583-503-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US2013/055317	16 August 2013	17 August 2012

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H04N 7/00 (2013.01)
USPC - 725/46

Applicant FLEXTRONICS AP, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	17 November 2013	Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055317

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

      ☐ on paper

      ☐ in electronic form

   b. (time)

      ☐ in the international application as filed

      ☐ together with the international application in electronic form

      ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055317

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	1-20	YES
	Claims	None	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	None	NO

2. Citations and explanations:

Claims 1-5, 7, 9-13, 15-19 lack an inventive step under PCT Article 33(3) as being obvious over Begeja et al., hereinafter referred to as Begeja and in view of British Telecommunications, hereinafter referred to as British Telecom.

Regarding claim 1, Begeja discloses a method (a method for providing a personalized channel, abstract, fig. 1, 3), comprising:
a time period value, of a television (personalized TV channel for a customer using a TV 236 with a set-top box 332, para 0041, see fig. 3 [server 243 indirectly coupled to the TV 236, see fig. 3]; the broadcast server 243 will begin to track the viewing habit of the viewer, over a period of time [configurable reporting period value], para 0044);
recording indicia of a number of events associated with the television (viewing habit tracks the channels the customer dwells at, para 0044);
formatting indicia of the number of events (developing a predictive model for the specific viewer, para 0044);
storing the information (storing the predictive model in the profile database 350 [user activity information], para 0044).
Begeja lacks the teaching of setting a configurable reporting period value; setting a period value to an initial value for formatting a report; upon determining the reporting period has ended, sending the report to a server.
British Telecom is in the field of context aware computing and provides activity based information (abstract) and teaches setting a configurable period value to an initial value for formatting a report; upon determining the reporting period has ended, sending the report to a server (the activity related data is accumulated over a period and forwarded to the server after a period [that is end of period is detected and then start of next period i.e. initial is detected], device 301 storing activity related data and then uploading the data to the central server 304 at the end of the day [configurable data as its end of day or when a process is triggered], para 0052).
Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of British Telecom to incorporate the reporting features in the invention of Begeja for the purpose of uploading activity related data to the central server periodically (British Telecom, para 0052).

Regarding claim 12, Begeja discloses a system for reporting television activity (system for providing a personalized channel [channel is personalized based on customer preferences so reporting television activity], abstract, fig. 1), comprising:
a television (personalized TV channel for a customer using a TV 236 with a set-top box 332, para 0041, see fig. 3);
a server (broadcast server 243, para 0044);
a network, operable to enable data communication between the television and the server (server 243 indirectly coupled to the TV 236, see fig. 3);
the television, further comprising (the TV 236 along with the whole set top box and server comprise, see fig. 3):
an activity monitor (service provider gathers sufficient channel selection information, para 0044);
a information generator (service provider develops a predictive e model for the specific viewer, para 0044); and
a storage (profile database 350, para 0044);
wherein the activity monitor collects activity data associated with the television (service provider gathers sufficient channel selection information [associated with the television), para 0044);
wherein the information generator generates information, each information being associated with collected activity data during a activity tracking period (predictive model developed based on the sufficient channel selection to determine user interest in variety of programs, para 0044);
wherein the storage is operable to store information (storing the predictive model in the profile database 350, para 0044).
Begeja lacks the teaching of a report generation, wherein the television is operable to send stored reports to the server.
British Telecom is in the field of context aware computing and provides activity based information (abstract) and teaches storing multiple reports (the device 301 store activity related data for multiple locations [different reports for different locations], para 0052), sending the report to a server (the activity related data is accumulated over a period and forwarded to the server after a period [that is end of period is detected and then start of next period i.e. initial is detected], device 301 storing activity related data and then uploading the data to the central server 304 at the end of the day, para 0052).
Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of British Telecom to incorporate the reporting features in the invention of Begeja for the purpose of uploading activity related data to the central server periodically (British Telecom, para 0052).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

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Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding claim 16, Begeja teaches a television device (TV 236 with set top box, broadcast server, see fig. 1, 3), comprising:
a processor (set top box has a processor, para 0039);
a storage (profile database 350, para 0044);
a network connection (IP/MPLS core network 210, see fig. 3);
wherein the processor is operable to detect a number of user activities and cause an indicia of the user activities to be stored (personalized TV channel for a customer using a TV 236 with a set-top box 332, para 0041, see fig. 3; the broadcast server 243 will begin to track the viewing habit of the viewer, over a period of time [configurable reporting period value], para 0044);
wherein the processor is further operable to generate information of the stored user activities determined to be associated with a activity period (the broadcast server 243 will begin to track the viewing habit of the viewer, over a period of time and a predictive model is generated, para 0044); and
wherein the network connection is operable to connect to a network (server 243 indirectly coupled to the TV 236, see fig. 3; IP/MPLS core network 210, see fig. 3).
Begeja lacks the teaching of transmitting a report to a server.
British Telecom teaches sending a report to a server (the activity related data is accumulated over a period and forwarded to the server after a period [that is end of period is detected and then start of next period i.e. initial is detected], device 301 storing activity related data and then uploading the data to the central server 304 at the end of the day, para 0052).
Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of British Telecom to incorporate the reporting features in the invention of Begeja for the purpose of uploading activity related data to the central server periodically (British Telecom, para 0052).

Regarding claim 2, Begeja lacks the teaching upon determining the reporting period has ended, performing the formatting of the report and then performing the sending of the report.
British Telecom teaches upon determining the reporting period has ended, performing the sending of the report (the activity related data is accumulated over a period and forwarded to the server after a period [that is end of period is detected and then start of next period i.e. initial is detected], device 301 storing activity related data and then uploading the data to the central server 304 at the end of the day, para 0052) and also teaches formatting the report (updating [formatting] the standard template periodically, para 0052). Furthermore, defining the formatting to occur in a specific way would have been a matter of design choice. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of British Telecom to incorporate the reporting features in the invention of Begeja for the purpose of uploading activity related data to the central server periodically (British Telecom, para 0052).

Regarding claim 3, Begeja lacks the teaching wherein determining the reporting period has ended occurs upon startup of the television.
However, Begeja teaches determining the reporting occurs on a television (personalized TV channel for a customer using a TV 236 with a set-top box 332, para 0041, see fig. 3; the broadcast server 243 will begin to track the viewing habit of the viewer, over a period of time, para 0044). Further, British Telecom teaches determining the reporting period has ended based on the start of a new process (new process activated on the device triggers a report to be sent to the server [every time a new process starts, a report is sent i.e. a new report or an older report being ended], para 0052). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of British Telecom to incorporate the reporting features in the invention of Begeja for the purpose of uploading activity related data to the central server periodically (British Telecom, para 0052).

Regarding claim 4, Begeja lacks the teaching of receiving, by the television, a new reporting period value; and setting the configurable reporting period value in accord with the updated reporting period value.
However, Begeja teaches period value, of a television (personalized TV channel for a customer using a TV 236 with a set-top box 332, para 0041, see fig. 3; the broadcast server 243 will begin to track the viewing habit of the viewer, over a period of time [configurable reporting period value], para 0044).
Further, British Telecom teaches setting a configurable reporting period value and updating the reporting period value (new process activated may trigger the report this to the server 304 [based on the time duration of the new process being triggered, the report is real-time so the reporting period is variable and configurable]). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of British Telecom to incorporate updated reporting features in the invention of Begeja for real time reporting.

Regarding claim 5, Begeja teaches storing of information in a database (storing the predictive model in the profile database 350, para 0044). Begeja lacks the teaching wherein the storing of the report, further comprises, the storing of the report in a database along with an additional report associated with an additional reporting period that is different from the reporting period.
British Telecom teaches storing of multiple reports with different reporting periods (standard template is updated periodically and forwarded to a server after a period, each report is sent for every time a process is triggered [all these are periodic updates so each is reporting at a different period], para 0052). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of British Telecom to incorporate the reporting features in the invention of Begeja for the purpose of uploading activity related data to the central server periodically (British Telecom, para 0052).

Regarding claim 7, Begeja lacks the teaching wherein sending further comprises sending the report and the additional report. British Telecom teaches sending the report and additional report (the recorded processes are time stamped sending to the server [multiple reports], para 0052). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of British Telecom to incorporate the reporting features in the invention of Begeja for the purpose of uploading activity related data to the central server periodically (British Telecom, para 0052).

Regarding claim 9, Begeja lacks the teaching of adding a sequential number to the report.
British Telecom teaches adding a sequential number to each report (the recorded processes are time stamped [time stamped is that they are in a sequential order] sending to the server [multiple reports], para 0052). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of British Telecom to incorporate the reporting features in the invention of Begeja for the purpose of uploading activity related data to the central server periodically (British Telecom, para 0052).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

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Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding claim 10, Begeja lacks the teaching of determining a timestamp of the report based on at least one of (i) the time the report was sent to the server, (ii) the sequential number and (iii) the configurable reporting period value.
British Telecom teaches time stamping the report based on the time the report was sent to the server (the report is time stamped in order to aid processing by the central server, and the data sent includes the length of time the process was active, para 0052). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of British Telecom to incorporate the timestamp feature in the invention of Begeja for the purpose of aiding the processing by the central server (British Telecom, para 0052).

Regarding claim 11, Begeja lacks the teaching of determining a timestamp of the report based on at the difference between the sequential number of the report and the sequential number of another report. British Telecom teaches time stamping the report based on the time the report was sent to the server (the report is time stamped in order to aid processing by the central server, and the data sent includes the length of time the process was active, para 0052). Furthermore, defining a timestamp based on a specific condition would have been a matter of design choice. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of British Telecom to incorporate the timestamp feature in the invention of Begeja for the purpose of aiding the processing by the central server (British Telecom, para 0052).

Regarding claim 13, Begeja lacks the teaching wherein the report generator is further operable to generate ones of the number of reports with a sequential report number.
British Telecom teaches adding a sequential number to each report (the recorded processes are time stamped [time stamped is that they are in a sequential order] sending to the server [multiple reports], para 0052). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of British Telecom to incorporate the reporting features in the invention of Begeja for the purpose of uploading activity related data to the central server periodically (British Telecom, para 0052).

Regarding claim 15, Begeja lacks the teaching of a receiver, operable to receive a new reporting period value from the server; and the generator is further operable to set the reporting period in accord with the new reporting period.
However, Begeja teaches period value, of a television (personalized TV channel for a customer using a TV 236 with a set-top box 332, para 0041, see fig. 3; the broadcast server 243 will begin to track the viewing habit of the viewer, over a period of time [configurable reporting period value], para 0044).
Further, British Telecom teaches setting a configurable reporting period value and updating the reporting period value (new process activated may trigger the report this to the server 304 [based on the time duration of the new process being triggered, the report is real-time so the reporting period is variable and configurable]). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of British Telecom to incorporate updated reporting features in the invention of Begeja for real time reporting.

Regarding claim 17, Begeja lacks the teaching of a receiver, operable to receive a new reporting period and causing the reporting period to be set to a value in accord with the new reporting period.
However, Begeja teaches a period value, of a television (personalized TV channel for a customer using a TV 236 with a set-top box 332, para 0041, see fig. 3; the broadcast server 243 will begin to track the viewing habit of the viewer, over a period of time [configurable reporting period value], para 0044).
Further, British Telecom teaches setting a configurable reporting period value and updating the reporting period value (new process activated may trigger the report this to the server 304 [based on the time duration of the new process being triggered, the report is real-time so the reporting period is variable and configurable]). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of British Telecom to incorporate updated reporting features in the invention of Begeja for real time reporting.

Regarding claim 18, Begeja lacks the teaching wherein the processor is further operable to generate a report incremented from the last report generated.
British Telecom teaches generate a report incremented from the last report generated (the report is time stamped in order to aid processing by the central server [timestamped is a report incremented from last report], and the data sent includes the length of time the process was active, para 0052). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of British Telecom to incorporate the timestamp feature in the invention of Begeja for the purpose of aiding the processing by the central server (British Telecom, para 0052).

Regarding claim 19, Begeja teaches wherein the storage is operable to store the information (storing the predictive model in the profile database 350, para 0044).
Begeja lacks the teaching of a report generation.
British Telecom is in the field of context aware computing and provides activity based information (abstract) and teaches sending the report to a server (the activity related data is accumulated over a period and forwarded to the server after a period [that is end of period is detected and then start of next period i.e. initial is detected], device 301 storing activity related data and then uploading the data to the central server 304 at the end of the day, para 0052).
Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of British Telecom to incorporate the reporting features in the invention of Begeja for the purpose of uploading activity related data to the central server periodically (British Telecom, para 0052).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055317

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Claims 6, 8, 14, 20 lack an inventive step under PCT Article 33(3) as being obvious over Begeja and in view of British Telecom and further in view of Bosenick et al., hereinafter referred to as Bosenick.

Regarding claim 6, Begeja lacks the teaching upon determining the available storage is below a threshold, deleting at least one report in the database.
Bosenick is in the field of providing logging and reporting of user-device interaction (abstract, title) and teaches deleting logfiles after determining the server successfully received the logfiles (all existing logfiles are deleted on the mobile device after uploading the logfiles on the mobile device to the server, para 0051). Furthermore, deleting a file based on low storage space was well known in the art and the specifics would have been a matter of design choice. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Bosenick to incorporate the deleting features in the invention of Begeja for the purpose of installing new application program or configuration files on the mobile device (Bosenick, para 0051).

Regarding claim 8, Begeja lacks the teaching wherein upon determining the server has successfully received the report, deleting the report.
British Telecom teaches sending the report to a server (the activity related data is accumulated over a period and forwarded to the server after a period [that is end of period is detected and then start of next period i.e. initial is detected], device 301 storing activity related data and then uploading the data to the central server 304 at the end of the day, para 0052).
Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of British Telecom to incorporate the reporting features in the invention of Begeja for the purpose of uploading activity related data to the central server periodically (British Telecom, para 0052).
Further, Bosenick is in the field of providing logging and reporting of user-device interaction (abstract, title) and teaches deleting logfiles after determining the server successfully received the logfiles (all existing logfiles are deleted on the mobile device after uploading the logfiles on the mobile device to the server, para 0051). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Bosenick to incorporate the deleting features in the invention of Begeja for the purpose of installing new application program or configuration files on the mobile device (Bosenick, para 0051).

Regarding claim 14, Begeja lacks the teaching wherein the television is further operable to delete from storage any of the stored reports successfully sent to the server.
British Telecom teaches sending the report to a server (the activity related data is accumulated over a period and forwarded to the server after a period [that is end of period is detected and then start of next period i.e. initial is detected], device 301 storing activity related data and then uploading the data to the central server 304 at the end of the day, para 0052).
Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of British Telecom to incorporate the reporting features in the invention of Begeja for the purpose of uploading activity related data to the central server periodically (British Telecom, para 0052).
Further, Bosenick is in the field of providing logging and reporting of user-device interaction (abstract, title) and teaches deleting logfiles after determining the server successfully received the logfiles (all existing logfiles are deleted on the mobile device after uploading the logfiles on the mobile device to the server, para 0051). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Bosenick to incorporate the deleting features in the invention of Begeja for the purpose of installing new application program or configuration files on the mobile device (Bosenick, para 0051).

Regarding claim 20, Begeja lacks the teaching wherein the report is deleted from the storage upon the network connection successfully transmitting the report to the server.
British Telecom teaches sending the report to a server (the activity related data is accumulated over a period and forwarded to the server after a period [that is end of period is detected and then start of next period i.e. initial is detected], device 301 storing activity related data and then uploading the data to the central server 304 at the end of the day, para 0052).
Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of British Telecom to incorporate the reporting features in the invention of Begeja for the purpose of uploading activity related data to the central server periodically (British Telecom, para 0052).
Further, Bosenick is in the field of providing logging and reporting of user-device interaction (abstract, title) and teaches deleting logfiles after determining the server successfully received the logfiles (all existing logfiles are deleted on the mobile device after uploading the logfiles on the mobile device to the server, para 0051). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Bosenick to incorporate the deleting features in the invention of Begeja for the purpose of installing new application program or configuration files on the mobile device (Bosenick, para 0051).

Claims 1-20 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: SCOTT WEITZEL
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Date of mailing *(day/month/year)*	09 JAN 2014
Applicant's or agent's file reference: 6583-504-PCT	**FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No.: PCT/US2013/055318	International filing date *(day/month/year)*: 16 August 2013
Applicant: FLEXTRONICS AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-504-PCT	**FOR FURTHER ACTION**	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US2013/055318	International filing date *(day/month/year)* 16 August 2013	(Earliest) Priority Date *(day/month/year)* 17 August 2012
Applicant FLEXTRONICS AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 9 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 14

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

Form PCT/ISA/210 (first sheet) (July 2009)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/055318

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H04N 17/00 (2013.01)
USPC - 725/9
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) - H04L 67/22; H04N 7/16, 7/173, 17/00, 21/20, 21/23, 21/47 (2013.01)
USPC - 348/180; 725/9, 14, 39, 61

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
CPC - H04L 41/509, 67/22; H04N 21/4667 (2013.01)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
PatBase, Google Patents, Google

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 01/06784 A2 (KNEE et al) 25 January 2001 (25.01.2001) entire document	1-20
Y	US 7,822,716 B2 (LEE et al) 26 October 2010 (26.10.2010) entire document	1-20
Y	US 2007/0028282 A1 (KOOIJMANS et al) 01 February 2007 (01.02.2007) entire document	2, 3, 11, 12
Y	US 2005/0232210 A1 (KARAOGUZ et al) 20 October 2005 (20.10.2005) entire document	4, 5, 13, 14

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
19 December 2013	09 JAN 2014
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: SCOTT WEITZEL
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	09 JAN 2014
Applicant's or agent's file reference 6583-504-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US2013/055318	16 August 2013	17 August 2012

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H04N 17/00 (2013.01)
USPC - 725/9

Applicant FLEXTRONICS AP, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	19 December 2013	Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055318

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

      ☐ on paper

      ☐ in electronic form

   b. (time)

      ☐ in the international application as filed

      ☐ together with the international application in electronic form

      ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055318

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	1-20	YES
	Claims	None	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	None	NO

2. Citations and explanations:

Claims 1, 6-10, 15-20 lack an inventive step under PCT Article 33(3) as being obvious over Knee et al. (hereafter Knee) in view of Lee et al. (hereafter Lee).

Regarding claim 1, Knee discloses a method of reporting status of a television (display 100 in Fig. 6 can be a television as described on pg. 20, lns. 1-8; pg. 10, ln. 30 – pg. 11, ln. 28 describes collecting data on the user's activities with respect to the interactive television applications, which is part of the monitoring of Fig. 10, step 134, described in pg. 25, lns. 7-10), comprising:
formatting a report having at least one attribute of the television (Fig. 10, step 136; pg. 25, lns. 11-21 regarding a report containing information on the user's interactions with the interactive television program guide and other user activities; one television attribute is the user's interaction with it);
storing the report in a non-volatile memory (control circuitry 94 can include memory or other storage devices, such as a hard disk or random-access memory, both of which are types of non-volatile memory, described on pg. 19, lns. 11-32) associated with the television (100; Fig. 6; pg. 19, lns. 11-32 describes using the control circuitry 92 for monitoring the interactive television applications, where the information may be stored on the storage control circuitry 94);
transmitting the report to a receiver (data collection facility 13; Fig. 10, step 138 shows a transmission of the report where it is received by a data collection facility, described on pg. 25, lns. 5-21).
Knee fails to explicitly disclose upon successfully transmitting the report to the receiver, deleting the report from the non-volatile memory.
Lee teaches of a method for deleting user metadata for a TV-Anytime system, upon successfully transmitting a report to a receiver, deleting the report from a non-volatile memory (Fig. 1 shows metadata related to the usage of a TV-Anytime system, described in col. 3, lns. 27-34, where a user has the ability to delete transmitted data; Fig. 2 shows the transmission for data between the metadata service and a user client, while Fig. 8 shows code for deleting user information that has been already transmitted to a server as described in col. 5, lns. 26-39; the metadata is the report, the receiver is the client, and the metadata service includes memory to store the data; common memory is a hard disk or flash memory as part of a server, where these types of memory are considered nonvolatile).
It would have been obvious to one of skill in the art at the time of invention to modify the invention of Knee to include deleting a successfully transmitted report as taught by Lee as this frees up the memory by removing the report data. Furthermore, once the data is successfully transmitted, there is generally no reason to keep it within the TV memory, especially since the receiver is generally backed up in case of data loss.

Regarding claim 6, Knee as modified discloses the method of claim 1, and Knee further discloses wherein the report comprises one or more sets of data (Fig. 10, step 136; pg. 25, lns. 11-21 regarding a report containing information on the user's interactions with the interactive television program guide and other user activities),
the sets of data selected from network information (pg. 7, lns. 17-27 describes the communication network 34 can be formed from different suitable types, such as the internet, the public switched telephone network, and a packet-based network; pg. 11, lns. 17-28 describes collecting the information on the user's equipment and reporting it back for processing; as is common with data reports, the settings of the user's equipment has generally included in data sets, so that the processing facility knows what equipment and settings the data was gathered),
running application information (pg. 11, lns. 9-12 regarding information may also be gathered on which selectable on-screen interactive television application options the user selects when interacting with interactive television applications; this information can go into the report of Fig. 10, step 136 as described on pg. 25, lns. 11-21), and
media consumption information (pg. 25, lns. 5-10 regarding the user's interactions with the interactive television program guide and other activities (e.g., television watching activities) may be monitored; this information can go into the report of Fig. 10, step 136 as described on pg. 25, lns. 11-21).

Regarding claim 7, Knee as modified discloses the method of claim 6, and Knee further discloses wherein network information, further comprises, one or more of connection type, connection sub-type, and IP address of the television (pg. 7, lns. 17-27 describes the communication network 34 can be formed from different suitable connection types, such as the internet, the public switched telephone network, and a packet-based network; pg. 11, lns. 17-28 describes collecting the information on the user's equipment and reporting it back for processing; as is common with data reports, the settings of the user's equipment has generally included in data sets, so that the processing facility knows what equipment and settings the data was gathered).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055318

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Claims 11-15 and 17-20 are objected to under PCT Rule 66.2(a)(v) as lacking clarity under PCT Article 6 because claims 11-15 and 17-20 are indefinite for the following reason(s):

Claims 11-15 are directed to a "method", but depend upon claim 10, which recites a "television", while "method" claims 17-20 depend upon claim 16, which is directed to a "non-transitory computer medium". In this written opinion, claims 11-15 are corrected by replacing "method" with --television--, while claims 17-20 are corrected by replacing "method" with --computer medium--.

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055318

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding claim 8, Knee as modified discloses the method of claim 6, and Knee further discloses wherein the running application information, further comprises, one or more of package name, application name, application version, last used information, last used duration, cumulative use, installed timestamp, uninstalled timestamp, last updated timestamp, storage size of the application, and storage size of user data associated with the application (pg. 11, lns. 9-12 describes information may also be gathered on which selectable on-screen interactive television application options the user selects when interacting with interactive television applications; some examples of application names are shown in Fig. 7).

Regarding claim 9, Knee as modified discloses the method of claim 6, and Knee further discloses wherein the media consumption information, further comprises, one or more of cumulative channel viewing time, last watched events, last watched videos, and cumulative usage (pg. 25, lns. 5-10 regarding the user's interactions with the interactive television program guide and other activities (e.g., television watching activities) may be monitored; pg. 11, lns. 1-9 describes information may be gathered regarding which television channels the user tunes to and the times at which the user watches each television channel to monitor the user's viewing habits).

Regarding claim 10, Knee discloses a television (display 100; Fig. 6; pg. 20, lns. 1-8 describes the display 100 may be a television), comprising:
a processor (control circuitry 94; Fig. 6; pg. 19, lns. 11-13 regarding control circuitry 94 may be based on any suitable processor such as a microprocessor, microcontroller, etc);
a non-volatile memory (control circuitry 94 can include memory or other storage devices, such as a hard disk or random-access memory, both of which are types of non-volatile memory, described on pg. 19, lns. 11-32);
a network connection (communications network 34; pg. 7, lns. 17-27);
whereby the processor (94) is operable to format a report having at least one attribute of the television (100; Fig. 10, step 136; pg. 25, lns. 11-21 regarding a report containing information on the user's interactions with the interactive television program guide and other user activities; one television attribute is the user's interaction with it) and store the report in a non-volatile memory (94) associated with the television (100; Fig. 6; pg. 19, lns. 11-32 describes using the control circuitry 92 for monitoring the interactive television applications, where the information may be stored on the storage control circuitry 94);
the network connection (34) is operable to transmit the report to a server (data collection facility 13 in Fig. 1; Fig. 10, step 138 shows a means for transmitting the report to the data collection facility, described on pg. 25, lns. 5-21).
Knee fails to explicitly disclose upon successfully transmitting the report to the receiver, the processor causes the report to be deleted from the non-volatile memory.
Lee teaches of a method for deleting user metadata for a TV-Anytime system, upon successfully transmitting a report to a receiver, deleting the report from a non-volatile memory (Fig. 1 shows metadata related to the usage of a TV-Anytime system, described in col. 3, lns. 27-34, where a user has the ability to delete transmitted data; Fig. 2 shows the transmission for data between the metadata service and a user client, while Fig. 8 shows code for deleting user information that has been already transmitted to a server as described in col. 5, lns. 26-39; the metadata is the report, the receiver is the client, and the metadata service includes memory to store the data; common memory is a hard disk or flash memory as part of a server, where these types of memory are considered nonvolatile).
It would have been obvious to one of skill in the art at the time of invention to modify the invention of Knee to include deleting a successfully transmitted report as taught by Lee as this frees up the memory by removing the report data. Furthermore, once the data is successfully transmitted, there is generally no reason to keep it within the TV memory, especially since the receiver is generally backed up in case of data loss.

Regarding claim 15, Knee as modified discloses the television of claim 10, and Knee further discloses wherein the report comprises one or more sets of data (Fig. 10, step 136; pg. 25, lns. 11-21 regarding a report containing information on the user's interactions with the interactive television program guide and other user activities),
the sets of data selected from network information (pg. 7, lns. 17-27 describes the communication network 34 can be formed from different suitable types, such as the internet, the public switched telephone network, and a packet-based network; pg. 11, lns. 17-28 describes collecting the information on the user's equipment and reporting it back for processing; as is common with data reports, the settings of the user's equipment has generally included in data sets, so that the processing facility knows what equipment and settings the data was gathered),
running application information (pg. 11, lns. 9-12 regarding information may also be gathered on which selectable on-screen interactive television application options the user selects when interacting with interactive television applications; this information can go into the report of Fig. 10, step 136 as described on pg. 25, lns. 11-21), and
media consumption information (pg. 25, lns. 5-10 regarding the user's interactions with the interactive television program guide and other activities (e.g., television watching activities) may be monitored; this information can go into the report of Fig. 10, step 136 as described on pg. 25, lns. 11-21).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No. PCT/US2013/055318

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Regarding claim 16, Knee discloses a non-transitory computer medium with instructions thereof that when executed by a machine cause the machine to perform (pg. 19, lns. 11-19):
formatting a report having at least one attribute of the television (Fig. 10, step 136; pg. 25, lns. 11-21 regarding a report containing information on the user's interactions with the interactive television program guide and other user activities; one television attribute is the user's interaction with it);
storing the report in a non-volatile memory (control circuitry 94 can include memory or other storage devices, such as a hard disk or random-access memory, both of which are types of non-volatile memory, described on pg. 19, lns. 11-32) associated with the television (100; Fig. 6; pg. 19, lns. 11-32 describes using the control circuitry 92 for monitoring the interactive television applications, where the information may be stored on the storage control circuitry 94);
transmitting the report to a receiver (data collection facility 13; Fig. 10, step 138 shows a transmission of the report where it is received by a data collection facility, described on pg. 25, lns. 5-21).
Knee fails to explicitly disclose upon successfully transmitting the report to the receiver, deleting the report from the non-volatile memory.
Lee teaches of a method for deleting user metadata for a TV-Anytime system, upon successfully transmitting a report to a receiver, deleting the report from a non-volatile memory (Fig. 1 shows metadata related to the usage of a TV-Anytime system, described in col. 3, lns. 27-34, where a user has the ability to delete transmitted data; Fig. 2 shows the transmission for data between the metadata service and a user client, while Fig. 8 shows code for deleting user information that has been already transmitted to a server as described in col. 5, lns. 26-39; the metadata is the report, the receiver is the client, and the metadata service includes memory to store the data; common memory is a hard disk or flash memory as part of a server, where these types of memory are considered nonvolatile).
It would have been obvious to one of skill in the art at the time of invention to modify the invention of Knee to include deleting a successfully transmitted report as taught by Lee as this frees up the memory by removing the report data. Furthermore, once the data is successfully transmitted, there is generally no reason to keep it within the TV memory, especially since the receiver is generally backed up in case of data loss.

Regarding claims 17-20, it is noted that these claims have same limitations as claims 6-9, repectively. Therefore, Knee modified by Lee similarly disclose claims 17-20 as discussed for claims 6-9, respectively.

Claims 2, 3, 11, 12 lack an inventive step under PCT Article 33(3) as being obvious over Knee et al. (hereafter Knee) in view of Lee et al. (hereafter Lee) and in further view of Kooijmans et al. (hereafter Kooijmans).

Regarding claim 2, Knee as modified discloses the method of claim 1, but Knee fails to explicitly disclose formatting the report with one-time data, the first-time data being associated with an initial power-up of the television.
Kooijmans teaches of a startup method for a television apparatus, comprising formatting a report with one-time data (Fig. 2 shows a TV system with a processor 10, non-volatile memory 20, and memory 40; para. 0019 describes meta-data associated with the last channel played on the TV, where the meta-data is stored in memory 20 as described in para. 0025; the meta-data is the report), the first-time data being associated with an initial power-up of the television (Fig. 1B shows a startup sequence of a TV, where the meta-data is retrieved from the memory 20 as described in para. 0025).
It would have been obvious to one of skill in the art at the time of invention to modify the invention of Knee to include a report with data associated with the power-up of the TV as taught by Kooijmans as this allows the settings of the TV to be sent upon startup in order to start the TV correctly.

Regarding claim 3, Knee as modified discloses the method of claim 2, but Knee fails to explicitly disclose upon determining the report contains first-time data, omitting the deleting of the report from the non-volatile memory.
Kooijmans teaches of a startup method for a television apparatus, upon determining the report contains first-time data, omitting the deleting of the report from the non-volatile memory (Fig. 1B shows the Point B, where meta-data is retrieved form memory 20, which remains in memory for a period of time until Point C where the user gains full control of the TV; in essence, the meta-data remains in memory for the power-up period, and is not deleted until Point C, when the meta-data is no longer needed as part of the power-up).
It would have been obvious to one of skill in the art at the time of invention to modify the invention of Knee to include omitting a deletion of a report from memory during the power up as taught by Kooijmans as this data is needed during the initial power-up, therefore it does not make sense to delete the data until it is no longer needed.

Regarding claim 11, Knee as modified discloses the computer medium of claim 10, but Knee fails to explicitly disclose the processor formatting the report with one-time data, the first-time data being associated with an initial power-up of the television.
Kooijmans teaches of a startup method for a television apparatus, comprising a processor (10) formatting a report with one-time data (Fig. 2 shows a TV system with a processor 10, non-volatile memory 20, and memory 40; para. 0019 describes meta-data associated with the last channel played on the TV, where the meta-data is stored in memory 20 as described in para. 0025; the meta-data is the report), the first-time data being associated with an initial power-up of a television (Fig. 1B shows a startup sequence of a TV, where the meta-data is retrieved from the memory 20 as described in para. 0025).
It would have been obvious to one of skill in the art at the time of invention to modify the invention of Knee to include a report with data associated with the power-up of the TV as taught by Kooijmans as this allows the settings of the TV to be sent upon startup in order to start the TV correctly.

Regarding claim 12, Knee as modified discloses the computer medium of claim 11, but Knee fails to explicitly disclose upon the processor determining the report contains first-time data, the processor omits the deleting of the report from the non-volatile memory.
Kooijmans teaches of a startup method for a television apparatus, upon the processor (10) determining the report contains first-time data, the processor omits the deleting of the report from the non-volatile memory (Fig. 1B shows the Point B, where meta-data is retrieved form memory 20, which remains in memory for a period of time until Point C where the user gains full control of the TV; in essence, the meta-data remains in memory for the power-up period, and is not deleted until Point C, when the meta-data is no longer needed as part of the power-up).
It would have been obvious to one of skill in the art at the time of invention to modify the invention of Knee to include omitting a deletion of a report from memory during the power up as taught by Kooijmans as this data is needed during the initial power-up, therefore it does not make sense to delete the data until it is no longer needed.

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055318

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Claims 4, 5, 13, 14 lack an inventive step under PCT Article 33(3) as being obvious over Knee et al. (hereafter Knee) in view of Lee et al. (hereafter Lee) and in further view of Karaoguz et al. (hereafter Karaoguz).

Regarding claims 4, 5, Knee as modified discloses the method of claim 1, but Knee fails to explicitly disclose [claim 4] wherein the report further comprises a set core data associated with substantially static attributes of the television; and,
[claim 5] wherein the substantially static attributes of the television comprise one or more of software version, model, make, manufacturer, device identifier, and MAC address.
Karaoguz teaches of aggregation of multimedia storage, [claim 4] wherein a report further comprises a set core data associated with substantially static attributes of a television (Fig. 1; para. 0022 describes using a television over a broadband gateway for the aggregation of multimedia information storage; para. 0088 describes providing information identifying a storage resource such as a MAC address, manufacturer identifier, and model identifier; essentially, the information is the reported data, where information related to the storage can be the storage on different devices, including a television); and,
[claim 5] wherein the substantially static attributes of the television comprise one or more of software version, model, make, manufacturer, device identifier, and MAC address (Fig. 1; para. 0022 describes using a television over a broadband gateway for the aggregation of multimedia information storage; para. 0088 describes providing information identifying a storage resource such as a MAC address, manufacturer identifier, and model identifier; essentially, the information is the reported data, where information related to the storage can be the storage on different devices, including a television).
It would have been obvious to one of skill in the art at the time of invention to modify the invention of Knee to include report data that includes a MAC address, manufacturer and model as taught by Karaoguz as this allows the data to include a point of reference from which knowledge can be gained from analyzing the data. For instance, by knowing the basic data of the television being used, the analysis of data can determine bugs in the system, correlations between what type of programs are watched by purchasers of certain TVs, and so forth.

Regarding claims 13 and 14, it is noted that these claims have same limitations as claims 4 and 5, repectively. Therefore, Knee modified by Lee sand in further view of Karaoguz similarly disclose claims 13 and 14 as discussed for claims 4 and 5, respectively.

Claims 1-20 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: SCOTT WEITZEL
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

	Date of mailing *(day/month/year)* 11 MAR 2014
Applicant's or agent's file reference 6583-505-PCT	**FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. PCT/US2013/055319	International filing date *(day/month/year)* 16 August 2013
Applicant FLEXTRONICS AP, LLC	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

   Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

   For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2010)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-505-PCT	**FOR FURTHER ACTION**	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US2013/055319	International filing date *(day/month/year)* 16 August 2013	(Earliest) Priority Date *(day/month/year)* 17 August 2012
Applicant FLEXTRONICS AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 15

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/055319

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H04N 7/00 (2014.01)
USPC - 725/115
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) - G06F 11/14; G06Q 30/00; H04N 5/00, 7/00 (2014.01)
USPC - 386/291; 725/9, 37, 115

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
CPC - G06F 11/14; H04N 5/00, 7/00 (2013.01)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
PatBase, Google Patents, Google Scholar

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X -- Y	US 2010/0086277 A1 (CRANER) 08 April 2010 (08.04.2010) entire document.	1, 2, 8, 9, 15, 16 ---- 3-7, 10-14, 17-20
Y	US 2012/0079096 A1 (COWAN et al) 29 March 2012 (29.03.2012) entire document.	3, 10, 17
Y	EP 1031929 A2 (LARNER et al) 30 August 2000 (30.08.2000) entire document.	4-7, 11-14, 18-20
Y	EP 1067458 A1 (BEUQUE et al) 10 January 2001 (10.01.2001) entire document.	6, 7, 13, 14, 20
A	US 2007/0143809 A1 (CHEN et al) 21 June 2007 (21.06.2007) entire document.	1-20
A	US 2009/0293078 A1 (PIRANI et al) 26 November 2009 (26.11.2009) entire document.	1-20
A	US 2010/0180292 A1 (EPSTEIN et al) 15 July 2010 (15.07.2010) entire document.	1-20

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
15 February 2014	11 MAR 2014
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: SCOTT WEITZEL
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	11 MAR 2014
Applicant's or agent's file reference 6583-505-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US2013/055319	16 August 2013	17 August 2012

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H04N 7/00 (2014.01)
USPC - 725/115

Applicant FLEXTRONICS AP, LLC

1. This opinion contains indications relating to the following items:

- [x] Box No. I Basis of the opinion
- [ ] Box No. II Priority
- [ ] Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- [ ] Box No. IV Lack of unity of invention
- [x] Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- [ ] Box No. VI Certain documents cited
- [ ] Box No. VII Certain defects in the international application
- [ ] Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	15 February 2014	Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055319

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

   ☐ on paper

   ☐ in electronic form

   b. (time)

   ☐ in the international application as filed

   ☐ together with the international application in electronic form

   ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055319

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	2-7, 9-14, 16-20	YES
	Claims	1, 8, 15	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	None	NO

2. Citations and explanations:

Claims 1, 8, 15 lack novelty under PCT Article 33(2) as being anticipated by Craner.

Regarding claims 1, 8, 15 Craner discloses a method of managing television usage reports (The present invention relates to managing recorded television programs [managing television programs is interpreted as managing television usage reports. Report includes data associated with use of TV, users, applications and other aspects, see PCT application, para.0155], and more particularly to deleting viewed portions of recorded programs, para.0001, 0002), comprising:
[Claim 8] A television (User equipment 110 includes television equipment such as a television, para.0036), comprising a processor (the user equipment 110 includes a control circuitry 116 comprising processors, para.0040, Fig.1); and a storage (the user equipment 110 includes a recording device 118 [interpreted as storage] for storing content, para.0041, Fig.1);
[Claim 15] A non-transitory computer readable medium with instructions that when executed by a machine (the control circuitry 116 includes memory storing instructions executed by the hardware, para.0040), cause the machine to perform:
storing a number of reports on a data storage device associated with a television (the user equipment 110 is a television which includes a recording device 118 [interpreted as data storage device] for storing television programs or video-on-demand content [i.e. storing reports associated with a television], para.0037, 0042, Fig.1);
determining the number of reports in the data storage device has reached a threshold (recorded programs are stored on recording device 118. A storage space indicator 532 shows the amount of storage space available for storing programs. It can be determined if the available storage space falls below a certain threshold, para.0064, 0123, Fig.5) and deleting an older report from the data storage device (if it is determined, that the background record causes the available storage space to fall below certain threshold, the media guidance application apply delete viewed portions settings and automatically identify and delete the viewed portions of one or more programs [i.e. deleting older programs i.e. older reports] stored on recording device, para.0123).

Claims 2, 9, 16 lack an inventive step under PCT Article 33(3) as being obvious over Craner.

Regarding claims 2, 9, 16 Craner teaches determining of the number of reports in the data storage device has reached the threshold (recorded programs are stored on recording device 118. A storage space indicator 532 shows the amount of storage space available for storing programs. It can be determined if the available storage space falls below a certain threshold, para.0064, 0123, Fig.5) and deleting an older report from the data storage device (if it is determined, that the background record causes the available storage space to fall below certain threshold, the media guidance application apply delete viewed portions settings and automatically identify and delete the viewed portions of one or more programs [i.e. deleting older programs i.e. older reports] stored on recording device, para.0123) but lacks the teaching of iteratively looping through the process. However, performing the process iteratively was a well-known practice in the art and the specifics would have been a matter of design choice.
It would have been obvious to one of ordinary skill in the art at the time of the invention to use perform the process iteratively in the invention of Craner.
The motivation would have been for performing operation continuously without requiring user command or intervention and thereby providing user convenience.

Claims 3, 10, 17 lack an inventive step under PCT Article 33(3) as being obvious over Craner in view of Cowan et al., hereinafter referred to as Cowan.

Regarding claims 3, 10, 17 Craner teaches retaining one of the number of reports associated with the television (the media guidance application maintains one of the recorded programs based on the interest of the user. The media guidance application maintain a portion of the recorded program that is of interest to the user and deletes the remaining portion of the recorded program, para.0143, 0146; user can select to delete viewed portions of the recorded program and retain a small portion of the recorded program, para.0106) but lacks the teaching of retaining first-time data.
Cowan discloses a method of managing information in utility monitoring system (Abstract) and teaches retaining first-time data (the system automatically deletes data fields when the storage space allocated for the memory platform is used up. The first time data such as commissioning and configuration data can be retained and held from deletion, by designating it as critical data field, para.0052).
It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Cowan for retaining first-time data in the invention of Craner.
The motivation would have been for retaining and saving first data as it provides more simplified and expeditious device restoration (para.0010, 0038, Cowan).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055319

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of:

Claims 4, 5, 11, 12, 18, 19 lack an inventive step under PCT Article 33(3) as being obvious over Craner in view of Larner et al., hereinafter referred to as Larner.

Regarding claims 4, 11, 18 Craner teaches writing a report to the data storage device (television programs or video-on-demand content is stored on the recording device [recording device is interpreted as data storage device and storing programs on recording device is interpreted writing reports on the storage device], para.0042) but lacks the teaching that the report comprises a serial number.
Larner discloses deleting old data for adding new data when a memory segment is full (Abstract) and teaches serial number associated with stored data (the data which is stored in the memory includes a serial number determined at the manufacturing time, para.0014).
It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Larner for associating a serial number with data to be stored in the invention of Craner.
The motivation would have been for providing efficient maintenance using stored serial number data (para.0014, Larner).

Regarding claims 5, 12, 19 Craner teaches deleting an older report from the data storage device (if it is determined, that the background record causes the available storage space to fall below certain threshold, the media guidance application apply delete viewed portions settings and automatically identify and delete the viewed portions of one or more programs [i.e. deleting older programs i.e. older reports] stored on recording device, para.0123) but lacks the teaching of deleting a report with an earlier serial number.
Larner teaches deleting data with earlier serial number (the data which is stored in the memory includes a serial number determined at the manufacturing time. New type of data is added by deleting old type of data [i.e. data with old or earlier serial number], para.0012, 0014; during adding new parameter, oldest segment having lower sequence number is selected and the old segment is erased [i.e. erasing or deleting segment with oldest or earlier serial number], para.0024, 0025, Fig.2B, 2D).
It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Larner for deleting data with an earlier serial number in the invention of Craner.
The motivation would have been for deleting oldest data for adding new data (para.0012, Larner).

Claims 6, 7, 13, 14, 20 lack an inventive step under PCT Article 33(3) as being obvious over Craner in view of Larner and in view of Beuque et al., hereinafter referred to as Beuque.

Regarding claims 6, 13 Craner lacks the teaching wherein the report further comprises testing data.
Beuque discloses testing and debugging an application for digital television (Abstract) and teaches testing data (once an application has been created, it can be tested by running it on processor. As a result of testing, changes are made to the application and the files are updated with the changes and stored in the directory [i.e. storing testing data], 0098, 0102).
It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Beuque for incorporating testing data in the invention of Craner.
The motivation would have been for storing results of tested application or data for efficient running or working of the created application (para.0098, 0102, Beuque).

Regarding claims 7, 14, 20 Craner lacks the teaching wherein the report further comprises debugging data.
Beuque teaches debugging data (a debugger 430 is provided for debugging applications running on receiver 226, para.0093; the debugger 430 monitors and modifies variable values in the application [i.e. debugging data], para.0129).
It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Beuque for incorporating debugging data in the invention of Craner.
The motivation would have been for giving the operator the ability to see what effect of setting variables to different values can have (para.0129, Beuque).

Claims 1-20 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6583-506-PCT	**FOR FURTHER ACTION**	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US2013/055321	International filing date *(day/month/year)* 16 August 2013	(Earliest) Priority Date *(day/month/year)* 17 August 2012
Applicant FLEXTRONICS AP, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 15

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

Form PCT/ISA/210 (first sheet) (July 2009)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/055321

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - G06Q 30/00 (2013.01)
USPC - 705/14.52
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) - G06Q 30/00, 30/02, H04N 21/472 (2013.01)
USPC - 705/14.52, 14.64, 26.1, 27.1

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
CPC - G06Q 30/02, 30/0254, 30/0277 (2013.01)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Orbit, Google Patents, Google

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	WO 2012/073027 A2 (HUNTER) 07 June 2012 (07.06.2012) entire document	1-4, 7, and 12-16 --- 5-6, 8-11, and 17-20
Y	US 2011/0060661 A1 (CHAI et al) 10 March 2011 (10.03.2011) entire document	5-6 and 17
Y	US 2011/0213700 A1 (SANT'ANSELMO) 01 September 2011 (01.09.2011) entire document	8-11 and 18-20
A	US 2004/0103120 A1 (FICKLE et al) 27 May 2004 (27.05.2004) entire document	1-20
A	WO 01/06784 A2 (KNEE et al) 25 January 2001 (25.01.2001) entire document	1-20

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
21 November 2013	06 DEC 2013

Name and mailing address of the ISA/US	Authorized officer:
Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: SCOTT WEITZEL
SHERIDAN ROSS P.C.
1560 BROADWAY
SUITE 1200
DENVER, CO 80202

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	06 DEC 2013
Applicant's or agent's file reference 6583-506-PCT	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US2013/055321	16 August 2013	17 August 2012

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - G06Q 30/00 (2013.01)
USPC - 705/14.52

Applicant FLEXTRONICS AP, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	21 November 2013	Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055321

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed.

   ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

      ☐ on paper

      ☐ in electronic form

   b. (time)

      ☐ in the international application as filed

      ☐ together with the international application in electronic form

      ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2013/055321

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	5-6, 8-11, and 17-20	YES
	Claims	1-4, 7, and 12-16	NO
Inventive step (IS)	Claims	1-20	YES
	Claims	None	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	None	NO

2. Citations and explanations:

Claims 1-4, 7, and 12-16 lack novelty under PCT Article 33(2) as being anticipated by Hunter.

Regarding Claim 1, Hunter teaches a method, comprising: executing a reporting function of a television (page 184, lines 1-20 for preparing a report with usage data and page 185, lines 1-10 for routing the usage reports to the correct content provider); querying (page 167, lines 25-35 for having means to query the metadata associated with a fragment), by the reporting function (figure 94 element a content provider application that has access the entitlements cache and the metadata element 232 and page 1-10 for reporting information on metadata such as usage), a statistics content provider of an application of the television for usage statistics (figure 94 for having a content provider application and page 38, lines 20-30 for logging usage for channels, along with claim 122 for using usage statistics); and creating, by the reporting function, a report incorporating the queried usage statistics (page 185, lines 1-10 for compiling or creating a usage report and sending the usage data to a content provider).

Regarding Claim 2, Hunter teaches wherein the querying the statistics content provider further comprises querying the statistics content provider via an application programming interface of the application (figure 94 for having an content provider application that interfaces with the content provider, and page 90, lines 25-40 for having an application programming interface that allows the application to query information from a cache).

Regarding Claim 3, Hunter teaches wherein the application is at least one of a live television application operable to present broadcast television content, an on-demand application operable to present on-demand television content and a media center application operable to present user provided content (page 39, lines 1-20 for having an on demand player element 270 that allows viewing of on demand content from different providers for universality between players).

Regarding Claim 4, Hunter teaches wherein the querying of the statistics content provider causes the application to return at least one of name of the application, package name comprising the application, last session timestamp, and cumulative usage (pages 10, lines 25-35 for having a search service that searches the electronic program guide along with all the metadata associated with the electronic program guide and figure 63 top right corner for getting package information and having product metadata that shows the Package with the price).

Regarding Claim 7, Hunter teaches wherein the querying of the statistics content provider causes the application to return (figure 94 element a content provider application that has access the entitlements cache and the metadata element 232) at least one of code version, version name, first install timestamp, last update timestamp (page 98, lines 1-25 for having a code version for the manufacturer's software, and page 55, lines 1-25 for means to look up information by time stamps for schedule).

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In case **the space in any of the preceding boxes is not sufficient.**
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Regarding Claim 12, Hunter discloses a television (page 185, lines 15-25 for having an IPTV service and lines 1-5 for using linear service on a television along with on-demand programming), comprising: a processor (page 18, lines 45-55 for having a means to process metadata); a data storage (page 73, lines 40-50 for having memory means such as flash memory and hard drive for storing the platform software); an application executable by the processor (page 185, lines 10-30 for having an IPTV service and having on demand portal service with figure 94 for having an content provider application on the device element 130); and wherein the processor is operable to (a) execute a reporting function of the television (page 184, lines 1-20 for preparing a report with usage data and page 185, lines 1-10 for routing the usage reports to the correct content provider), (b) query a statistics content provider of the application for usage statistics (figure 94 for having a content provider application and page 38, lines 20-30 for logging usage for channels, along with claim 122 for using usage statistics along with page 167, lines 25-35 for having means to query the metadata associated with a fragment), (c) create a report incorporating the queried usage statistics (page 185, lines 1-10 for creating a usage report and sending the usage data to a content provider), and (d) store the report in the data storage (paragraph 185, lines 1-10 for creating a usage report and claim 122 for having access to previous usage statistics or means to store the usage statistics).

Regarding Claim 13, Hunter discloses wherein the querying the statistics content provider further comprises querying the statistics content provider application programming interface (figure 94 for having an content provider application that interfaces with the content provider, and page 90, lines 25-40 for having an application programming interface that allows the application to query information from a cache).

Regarding Claim 14, Hunter discloses wherein the application is at least one of a live television application operable to present broadcast television content, an on-demand application operable to present on-demand television content, and a media center application operable to present user provided content (page 39, lines 1-20 for having an on demand player element 270 that allows viewing of on demand content from different providers for universality between players).

Regarding Claim 15, Hunter discloses wherein the query causes the application to return at least one of name, package name, last session timestamp, and cumulative usage (pages 10, lines 25-35 for having a search service that searches the electronic program guide along with all the metadata associated with the electronic program guide and figure 63 top right corner for getting package information and having product metadata that shows the Package with the price).

Regarding Claim 16, Hunter discloses wherein the query causes the application to return (figure 94 element a content provider application that has access the entitlements cache and the metadata element 232) at least one of code version, version name, first install timestamp, last update timestamp (page 98, lines 1-25 for having a code version for the manufacturer's software, and page 55, lines 1-25 for means to look up information by time stamps for schedule).

Claims 5-6 and 17, lack an inventive step under PCT Article 33(3) as being obvious over Hunter in view of Chai et al, hereinafter Chai.

Regarding Claim 5, Hunter teaches wherein the querying of the statistics content provider query the application (page 87, line 45 to page 88, line 15 for having available package data). Hunter does not explicitly teach to return the package size. Chai has method to provide gift media (abstract) and teaches to return the package size information (paragraph 51 for returning software or application package size information for a module associated with an ASIC for certain operations). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the size data as taught by Chai in the reporting method of Hunter in order to determine a composite score based on reach, influence, and engagement (Chai, paragraph 51).

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Regarding Claim 6, Hunter teaches wherein the querying of the statistics content provider causes the application to return the size of user data associated with the application (page 70, lines 35-45 for having a data and configuration repository that has setting for application data and tracks storage limits for applications using disk space based on user preferences). Hunter does not explicitly teach package size. Chai has method to provide gift media (abstract) and teaches the package size (paragraph 51 for returning software or application package size information for a module associated with an ASIC for certain operations). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the size data as taught by Chai in the reporting method of Hunter in order to determine a composite score based on reach, influence, and engagement (Chai, paragraph 51).

Regarding Claim 17, Hunter discloses wherein the query causes the application to return package data (page 87, line 45 to page 88, line 15 for having available package data). Hunter does not explicitly teach to return the at least one of the package size and the size of user data. Chai has method to provide gift media (abstract) and teaches to return the at least one of the package size and the size of user data (paragraph 51 for returning software or application package size information for a module associated with an ASIC for certain operations). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the size data as taught by Chai in the reporting method of Hunter in order to determine a composite score based on reach, influence, and engagement (Chai, paragraph 51).

Claims 8-11 and 18-20 lack an inventive step under PCT Article 33(3) as being obvious over Hunter in view of Sant' Anselmo.

Regarding Claim 8, Hunter teaches wherein creating the report (figure 94 element a content provider application that has access the entitlements cache and the metadata element 232 and page185, lines 1-10 for reporting information on metadata such as usage), further comprising: generating a serial number (page 186, lines 20-50 for having unique identifiers for accessing metadata); and storing the report in a data storage associated with the television (page 185 lines 1-10 for compiling a usage report and claim 122 for having previous usage statistics or means to store the usage statics for the media content as well as page 15, lines 20-26 for the media client device element 130 having local storage and an interface to the content provider element 1000). Hunter does not explicitly teach incorporating the serial number into the report. Sant' Anselmo has a computer having a time retrieval unit to connect to an official time provider (abstract) and teaches incorporating the serial number into the report (paragraph 243 for embedding a serial number into the machine readable data and paragraph 146 for printing the identifier into the body of the document). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the identifiers as taught by Sant' Anselmo in the reporting method of Hunter in order to electronically transmit the data by direct quick application (Sant' Anselmo, paragraph 146).

Regarding Claim 9, Hunter teaches retrieving the report from the storage (page 185 lines 1-10 for compiling a usage report and claim 122 for having previous usage statistics or means to store the usage statics for the media content as well as page 15, lines 20-26 for the media client device element 130 having local storage and a content provide application that interfaces with the content provider element 1000); and sending the report to a remote server (page 185 for sending the usage report that has been compiled to the content provider or a remote server and figure 94, element 130 connecting to the remote content provider element 1000).

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Regarding Claim 10, Hunter teaches upon successfully delivering the report to the remote server (page 185 for sending the usage report that has been compiled to the content provider or a remote server and figure 94, element 130 connecting to the remote content provider element 1000). Hunter does not explicitly teach deleting the report. Sant' Anselmo has a computer having a time retrieval unit to connect to an official time provider (abstract) and teaches deleting the report (paragraph 150 for using the method with both internet and non-internet document control systems that include file management processes, and paragraph 446 for shredding the document or deleting a document and using software to timestamp the document prior to ejection). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the identifiers as taught by Sant' Anselmo in the reporting method of Hunter in order to electronically transmit the data by direct quick application (Sant' Anselmo, paragraph 146).

Regarding Claim 11, Hunter teaches upon determining the free space of the storage is below a threshold (page 70, lines 10-25 for having an application manager that handles the lifecycle of applications by monitoring the amount of memory used and releasing memory after an application has terminated to ensure the stability of the device). Hunter does not explicitly teach deleting a first report stored in the storage with a prior serial number than a second report stored in the storage. Sant' Anselmo has a computer having a time retrieval unit to connect to an official time provider (abstract) and teaches deleting a first report stored in the storage (paragraph 150 for using the method with both internet and non-internet document control systems that include file management processes, and paragraph 446 for shredding the document or deleting a document and using software to timestamp the document prior to ejection) with a prior serial number than a second report stored in the storage (paragraph 472 for automatically activating time stamped documents it would be obvious to deavtivate or delete a document by the same process, and ordering documents and paragraphs 478-486 for ordering documents by indentifiers such as time stamps). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the identifiers as taught by Sant' Anselmo in the reporting method of Hunter in order to electronically transmit the data by direct quick application (Sant' Anselmo, paragraph 146).

Regarding Claim 18, Hunter teaches method, comprising: querying an application manager of a television (figure 94 for having a content provider application and page 38, lines 20-30 for logging usage for channels, along with claim 122 for using usage statistics along with page 167, lines 25-35 for having means to query the metadata associated with a fragment with figure 94 for having an content provider application with an interface to the content provider element 1000 on the user device element 130), the application manager having records of a number of applications of the television (page 70, lines 10-25 for having an application manager that handles the lifecycle of applications including priorities and reducing delays for launching the application or having records of the running applications); returning, by the application manager, indicia associated with currently installed applications (page 73 lines 10-25 for having software updates that include the Application Program Interface version number or indicia associated with the application interface). Hunter does not explicitly teach and returning, by the application manager, indicia associated with removed applications. Sant' Anselmo has a computer having a time retrieval unit to connect to an official time provider (abstract) and teaches and returning, by the application manager, indicia associated with removed applications (paragraph 490 for using the identifier process with internet applications for usage with, paragraph 492 for having the identifier expire after a certain period of time or be removed, paragraphs 481-486 for organizing and retrieving documents using identifiers). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the identifiers as taught by Sant' Anselmo in the reporting method of Hunter in order to time stamp the usage of applications (Sant' Anselmo, paragraph 480).

Regarding Claim 19, Hunter teaches the method as shown above. Hunter does not explicitly teach returning, by the application manager, a last used timestamp of the at least one application. Sant' Anselmo has a computer having a time retrieval unit to connect to an official time provider (abstract) and teaches teach returning, by the application manager, a last used timestamp of the at least one application (paragraph 490 for using the identifier process with internet applications for usage with, paragraph 492 for having the identifier expire after a certain period of time or be removed using the identifier of the time stamp, paragraphs 481-486 for organizing and retrieving documents using identifiers). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the identifiers as taught by Sant' Anselmo in the reporting method of Hunter in order to time stamp the usage of applications (Sant' Anselmo, paragraph 480).

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Regarding Claim 20, Hunter teaches storing in a data storage of the television (page 185 lines 1-10 for compiling a usage report and claim 122 for having previous usage statistics or means to store the usage statics for the media content as well as page 15, lines 20-26 for the media client device element 130 having local storage and a content provide application that interfaces with the content provider element 1000). Hunter does not explicitly teach a report comprising the query results and a serial number of the report. Sant' Anselmo has a computer having a time retrieval unit to connect to an official time provider (abstract) and a report comprising the query results and a serial number of the report (paragraph 243 for embedding a serial number into the machine readable data and paragraph 146 for printing the identifier into the body of the document with paragraph 441 for using the system with searches). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the identifiers as taught by Sant' Anselmo in the reporting method of Hunter in order to electronically transmit the data by direct quick application (Sant' Anselmo, paragraph 146).

Claims 1-20 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: **100101**

A0601,Huibin Building
No.8,Beichen Dong(East) Street Chao Yang District Beijing,China

LIU，SHEN&ASSOCIATES

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

	Date of mailing *(day/month/year)* **21 Nov. 2013 (21.11.2013)**
Applicant's or agent's file reference **F13W4861**	**FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. **PCT/CN2013/081630**	International filing date *(day/month/year)* **16 Aug. 2013(16.08.2013)**
Applicant **FLEXTRONICS AP, LLC et al.**	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20,Switzerland, Facsimile No.:+41 22 338 82 70

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:
   - ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.
   - ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90*bis*.1 and 90*bis*.3, respectively, before the completion of the technical preparations for international publication.

The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. These comments would also be made available to the public but not before the expiration of 30 months from the priority date.

Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later);otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/CN The State Intellectual Property Office, the P.R.China 6 Xitucheng Rd., Jimen Bridge, Haidian District, Beijing, China 100088	Authorized officer **KANG, Kai**
Facsimile No. (86-10)62019451	Telephone No. (86-10)**62413998**

Form PCT/ISA/220 (July 2009) *(See notes on accompanying sheet)*

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