UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	Q105659
First Inventor	Hwa-kyung LEE
Title	BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS
Express Mail Label No.	

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents

ADDRESS TO: **Commissioner for Patents**
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1. ☐ Fee Transmittal Form (e.g., PTO/SB/17)
   (Submit an original and duplicate for fee processing)
2. ☐ Applicant claims small entity status.
   See 37 CFR 1.27.
3. ☑ Specification [Total Pages 18]
   Both the claims and abstract must start on a new page
   (For information on the preferred arrangement, see MPEP 608.01(a))
4. ☑ Drawing(s) (35 U.S.C. 113) [Total Sheets 4]
5. Oath or Declaration [Total Sheets 3]
   a. ☑ New executed (original or copy)
   b. ☐ A copy from a prior application (37 CFR 1.63(d))
   (for continuation/divisional with Box 19 completed)
   i. ☐ DELETION OF INVENTORS
   Signed statement attached deleting inventor(s) name in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6. ☑ Application Data Sheet. See 37 CFR 1.76
7. ☐ CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
   ☐ Landscape Table on CD
8. ☐ Nucleotide and/or Amino Acid Sequence Submission
   (if applications, items a. – c. are required)
   c. ☐ Computer Readable Form (CRF)
   d. Specification Sequence Listing on:
   ii. ☐ CD-ROM or CD-R (2 copies); or
   iii. ☐ Paper
   e. ☐ Statements verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

9. ☐ Assignment Papers (cover sheet & document(s))
   Name of Assignee Samsung Electronics Co., Ltd.
10. ☐ 37 CFR 3.73(b) Statement ☑ Power of Attorney
    (when there is an assignee)
11. ☐ English Translation Document (if applicable)
12. ☑ Information Disclosure Statement (PTO/SB/08 or PTO-1449)
    ☑ Copies of foreign patent documents, publications, & other information
13. ☐ Preliminary Amendment
14. ☐ Return Receipt PostCard (MPEP 503)
    (Should be specifically itemized)
15. ☐ Certified Copy of Priority Document(s)
    (if foreign priority is claimed)
16. ☐ Nonpublication Request under 35 U.S.C. 122(b)(2)(B)(i)
    Applicant must attach form PTO/SB/35 or equivalent.
17. ☑ Priority is claimed from:
    SEE ATTACHED
18. ☐ Other:

19. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in the first sentence of the specification following the title, or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No:

Prior application information: Examiner Art Unit:

20. CORRESPONDENCE ADDRESS

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WASHINGTON OFFICE
23373
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Name					
Address					
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County		Telephone		Email Address	

Signature	/darrylmexic/	Date	May 9, 2008
Name (Print/Type)	Darryl Mexic	Registration No. (Attorney/Agent)	23,063

UTILITY PATENT APPLICATION TRANSMITTAL
ADDITIONAL PAGE

Priority is claimed from:

Country	Application No	Filing Date
KR	10-2007-0090104	September 5, 2007

BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS

CROSS REFERENCE TO RELATED APPLICATION

[01] This application claims priority from Korean Patent Application No. 10-2007-0090104 filed on September 5, 2007 in the Korean Intellectual Property Office, the disclosure of which is incorporated herein by reference in its entirety.

BACKGROUND OF THE INVENTION

1. Field of the Invention

[02] Methods and apparatuses consistent with the present invention relate to receiving broadcast signals, and, more particularly, to a broadcast-receiving apparatus and a method of outputting data by a broadcast-receiving apparatus, which is capable of outputting media content and real-time broadcasting data at the same time.

2. Description of the Related Art

[03] As digital TV transmission becomes more popular, digital broadcasting stations have been focusing more on the various functions of digital broadcasting, particularly, data broadcasting. In data broadcasting, various data as well as audio and video signals are transmitted using a data broadcast specification that is defined by the ATSC standard, which is a digital broadcast standard, and a terminal having a data-broadcast-receiving function

(a TV or a set-top box) receives the data and displays the data on a screen in an appropriate format. In recent years, the ATSC has established a North American DTV data broadcast middleware standard called ACAP (advanced common application platform) that can make cable data broadcasting content compatible with terrestrial data broadcasting content. Therefore, manufacturers have made efforts to develop data-broadcast-receiving apparatuses suitable for the standard.

[04] However, a function enabling the user to view real-time broadcasting data while watching moving-picture content or recorded content has not been developed.

[05] As an example, a viewer may want to watch recorded drama content, and at the same time view broadcasting content of the election results being transmitted through a predetermined channel in real time. However, technology enabling this has not been proposed.

SUMMARY OF THE INVENTION

[06] An aspect of the present invention is to provide a broadcast-receiving apparatus and a method of outputting data by a broadcast-receiving apparatus capable of outputting media content and real-time broadcasting data at the same time.

[07] However, the aspects, and features of the present invention are not restricted to the ones set forth herein. The above and other aspects, features and advantages of the present invention will become more apparent to one of ordinary skill in the art to which the present invention pertains by

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referencing a detailed description of the present invention given below.

[08] According to an aspect of the present invention, there is provided a broadcast-receiving apparatus, comprising a receiving unit which receives a data broadcasting signal through a data broadcasting channel channel, an extracting unit which extracts data from the received data broadcasting signal, and a merging unit which merges the extracted data with media content that is being output.

[09] According to another aspect of the present invention, there is provided a method of outputting data by a broadcast-receiving apparatus, comprising receiving a data broadcasting signal through a data broadcasting channel, extracting data from the received data broadcasting signal, and merging the extracted data with media content that is being output.

BRIEF DESCRIPTION OF THE DRAWINGS

[10] The above and other features and advantages of the present invention will become apparent by describing in detail exemplary embodiments thereof with reference to the attached drawings in which:

[11] FIG. 1 is a block diagram illustrating the structure of a broadcast-receiving apparatus according to an exemplary embodiment of the present invention;

[12] FIGS. 2 and 3 are diagrams illustrating an example of the display of data by the broadcast-receiving apparatus according to an exemplary embodiment of the present invention; and

[13] FIG. 4 is a flowchart illustrating a method of outputting data by

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a broadcast-receiving apparatus according to an exemplary embodiment of the present invention.

DETAILED DESCRIPTION OF EXEMPLARY EMBODIMENTS OF THE INVENTION

[14] Features of the present invention and methods of accomplishing the same may be understood more readily by reference to the following detailed description of exemplary embodiments and the accompanying drawings. The present invention may, however, be embodied in many different forms and should not be construed as being limited to the exemplary embodiments set forth herein. Rather, these exemplary embodiments are provided so that this disclosure will be thorough and complete and will fully convey the concept of the invention to those skilled in the art, and the present invention will only be defined by the appended claims. Like reference numerals refer to like elements throughout the specification.

[15] The present invention is described hereinafter with reference to flowchart illustrations according to exemplary embodiments of the invention. It will be understood that each block of the flowchart illustrations, and combinations of blocks in the flowchart illustrations, can be implemented by computer program instructions. These computer program instructions can be provided to a processor of a general purpose computer, special purpose computer, or other programmable data processing apparatus to produce a machine, such that the instructions, which execute via the processor of the computer or other programmable data processing apparatus, create means for

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implementing the functions specified in the flowchart block or blocks.

[16] These computer program instructions may also be stored in a computer usable or computer-readable memory that can direct a computer or other programmable data processing apparatus to function in a particular manner, such that the instructions stored in the computer usable or computer-readable memory produce an article of manufacture including instruction means that implement the function specified in the flowchart block or blocks.

[17] The computer program instructions may also be loaded onto a computer or other programmable data processing apparatus to cause a series of operational steps to be performed on the computer or other programmable apparatus to produce a computer implemented process such that the instructions that execute on the computer or other programmable apparatus provide steps for implementing the functions specified in the flowchart block or blocks.

[18] And each block of the flowchart illustrations may represent a module, segment, or portion of code, which comprises one or more executable instructions for implementing the specified logical function(s). It should also be noted that in some alternative implementations, the functions noted in the blocks may occur out of the order presented in the flowchart illustrations. For example, two blocks shown in succession may in fact be executed substantially concurrently or the blocks may sometimes be executed in the reverse order, depending upon the functionality involved. FIG. 1 is a block diagram illustrating the structure of a broadcast-receiving apparatus according

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to an exemplary embodiment of the present invention. The broadcast-receiving apparatus receives data broadcasting signals, and can be applied to, for example, digital televisions and set-top boxes.

[19] As shown in FIG. 1, the broadcast-receiving apparatus according to the present exemplary embodiment includes a receiving unit 10 that receives broadcasting signals, a signal-processing unit 20 that processes the received broadcasting signals, an output unit 30 that outputs the processed broadcasting signals, an extracting unit 32 that extracts data from the broadcasting signals, a recording unit 34 that records the broadcasting signals output from the output unit 30, a merging unit 36 that merges the extracted data with media content that is currently being output from the output unit 30, a control unit 38 that controls these units, and a user interface 40 for user input.

[20] The receiving unit 10 may include a tuner for receiving the broadcasting signals. The tuner is tuned to receive broadcasting signals of the channel selected by the user or a predetermined channel.

[21] The signal-processing unit 20 may include a demodulating unit 22 that demodulates the received broadcasting signal, a demultiplexer 24 that demultiplexes the demodulated broadcasting signal, and a decoding unit 26 (for example, a video decoder or an audio decoder) that decodes the demultiplexed signal into the original signal.

[22] A broadcasting signal stream demodulated by the demodulating unit 22 is output to the demultiplexer 24. The demultiplexer 24 demultiplexes an input broadcasting signal stream into audio, video, and data. That is, since

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the demodulated audio, video, and data are multiplexed in the form of a transport packet, the demultiplexer 24 can demultiplex the input broadcasting signal stream into audio, video, and data.

[23] The data includes at least one of application data, data carousel data, and information that can be displayed on the screen as graphics or characters, but the present invention is not limited thereto. In a data carousel system, a data module is periodically transmitted through a DVB (digital video broadcasting) compatible broadcasting network, so that a receiver can receive data.

[24] For example, the data may include applications that operate in real time with real time data and/or real time data that is provided during data broadcasting, such as news information, weather information, traffic information, home shopping information, stock information, and emergency news. However, the present invention is not limited thereto, and other data can be used. The audio signal is output from the demultiplexer 24 to an audio decoder. The audio decoder decodes a compressed audio signal into the original audio signal, and outputs the decoded signal to the output unit 30 (for example, a speaker). The video signal is output from the demultiplexer 24 to a video decoder. The video decoder decodes a compressed video signal into the original video signal and displays the decoded signal on the output unit 30 (for example, a screen).

[25] The extracting unit 32 extracts data that is demultiplexed by the demultiplexer 24, to form content. That is, since the data is a data stream

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having a header portion (which includes, for example, information indicating the start of a signal and a packet ID number indicating information included in the next payload portion) and a payload portion (a pure data portion), the extracting unit 32 extracts a pure data component and groups components into one set of content (hereinafter, referred to "data content").

[26] Data content that is generated by the extracting unit 32 is displayed on the screen together with a video signal that is output from video decoder in real time, or they are output to the merging unit 36. The display of the data content and the video signal that is output from the video decoder in real time on the screen means the output of the data broadcasting signal from the output unit 30.

[27] Meanwhile, data content output to the merging unit 36 is generated when the user inputs a data-extracting instruction. The input of the data-extracting instruction may include the input of information on a channel through which data is extracted. For example, when the user sets the channel for extracting data to channel No. 5, the extracting unit 32 extracts data from a broadcasting signal that is received through the channel No. 5 and forms content. In order to perform this operation, it is preferable to provide a user interface 40, such as a graphical user interface (GUI) and/or a remote controller for inputting the data-extracting instruction.

[28] The above-mentioned structure enables a data broadcasting signal that is provided to the broadcast-receiving apparatus to be recorded by the recording processing unit 34. The recorded broadcasting signal is separated

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into video, audio, and data, and the separated components are stored in an internal or external storage medium. When the user requests to reproduce the recorded broadcasting signal, the control unit 38 controls the extracting unit to extract the broadcasting signal stored in the storage medium, and controls the decoding unit 26 to decode the extracted broadcasting signal. The decoded broadcasting signal is output to the output unit 30. The control unit 38 may reproduce moving picture content that is received through a network (for example, an Internet network) or stored in a storage medium, in addition to reproducing the recorded broadcasting signal. Hereinafter, the recorded broadcasting signal, and moving picture content that are received through the network or stored in the storage medium are commonly referred to as "reproducing content".

[29] The merging unit 36 merges reproducing content and data content and outputs merged content. In this case, as shown in FIG. 2, it is preferable that data content 44 be displayed on reproducing content 42 in a PIP (picture-in-picture) so that the user can view both the reproducing content 42 and the data content 44.

[30] FIG. 2 is a diagram illustrating the reproducing content 42 displayed as a main picture and the data content 44 displayed as a sub-picture. Alternatively, the data content 44 may be displayed as the main picture, and the reproducing content 42 may be displayed as the sub-picture. In addition, the display of the pictures for the content may be switched. That is, according to the input of the user, the picture for the data content 44 may be changed

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from the sub-picture to the main picture or from the main picture to the sub-picture. For example, when the user wants to display data content, which is a PIP, as the main picture while watching the reproducing content displayed as the main picture, the display of the data content can be changed from the sub-picture to the main picture.

[31] The display of the reproducing content and the data content is not limited to the PIP mode, but various display modes may be used. For example, as shown in FIG. 3, the screen may be divided in a predetermined direction (for example, a horizontal or vertical direction) at a predetermined ratio, and the reproducing content 42 and the data content 44 may be displayed on the divided screens.

[32] Alternatively, only the reproducing content may be displayed after a predetermined time has elapsed, when a display mode in which data content are not displayed is selected, or after the display of the data content is completed.

[33] In the present exemplary embodiment, the merging unit 36 merges the data content with the reproducing content, but the present invention is not limited thereto. For example, when the output unit 30 outputs broadcasting content through a predetermined channel in real time, the merging unit 36 extracts data content from broadcasting signals transmitted through a channel that is different from the channel, merges the extracted data content with the real-time broadcasting content, and outputs the merged content.

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[34] When the user inputs a channel that (s)he wants to watch, the control unit 38 controls the receiving unit 10 and the signal-processing unit 20 to receive broadcasting signals through the input channel. As described above, the data broadcasting signal is output to the output unit 30 together with the data content generated by the extracting unit 32.

[35] When a recording instruction is input, the control unit 38 controls the recording processing unit 34 to process the broadcasting signal that is currently output to the output unit 30 and to store the processed signal in a storage medium.

[36] When channel information having data to be extracted is input, the control unit 38 controls the receiving unit 10, the signal-processing unit 20, and the extracting unit 32 to extract data from broadcasting signals that are input through the channel to form content. Then, the control unit 38 controls the merging unit 36 to merge data content generated by the extracting unit 32 with reproducing content (or real-time broadcasting content) and to output the merged content.

[37] Next, a method of outputting data by the broadcast-receiving apparatus having the above-mentioned structure according to an exemplary embodiment of the present invention will be described below with reference to FIG. 4.

[38] It is assumed that the output unit 30 outputs reproducing content.

[39] When the user wants to see weather information while

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watching reproducing content (S10), the user inputs a data-extracting instruction. In this case, the user may input channel information having data to be extracted. For example, it is assumed that weather information is received through channel No. 10.

[40] When the user inputs information on channel No. 10 as the channel information having data to be extracted (S20), the extracting unit 32 extracts data for weather information from broadcasting signals that are received through channel No. 10 to form content (S30).

[41] Data content for weather information is output to the merging unit 36, and the merging unit 36 merges the data content for weather information with current reproducing content, and outputs the merged content to the output unit 30 (S40).

[42] In this way, the user can see weather information while watching "reproducing content".

[43] The data content extracted by the extracting unit 32 may be stored in a storage unit such that the user can play back the data content later, if necessary.

[44] As described above, the broadcast-receiving apparatus and the method of outputting data by the broadcast-receiving apparatus according to the exemplary embodiments of the present invention can output media content and real-time data broadcasting signals at the same time.

[45] Although the present invention has been described in connection with the exemplary embodiments of the present invention with

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reference to the accompanying drawings, it will be apparent to those skilled in the art that various modifications and changes may be made thereto without departing from the scope and spirit of the invention. Therefore, it should be understood that the above exemplary embodiments are not limitative, but illustrative in all aspects.

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WHAT IS CLAIMED IS:

1. A broadcast-receiving apparatus comprising:

a receiving unit which receives a data broadcasting signal through a data broadcasting channel;

an extracting unit which extracts data from the received data broadcasting signal; and

a merging unit which merges the extracted data with media content that is being output.

2. The broadcast-receiving apparatus of claim 1, wherein the media content includes at least one of recorded broadcasting signals, moving picture content that is received through a network or stored in a storage medium, and broadcasting signals that are received through a channel different from the data broadcasting channel.

3. The broadcast-receiving apparatus of claim 1, further comprising:

a user interface which receives input for determining the data broadcasting channel.

4. The broadcast-receiving apparatus of claim 1, wherein the extracted data includes at least one of data carousel data, application data, and information that can be displayed on a screen as one of graphics and

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characters.

5. The broadcast-receiving apparatus of claim 1, wherein the merging unit merges the extracted data and the media content in a picture in picture (PIP) mode.

6. The broadcast-receiving apparatus of claim 1, wherein the merging unit merges the extracted data and the media content by dividing an image of the media content being output in a predetermined direction at a predetermined ratio, and providing the media content in one division and the extracted data in another division.

7. The broadcast-receiving apparatus of claim 5, wherein a PIP position of the extracted data changes according to a user input.

8. The broadcast-receiving apparatus of claim 6, wherein a division position of the extracted data changes according to a user input.

9. The broadcast-receiving apparatus of claim 1, wherein the merging unit merges the extracted data with the media content only for a predetermined amount of time , when one of a display mode in which the extracted data is not displayed is selected, and the display of the extracted data is completed.

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10. A method of outputting data by a broadcast-receiving apparatus, comprising:

receiving a data broadcasting signal through a data broadcasting channel;

extracting data from the received data broadcasting signal; and

merging the extracted data with media content that is being output.

11. The method of claim 10, wherein the media content includes at least one of recorded broadcasting signals, moving picture content that is received through a network or stored in a storage medium, and broadcasting signals that are received through a channel different from the data broadcasting channel.

12. The method of claim 10, further comprising:

determining the data broadcasting channel through a user interface ,

wherein the data broadcasting signal is received through the determined data broadcasting channel.

13. The method of claim 10, wherein the data includes at least one of data carousel data, application data, and information that can be displayed on a screen as graphics or characters.

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14. The method of claim 10, wherein the merging comprises merging the extracted data and the media content in a picture in picture (PIP) mode.

15. The method of claim 10, wherein the merging comprises merging the extracted data and the media content by dividing an image of the media content being output in a predetermined direction at a predetermined ratio, and providing the media content in one division and the extracted data in another division.

16. The method of claim 14, further comprising:

changing a PIP position of the extracted data according to a user input.

17. The method of claim 15, further comprising:

changing a division of the extracted data according to a user input.

18. The method of claim 10, further comprising:

merging the extracted data with the media content only for a predetermined amount of time , when one of a display mode in which the extracted data is not displayed is selected, and the display of the extracted data is completed.

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ABSTRACT OF THE DISCLOSURE

There is provided a broadcast-receiving apparatus and a method of outputting data by a broadcast-receiving apparatus capable of outputting media content and real-time broadcasting data at the same time. According to an aspect of the present invention, there is provided a broadcast-receiving apparatus, including a receiving unit which receives a data broadcasting signal through a data broadcasting channel, an extracting unit which extracts data from the received data broadcasting signal, and a merging unit which merges the extracted data with media content that is being output.

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FIG. 1

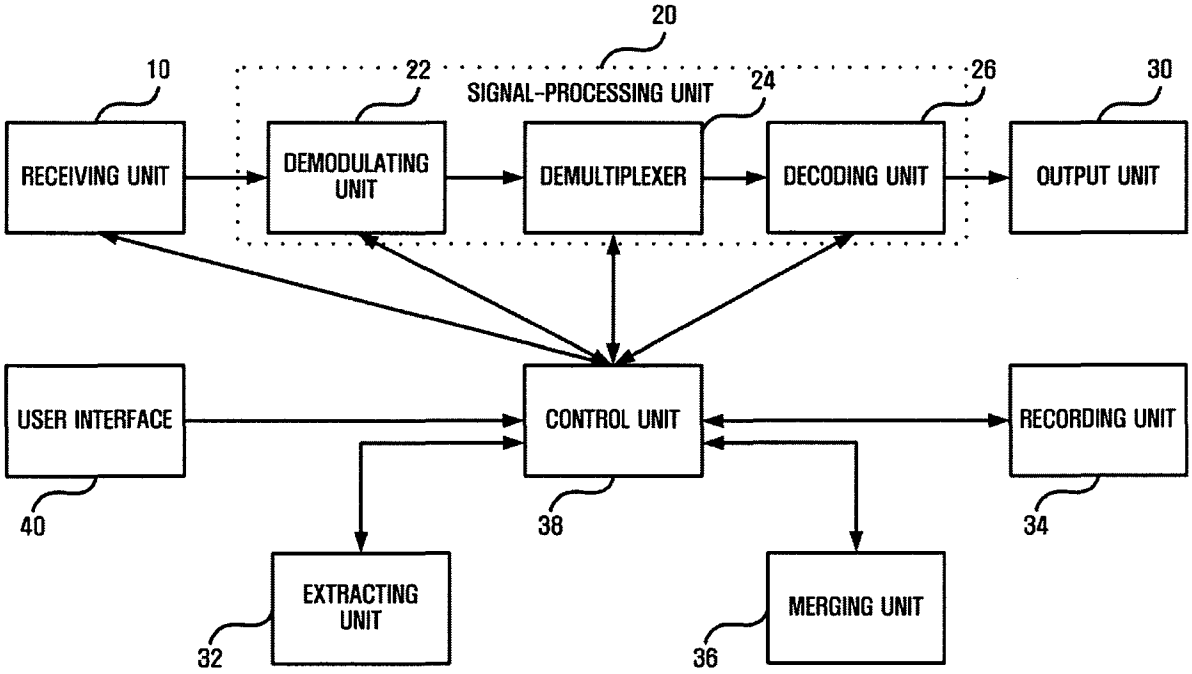

20
10
22
SIGNAL-PROCESSING UNIT
24
26
30
RECEIVING UNIT
DEMODULATING UNIT
DEMULTIPLEXER
DECODING UNIT
OUTPUT UNIT
USER INTERFACE
CONTROL UNIT
RECORDING UNIT
40
38
34
EXTRACTING UNIT
MERGING UNIT
32
36

FIG. 2

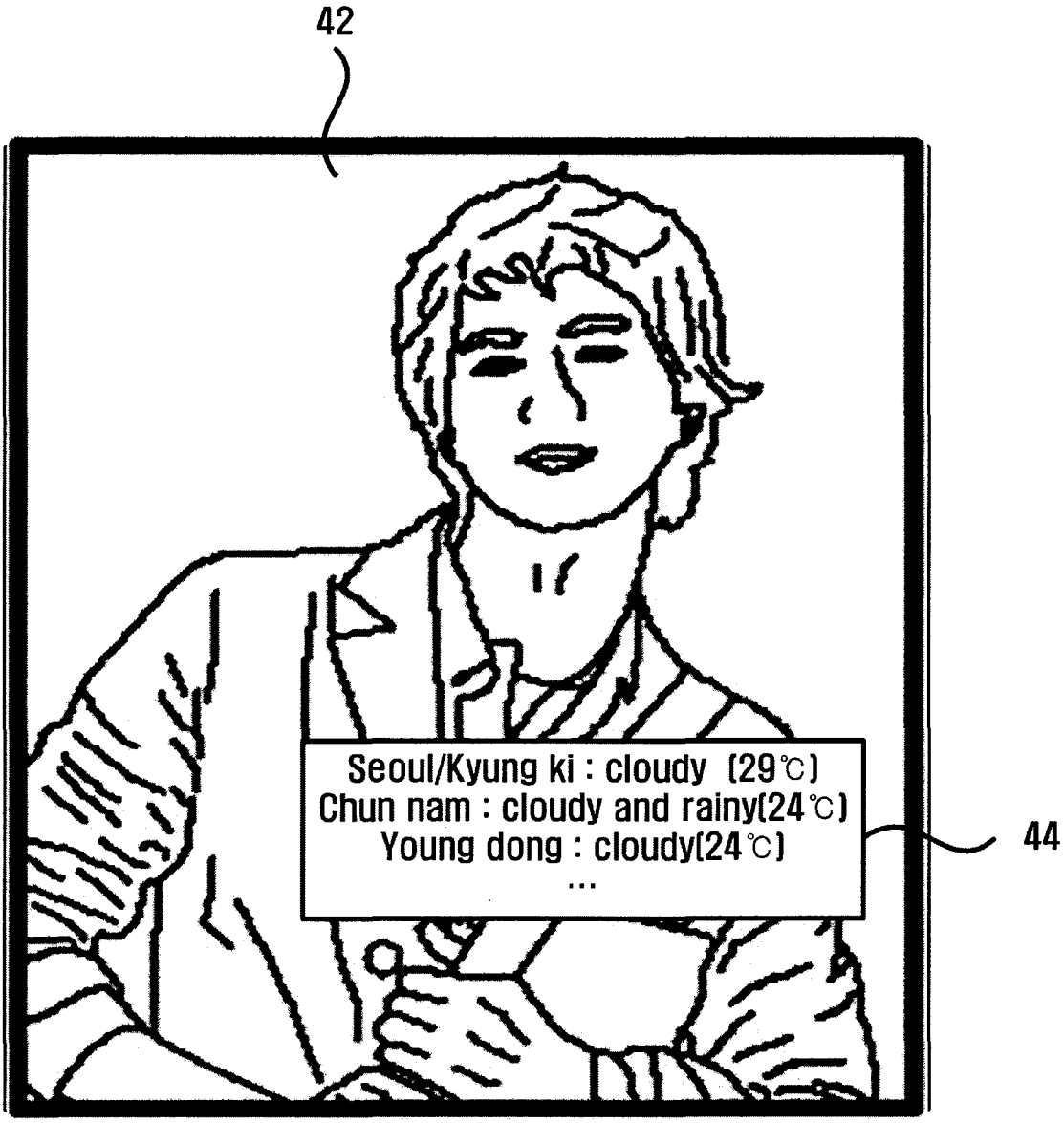

42
Seoul/Kyung ki : cloudy (29℃)
Chun nam : cloudy and rainy(24℃)
Young dong : cloudy(24℃)
...
44

FIG. 3

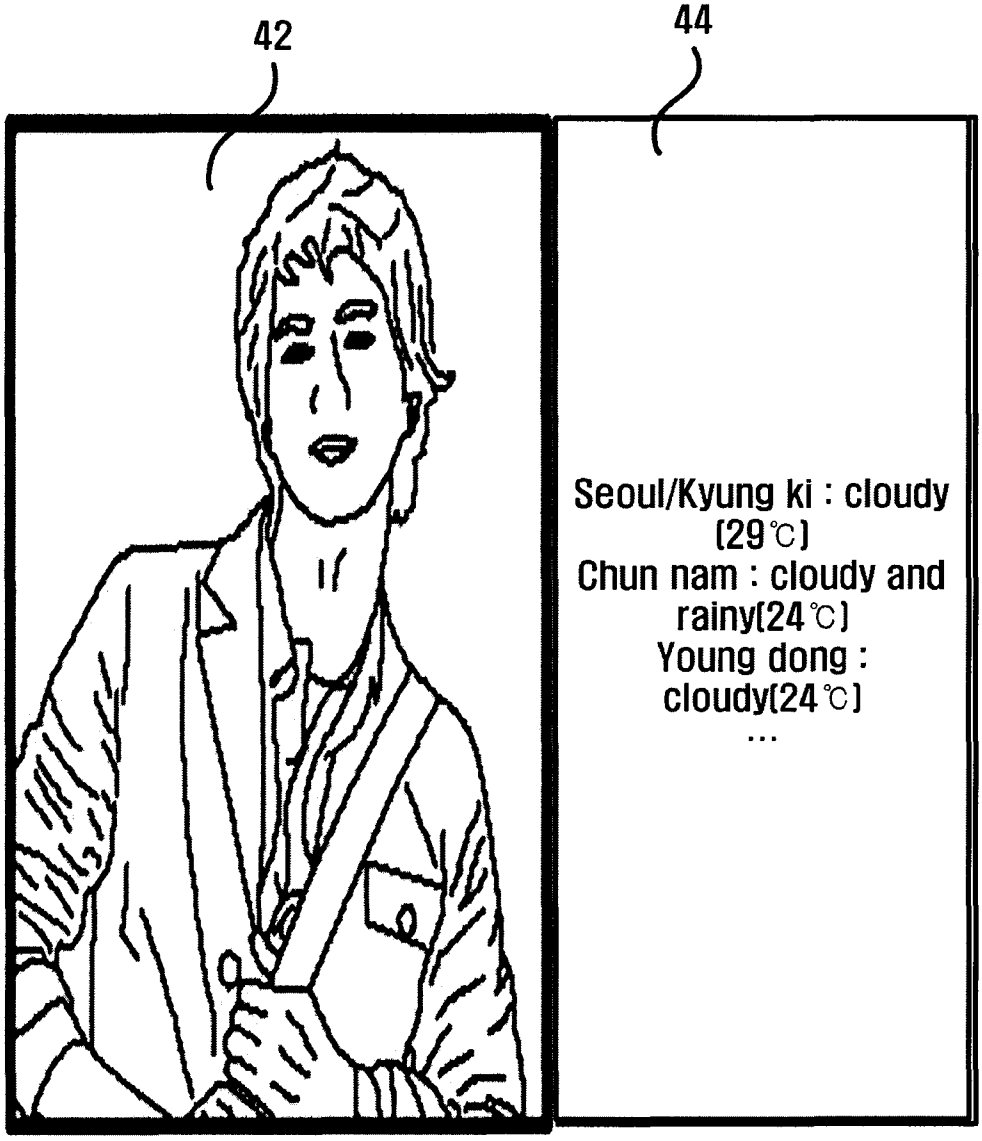
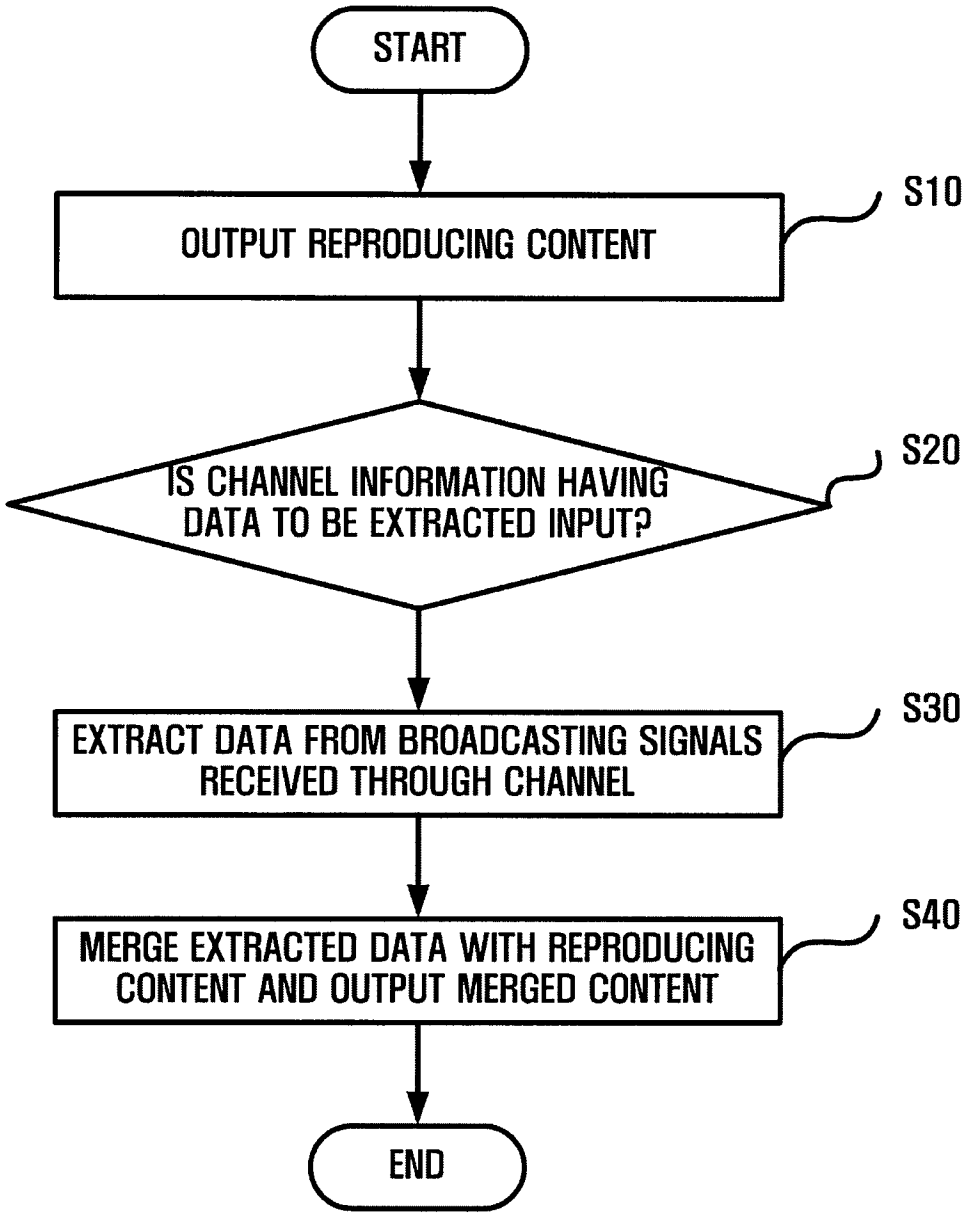

42
44
Seoul/Kyung ki : cloudy (29℃)
Chun nam : cloudy and rainy(24℃)
Young dong : cloudy(24℃)
...

FIG. 4


START
OUTPUT REPRODUCING CONTENT
S10
IS CHANNEL INFORMATION HAVING DATA TO BE EXTRACTED INPUT?
S20
EXTRACT DATA FROM BROADCASTING SIGNALS RECEIVED THROUGH CHANNEL
S30
MERGE EXTRACTED DATA WITH REPRODUCING CONTENT AND OUTPUT MERGED CONTENT
S40
END

Docket No.: Q105659

DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION (37 C.F.R. 1.63)

특허 출원 관련 선언 및 위임장

Korean Language Declaration

한국어 선언서

본인은 다음과 같이 선언합니다.

I hereby declare that:

각 발명자의 거주지, 우편 주소 및 국적은 하기 각 발명자의 성명의 아래칸에 기재된 것과 동일합니다.

Each inventor's residence, mailing address, and citizenship are as stated below next to their name.

본인은, 하기의 발명자(들)이, 다음의 제목을 갖는 발명과 관련하여 특허를 받고자 하며 또 특허청구 범위에 기재되어 있는 대상에 대하여 원래의 최초 발명자(들)이라고 믿습니다.

I believe the inventor(s) named below to be the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS

본원 명세서는,
☐ 첨부된 바와 같습니다.

또는

☐ 미합중국 출원번호 또는 PCT 국제 출원 번호는 _____ (확인번호 _____)로 _____ 일에 출원되었고 _____ 일에 보정되었음 (해당 경우).

the specification of which:
☒ is attached hereto

OR

☐ was filed on _____ as United States Application Number or PCT International Application Number _____ and was amended on _____ (if applicable).

본인은 위에 구체적으로 언급된 보정서에 의해 보정된 상기 명세서 (특허청구 범위 포함)의 내용을 검토 및 이해했음을 확인합니다.

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

본인은 연방 규정 코드 제 37 장 제 1.56 항에 규정된 바에 따라, 특허성의 판단에 중요한 자료 정보를 공개할 의무가 있음을 인정하며, 이와 같은 의무에는, 부분 연속 출원(들)의 경우에, 선 출원의 출원일과 부분 연속 출원의 국내 출원일 혹은 PCT 국제 출원일 사이에 입수되었던 중요한 자료 정보를 공개하는 것이 포함됨을 인정합니다.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 C.F.R. 1.56, including for continuation-in-part application(s), material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

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Korean Language Declaration

본인은 아래 기재된 바와 같은 외국 특허출원(들), 외국 발명자증 출원(들) 또는 외국 식물 육종가 권리증 출원(들)에 기초하여 미합중국 코드 제 35 장 제 119(a)-(d)항 또는 (f)항, 또는 365(b)항에 규정된 외국 우선권 혹은 미합중국을 제외한 최소한 한 국가를 지정하는 PCT 국제출원(들)에 기초하여 미합중국 코드 제 35 장 제 365(a)항에 규정된 외국 우선권을 주장하며, 나아가 우선권이 주장되는 출원의 출원일 이전에 출원된 외국 특허출원(들), 외국 발명자증 출원(들) 혹은 외국 식물육종가 권리증(들) 또는 PCT 국제출원(들)도 아래 해당란을 체크함으로써 표시하였습니다.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application(s) which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application(s) having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)
이전의 외국 출원번호(들)

(Application Number) (출원 번호)	(Country) (국가)	(Filing Date) (출원 일자)	Priority Claimed? 우선권 주장함 Yes 예	No 아니오
10-2007-0090104	Republic of Korea	September 5, 2007	☒	☐
			☐	☐

본인은 미합중국 코드인 제 35 장 제 119(e)항에 명시된 바와 같이 하기 미합중국 가출원의 국내 우선권을 주장합니다.

I hereby claim domestic priority under 35 U.S.C. 119(e) of any United States provisional application(s) listed below.

(Application Number) (출원 번호)	(Filing Date) (출원 일자)

본인은 미합중국 코드 제 35 장 제 120 항에 의거 미합중국 출원(들)의 이익 또는 제 365(c)항에 의거 미합중국을 지정하는 PCT 국제출원(들)의 이익을 하기와 같이 주장합니다. 또한, 본 특허출원의 각 특허청구범위에 기재된 대상이 미합중국 코드 제 35 장 제 112 항의 첫번째 패러그패프에 규정된 바에 따라 선 미합중국 출원 또는 선 PCT 국제출원에 기재되어 있지 않은 경우에는, 본 출원의 특허성을 판단하는데 중요한 자료 정보로서 선 출원의 출원일과 본 출원의 국내 출원일 또는 PCT 국제 출원일 사이에 발생한 모든 자료 정보들을 공개할 의무가 있음을 인정합니다.

I hereby claim benefit under 35 U.S.C. 120 of any United States application(s) or 365(c) of any PCT international application(s) designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in a listed prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. 112, I acknowledge my duty to disclose any information material to the patentability of this application as defined in 37 C.F.R. 1.56 which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

Prior U.S. or International Application Number(s)
이전의 국내 또는 국제 출원 번호(들)

(Application Number) (출원 번호)	(Filing Date) (출원 일자)	(Status: patented, pending, abandoned) (현황: 특허 획득, 출원중, 포기)

본인이 아는 한도 내에서 여기에 제공된 모든 내용이 사실이고, 제공된 정보나 소신이 모두 사실임을 확인하며, 더 나아가 미합중국 코드 제 18 장의 1001 항에 명시된 바와 같이 그 외의 허위 진술 및 이와 유사한 행위는 벌금이나 투옥으로 처벌 받거나 벌금과 감옥형을 모두 받을 수 있고 어떠한 고의의 허위 진술은 특허 출원이나 후에 발급된 특허의 유효성을 위태롭게 함을 인지하면서 여기에 진술함을 선언합니다.

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

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Korean Language Declaration

위임장: 본인은 본건 출원을 수행하고 그와 관련하여 미국 특허상표청 업무의 모든 사무를 처리하기 위하여 하기 표기한 USPTO 고객 번호에 등재된 SUGHRUE MION, PLLC 의 모든 변호사들을 본인의 대리인으로 지명하는 바이며, 해당 고객 번호에 등재된 어떤 특정 변호사들이 Sughrue Mion, PLLC 의 재량에 따라 수시로 변동될 수 있음을 인정하며, 출원에 대한 모든 서신을 동일한 USPTO 고객 번호에 기재된 주소로 송부해 줄 것을 요청합니다.

POWER OF ATTORNEY: I hereby appoint all attorneys of **SUGHRUE MION, PLLC** who are listed under the USPTO Customer Number shown below as my attorneys to prosecute this application and to transact all business in the United States Patent and Trademark Office connected therewith, recognizing that the specific attorneys listed under that Customer Number may be changed from time to time at the sole discretion of Sughrue Mion, PLLC, and request that all correspondence about the application be addressed to the address filed under the same USPTO Customer Number.

STATEMENT OF ACCURATE TRANSLATION IN ACCORDANCE WITH 37 C.F.R. §1.69(b):

The declaration and power of attorney is an accurate translation of the corresponding English language declaration and power of attorney.

Signature

Date 10. 24. 2006

WASHINGTON OFFICE
23373
CUSTOMER NUMBER

직통 전화 번호:

SUGHRUE MION, PLLC
(202) 293-7060

Direct Telephone Calls to:

SUGHRUE MION, PLLC
(202) 293-7060

NAME OF SOLE OR FIRST INVENTOR: 단독 혹은 최초 발명자의 성명		
Given Name (first and middle [if any]) 이름(성씨는 제외) Hwa-Kyung	Family Name or Surname 성(姓) LEE	
Inventor's signature 발명자의 서명 Hwa-Kyung Lee	Date 일자 04.18.2008	
Residence: 거주지: Seoul, Republic of Korea	Citizenship 국적 Republic of Korea	
Mailing Address: 우편 주소: #101-1404 Saemteo Maeul Apt., Irwonbon-dong, Gangnam-gu, Seoul, Republic of Korea		

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PTO/SB/14 (07-07)
Approved for use through 06/30/2010. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	Q105659
	Application Number	
Title of Invention	BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS	

The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76.
This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.

Secrecy Order 37 CFR 5.2

☐ Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

Applicant Information:

Applicant 1 Remove

Applicant Authority ◉ Inventor ○ Legal Representative under 35 U.S.C. 117 ○ Party of Interest under 35 U.S.C. 118

Prefix	Given Name	Middle Name	Family Name	Suffix
	Hwa-Kyung		LEE	

Residence Information (Select One) ○ US Residency ◉ Non US Residency ○ Active US Military Service

City	Seoul	**Country Of Residence**[i]	KR
Citizenship under 37 CFR 1.41(b)[i]	KR		

Mailing Address of Applicant:

Address 1	#101-1404 Saemteo Maeul Apt.,		
Address 2	Irwonbon-dong, Gangnam-gu,		
City	Seoul	**State/Province**	
Postal Code		**Country**[i]	KR

All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the **Add** button. Add

Correspondence Information:

Enter either Customer Number or complete the Correspondence Information section below.
For further information see 37 CFR 1.33(a).

☐ **An Address is being provided for the correspondence Information of this application.**

Customer Number	23373		
Email Address	Sughrue@Sughrue.com	Add Email	Remove Email

Application Information:

Title of the Invention	BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS		
Attorney Docket Number	Q105659	**Small Entity Status Claimed**	☐
Application Type	Nonprovisional		
Subject Matter	Utility		
Suggested Class (if any)		**Sub Class (if any)**	
Suggested Technology Center (if any)			
Total Number of Drawing Sheets (if any)	4	**Suggested Figure for Publication (if any)**	

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	Q105659
	Application Number	
Title of Invention	BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS	

Publication Information:

☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)

☐ **Request Not to Publish.** I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application **has not and will not** be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32).
Enter either Customer Number or complete the Representative Name section below. If both sections are completed the Customer Number will be used for the Representative Information during processing.

Please Select One:	◉ Customer Number	○ US Patent Practitioner	○ Limited Recognition (37 CFR 11.9)
Customer Number	23373		

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, or 365(c) or indicate National Stage entry from a PCT application. Providing this information in the application data sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78(a)(2) or CFR 1.78(a)(4), and need not otherwise be made part of the specification.

Prior Application Status			Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)

Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the **Add** button. Add

Foreign Priority Information:

This section allows for the applicant to claim benefit of foreign priority and to identify any prior foreign application for which priority is not claimed. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55(a).

Remove

Application Number	Country [i]	Parent Filing Date (YYYY-MM-DD)	Priority Claimed
10-2007-0090104	KR	2007-09-05	◉ Yes ○ No

Additional Foreign Priority Data may be generated within this form by selecting the **Add** button. Add

Assignee Information:

Providing this information in the application data sheet does not substitute for compliance with any requirement of part 3 of Title 37 of the CFR to have an assignment recorded in the Office.

Assignee 1 Remove

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	Q105659
	Application Number	
Title of Invention	BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS	

If the Assignee is an Organization check here. ☒			
Organization Name	Samsung Electronics Co., Ltd.		
Mailing Address Information:			
Address 1	416, Maetan-dong, Yeongtong-gu,		
Address 2	Gyeonggi-do,		
City	Suwon-si	**State/Province**	
Country [i]	KR	Postal Code	
Phone Number		Fax Number	
Email Address			
Additional Assignee Data may be generated within this form by selecting the **Add** button.		Add	

Signature:

A signature of the applicant or representative is required in accordance with 37 CFR 1.33 and 10.18. Please see 37 CFR 1.4(d) for the form of the signature.					
Signature	/darrylmexic/			Date (YYYY-MM-DD)	2008-05-09
First Name	Darryl	Last Name	Mexic	Registration Number	23063

This collection of information is required by 37 CFR 1.76. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

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

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

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

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

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

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of	Docket No: Q105659
Hwa-kyung LEE	
Appln. No.: Not Yet Determined	
Confirmation No.: Not Yet Determined	Group Art Unit: Not Yet Determined
Filed: May 9, 2008	Examiner: Not Yet Determined

For: BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS

INFORMATION DISCLOSURE STATEMENT
UNDER 37 C.F.R. §§ 1.97 and 1.98

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

Sir:

In accordance with the duty of disclosure under 37 C.F.R. § 1.56, Applicant hereby notifies the U.S. Patent and Trademark Office of the documents which are listed on the attached PTO/SB/08 A & B (modified) form and/or listed herein and which the Examiner may deem material to patentability of the claims of the above-identified application.

One copy of each of the listed documents is submitted herewith.

In compliance with the concise explanation requirement under 37 C.F.R. § 1.98(a)(3) for foreign language documents, Applicant submits the following explanations: English language abstracts, submitted herewith, constitute concise statements of relevance for Korean Patent Application Publication Nos. 10-2006-0088437, 10-2005-0033599, 10-2005-0110477 and Japanese Patent Application Publication No. 2006-311120.

The submission of the listed documents is not intended as an admission that any such document constitutes prior art against the claims of the present application. Applicant does not waive any right to take any action that would be appropriate to antedate or otherwise remove any listed document as a competent reference against the claims of the present application.

Respectfully submitted,

/darrylmexic/

_____

Darryl Mexic
Registration No. 23,063

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE
23373
CUSTOMER NUMBER

Date: May 9, 2008

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	Not Yet Assigned
Confirmation Number	Not Yet Assigned
Filing Date	May 9, 2008
First Named Inventor	Hwa-kyung LEE
Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	Q105659

U.S. PATENTS

Examiner Initials*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	1					

U.S. PATENT APPLICATION PUBLICATIONS

Examiner Initials*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	1					

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No	Foreign Document Number[3]	Country Code[2]	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[5]
	1	1020060088437	KR	A	2006-08-04	BIZMODELINE CO., LTD.		N
	2	1020050033599	KR	A	2005-04-12	CHO, HO CHEOL		N
	3	1020050110477	KR	A	2005-11-23	DAEWOO ELECTRONICS CORPORATION		N
	4	2006311120	JP	A	2006-11-09	MATSUSHITA ELECTRIC IND CO LTD		N

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city, and/or country where published.	T[5]
	1		

EXAMINER SIGNATURE

Examiner Signature		Date Considered	

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

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

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	Not Yet Assigned
Confirmation Number	Not Yet Assigned
Filing Date	May 9, 2008
First Named Inventor	Hwa-kyung LEE
Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	Q105659

CERTIFICATION STATEMENT

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

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

OR

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

☐ See attached certification statement.

☐ Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

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Signature	/darrylmexic/	Date (YYYY-MM-DD)	2008-05-09
Name/Print	Darryl Mexic	Registration Number	23,063

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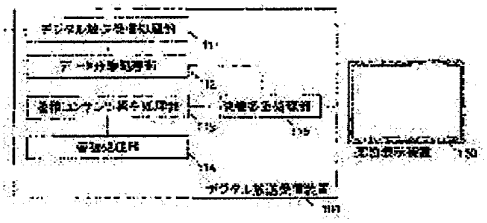
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(54) DIGITAL-BROADCASTING RECEIVER

(57)Abstract:
PROBLEM TO BE SOLVED: To provide a digital-broadcasting receiver capable of simultaneously displaying the latest information in real time with a stored-content reproducing image only at timing and for a period displayed by a broadcasting enterpriser when stored contents are reproduced.
SOLUTION: The digital broadcasting receiver 100 has a stored-content reproducing display function. The digital broadcasting receiver 100 has a storage processing section 114 in which contents are stored, a stored-content reproducing section 113 reproducing the contents and a digital-broadcasting receiving processing section 111 receiving data containing the trigger informing of the timing starting the simultaneous display of the contents and simultaneously displayed information. The digital-broadcasting receiver 100 further has a data separating processing section 112 separating the trigger from data and an image multiple processing section 115 multi-processing and simultaneously displaying the reproduced contents and the simultaneously displayed information on the basis of the trigger.



LEGAL STATUS

[Date of request for examination]

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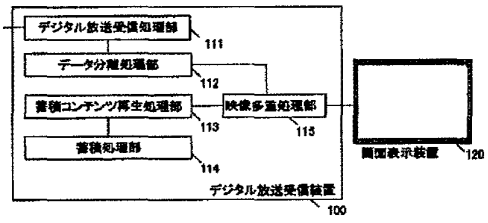
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(54)【発明の名称】デジタル放送受信装置

(57)【要約】
【課題】蓄積コンテンツ再生時に放送事業者が表示させたいタイミングおよび期間のみリアルタイムな最新情報を蓄積コンテンツ再生映像と同時に表示させることができるデジタル放送受信装置を提供する。
【解決手段】蓄積コンテンツ再生表示機能を有するデジタル放送受信装置１００であって、コンテンツが蓄積されている蓄積処理部１１１と、コンテンツを再生する蓄積コンテンツ再生部１１３と、コンテンツと同時表示させる情報とを同時表示を開始するタイミングを知らせるトリガーを含むデータを受信するデジタル放送受信処理部１１１と、データからトリガーを分離するデータ分離処理部１１２と、トリガーに基づいて前記再生しているコンテンツと前記同時表示させる情報とを多重処理し、前記同時表示を行う映像多重処理部１１５とを有する構成とした。
【選択図】図１



【特許請求の範囲】
【請求項1】
蓄積コンテンツ再生表示機能を有するデジタル放送受信装置であって、
コンテンツが蓄積されている蓄積処理部と、
前記コンテンツを再生する蓄積コンテンツ再生部と、
前記コンテンツと同時表示させる情報とを前記同時表示を開始するタイミングを知らせるトリガーを含むデータを受信するデジタル放送受信処理部と、
前記データから前記トリガーを分離するデータ分離処理部と、
前記トリガーに基づいて前記再生しているコンテンツと前記同時表示させる情報とを多重処理し、前記同時表示を行う映像多重処理部と
を有するデジタル放送受信装置。
【請求項2】
請求項１に記載のデジタル放送受信装置であって、
前記デジタル放送受信処理部は、前記同時表示させる情報を受信した後に前記トリガーを受信し、
前記映像多重処理部は、前記トリガー受信に基づいて前記多重処理および前記同時表示を行うデジタル放送受信装置。
【請求項3】
請求項１または２に記載のデジタル放送受信装置であって、
前記蓄積処理部は、蓄積された１つ以上の蓄積データから、あらかじめ指定した前記蓄積データを含む蓄積情報の更新状態を監視する更新監視処理部を有し、
前記映像多重処理部は、前記更新のタイミングを監視情報更新トリガーとして前記多重処理および前記同時表示を行うデジタル放送受信装置。
【請求項4】
請求項１から３のいずれかに記載のデジタル放送受信装置であって、
前記映像多重処理部は、前記同時表示させる情報を字幕スーパーとして前記多重処理を行い、前記同時表示を行う、または画面上に前記同時表示させる情報が存在することを視聴者に伝え視聴者操作によって前記同時表示を行うデジタル放送受信装置。
【請求項5】
請求項１から３のいずれかに記載のデジタル放送受信装置であって、
前記映像多重処理部は、前記同時表示させる情報を映像として前記多重処理を行い、前記同時表示を行う、または画面上に前記同時表示させる情報が存在することを視聴者に伝え視聴者操作によって前記同時表示を行うデジタル放送受信装置。
【請求項6】
請求項５に記載のデジタル放送受信装置であって、
前記蓄積コンテンツ再生部は、前記同時表示させる情報の表示開始時に前記再生しているコンテンツの再生を停止して停止位置を記録し、前記同時表示させる情報の表示終了後に再生指示に従って前記停止位置から再生する再生位置保持処理部を有するデジタル放送受信装置。

【発明の詳細な説明】
【技術分野】
【0001】
本発明は、蓄積コンテンツ再生表示機能を有するデジタル放送受信装置に関する。
【背景技術】
【0002】
図２０に示すように、従来のデジタル放送受信装置１１００は、デジタル放送受信処理部１１１０、蓄積コンテンツ再生処理部１１１１、蓄積処理部１１１２、映像多重処理部１１１３で構成されており、デジタル放送受信処理部１１１０および蓄積コンテンツ再生処理部１１１１の映像を映像多重処理部１１１３にてピクチャーインピクチャー処理を行い、画面表示装置１１２０にて第１画面１１２１および第２画面１１２２に別々の画面と

して表示している（特許文献１参照）。
【特許文献1】特開２００３－８４７５０号公報
【発明の開示】
【発明が解決しようとする課題】
【0003】
しかしながら、従来のデジタル放送受信装置においては、最新情報などを表示するためには、あらかじめ表示する第２画面のエリアを用意しなければならないために不必要な場合にも常に第２画面を用意する必要があり、さらに、現在再生している蓄積コンテンツを一旦停止しなければならないという事情があった。
【0004】
本発明は、従来の事情を鑑みてなされたものであって、蓄積コンテンツ再生時に、放送事業者が表示させたいタイミングで放送事業者が表示させたい情報を、蓄積コンテンツ再生映像と同時に表示させることができるデジタル放送受信装置を提供することを目的とする。
【課題を解決するための手段】
【0005】
上記目的を達成するために、本発明の第１のデジタル放送受信装置は、蓄積コンテンツ再生表示機能を有するデジタル放送受信装置であって、コンテンツが蓄積されている蓄積処理部と、前記コンテンツを再生する蓄積コンテンツ再生部と、前記コンテンツと同時表示させる情報とを前記同時表示を開始するタイミングを知らせるトリガーを含むデータを受信するデジタル放送受信処理部と、前記データから前記トリガーを分離するデータ分離処理部と、前記トリガーに基づいて前記再生しているコンテンツと前記同時表示させる情報とを多重処理し、前記同時表示を行う映像多重処理部とを有する構成としている。
【0006】
この構成により、蓄積コンテンツ再生中に、放送事業者が表示させたいタイミングで、放送事業者が表示させたい情報を蓄積コンテンツ再生映像と同時に表示させることができる。
【0007】
また、本発明の第２のデジタル放送受信装置は、前記デジタル放送受信処理部が、前記同時表示させる情報を受信した後に前記トリガーを受信し、前記映像多重処理部が、前記トリガー受信に基づいて前記多重処理および前記同時表示を行う構成としている。
【0008】
この構成により、蓄積コンテンツ再生中に、放送事業者が表示させたいタイミングで、放送事業者が表示させたい情報を蓄積コンテンツ再生映像と同時に表示させることができる。
【0009】
また、本発明の第３のデジタル放送受信装置は、前記蓄積処理部が、蓄積された１つ以上の蓄積データから、あらかじめ指定した前期蓄積データを含む蓄積情報の更新状態を監視する更新監視処理部を有し、前記映像多重処理部は、前記更新のタイミングを監視情報更新トリガーとして前記多重処理および前記同時表示を行う構成としている。
【0010】
この構成により、指定された監視対象のファイルが更新されたタイミングで、蓄積コンテンツ再生映像に放送事業者が表示させたい情報を付加した映像に切替えることができる。
【0011】
また、本発明の第４のデジタル放送受信装置は、前記映像多重処理部が、前記同時表示させる情報を字幕スーパーとして前記多重処理を行い、前記同時表示を行う、または画面上に前記同時表示させる情報が存在することを視聴者に伝え視聴者操作によって前記同時表示を行う構成としている。
【0012】

この構成により、蓄積コンテンツ再生時にも放送事業者が表示させたい字幕スーパーを表示した画面に切替えることができる。さらに、蓄積コンテンツ再生映像中の字幕と字幕スーパーとを混同するような場合は、同時表示を行わないこともできる。

【0013】

また、本発明の第５のデジタル放送受信装置は、前記映像多重処理部が、前記同時表示させる情報を映像として前記多重処理を行い、前記同時表示を行う、または画面上に前記同時表示させる情報が存在することを視聴者に伝え視聴者操作によって前記同時表示を行う構成としている。

【0014】

この構成により、蓄積コンテンツ再生時にも放送事業者が表示させたい映像を表示した画面に切替えることができる。さらに、視聴者が放送事業者の表示させたい情報を閲覧したくない場合は、同時表示を行わないこともできる。

【0015】

また、本発明の第６のデジタル放送受信装置は、前記蓄積コンテンツ再生部が、前記同時表示させる情報の表示開始時に前記再生しているコンテンツの再生を停止して停止位置を記録し、前記同時表示させる情報の表示終了後に再生指示に従って前記停止位置から再生する再生位置保持処理部を有する構成としている。

【0016】

この構成により、蓄積コンテンツ再生時に蓄積コンテンツと放送事業者が表示させたい情報とを重畳させた画面に画面切替を行う場合、蓄積コンテンツを再生停止しても停止した位置から蓄積コンテンツの再生を再開できる。

【発明の効果】

【0017】

本発明は、蓄積コンテンツ再生中に、放送事業者が表示させたいタイミングで放送事業者が表示させたい情報を、蓄積コンテンツ再生映像と同時に表示させることができるデジタル放送受信装置を提供することができるものである。録画機器や映像再生装置などで蓄積されたコンテンツを再生する場合や、将来実施予定のサーバ型放送で蓄積したコンテンツを再生する場合など、過去の情報を閲覧するときリアルタイム情報と融合させ、放送事業者が見せたいタイミングおよび期間のみ蓄積コンテンツ再生映像と最新情報を同時に表示するサービスを提供することができる。

【発明を実施するための最良の形態】

【0018】

以下、本発明の実施形態のデジタル放送受信装置について、図面を用いて説明する。

（第１の実施形態）

【0019】

本発明の第１の実施形態におけるデジタル放送受信装置について説明する。

図１は本発明の第１の実施形態におけるデジタル放送受信装置１００のブロック図である。デジタル放送受信装置１００は、デジタル放送受信処理部１１１、データ分離処理部１１２、蓄積コンテンツ再生処理部１１３、蓄積処理部１１４および映像多重処理部１１５を具備した構成である。また、画面表示装置１２０はデジタル放送受信装置１００で生成された映像を表示する装置である。

【0020】

デジタル放送受信処理部１１１は放送波および通信で受信した受信データから映像信号や情報データを取得する。デジタル放送受信装置１００は、デジタル放送受信処理部１１１、データ分離処理部１１２および蓄積コンテンツ再生処理部１１３を並列処理させることが可能であり、蓄積処理部１１４に蓄積されている蓄積コンテンツを、蓄積コンテンツ再生処理部１１３にて再生しているときに、放送局側が最新情報を表示するタイミングに最新情報を重畳し送信したデータをデジタル放送受信処理部１１１で受信すると、データ分離部１１２で受信データから取得した最新情報を含む画面表示トリガー情報を取得したタイミングで、映像多重処理部１１５にて最新情報を同時に表示させる多重処理を行い、

再生中の蓄積コンテンツ映像に最新情報を多重した画面と切替を行う機能を備えている。また、図１のデジタル放送受信装置１００の機能ブロックのうち一部を別装置とし、前記別装置とデジタル放送受信装置１００と連携させる場合も同様の動作が可能である。また、画面表示トリガー情報は、放送局の送信データに重畳されており、画面表示に必要な最新情報が記述されている。

【0021】

以上のように構成されたデジタル放送受信装置１００について、図２から５を用いてその動作画面例を４種類説明する。

【0022】

図２は第１の画面表示例である。

通常画面２００は蓄積コンテンツ再生映像のみを表示しているときである。最新情報を含む画面表示トリガー情報を受信した際、第１の最新情報画面例２０１、第２の最新情報画面例２０２または第３の最新情報画面例２０３の何れかの画面へ画面切替を行う。第１の最新情報画面例２０１は蓄積コンテンツ再生映像の一部に最新情報を表示する例、第２の最新情報画面例２０２は蓄積コンテンツ再生映像を縮小し最新情報をメインとして表示する例、第３の最新情報画面例２０３は蓄積コンテンツ再生映像を表示せず最新情報のみを表示する例である。画面表示トリガーに指定されている時間を経過した場合、または最新情報を非表示にするトリガーを受信したタイミングでもとの通常画面２００へ画面切替を行う。

【0023】

図３は第２の画面表示例である。

通常画面２１０は第１の画面表示例の通常画面２００と同様に蓄積コンテンツ再生映像のみを表示しているときである。最新情報を含む画面表示トリガー情報を受信した際、注意喚起画面２１１へ画面切替を行う。この画面は画面表示トリガー情報に記述されている情報をもとに最新情報画面へ画面切替する前に注意喚起する画面である。画面表示トリガー情報に記述された特定時間が経過した後、第１の最新情報画面例２１２、第２の最新情報画面例２１３または第３の最新情報画面例２１４の何れかの画面へ自動で画面切替を行う。最新情報画面例２１２、２１３および２１４は第１の画面表示例の最新情報画面例２０１、２０２および２０３と同様である。最新情報表示完了後または一定時間経過後または最新情報を非表示にするトリガーを受信したタイミングでもとの通常画面２１０へ画面切替を行う。

【0024】

図４は第３の画面表示例である。

通常画面２２０は第１の画面表示例の通常画面２００と同様に蓄積コンテンツ再生映像のみを表示しているときである。最新情報を含む画面表示トリガー情報を受信した際、注意喚起画面２２１へ画面切替を行う。この画面は画面表示トリガー情報に記述されている情報をもとに最新情報があることを視聴者に注意喚起する画面である。注意喚起画面は特定時間経過後または最新情報を非表示にするトリガーを受信したタイミングでもとの通常画面２２０へ画面切替を行う。この最新情報が閲覧可能な期間に視聴者操作で第１の最新情報画面例２２２、第２の最新情報画面例２２３または第３の最新情報画面例２２４の何れかの画面へ画面切替を行う。最新情報画面例２２２、２２３および２２４は第１の画面表示例の最新情報画面例２０１、２０２および２０３と同様である。最新情報表示完了後または一定時間経過後または最新情報を非表示にするトリガーを受信したタイミングまたは視聴者操作でもとの通常画面２２０へ画面切替を行う。

【0025】

図５は第４の画面表示例である。

通常画面２３０は第１の画面表示例の通常画面２００と同様に蓄積コンテンツ再生映像のみを表示しているときである。最新情報を含む画面表示トリガー情報を受信した際、注意喚起画面２３１へ画面切替を行う。この注意喚起画面２３１への画面切替の説明は第３の画面表示例と同様である。最新情報が閲覧可能な期間に視聴者操作で第１の最新情報画

面例２３２、第２の最新情報画面例２３３または第３の最新情報画面例２３４の何れかの画面へ画面切替を行う。最新情報画面例２３２、２３３および２３４は第１の画面表示例の最新情報画面例２０１、２０２および２０３と同様である。最新情報表示完了後または一定時間経過後または視聴者操作でもとの通常画面２３０へ画面切替を行う。最新情報閲覧が可能な期間は何度でも第１の最新情報画面例２３２から第３の最新情報画面例２３４への画面切替が可能である。

【0026】

第１から第４の画面表示例において、第１の最新情報画面例の最新情報表示の表示位置やサイズは自由であり画面例とは異なるレイアウトも可能である。第２の最新情報画面例の縮小した蓄積コンテンツ表示部（コンテンツ再生映像）についても同様に最新情報表示の表示位置やサイズは自由であり画面例とは異なるレイアウトも可能である。最新情報は画面表示トリガー情報に記述されている情報を利用することで表示させることが可能である。

（第２の実施形態）

【0027】

次に、本発明の第２の実施形態におけるデジタル放送受信装置について説明する。

図６は本発明の第２の実施形態におけるデジタル放送受信装置３００のブロック図である。デジタル放送受信装置３００は、デジタル放送受信処理部３１１、データ分離処理部３１２、蓄積コンテンツ再生処理部３１３、リアルタイム蓄積処理部３１４および非リアルタイム蓄積処理部３１５を含みデジタル放送で受信した内容を蓄積する蓄積処理部３１６、受信機アプリケーション処理部３１７を含み受信データから映像合成する映像多重処理部３１８、最新情報を重畳した蓄積コンテンツ再生画面と通常の蓄積コンテンツ再生画面の切替を行う画面切替処理部３１９を具備した構成である。また、図６はデジタル放送受信装置３００の機能ブロックのうち一部を別装置とし、その別装置とデジタル放送受信装置３００とを連携させる場合も同様の動作が可能である。また、画面表示装置３２０はデジタル放送受信装置３００で生成された映像を表示する装置である。

【0028】

デジタル放送受信処理部３１１は放送波および通信で取得した受信データから映像信号や情報データを取得する。蓄積処理部３１６は視聴者予約などによりデジタル放送受信処理部３１１で取得した映像信号や情報データをリアルタイム蓄積処理部３１４および非リアルタイム蓄積処理部３１５へ蓄積する。蓄積コンテンツ再生処理部３１３は非リアルタイム蓄積処理部３１５で蓄積された映像信号の再生処理を行い、最新情報はリアルタイム蓄積処理部３１４に蓄積し取得する。リアルタイム蓄積処理部３１４は頻繁に更新するデータ、非リアルタイム蓄積処理部３１５はあまり頻繁に更新されることが無いデータを蓄積する。

【0029】

映像多重処理部３１８は受信機アプリケーション処理部３１７を通じてデジタル放送受信処理部３１１、データ分離処理部３１２および蓄積コンテンツ再生処理部３１３とを制御することが可能であり、各機能ブロックを制御するＡＰＩ（Application Program Interface）を備え、データ分離処理部３１２で分離した情報データ（情報ファイル５１９やトリガー情報５４０（図１２参照））の情報をもとに、ＡＰＩ制御により受信したトリガータイミングに基づいて蓄積コンテンツ再生処理部３１３で再生処理している蓄積コンテンツ映像と最新情報を同時に表示させる多重処理を行い、画面切替処理部３１９で蓄積コンテンツ再生映像のみの画面と蓄積コンテンツ再生映像に最新情報を多重した画面との画面切替を行う機能を備えている。

【0030】

また、受信機アプリケーション処理部３１７は、デジタル放送受信処理部３１１で受信した受信データに重畳されている情報のうち、例えばデータ放送で使用されているＢＭＬ（Broadcast Markup Language）などのスクリプト記述に従ってＡＰＩ制御を行うブラウザ機能により、前述と同様、蓄積コンテンツ再生映像のみの画面と蓄積コンテンツ再生映

像に最新情報を多重した画面との画面切替を行う機能も併せて備えている。

【0031】

以上のように構成されたデジタル放送受信装置３００について、図７から１２を用いてその動作を説明する。

【0032】

蓄積コンテンツを再生する場合、受信機アプリケーション処理部３１７から視聴者に起動画面を提示しそこから視聴者操作で蓄積コンテンツを再生させるため、受信機アプリケーション処理部３１７で読み込むための起動情報ファイル５２０（図１２参照）が必要になるが、起動情報ファイル５２０を（１）蓄積処理部３１６から取得する場合と（２）データ分離処理部３１２から取得する場合の２通りについて説明する。

【0033】

まず、コンテンツを蓄積予約して蓄積させるときの放送局側とデジタル放送受信装置側の運用について図７および８を用いて説明する。

【0034】

図７は本発明の第２の実施形態における起動情報ファイル５２０をデジタル放送受信装置３００へ蓄積する場合のデジタル放送受信装置３００の動作フロー図である。（１）蓄積処理部３１６から起動情報ファイル５２０を取得する場合、放送局側は図７（ａ）において「起動情報ファイル送出」ステップＳ４０１により、起動画面に必要な情報である起動情報ファイル５２０を送出する。その後、「蓄積用コンテンツ送出」ステップＳ４０２により、蓄積用コンテンツを１つまたは複数送出する。起動情報ファイル５２０は、蓄積用コンテンツ再生に必要になるため、その前にデジタル放送受信装置３００に蓄積されるように定期的に送出しておく必要がある。

【0035】

デジタル放送受信装置３００側は図７（ｂ）に示すように、「蓄積予約」ステップＳ４１１により「予約コンテンツを蓄積処理部に蓄積」ステップＳ４１３でデジタル放送受信装置３００は蓄積を行う。「起動情報ファイルを蓄積処理部に蓄積」ステップＳ４１２では、蓄積コンテンツが蓄積され再生されるまでに起動情報ファイル５２０を蓄積しておく必要がある。「予約コンテンツを蓄積処理部に蓄積」ステップＳ４１３は、デジタル放送受信処理部３１１で受信した受信データに重畳されている情報の蓄積ファイルパスリスト情報５００（図１２参照）を取得し、受信データを蓄積処理部３１６にある非リアルタイム蓄積処理部３１５の指定された蓄積パス名５０２に蓄積を行う。

【0036】

蓄積ファイルパスリスト情報５００は、例えばARIB-STD-B24で規定されているDII（DownloadInfoIndication）のStoreRoot記述子、SubDirectory記述子、Name記述子等に記述しカルーセル方式で伝送することで実施可能である。同時にデジタル放送受信処理部３１１で受信した受信データに重畳されている情報の蓄積コンテンツ情報５５０（図１２参照）を取得し、デジタル放送受信装置３００で管理されている蓄積コンテンツ管理情報５１０（図１２参照）のデータとして保存される。

【0037】

また、図８は本発明の第２の実施形態における起動情報ファイル５２０をデジタル放送受信装置３００へ蓄積しない場合のコンテンツ蓄積時のデジタル放送受信装置３００の動作フロー図である。（２）データ分離処理部３１２から起動情報ファイル５２０を取得する場合、起動情報ファイル５２０を蓄積する必要が無いため、放送局側は、図８（ａ）において「蓄積用コンテンツ送出」ステップＳ４２１のみとなっている。また、デジタル放送受信装置側の処理の図８（ｂ）においても「蓄積予約」ステップＳ４３１および「予約コンテンツを蓄積処理部に蓄積」ステップＳ４３２のみとなっている。各処理ブロックの処理内容は（１）蓄積処理部３１６から起動情報ファイル５２０を取得する場合と同様である。

【0038】

次に、コンテンツ蓄積後にコンテンツを再生する場合の放送局側とデジタル放送受信装

置側の運用について図９から１２を用いて説明する。

【0039】

まず、図１２は第２の実施形態にデジタル受信装置３００で使用するデータ構成である。

蓄積ファイルパスリスト情報５００は、「ファイル名」５０１および「蓄積パス名」５０２を含む内容となっている。また、蓄積コンテンツ管理情報５１０は、「コンテンツＩＤ」５１１、「コンテンツ情報」５１２および「蓄積パス名」５１３を含む内容となっている。

【0040】

また、情報ファイル５１９は起動情報ファイル５２０および制御情報ファイル５３０を含む内容となっている。さらに起動情報ファイル５２０は、「リアルタイム情報受信チャンネル指定スクリプト」５２１、「監視するトリガー番号指定スクリプト」５２２、「受信機の蓄積コンテンツ管理情報読込みスクリプト」５２３、「受信機の蓄積コンテンツ管理情報一覧表示スクリプト」５２４、「視聴者が選択した蓄積コンテンツの再生スクリプト」５２５、「表示動作スクリプト」５２６、「非表示動作スクリプト」５２７および「画面切替スクリプト」５２８を含む内容となっており、制御情報ファイル５３０は、「制御方法」５３１、「文字・画像の表示位置（始点・終点座標）」５３２、「表示する文字情報または文字情報ファイルパス」５３３、「表示する画像・映像ファイルパス」５３４および「音声ファイルパス」５３５を含む内容となっている。

【0041】

また、トリガー情報５４０は、「トリガーＩＤ」５４１および「制御情報ファイル蓄積パス」５４２を含む内容となっている。また、蓄積コンテンツ情報５５０は、「コンテンツＩＤ５５１」、「コンテンツ情報（コンテンツ名など）」５５２および「蓄積パス名」５５３を含む内容となっている。

【0042】

次に、図９は本発明の第２の実施形態における起動情報ファイル５２０をデジタル放送受信装置３００に蓄積した場合のコンテンツ蓄積後のデジタル放送受信装置３００の動作フロー図である。（１）蓄積処理部３１６から起動情報ファイル５２０を取得する場合、放送局側は図９（ａ）において「最新情報送出処理」ステップＳ４４１により制御情報ファイル５３０や制御情報ファイル５３０を使用して画面表示するために必要な最新情報ファイルや表示トリガー、非表示トリガーを送出する。

【0043】

また、図１１は本発明の第２の実施形態における最新情報の送受信に関するデジタル放送受信装置３００の動作フロー図である。「最新情報送出処理」ステップＳ４４１の処理内容は図１１（ａ）の放送局側の処理の通りであり、「表示トリガー送出前に最新情報送出」ステップＳ４８１で、最新情報ファイル（制御情報ファイル５３０や制御情報ファイル５３０を使用して画面表示するために必要な文字情報ファイル、画像ファイル、映像ファイル、音声ファイルなど）を送出する。「最新情報表示タイミングで表示トリガー送出」ステップＳ４８２では、放送局が最新情報を表示したいタイミングで投げるトリガーを送出し、最新情報が複数ある場合はその回数分ステップＳ４８１とステップＳ４８２との処理を繰り返す。「最新情報非表示タイミングで非表示トリガー送出」ステップＳ４８３では、放送局が最新情報表示を終了させたいタイミングで投げるトリガーを送出する。

【0044】

デジタル放送受信装置側は図９（ｂ）において、「蓄積処理部の起動情報ファイルより受信機アプリケーション起動」ステップＳ４６１で既に蓄積処理部３１６に蓄積されている起動情報ファイル５２０を使い、受信機アプリケーション３１７にて起動画面を視聴者に提示する。「蓄積処理部の制御情報ファイルより受信チャンネル選局」ステップＳ４６２では「リアルタイム情報受信チャンネル指定スクリプト」５２１でＡＰＩ制御により最新情報を取得するためのチャンネル選局をする。「蓄積処理部の制御情報ファイルより受信チャンネル中の指定トリガー情報の監視を開始」ステップＳ４６３では、「監視するト

リガー番号指定スクリプト」５２２でＡＰＩ制御によりスクリプトで指定されたＭＰＥＧ－ＴＳの特定のＥＳに流れてくるトリガー情報５４０のトリガーＩＤ５４１を監視し該当するトリガーを取得する。

【0045】

「受信機アプリケーションで蓄積コンテンツ一覧表示」ステップＳ４６４では、「受信機の蓄積コンテンツ管理情報読込みスクリプト」５２３で蓄積コンテンツ情報５５０から蓄積コンテンツ一覧を取得し、「受信機の蓄積コンテンツ管理情報一覧表示スクリプト」５２４で取得した蓄積コンテンツ一覧を視聴者に提示する。「視聴者が蓄積コンテンツを選択し受信機アプリケーションで再生指示」ステップＳ４６５では視聴者が蓄積コンテンツ一覧からコンテンツを選択したとき「視聴者が選択した蓄積コンテンツの再生スクリプト」５２５で蓄積コンテンツ情報５５０の蓄積パス名５５３にある蓄積コンテンツを再生させる。「最新情報受信処理」ステップＳ４６６の処理内容は図１１（ｂ）に記述されている。

【0046】

図１１（ｂ）において、「最新情報受信」ステップＳ４９１では、最新情報ファイル（制御情報ファイル５３０や制御情報５３０ファイルを使用して画面表示するために必要な文字情報ファイル、画像ファイル、映像ファイル、音声ファイルなど）を取得し、同時に受信した蓄積ファイルパスリスト情報５００に記述されたファイルパスに基づき、リアルタイム蓄積処理部３１４に蓄積する。「表示トリガー受信」ステップＳ４９２では、起動情報ファイル５２０の「監視するトリガー番号指定スクリプト」５２２にてＡＰＩ制御により表示トリガーに指定されているトリガーＩＤ５４１のトリガー情報５４０が取得される。

【0047】

「最新情報を蓄積再生コンテンツ画面上に表示」ステップＳ４９３では、トリガー情報５４０が取得されたときに「表示動作スクリプト」５２６でＡＰＩ制御により、トリガー情報５４０に記載されている制御情報ファイルパス５４２を読込み、制御情報ファイル５３０のファイルパス５３３から５３５に記述されたデータを利用して、蓄積コンテンツ再生画面に最新情報を付加した映像を作成し、起動情報ファイル５２０に記載されている「画面切替スクリプト」５２８で画面切替処理部３１９を制御して画面切替する。最新情報の表示は、制御方法５３１や「文字・画像の表示位置（始点・終点座標）」５３２を使い、図２から５に記載されている第１から第４の画面表示例のような画面表示制御を行う。

【0048】

「非表示トリガー受信」ステップＳ４９４では、同様にＡＰＩ制御により非表示トリガーに指定されているトリガーＩＤ５４１のトリガーを受信したときに、「最新情報を蓄積再生コンテンツ画面上から消去」ステップＳ４９５で起動情報ファイル５２０の「非表示動作スクリプト」５２７により、もとの最新情報を表示していない蓄積コンテンツ再生映像に画面切替を行う。

【0049】

トリガー情報５４０は、例えばARIB-STD-B24で規定さている汎用イベントメッセージを使用することによりトリガーＩＤ５４１をevent_msg_id、制御情報蓄積パス５４２をprivate_data_byteに記述することで実施可能である。汎用イベントメッセージのようにプッシュ型の情報取得にすれば最新情報の即時性を確保できる。

【0050】

また、図１０は本発明の第２の実施形態における起動情報ファイル５２０をデジタル字放送受信装置３００に蓄積しなかった場合のコンテンツ蓄積後のデジタル放送受信装置３００の動作フロー図である。（２）データ分離処理部３１２から起動情報ファイル５２０を取得する場合、デジタル放送受信装置３００は起動情報ファイル５２０を蓄積していないため、起動情報ファイル５２０はリアルタイム放送から取得する。放送局側は図１０（ａ）において、「起動情報ファイル送出」ステップＳ４５１で起動情報ファイル５２０を送出してから、「最新情報送出処理」ステップＳ４５２で「最新情報送出処理」ステップ

Ｓ４４１と同様の処理を行うことで実施可能である。

【0051】

ここまでは、表示トリガーおよび非表示トリガーを２つ使用する方法について説明したが、別の方法として、表示トリガーまたは制御情報ファイル５３０に表示時間の記述を追加し、指定された表示時間だけデジタル放送受信装置３００が最新情報を表示する方法でも実現可能である。また、制御情報ファイル５３０の内容を表示トリガーの情報の一部として記述し、デジタル放送受信装置３００は表示トリガーの記述内容に従って制御情報ファイル５３０を使った制御方法で制御すれば、トリガー情報５４０のみでも実現可能である。

【0052】

デジタル放送受信装置側は図１０（ｂ）のようになっており、「受信チャンネルの起動情報ファイルより受信機アプリケーション起動」ステップＳ４７１では視聴者が現在受信しているチャンネルからデータ分離処理部３１２で取得した起動情報ファイル５２０を利用し受信機アプリケーション処理部３１７で起動画面を視聴者に提示する。起動情報ファイル５２０の内容のうち「リアルタイム情報受信チャンネル指定スクリプト」５２１は既に選局されているため不要であるが、その他の起動情報ファイル５２０のスクリプト５２２から５２８は必要である。

【0053】

「受信チャンネルの制御情報ファイルより受信チャンネル中の指定トリガー情報の監視を開始」ステップＳ４７２では、「監視するトリガー番号指定スクリプト」５２２でＡＰＩ制御によりスクリプトで指定されたＭＰＥＧ－ＴＳの特定のＥＳに流れてくるトリガー情報５４０のトリガーＩＤ５４１を監視し該当するトリガーを取得する。以降ステップＳ４７３からステップＳ４７５の処理については、ステップＳ４６４からステップＳ４６６の同名の処理ブロックと同様に処理される。

【0054】

このような本発明の第２の実施形態のデジタル放送受信装置３００によれば、デジタル放送受信処理部３１１、データ分離処理部３１２および蓄積コンテンツ再生処理部３１３を並列処理させ、データ分離処理部３１２から取得した情報ファイル５１９やトリガー情報５４０を取得する機能と、情報ファイル５１９やトリガー情報５４０により各機能ブロックを制御するＡＰＩ機能と、ＡＰＩ制御により画面切替を行う画面切替処理部３１９とを設けることにより、蓄積コンテンツ再生時に最新情報をリアルタイムに取得し、蓄積コンテンツ再生映像に最新情報を付加した映像に画面切替することで、放送局が見せたいタイミングおよび期間に最新情報を視聴者に提示することができる。

（第３の実施形態）

【0055】

次に、本発明の第３の実施形態のデジタル放送受信装置について説明する。

図１３は本発明の第３の実施形態におけるデジタル放送受信装置６００のブロック図である。デジタル放送受信装置６００は図６の第２の実施形態のデジタル放送受信装置３００に蓄積更新監視処理部６２０が加わった構成となっており、その他の機能はデジタル受信装置３００から画面切替処理部３１９の同名の機能ブロックと同じである。また、画面表示装置６３０は画面表示装置３２０と同じである。

【0056】

蓄積更新監視処理部６２０は、受信機アプリケーション処理部６１７からＡＰＩで制御可能である。起動画面を立ち上げているときまたは蓄積コンテンツ再生時に、デジタル放送受信処理部６１１の受信データをリアルタイム蓄積処理部６１４に蓄積し、蓄積された受信データの中から、情報ファイル８１９で指定されている所定の蓄積ファイル更新状態を監視する。ファイル更新時はＡＰＩ制御によりトリガーを取得可能で、受信機アプリケーション処理部６１７はこのトリガーを取得することにより、蓄積されている情報ファイル８１９により蓄積コンテンツ再生処理部６１３で再生処理している蓄積コンテンツ映像と最新情報を同時に表示させる多重処理を行い、画面切替処理部６１９で蓄積コンテンツ

再生映像のみの画面と蓄積コンテンツに最新情報を多重した画面との画面切替を行う機能を備えている。また、デジタル放送受信装置６００の機能ブロックのうち一部を別装置とし、別装置とデジタル放送受信装置６００と連携させる場合も同様の動作が可能である。

【0057】

以上のように構成されたデジタル放送受信装置６００について、図１４から１７を用いてその動作を説明する。

【0058】

蓄積コンテンツを再生する場合、受信機アプリケーション処理部６１７から視聴者に起動画面を提示しそこから視聴者操作で蓄積コンテンツを再生させるため、受信機アプリケーション処理部６１７で読み込むための起動情報ファイル８２０（図１７参照）が必要になるが、起動情報ファイル８２０を（１）蓄積処理部６１６から取得する場合と（２）データ分離処理部６１２から取得する場合の２通りについて説明する。

【0059】

まず、コンテンツを蓄積予約して蓄積させるときの放送局側とデジタル放送受信装置側の運用については、図７および図８を用いた説明と全く同じである。

【0060】

次に、コンテンツ蓄積後にコンテンツを再生する場合の放送局側とデジタル放送受信装置側の運用について説明する。

【0061】

まず、図１７は本発明の第３の実施形態におけるデジタル放送受信装置６００で使用するデータ構成である。蓄積ファイルパスリスト情報８００、蓄積コンテンツ管理情報８１０、制御情報ファイル８３０および蓄積コンテンツ情報８５０は、第２の実施形態の蓄積ファイルパスリスト情報５００、蓄積コンテンツ管理情報５１０、制御情報ファイル５３０および蓄積コンテンツ情報５５０と同じであり、異なる情報は起動情報ファイル８２０である。第２の実施形態の起動情報ファイル５２０と異なる項目は「ファイル監視スクリプト」８２２である。その他の同名項目は起動情報ファイル５２０と同じである。

【0062】

次に、図１４は本発明の第３の実施形態における起動情報ファイル８２０をデジタル放送受信装置６００に蓄積した場合のコンテンツ蓄積後のデジタル放送受信装置６００の動作フロー図である。（１）蓄積処理部６１６から起動情報ファイル８２０を取得する場合、放送局側は図１４（ａ）において「最新情報送出処理」ステップＳ７４１により制御情報ファイル８３０や制御情報ファイル８３０を使用して画面表示するために必要な最新情報ファイルを送出する。

【0063】

また、図１６は本発明の第３の実施形態における最新情報の送受信に関するデジタル放送受信装置６００の動作フロー図である。「最新情報送出処理」ステップＳ７４１の処理内容は図１６（ａ）の通りであり、「最新情報表示タイミングで最新情報ファイル送出」ステップＳ７８１で、最新情報ファイル（制御情報ファイル８３０や制御情報ファイル８３０を使用して画面表示するために必要な文字情報ファイル、画像ファイル、映像ファイル、音声ファイルなど）を最新情報を表示させたいタイミングで送出する。最新情報が複数ある場合はその回数分処理を繰り返す。

【0064】

デジタル放送受信装置６００側の処理は図１４（ｂ）の通りであるが、図９（ｂ）とほぼ同じであり、異なる処理ブロックは「蓄積処理部の制御情報ファイルより指定パスのファイル更新状況の監視を開始」ステップＳ７６３、「最新情報受信処理」ステップＳ７６６である。その他の処理ブロックは図９（ｂ）の同名の処理ブロックであるステップＳ４６１、ステップＳ４６２、ステップＳ４６４およびステップＳ４６５に同じである。

【0065】

図９（ｂ）と異なる機能ブロックである「蓄積処理部の制御情報ファイルより指定パスのファイル更新状況の監視を開始」ステップＳ７６３では、起動情報ファイル８２０の「

ファイル監視スクリプト」８２２により、ＡＰＩ制御でスクリプトで指定されたファイルパスの情報ファイル８１９を監視する。

【0066】

「最新情報受信処理」ステップＳ７６６は図１６（ｂ）の通りである。「最新情報受信」ステップＳ７９１では最新情報ファイル（制御情報ファイル８３０や制御情報ファイル８３０を使用して画面表示するために必要な文字情報ファイル、画像ファイル、映像ファイル、音声ファイルなど）を取得してリアルタイム蓄積処理部６１４に蓄積する。「最新情報ファイル更新」ステップＳ７９２では蓄積更新監視処理部６２０からＡＰＩにより指定ファイルが更新されたタイミングで更新イベントを取得する。

【0067】

「最新情報を蓄積再生コンテンツ画面上に表示」ステップＳ７９３では、起動情報ファイル８２０の「表示動作スクリプト」８２６でＡＰＩ制御により制御情報ファイル８３０に記載されている内容からファイルパス８３３から８３５に記述されたデータを利用して、蓄積コンテンツ再生画面に最新情報を付加した映像を作成し、起動情報ファイル８２０の「画面切替スクリプト」８２８で画面切替処理部６１９を制御して画面切替する。最新情報の表示は、制御情報ファイル８３０の制御方法８３１や「文字・画像の表示位置（始点・終点座標）」８３２を使い、図２から図５に示す第１から第４の画面表示例のような画面表示制御を行う。

【0068】

ステップＳ７９１からステップＳ７９３は最新情報を連続して受信する度に繰り返し処理を行う。「最新情報を蓄積再生コンテンツ画面上から消去」ステップＳ７９４では、起動情報ファイル８２０の「非表示動作スクリプト」８２７により、最新情報を表示完了後または一定時間経過後、もとの最新情報を表示していない蓄積コンテンツ再生映像に画面切替を行う。

【0069】

また、図１５は本発明の第３の実施形態における起動情報ファイル８２０をデジタル放送受信装置６００に蓄積しなかった場合のコンテンツ蓄積後のデジタル放送受信装置６００の動作フロー図である。（２）データ分離処理部６１２から起動情報ファイル８２０を取得する場合、デジタル放送受信装置６００は起動情報ファイル８２０を蓄積していないため、起動情報ファイル８２０はリアルタイム放送から取得する。放送局側は図１５（ａ）において「起動情報ファイル送出」ステップＳ７５１で起動情報ファイル８２０を送出してから、「最新情報送出処理」ステップＳ７５２で「最新情報送出処理」ステップＳ７４１と同様の処理を行うことで実施可能である。

【0070】

デジタル放送受信装置６００側の処理は図１５（ｂ）のようになっており、「受信チャンネルの起動情報ファイルより受信機アプリケーション起動」ステップＳ７７１では視聴者が現在受信しているチャンネルからデータ分離処理部６１２で取得した起動情報ファイル８２０を利用しアプリケーション処理部６１７で起動画面を視聴者に提示する。起動情報ファイル８２０の内容のうち「リアルタイム情報受信チャンネル指定スクリプト」８２１は既に選局されているため不要であるが、その他の起動情報ファイル８２０の内容のスクリプト８２２から８２８は必要である。

【0071】

「受信チャンネルの制御情報ファイルより指定されたパスのファイル更新状況の監視を開始」ステップＳ７７２は、起動情報ファイル８２０の「ファイル監視スクリプト」８２２により、ＡＰＩ制御にてスクリプトで指定されたファイルパスの情報ファイル８１９を監視する。以降ステップＳ７７３からステップＳ７７５の処理については、ステップＳ７６４からステップＳ７６６の同名の処理ブロックと同様に処理される。

【0072】

以上のように本発明の第３の実施形態のデジタル放送受信装置６００によれば、さらに蓄積更新監視処理部６２０と蓄積更新監視処理部６２０を制御するＡＰＩにより指定され

たファイルの更新状態を監視する機能を備えることにより、指定された最新情報ファイルが更新されたタイミングで、蓄積コンテンツ再生映像に最新情報を付加した映像に画面切替することで、放送局が見せたいタイミングおよび期間に最新情報を視聴者に提示することができる。

（第４の実施形態）

【0073】

次に、本発明の第４の実施形態のデジタル放送受信装置について説明する。

第４の実施形態は第２の実施形態のデジタル放送受信装置３００または第３の実施形態のデジタル放送受信装置６００と構成が同じであり、どちらのデジタル放送受信装置も放送局が見せたいタイミングおよび期間に最新情報を視聴者に提示することができる。

【0074】

制御情報ファイル５３０の「表示する文字情報または文字情報ファイルパス」５３３（図１２参照）または制御情報ファイル８３０の「表示する文字情報または文字情報ファイルパス」８３３（図１７参照）のいずれかを使い、デジタル放送受信装置３００または６００で説明したトリガー取得タイミング（トリガー情報５４０取得タイミングおよびファイル更新時のトリガー取得）で、リアルタイム放送で実施されている字幕スーパーと同様に、蓄積コンテンツ再生時にも蓄積コンテンツ再生映像に字幕スーパーを付加し、蓄積コンテンツ再生映像のみの画面と切替を行う。蓄積コンテンツ再生時は、蓄積時に映像と同時に蓄積される字幕スーパーが表示される可能性があるため、視聴者が混同しないように表示することが必要である。

【0075】

以上のように本発明の第４の実施形態のデジタル放送受信装置によれば、第２の実施形態のデジタル放送受信装置３００または第３の実施形態のデジタル放送受信装置６００と同様の構成を備えることにより、蓄積コンテンツ再生時にもリアルタイムの字幕スーパーを表示した画面に切替えることができる。

（第５の実施形態）

【0076】

次に、本発明の第５の実施形態のデジタル放送受信装置について説明する。

第５の実施形態のデジタル放送受信装置は第２の実施形態のデジタル放送受信装置３００または第３の実施形態のデジタル放送受信装置６００と構造が同であり、どちらのデジタル放送受信装置も放送局が見せたいタイミングおよび期間に最新情報を視聴者に提示することができる。

【0077】

制御情報ファイル５３０のファイルパス５３３から５３５（図１２参照）または制御情報ファイル８３０のファイルパス８３３から８３５（図１７参照）にあるデータを利用して、蓄積コンテンツ再生時に、デジタル放送受信装置３００または６００で説明したトリガー取得タイミング（トリガー情報５４０取得タイミングおよびファイル更新時のトリガー取得）で、これらの最新情報を蓄積コンテンツ再生映像に付加して表示した画面と画面切替を行う。画面切替はデジタル放送受信装置３００または６００で説明した方法で、視聴者操作による切替または自動切替で行う。

【0078】

これにより、広告や番組宣伝、緊急情報などの最新情報などを、放送事業者が表示させたいタイミングで、最新状態に更新されたコンテンツファイルの再生映像へ画面切替を行うことができる。さらに、制御情報ファイル５３０（図１２参照）または制御情報ファイル８３０（図１７参照）に「受信映像情報」としてチャンネルやＥＳを記述することにより、前述と同様の方法で、蓄積コンテンツ再生映像にリアルタイム放送の映像を付加した画面に画面切替を行う制御も可能である。

【0079】

以上のように、本発明の第５の実施形態のデジタル放送受信装置によれば、第２の実施形態のデジタル受信装置３００または第３の実施形態のデジタル放送受信装置６００と同

様の構成を備えることにより、蓄積コンテンツ再生時にも広告や番組宣伝、緊急情報などの最新情報などを表示した画面に切替えることができる。さらに、制御情報ファイル５３０（図１２参照）または制御情報ファイル８３０（図１７参照）に「受信映像情報」を記述することにより、リアルタイムの放送を表示した画面に切替えることも可能である。

（第６の実施形態）

【0080】

次に、本発明の第６の実施形態のデジタル放送受信装置について説明する。

図１８は本発明の第６に実施形態におけるデジタル放送受信装置９００のブロック図である。デジタル放送受信装置９００は、第２の実施形態の蓄積コンテンツ再生処理部３１３または第３の実施形態の蓄積コンテンツ再生処理部６１３に、再生位置保持処理部９２１を追加した構成である。再生位置保持処理部９２１は、ＡＰＩ制御により蓄積コンテンツの再生映像を途中停止した場合、その位置情報を保持し、再生再開するとき、蓄積コンテンツ再生処理部９１３と連携して停止した位置から蓄積コンテンツの再生を再開する機能を備えている。

【0081】

その他の機能はデジタル放送受信装置３００または６００の同名の機能ブロックと同じである。また、画面表示装置９３０は画面表示装置３２０または６３０と同じである。図１８のブロック図は第３の実施形態をもとにした場合のデジタル放送受信装置９００を示している。

【0082】

以上のように構成されたデジタル放送受信装置９００について、図１９を用いてその動作を説明する。

【0083】

図１９は本発明の第６の実施形態における最新情報受信時のデジタル放送受信装置９００の動作フロー図である。第６の実施形態のデジタル放送受信装置９００の処理は、第２の実施形態のデジタル放送受信装置３００の動作フロー図7から１１のうち図１１（ｂ）デジタル放送受信装置３００側の処理と異なる。第６の実施形態では、図１９（ａ）の処理に示す通りとなっている。

【0084】

図１９（ａ）が図１１（ｂ）と異なる動作フローは、ステップＳ１００３およびステップＳ１００７であり、その他のステップは図１１（ｂ）の同名のステップと同じである。「蓄積コンテンツ再生を停止し停止位置を保存」ステップＳ１００３は、起動情報ファイル５２０の「表示動作スクリプト」５２６からＡＰＩ制御により、蓄積コンテンツ処理部９１３が蓄積コンテンツを停止し停止位置を保存する。「保存した停止位置から蓄積コンテンツ再生を再開」ステップＳ１００７では、起動情報ファイル５２０の「非表示動作スクリプト」５２７よりＡＰＩ制御により、蓄積コンテンツ処理部９１３で保存した停止位置から蓄積コンテンツ再生を再開する。

【0085】

また、第３の実施形態のデジタル放送受信装置６００の動作フロー図１４から１６のうち、図１６(b)デジタル放送受信装置６００側の処理が第６の実施形態のデジタル受信装置９００の処理とは異なる。第６の実施形態では、図１９（ｂ）の処理に示すとおりとなっている。図１９（ｂ）が図１６（ｂ）と異なる動作フローは、ステップＳ１０１３およびステップＳ１０１６であり、この２ステップはステップＳ１００３およびステップＳ１００７と同様に動作する。その他のステップは図１６（ｂ）の同名のステップと同じである。

【0086】

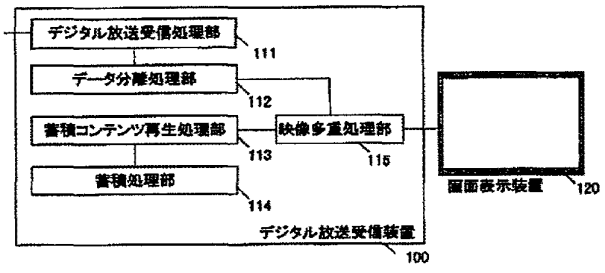
以上のように本発明の第６の実施形態のデジタル放送受信装置９００によれば、第２の実施形態のデジタル受信装置３００または第３の実施形態のデジタル放送受信装置６００に再生位置保持処理部９２１を追加した構成を備えることにより、最新情報表示で画面切替を行い蓄積コンテンツ再生停止した場合でも、停止した位置から蓄積コンテンツの再生

を再開できる。
【産業上の利用可能性】
【0087】
以上のように、本発明にかかるデジタル放送受信装置は、蓄積コンテンツ再生中に、リアルタイム放送から受信したトリガーと最新情報を利用して、リアルタイムに最新情報情報を表示する画面に画面切替するという効果を有し、蓄積媒体に蓄積されたコンテンツファイルの再生表示機能を有したデジタル放送受信装置等として有用であり、録画機器や映像再生装置などで蓄積されたコンテンツを再生する場合や、将来実施予定のサーバ型放送で蓄積したコンテンツを再生する場合など、過去の情報を閲覧するときに適用できる。
【図面の簡単な説明】
【0088】
【図1】本発明の第１の実施形態におけるデジタル放送受信装置のブロック図
【図2】本発明の第１の実施形態におけるデジタル放送受信装置の第１の画面表示例
【図3】本発明の第１の実施形態におけるデジタル放送受信装置の第２の画面表示例
【図4】本発明の第１の実施形態におけるデジタル放送受信装置の第３の画面表示例
【図5】本発明の第１の実施形態におけるデジタル放送受信装置の第４の画面表示例
【図6】本発明の第２の実施形態におけるデジタル放送受信装置のブロック図
【図7】本発明の第２の実施形態におけるデジタル放送受信装置の動作フロー図（起動情報ファイルをデジタル放送受信装置に蓄積する場合）、（ａ）放送局側の処理、（ｂ）デジタル放送受信装置側の処理
【図8】本発明の第２の実施形態におけるコンテンツ蓄積時のデジタル放送受信装置の動作フロー図（起動情報ファイルをデジタル放送受信装置に蓄積しない場合）、（ａ）放送局側の処理、（ｂ）デジタル放送受信装置側の処理
【図9】本発明の第２の実施形態におけるコンテンツ蓄積後のデジタル放送受信装置の動作フロー図（起動情報ファイルをデジタル放送受信装置に蓄積した場合）、（ａ）放送局側の処理、（ｂ）デジタル放送受信装置側の処理
【図10】本発明の第２の実施形態におけるコンテンツ蓄積後のデジタル放送受信装置の動作フロー図（起動情報ファイルをデジタル放送受信装置に蓄積しなかった場合）、（ａ）放送局側の処理、（ｂ）デジタル放送受信装置側の処理
【図11】本発明の第２の実施形態における最新情報の送受信に関するデジタル放送受信装置の動作フロー図、（ａ）放送局側の最新情報送出処理、（ｂ）デジタル放送受信装置側の最新情報受信処理
【図12】本発明の第２の実施形態におけるデジタル放送受信装置で使用するデータ構成
【図13】本発明の第３の実施形態におけるデジタル放送受信装置のブロック図
【図14】本発明の第３の実施形態におけるコンテンツ蓄積後のデジタル放送受信装置の動作フロー図（起動情報ファイルをデジタル放送受信装置に蓄積した場合）、（ａ）放送局側の処理、（ｂ）デジタル放送受信装置側の処理
【図15】本発明の第３の実施形態におけるコンテンツ蓄積後のデジタル放送受信装置の動作フロー図（起動情報ファイルをデジタル放送受信装置に蓄積しなかった場合）、（ａ）放送局側の処理、（ｂ）デジタル放送受信装置側の処理
【図16】本発明の第３の実施形態における最新情報に関する処理時のデジタル放送受信装置の動作フロー図、（ａ）放送局側の最新情報送出処理、（ｂ）デジタル放送受信装置側の最新情報受信処理
【図17】本発明の第３の実施形態におけるデジタル放送受信装置で使用するデータ構成
【図18】本発明の第６の実施形態におけるデジタル放送受信装置のブロック図
【図19】本発明の第６の実施形態における最新情報の受信に関するデジタル放送受信装置の動作フロー図、（ａ）本発明の第２の実施形態をもとにしたデジタル放送受信装置側の最新情報受信処理、（ｂ）本発明の第３の実施形態をもとにしたデジタル放送受信装置側の最新情報受信処理
【図20】従来のデジタル放送受信装置のブロック図

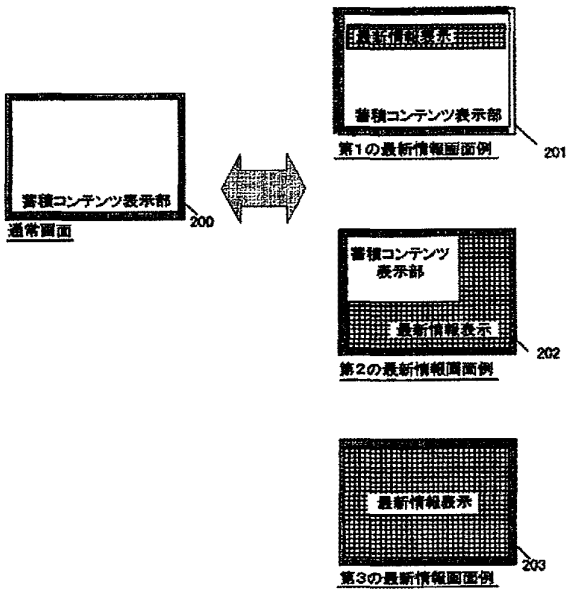
【符号の説明】
【0089】
１００　デジタル放送受信装置
１１１　デジタル放送受信処理部
１１２　データ分離処理部
１１３　蓄積コンテンツ再生処理部
１１４　蓄積処理部
１１５　映像多重処理部
１２０　画面表示装置
３００　デジタル放送受信装置
３１１　デジタル放送受信処理部
３１２　データ分離処理部
３１３　蓄積コンテンツ再生処理部
３１４　リアルタイム蓄積処理部
３１５　非リアルタイム蓄積処理部
３１６　蓄積処理部
３１７　受信機アプリケーション処理部
３１８　映像多重処理部
３１９　画面切替処理部
３２０　画面表示装置
６００　デジタル放送受信装置
６１１　デジタル放送受信処理部
６１２　データ分離処理部
６１３　蓄積コンテンツ再生処理部
６１４　リアルタイム蓄積処理部
６１５　非リアルタイム蓄積処理部
６１６　蓄積処理部
６１７　受信機アプリケーション処理部
６１８　映像多重処理部
６１９　画面切替処理部
６２０　蓄積更新監視処理部
６３０　画面表示装置
９００　デジタル放送受信装置
９１１　デジタル放送受信処理部
９１２　データ分離処理部
９１３　蓄積コンテンツ再生処理部
９１４　リアルタイム蓄積処理部
９１５　非リアルタイム蓄積処理部
９１６　蓄積処理部
９１７　受信機アプリケーション処理部
９１８　映像多重処理部
９１９　画面切替処理部
９２０　蓄積更新監視処理部
９２１　再生位置保持処理部
９３０　画面表示装置
１１００　従来のデジタル放送受信装置
１１１０　デジタル放送受信処理部
１１１１　蓄積コンテンツ再生処理部
１１１２　蓄積処理部
１１１３　映像多重処理部

１１２０　画面表示装置
１１２１　第１画面
１１２２　第２画面

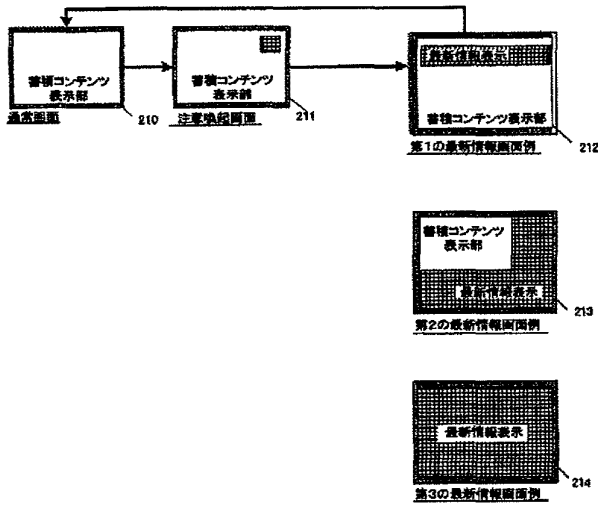
【図1】



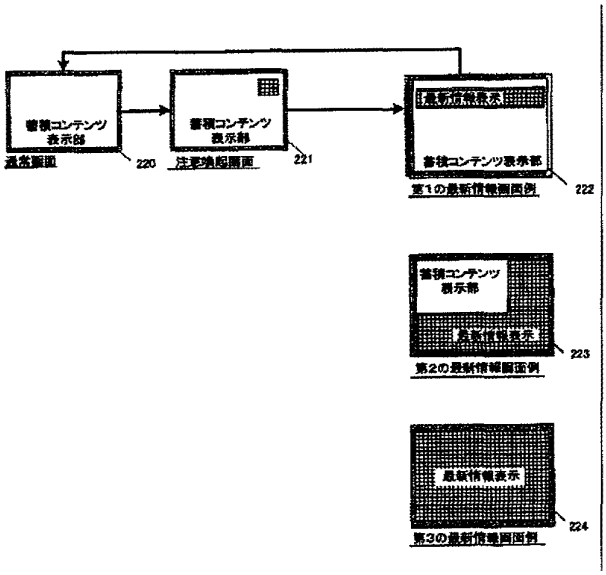
【図2】



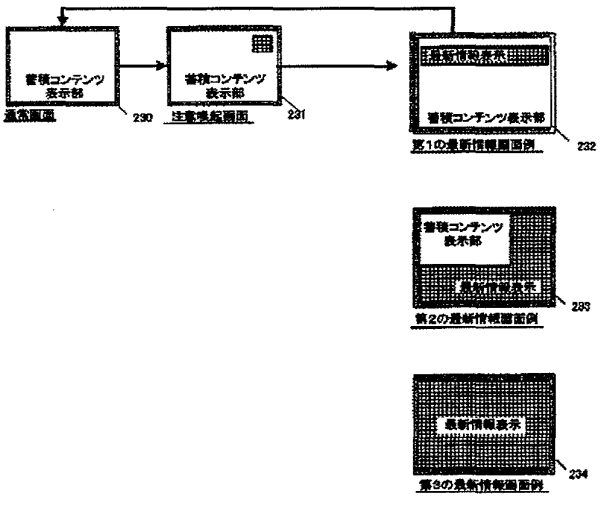
【図3】


蓄積コンテンツ表示部
通常画面
210
蓄積コンテンツ表示部
注意喚起画面
211
蓄積コンテンツ表示部
212
第1の最新情報画面例
蓄積コンテンツ表示部
最新情報表示
213
第2の最新情報画面例
最新情報表示
214
第3の最新情報画面例

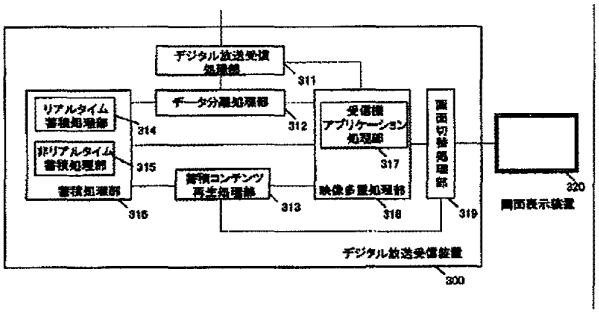
【図4】


蓄積コンテンツ表示部
通常画面
220
蓄積コンテンツ表示部
注意喚起画面
221
蓄積コンテンツ表示部
222
第1の最新情報画面例
蓄積コンテンツ表示部
最新情報表示
223
第2の最新情報画面例
最新情報表示
224
第3の最新情報画面例

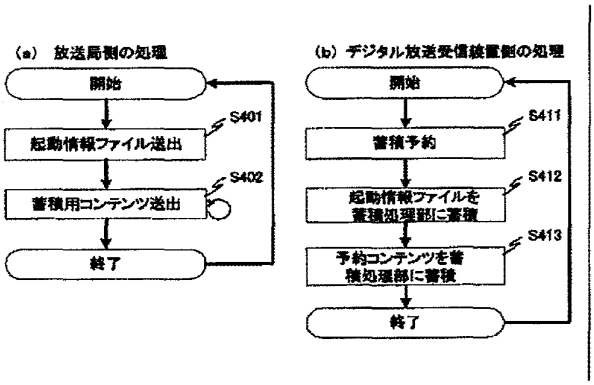
【図5】


蓄積コンテンツ表示部
通常画面
230
蓄積コンテンツ表示部
注意喚起画面
231
蓄積コンテンツ表示部
232
第1の最新情報画面例
蓄積コンテンツ表示部
最新情報表示
233
第2の最新情報画面例
最新情報表示
234
第3の最新情報画面例

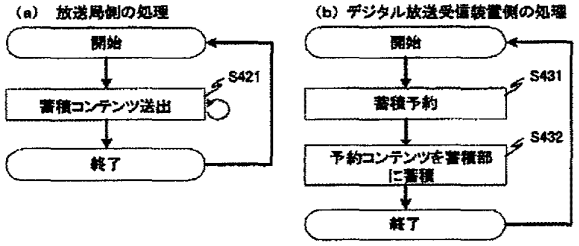
【図6】


デジタル放送受信処理部
311
リアルタイム蓄積処理部
314
データ分離処理部
312
受信機アプリケーション処理部
317
非リアルタイム蓄積処理部
315
蓄積コンテンツ再生処理部
313
映像多重処理部
318
画面切替処理部
319
蓄積処理部
316
表示装置
320
デジタル放送受信装置
300

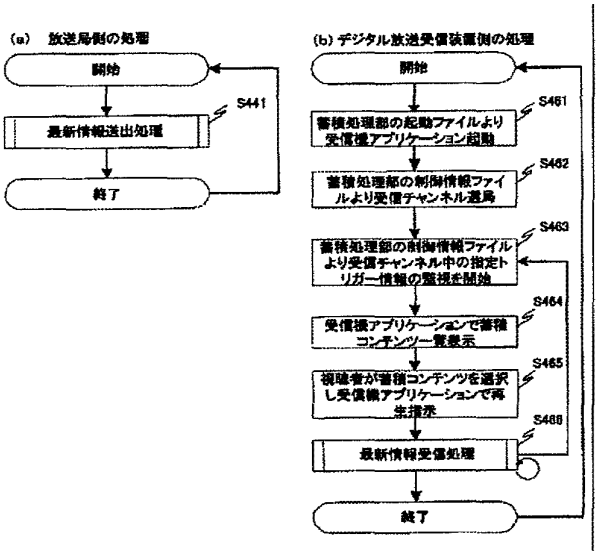
【図7】


(a) 放送局側の処理
開始
起動情報ファイル送出
S401
蓄積用コンテンツ送出
S402
終了
(b) デジタル放送受信装置側の処理
開始
蓄積予約
S411
起動情報ファイルを蓄積処理部に蓄積
S412
予約コンテンツを蓄積処理部に蓄積
S413
終了

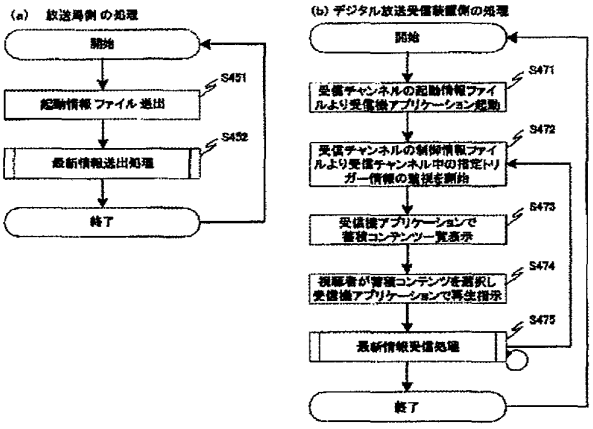
【図8】


(a) 放送局側の処理
開始
蓄積コンテンツ送出
S421
終了
(b) デジタル放送受信装置側の処理
開始
蓄積予約
S431
予約コンテンツを蓄積部に蓄積
S432
終了

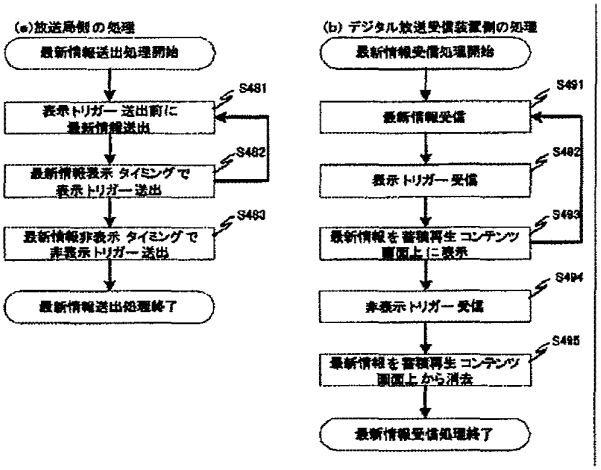
【図9】


(a) 放送局側の処理
開始
最新情報送出処理
S441
終了
(b) デジタル放送受信装置側の処理
開始
蓄積処理部の起動ファイルより受信機アプリケーション起動
S461
蓄積処理部の制御情報ファイルより受信チャンネル選局
S462
蓄積処理部の制御情報ファイルより受信チャンネル中の指定トリガー情報の監視を開始
S463
受信機アプリケーションで蓄積コンテンツ一覧表示
S464
視聴者が蓄積コンテンツを選択し受信機アプリケーションで再生指示
S465
最新情報受信処理
S466
終了

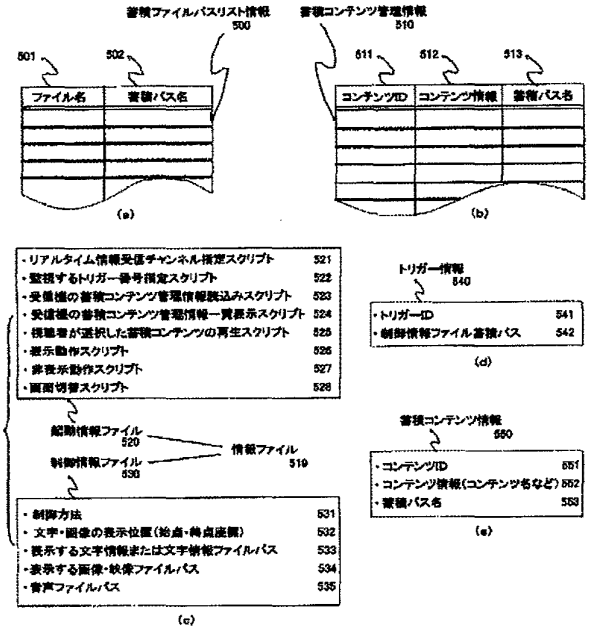
【図10】


(a) 放送局側の処理
開始
起動情報ファイル送出
S451
最新情報送出処理
S452
終了
(b) デジタル放送受信装置側の処理
開始
受信チャンネルの起動情報ファイルより受信機アプリケーション起動
S471
受信チャンネルの制御情報ファイルより受信チャンネル中の指定トリガー情報の監視を開始
S472
受信機アプリケーションで蓄積コンテンツ一覧表示
S473
視聴者が蓄積コンテンツを選択し受信機アプリケーションで再生指示
S474
最新情報受信処理
S475
終了

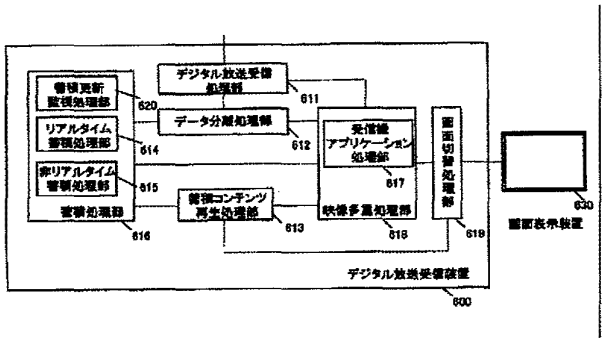
【図11】


(a)放送局側の処理
最新情報送出処理開始
表示トリガー送出前に最新情報送出
S481
最新情報表示タイミングで表示トリガー送出
S482
最新情報非表示タイミングで非表示トリガー送出
S483
最新情報送出処理終了
(b) デジタル放送受信装置側の処理
最新情報受信処理開始
最新情報受信
S491
表示トリガー受信
S492
最新情報を蓄積再生コンテンツ画面上に表示
S493
非表示トリガー受信
S494
最新情報を蓄積再生コンテンツ画面上から消去
S495
最新情報受信処理終了

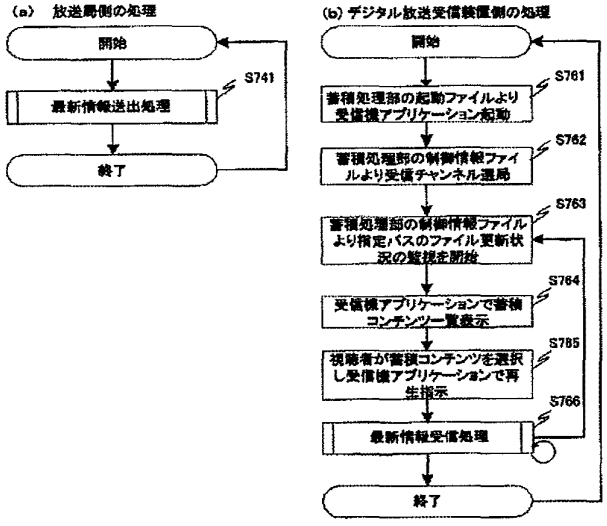
【図12】



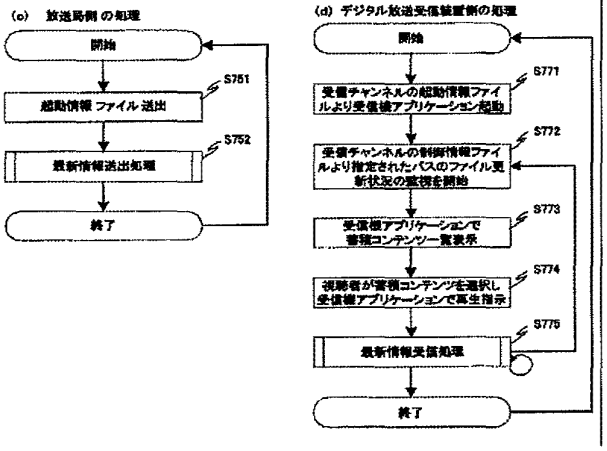
【図13】



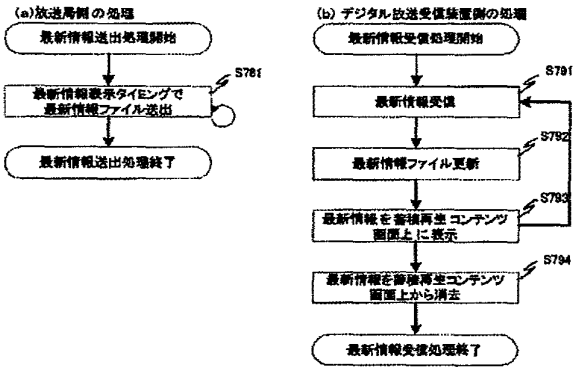
【図14】



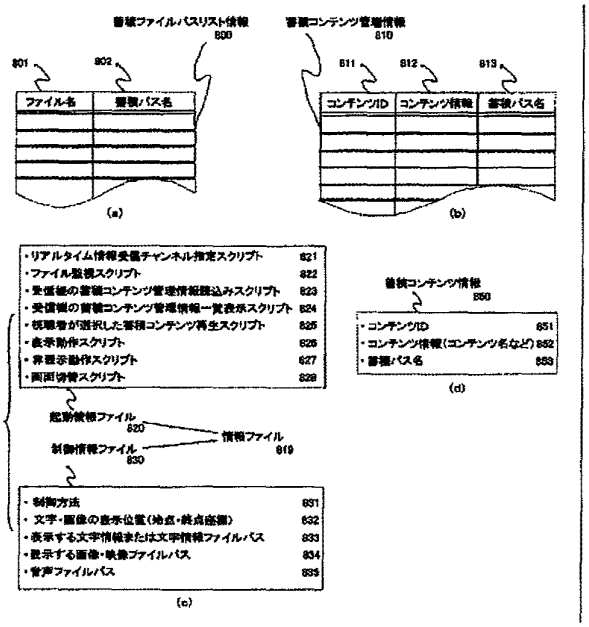
【図15】



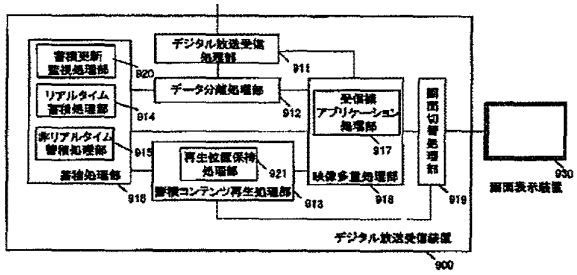
【図16】



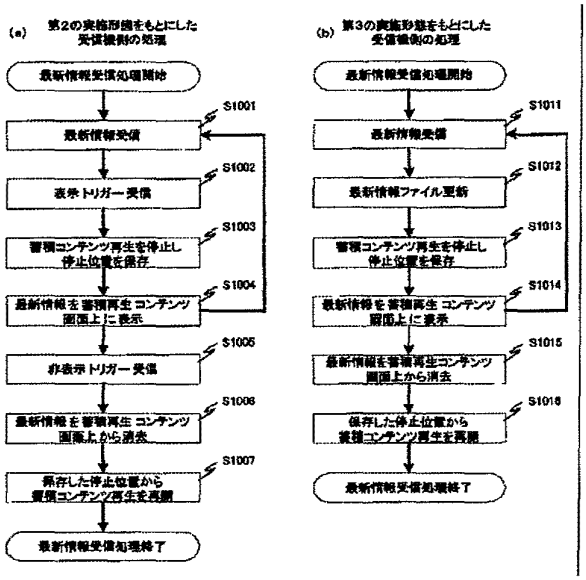
【図17】



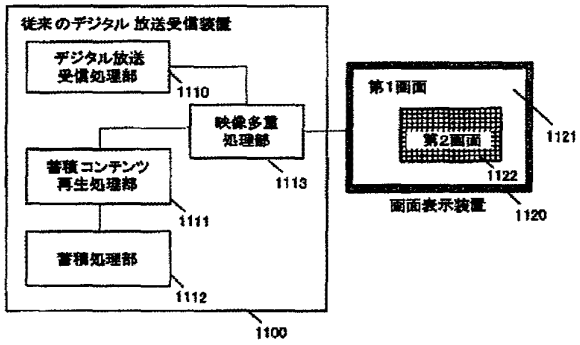
【図18】



【図19】



【図20】


従来のデジタル放送受信装置
デジタル放送受信処理部
1110
映像多重処理部
1113
蓄積コンテンツ再生処理部
1111
蓄積処理部
1112
1100
第1画面
第2画面
1122
1121
画面表示装置
1120

(19) KOREAN INTELLECTUAL PROPERTY OFFICE

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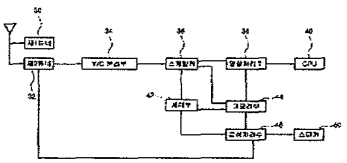
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(71)Applicant: DAEWOO ELECTRONICS CORPORATION
(72)Inventor: LEE, HWA JOONG

(54) MULTI DISPLAY TELEVISION HAVING A REAL TIME STORING FUNCTION WHILE VIEWING A PIP

(57) Abstract:



PURPOSE: A multi display television having a real time storing function while viewing a PIP(Picture In Picture) is provided to simultaneously display a main screen and a sub screen and to store the image displayed to the sub screen at real time. CONSTITUTION: The second tuner(32) tunes a broadcasting signal for displaying on a sub screen. A Y/C dividing member (34) divides the sub screen broadcasting signal into a color signal and a luminance signal. A scaler(36) controls the screen size of the output so that the broadcasting signal is coincided with the sub screen. An image processing member(38) processes an image signal and displays the processed signal on a CRT(Cathode Ray Tube). A memory member(44) stores the sub screen information data. A control member(42) controls the sub screen storage memory member and the scaler so that video and audio signals stored to the sub screen storage memory member are displayed on the sub screen when inputting a sub screen reproducing command.

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(74) 대리인 남상선

심사청구 : 없음

(54) 부화면을 시청하면서 실시간으로 저장할 수 있는 기능을갖는 다화면 텔레비전

요약

주화면을 부화면과 동시에 디스플레이시켜 시청하면서 부화면에 디스플레이되는 영상을 실시간으로 저장할 수 있도록 하는 부화면을 시청하면서 실시간으로 저장하는 기능을 갖는 다화면 텔레비전이 개시되어 있다. 부화면 기능을 갖는 다화면 텔레비전을 통해 방송을 시청하면서 주화면과 부화면에 디스플레이 되는 방송을 모두 시청할 수 있다. 이때 부화면에 디스플레이 되는 방송을 녹화하기 위하여 부화면 녹화명령을 입력하면 제어부는 부화면에 디스플레이 되는 방송내용에 해당하는 영상신호 및 음성신호를 부화면저장메모리부에 저장하게 된다. 상기 부화면 저장메모리부에 저장되어 있는 영상신호 및 음성신호는 사용자가 원하는 시간에 재생명령을 입력함으로서 부화면에 재생이 된다.

대표도

도 2

명세서

도면의 간단한 설명

도 1 은 종래의 부화면을 갖는 텔레비전의 동작상태를 개략적으로 나타낸 도면이다.

도 2는 본 발명에 따른 부화면을 시청하면서 실시간으로 저장하는 기능을 갖는 다화면 텔레비전의 구성을 개략적으로 나타낸 도면이다.

< 도면의 주요 부분에 대한 부호의 간단한 설명 >

30 : 제1튜너 32 : 제2튜너

34 : Y/C분리부 36 : 스케일러

38 : 영상처리부 40 : CPT

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42 : 제어부 44 : 부화면저장메모리부

46 : 음성처리부

발명의 상세한 설명

발명의 목적

발명이 속하는 기술 및 그 분야의 종래기술

본 발명은 부화면 기능을 갖는 다화면(PIP) 텔레비전에 관한 것으로, 보다 상세하게는 주화면을 부화면과 동시에 디스플레이시켜 시청하면서 부화면에 디스플레이되는 영상을 실시간으로 저장할 수 있도록 하는 부화면을 시청하면서 실시간으로 저장하는 기능을 갖는 다화면 텔레비전에 관한 것이다.

일반적으로 부화면을 갖는 다화면 텔레비전은 도 1에 도시된 바와 같이, 안테나(11)를 통해 수신되는 방송신호중 주화면과 부화면을 구성하기 위한 소정 방송신호를 각각 선국하는 제1튜너(12) 및 제2튜너(13)와, 상기 제1튜너(12) 및 제2튜너(13)에서 선국된 각각의 방송신호를 색신호와 휘도신호로 분리하는 제1Y/C분리부(14) 및 제2Y/C분리부(15)와, 상기 제2Y/C분리부(15) 출력의 화면크기를 조정하는 스케일러(16)와, 영상신호가 디스플레이되는 CPT(17)와, 상기 제1Y/C분리부(14) 및 스케일러(16)의 출력을 믹싱하고 상기 CPT(17)상에 디스플레이 가능하도록 영상신호를 처리하는 영상처리부(18)와, 음성신호가 출력되는 스피커(19)와, 상기 제1튜너(12) 또는 제2튜너(13)를 통해 선국된 방송신호중 음성신호를 상기 스피커(19)를 통해 출력가능하도록 음성신호를 처리하는 음성신호처리부(20)와, 상기 제1튜너(12)의 출력에서 수평/수직 동기신호를 분리하는 동기분리부(21)와, 기 설정된 위치및 크기에 맞는 부화면 영상처리가 이루어지도록 상기 스케일러(16)를 제어하고 상기 동기분리부(21)에서 분리된 수평/수직 동기신호에 따라 주화면 영상처리가 이루어지도록 상기 영상처리부(18)를 제어하며 음성처리가 이루어지도록 상기 음성신호처리부(2)를 제어하는 제어부(22)와, 상기 제어부(22)의 동작 프로그램과 각종 설정데이터 등을 저장하기 위한 이이피롬(EEPROM)(23)을 포함하여 구성된다.

이와 같이 구성된 종래기술의 부화면 제어동작을 설명하면 다음과 같다.

먼저, 사용자가 텔레비전의 전원을 온절환시킨 다음 소정채널을 주화면으로 선택하고 다른 채널을 부화면으로 선택할 수 있다. 따라서, 상기 제어부(22)는 제1튜너(12) 및 제2튜너(13)를 제어하여 제1튜너(12)에서 주화면용 채널의 방송신호가 선국되도록 하고 제2튜너(13)에서 부화면용 채널의 방송신호가 선국되도록 한다.

이어서, 상기 제1튜너(12) 및 제1Y/C분리부(14)와 제2튜너(13) 및 제2Y/C분리부(15)를 통해 주화면용 방송신호와 부화면용 방송신호가 각각 색신호 및 휘도신호로 변환된다. 그리고 제2Y/C분리부(15)의 출력은 제어부(22)의 제어에 따라 스케일러(16)를 통해 화면크기조정이 이루어진다. 그리고 제1Y/C분리부(14)의 출력 및 스케일러(16)의 출력은 제어부(22)의 제어에 따라 영상처리부(18)에서 혼합되고 영상처리되어 CPT(17)를 통해 화면상에 디스플레이된다.

이와같이 동작을 하는 부화면 기능을 갖는 다화면 텔레비전의 경우에 VCR이나 PVR 같은 디스플레이어에 접속되어 주화면만을 저장하거나 예약녹화를 할 수 있고, 부화면의 경우에는 녹화를 할 수 없는 불편함이 있다.

발명이 이루고자 하는 기술적 과제

본 발명은 상기와 같은 문제점을 해결하기 위하여 안출된 것으로, 본 발명의 목적은 주화면을 부화면과 동시에 디스플레이시켜 시청하면서 부화면에 디스플레이되는 영상을 실시간으로 저장할 수 있도록 하는 부화면을 시청하면서 실시간으로 저장하는 기능을 갖는 다화면 텔레비전을 제공하는데 있다.

상기 목적을 달성하기 위하여 본 발명은 부화면 기능을 갖는 다화면 텔레비전에 있어서, 부화면에 디스플레이 할 방송신호를 선국하는 제2튜너; 상기 제2튜너로부터 인가되는 부화면용 방송신호를 색신호와 휘도신호로 분리하는 Y/C분리부; 상기 Y/C분리부로부터 인가되는 방송신호를 부화면에 맞도록 출력의 화면크기를 조정하는 스케일러; 상기 스케일러로부터 인가되는 영상신호를 CPT상에 디스플레이 가능하도록 영상신호를 처리하는 영상처리부; 상기 스케일러로부터 인가되는 부화면 정보데이터를 저장하는 부화면저장메모리부; 그리고 상기 CPT상에 디스플레이 되는 부화면의 영상신호 및 음성신호의 정보데이터를 부화면 저장명령이 인가되면 부화면저장메모리부에 저장하고, 부화면저장메모리부에 저장된 부화

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면 정보데이터를 재생하라는 명령이 인가되면 부화면에 부화면저장메모리부에 저장되어 있는 영상신호 및 음성신호를 디스플레이하도록 부화면저장메모리부및 스케일러 등을 제어하는 제어부로 이루어지는 부화면을 시청하면서 실시간으로 저장하는 기능을 갖는 다화면 텔레비전을 제공한다.

본 발명에 의하면, 부화면 기능을 갖는 다화면 텔레비전을 통해 방송을 시청하면서 주화면과 부화면에 디스플레이 되는 방송을 모두 시청할 수 있다. 이때 부화면에 디스플레이 되는 방송을 녹화하기 위하여 부화면 녹화명령을 입력하면 제어부는 부화면에 디스플레이 되는 방송내용에 해당하는 영상신호 및 음성신호를 부화면저장메모리부에 저장하게 된다. 상기 부화면 저장메모리부에 저장되어 있는 영상신호 및 음성신호는 사용자가 원하는 시간에 재생명령을 입력함으로서 부화면에 재생이 된다.

발명의 구성 및 작용

이하, 첨부된 도면을 참조하여 본 발명을 상세히 설명하면 다음과 같다.

도 2는 본 발명에 따른 부화면을 시청하면서 실시간으로 저장하는 기능을 갖는 다화면 텔레비전의 구성을 개략적으로 나타낸 도면이다.

도 2를 참조하여 설명하면, 부화면 기능을 갖는 다화면 텔레비전의 안테나를 통해 방송신호가 수신된다. 상기 안테나를 통해 수신되는 많은 방송신호는 주화면에 디스플레이되는 방송신호를 튜닝하는 제1튜너와 부화면에 디스플레이되는 방송신호를 튜닝하는 제2튜너(32)를 통해 CPT화면(40)에 디스플레이 된다. 상기 제2튜너(32)에 인가되는 부화면에 디스플레이 되는 방송신호는 Y/C분리부(34)에 인가된다. 상기 Y/C분리부(34)는 부화면에 디스플레이 할 부화면용 방송신호를 색신호와 휘도신호로 분리하게 된다.

상기 Y/C분리부(34)는 색신호와 휘도신호로 분리된 영상신호를 스케일러(36)에 인가한다. 상기 스케일러(36)는 Y/C분리부(34)로부터 인가되는 방송신호를 부화면에 맞도록 출력의 화면크기를 조정하게 된다. 상기 스케일러(36)에서 부화면에 맞게 화면크기가 조절된 영상신호는 CPT상에 디스플레이 가능하도록 영상신호를 처리하는 영상처리부(38)에 인가된다. 상기 영상처리부(38)는 주화면에 디스플레이 되는 영산신호와 부화면에 디스플레이 되는 영상신호를 영상처리한 후 CPT에 인가하여 주화면 및 부화면에 각각 디스플레이 시킨다.

또한, 상기 제2튜너(32)로부터 음성신호를 받은 음성신호처리부(16)는 부화면에 디스플레이 되는 방송신호의 음성신호를 스피커(50)를 통해 출력하게 된다. 상기 스케일러(36)와 음성신호처리부(46)에는 부화면저장메모리부(44)가 접속된다. 상기 부화면저장메모리부(44)는 부화면을 통해 디스플레이 되는 영상신호와 음성신호를 저장하고, 상기 부화면저장메모리부(44)에 저장된 영상신호 및 음성신호는 다시 재생명령에 의해 부화면에 디스플레이되도록 영상처리부(38) 및 음성신호처리부(46)를 통해 부화면에 디스플레이 되고, 스피커를 통해 음성신호가 출력된다.

상기 부화면저장메모리부(44)에는 제어부(42)가 접속되며, 상기 제어부(42)는 스케일러(36) 및 음성신호처리부(46)에 접속된다. 상기 제어부(46)에는 사용자가 부화면의 방송신호를 녹화하라는 명령신호가 인가되고, 상기 제어부(46)는 부화면의 방송신호를 녹화하기 위하여 스케일러(36) 및 음성신호처리부(46)의 동작을 제어하여 영상신호 및 음성신호가 부화면저장메모리부(44)에 저장되도록 한다.

상기 부화면저장메모리부(44)에 부화면용 방송신호의 영상신호 및 음성신호가 저장된 상태에서 사용자가 부화면저장메모리부(44)에 저장된 부화면용 방송내용을 재생하라는 명령신호를 제어부(42)에 인가하면 상기 제어부(42)는 부화면저장메모리부(44)에 저장된 영상신호는 영상처리부(38)로 출력시켜 영상처리부(38)에서 영상처리하여 부화면을 통해 CPT(40)에 디스플레이 시키게 되며, 상기 부화면저장메모리부(44)에 저장되어 있는 음성신호를 음성신호처리부(46)를 통해 음성처리되어 스피커(50)를 통해 출력하게 된다.

발명의 효과

이상 설명에서 알 수 있는 바와 같이, 본 발명은 부화면 기능을 갖는 다화면 텔레비전의 내부에 저장용 메모리를 추가로 탑재시켜 부화면의 방송내용을 저장할 수 있도록 함으로써 텔레비전의 부화면을 통해 시청하는 방송내용을 부화면저장메모리부에 저장하고, 원하는 시간에 다시 재생시킴으로써 부화면을 통해 시청하는 방송내용을 좀더 편하게 녹화 및 재생을 통해 시청할 수 있다.

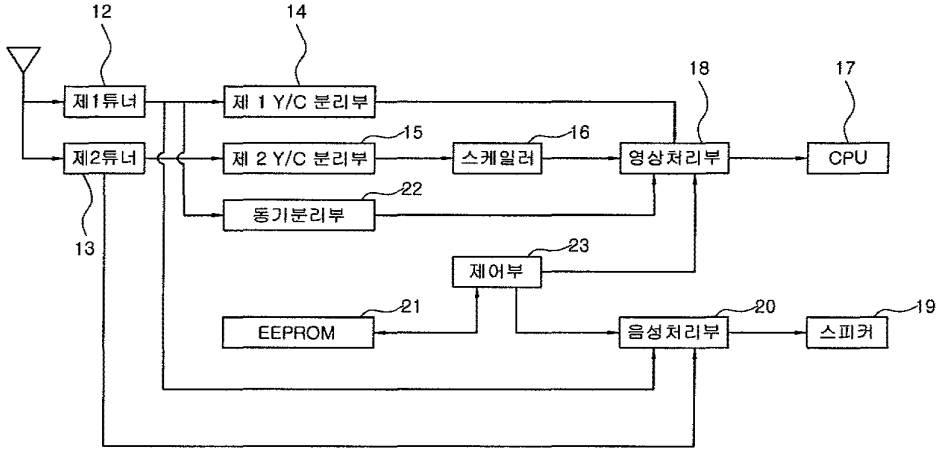
(57) 청구의 범위

청구항 1.

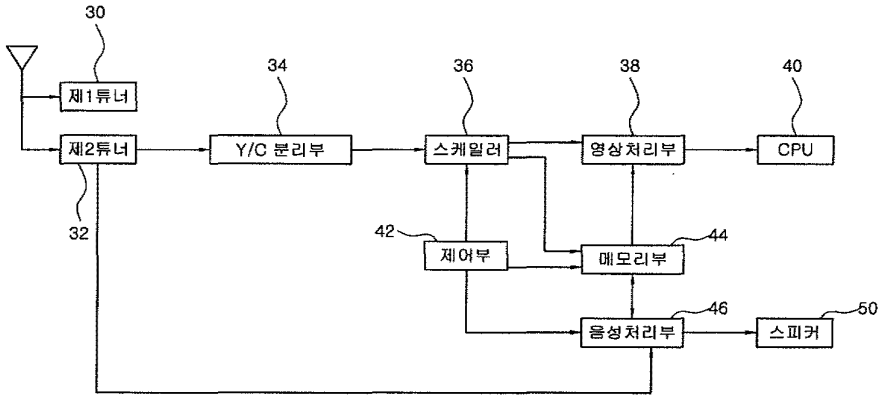
부화면 기능을 갖는 다화면 텔레비전에 있어서, 부화면에 디스플레이 할 방송신호를 선국하는 제2튜너; 상기 제2튜너로부터 인가되는 부화면용 방송신호를 색신호와 휘도신호로 분리하는 Y/C분리부; 상기 Y/C분리부로부터 인가되는 방송신호를 부화면에 맞도록 출력의 화면크기를 조정하는 스케일러; 상기 스케일러로부터 인가되는 영상신호를 CPT상에 디스플레이 가능하도록 영상신호를 처리하는 영상처리부; 상기 스케일러로부터 인가되는 부화면 정보데이터를 저장하는 부화면 저장메모리부; 그리고 상기 CPT상에 디스플레이 되는 부화면의 영상신호 및 음성신호의 정보데이터를 부화면 저장명령이 인가되면 부화면저장메모리부에 저장하고, 부화면저장메모리부에 저장된 부화면 정보데이터를 재생하라는 명령이 인가되면 부화면에 부화면저장메모리부에 저장되어 있는 영상신호 및 음성신호를 디스플레이하도록 부화면저장메모리부및 스케일러 등을 제어하는 제어부로 이루어지는 부화면을 시청하면서 실시간으로 저장하는 기능을 갖는 다화면 텔레비전.

도면

도면1



도면2



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KOREAN PATENT ABSTRACTS

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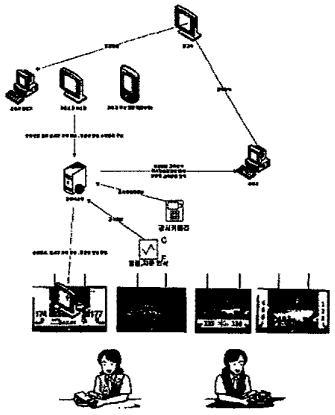
(51)Int. Cl G06K 9/00
G06F 19/00
G06F 17/60

(71)Applicant: CHO, HO CHEOL
(72)Inventor: CHO, HO CHEOL

(54) SEQUENCE SYSTEM FOR ANALYZING ADVERTISEMENT MARKETING BY DISPLAYING ADVERTISEMENT IMAGE ON PANEL OF THE SYSTEM WITH CCTV FUNCTION

(57) Abstract:

PURPOSE: A sequence system for analyzing advertisement marketing with a CCTV function is provided to present detailed customer analysis information to an advertiser in order to diversify an advertisement according to a time or place. CONSTITUTION: A management system records and regenerates images of the CCTV, transmits real time captions, displays various waiting numbers, and interworks with a fingerprint or face recognition system. An image displaying unit and the CCTV are set to be compatible with a managing system unit. A software analyzes and records reactions of customers recorded in the CCTV according to a time which the image advertisement and real time captions are broadcasted.



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심사청구 : 있음

(54) 감시카메라 기능이 포함된 광고 마케팅 분석용 순번대기시스템

요약

본 발명은 기존의 은행이나 관공서에 설치되어있는 순번대기시스템 번호표시부에 영상을 함께 디스플레이하여 광고 마케팅에 활용할 수 있는 방법과 그것을 효율적으로 관리할 수 있는 시스템과 프로그램에 관한 것이다.발명 시스템의 구성은 크게 표시부와 관리시스템부로 나누어지며 표시부는 각종 디스플레이장치(LCD,PDP,CRT,TV...)를 이용하여 동영상과 순번을 표시하는 역할을 한다. 관리시스템부는 각 창구의 업무통계자료작성과 함께 동영상 방송 스케줄표 작성과 방송, 공중파 TV 시청, 감시카메라 작동과 녹화를 담당한다.특히나 관리 시스템부는 감시카메라로 녹화된 영상과 표시부에 방송된 동영상 스케줄표를 참고하여 방영된 영상에 따른 사람들의 주목도를 분석하여 광고 마케팅에 활용할 수 있는 기초 분석 자료를 수집할 수 있는 기능을 가진다.

대표도

도 1

색인어

광고,디스플레이,LCD,순번대기,번호표시,영상,인터넷,중앙제어,창구

명세서

도면의 간단한 설명

도 1은 본 발명 시스템의 작동 과정과 형태에 관한 것이다.

발명의 상세한 설명

발명의 목적

발명이 속하는 기술 및 그 분야의 종래기술

본 발명은 은행이나 관공서 등에 설치된 순번대기시스템에 관한 것으로서 이 시스템의 주기능은 대기번호표시부를 통해 번호만을 표시하거나 번호 표시부와 함께 영상광고를 보여주고 있는 정도이다. 영상광고를 함께 보여주는 순번대기 시스템의 경우 각 창구의 업무처리에 대한 자료 수집 및 분석 통계를 할 수 있게 되어 있으나 표시부에 방영하고 있는 영상광고에 대한 대기인원들의 시선 주목도와 지역별,년령대별,남여노소등등의 각 계층별 취향 분석을 하지 못한다.또한 DVR 기능과 분리되어 있고 영상광고표시부와 번호표시부의 분리 방법이 다양하지 못하다. 영상표시부에 실시간 자막전송기능을 부여하여 공지사항이나 뉴스 등이 실시간으로 나오도록 구성된 것이 없으며 얼굴인식,지문인식 시스템과의 연동을 위한 관리부 시스템의 확장성을 고려하지 않아 향후에 이 기능을 추가시 기존에 설치된 시스템을 전면 교체하거나 각각의 시스템을 통합운영하지 못하고 분리 운영해야한다.

발명이 이루고자 하는 기술적 과제

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순번대기시스템의 기능을 확장하여 광고 마케팅에 활용할 수 있는 프로그램과 관리시스템을 구축하는 것이다. 이를 위해서 DVR(CCTV)기능,영상표시부에 실시간 자막전송 및 실시간 방송기능,방송 스케줄 작성 , 지문인식 및 얼굴인식 시스템 기능과 공유할 수 있는 데이터베이스 엔진을 구축하고 위의 모든 기능을 관리 시스템에 통합할 수 있도록 하여 생산 원가를 낮춘다. 또한 위의 기능들이 하나의 인터페이스에 통합이 되어 있는 운영소프트웨어를 개발하여 관리자의 업무 효율을 높인다.

발명의 구성 및 작용

본 발명은 대기번호와 함께 실시간으로 전송된 자막과 영상을 동시에 표시하는 영상장치부와 대기자의 모습을 촬영하는 감시카메라부 그리고 지문인식,얼굴인식 시스템과 연동할 수 있는 소프트웨어를 포함하며 위의 각종 장치를 통합 관리할 수 있는 관리 시스템부로 이루어져 있다. 영상장치부와 감시카메라부의 작동은 모두 통합 관리시스템부에서 제어하도록 되어있다. 관리시스템의 주요 기능은 영상표시장치에 대기번호와 원거리(인터넷)에서 보내어지는 실시간 자막과 동영상을 전송하는 것이다. 감시카메라에 비추어지는 영상을 녹화하고 재생할 수 있는 기능 또한 관리시스템에는 포함되어 있다. 확장기능으로 지문인식,얼굴인식 시스템의 DB와 연동할 수 있다. 세부적으로 동영상 스케줄링,DVR의 일반적인 기능,방영되는 영상에 따른 고객 반응 기록 기능,고객식별,고객 편의를 위한 다양한 번호 표시 방법 기능 등이 포함된다.

발명의 효과

광고 매체는 광고를 할만한 유효 적절한 매체인지를 광고주에게 설득할 수 있어야한다.광고 매체는 광고에 접하게 될 수 있는 고객들의 숫자에서부터 주목도나 집중도의 정도에 대한 구체적인 자료를 제시할 수 있어야 한다. 기존의 창구마다 설치된 순번대기 시스템의 대부분이 광고 매체로서 활용되고 있지 못하고 광고 매체로서의 부가적인 기능을 가진 시스템이라고 하더라도 고객 시선 집중도나 선호영상에 대한 분석을 할 수 없는 것을 수정 보완한 것이 본 발명 시스템이다. 광고주에게 구체적인 고객 분석 자료를 제시하여 좀더 세밀하게 고객 취향에 맞게 시간대별,장소별 광고를 달리하여 광고비용 대비 홍보 효과를 극대화할 수 있다.

(57) 청구의 범위

청구항 1.

감시카메라 영상 녹화 및 재생(DVR),광고 영상 송출,실시간 자막 전송,다양한 구성의 대기번호 표시 기능,지문인식 및 얼굴인식 시스템과의 연동 기능을 통합한 관리시스템과 하드웨어에 탑재된 소프트웨어

청구항 2.

관리시스템부와 호환할 수 있게 SET화 된 영상표시장치 및 감시카메라

청구항 3.

영상광고와 실시간 자막이 방송되고 있는 시간대에 따른 감시카메라에 녹화된 대

기인원 고객들의 반응분석기록 소프트웨어

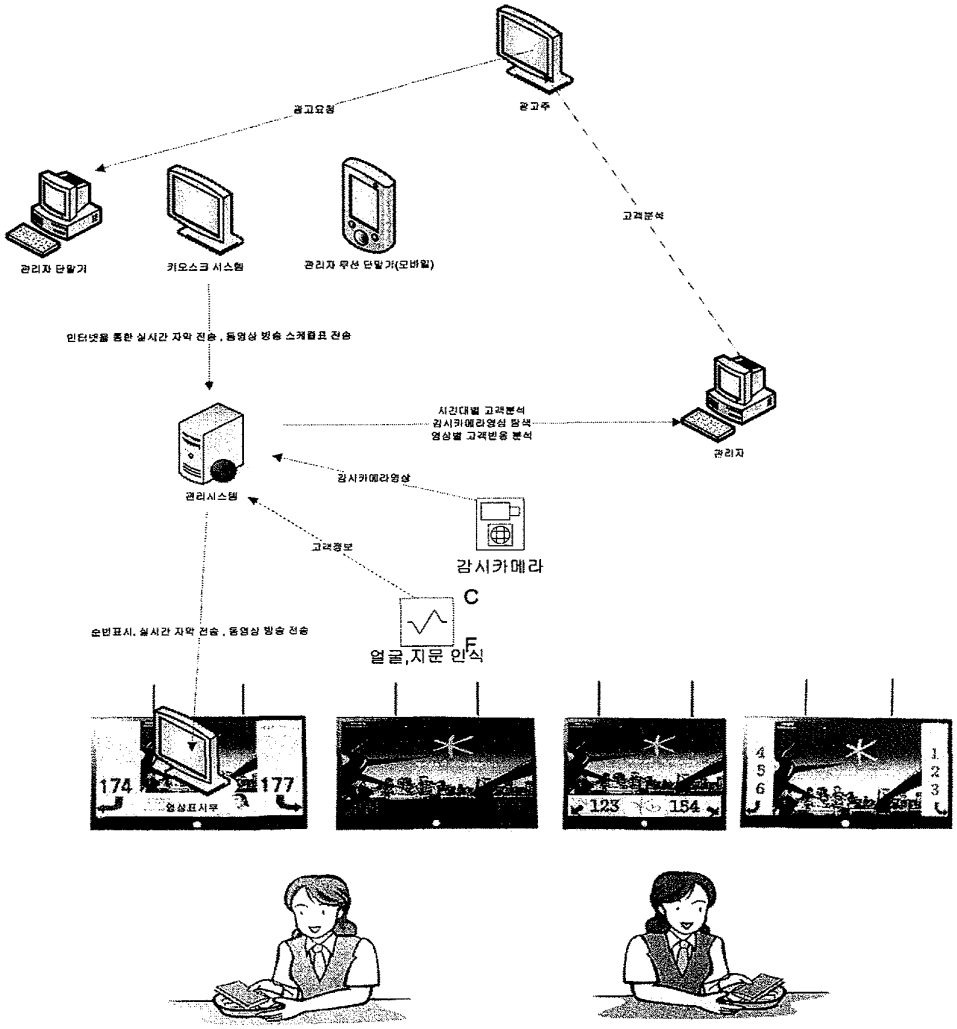
청구항 4.

얼굴인식이나 지문인식을 통해 창구에 찾아오는 고객의 자동인식 또는 반자동 인식을 통한 고객 방문 시간대 분석, 각각의 영상광고에 따른 특정 고객의 반응을 기록할 수 있는 소프트웨어

도면

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도면1


광고요청
광고주
고객분석
관리자 단말기
키오스크 시스템
관리자 무선 단말기(모바일)
인터넷을 통한 실시간 자막 전송 , 동영상 방송 스케줄표 전송
시간대별 고객분석
감시카메라영상 탐색
영상별 고객반응 분석
관리자
관리시스템
감시카메라영상
고객정보
감시카메라
C
얼굴,지문 인식
F
순번표시, 실시간 자막 전송 , 동영상 방송 전송
174
177
영상표시부
123
154

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KOREAN PATENT ABSTRACTS

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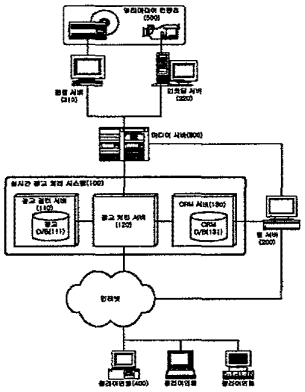
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(71)Applicant: BIZMODELINE CO., LTD.
(72)Inventor: KIM, JAE HYUNG
HONG, JONG CHEOL
KWON, BONG KI

(51)Int. Cl G06Q 30/00

(54) SYSTEM FOR INSERTING REAL-TIME MOVING IMAGE AD INTO MULTIMEDIA CONTENTS BASED ON CRM INFORMATION

(57) Abstract:



PURPOSE: A system for inserting real-time moving image AD (ADvertisement) into multimedia contents is provided to offer the effective AD to a customer by continuously offering a moving image, not a banner, while providing the multimedia contents without transmitting the moving image to the customer at a service start time. CONSTITUTION: An overlaying unit inserts the moving image AD into an upper or lower part of a screen of the multimedia content transmitted to a client(400) from a media server(300) in real-time. A transmitter transmits the multimedia contents including the moving image AD to the client in real-time. A scheduler schedules an insertion position and/or time zone of the AD inserted into the multimedia contents. A controller temporarily stops transmission of the multimedia contents transmitted to the client from the media server if the scheduled AD insertion position and/or time zone are reached, transmits the preset AD moving image instead of the multimedia contents, and restarts the transmission of the multimedia contents when the AD moving image is finished.

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Legal Status
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Notification date of refusal decision (00000000)
Final disposal of an application (withrawal)
Date of final disposal of an application (20060503)
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Date of registration (00000000)
Number of opposition against the grant of a patent ( )
Date of opposition against the grant of a patent (00000000)
Number of trial against decision to refuse ( )
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심사청구 : 없음

(54) 멀티미디어 컨텐츠에 실시간 동영상 광고 삽입 시스템

요약

본 발명은 멀티미디어 컨텐츠에 실시간 동영상 광고 삽입 시스템에 관한 것으로써, 인터넷을 통한 멀티미디어 동영상 강의, 세미나, 그리고 인터넷 영화관과 같은 VOD(Video On Demand) 시스템이나 인터넷 방송국 등과 같은 멀티미디어 컨텐츠 제공 시스템(Multimedia Contents Provider; MCP)에서 제공하는 멀티미디어 컨텐츠를 제공받는 고객의 CRM 정보를 이용하여 특성화된 동영상 광고를 원천 멀티미디어 컨텐츠에 실시간 겹쳐서 전송하거나, 원천 멀티미디어 컨텐츠가 재생되고 있는 중간에 동영상 광고를 연속적으로 삽입하고, CDN(Content Delivery Network)을 통해 캐시 서버가 운용되고 있는 지역의 특성에 맞는 지역 광고를 실시간 삽입하는 시스템에 관한 것이다.

또한, 본 발명은 기존 멀티미디어 컨텐츠 제공자 시스템 내부 또는 멀티미디어 컨텐츠를 재분배하는 CDN(Content Delivery Network) 상의 캐시 서버 시스템 내부에 고객의 CRM(Customer Relationship Management) 정보 등을 관리하는 CRM 서버, 광고 의뢰자로부터 제공된 광고를 광고 수용자가 원하는 형태로 가공하는 광고 관리 서버, 그리고 멀티미디어 컨텐츠 제공 시스템의 미디어 서버로부터 송출되는 멀티미디어 컨텐츠에 연속적으로 동영상 광고를 삽입하는 광고 처리 서버 등으로 구성되어 지는 실시간 광고 처리 시스템을 탑재한 후, 상기 시스템을 통하여 고객에게 최적화되고, 지역 특성에 맞는 고화질의 동영상 광고를 멀티미디어 컨텐츠에 실시간 삽입하고, 해당 광고 삽입 및 노출에 의한 광고 효과를 실시간 측정하는 시스템에 관한 것이다.

대표도

도 4

색인어

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멀티미디어 컨텐츠, 동영상 광고, CDN(Content Delivery Network)

명세서

도면의 간단한 설명

도 1은 배너를 이용하는 기존 인터넷 방송국의 광고 삽입 및 운용에 대한 예시도이다.

도 2는 기존의 멀티미디어 컨텐츠가 재생되고 있는 화면 안에 배너 광고를 삽입한 경우에 대한 예시도이다.

도 3은 멀티미디어 컨텐츠 제공자의 대표적인 예인 인터넷 방송국의 시스템 구성에 대한 간단한 블록도이다.

도 4는 기존 인터넷 방송국 시스템 구성도에 본 발명에 따른 실시간 광고 처리 시스템이 탑재되어 있는 블록도이다.

도 5는 실시간 광고 처리 시스템을 이용하여 미디어 서버에서 전송되는 원천 멀티미디어 컨텐츠에 실시간 동영상 광고를 겹치도록 삽입하는 경우에 대한 예시도이다.

도 6은 미디어 서버에서 전송되는 원천 멀티미디어 컨텐츠가 재생되고 있는 중간에 재생의 단절 없이 동영상 광고를 삽입하는 경우에 대한 예시도이다.

도 7은 실시간 광고 처리 시스템을 통하여 미디어 서버에서 전송되는 원천 멀티미디어 컨텐츠에 광고를 삽입하는 과정에 대한 흐름도이다.

도 8은 CDN의 캐시 서버에 캐싱되어 있는 원천 멀티미디어 컨텐츠에 실시간 광고 처리 시스템을 이용하여 실시간 동영상 광고를 삽입하는 방법에 관한 간단한 블록도이다.

도 9는 CDN을 이용하여 해당 지역에 위치한 패스트 푸드점의 실시간 동영상 광고를 멀티미디어 컨텐츠에 삽입하는 경우에 대한 예시도이다.

<도면의 주요부분에 대한 설명>

100 : 실시간 광고처리시스템 200 : 웹서버

300 : 미디어 서버 400 : 클라이언트

500 : 멀티미디어 컨텐츠 600 : 캐시 서버

310 : 편집 서버 320 : 인코딩 서버

110 : 광고 관리 서버 120 : 광고 처리 서버

130 : CRM 서버

발명의 상세한 설명

발명의 목적

발명이 속하는 기술 및 그 분야의 종래기술

본 발명은 인터넷을 통한 멀티미디어 동영상 강의, 세미나, 그리고 인터넷 영화관과 같은 VOD(Video On Demand) 시스템이나 인터넷 방송국 등과 같은 멀티미디어 컨텐츠 제공 시스템(Multimedia Contents Provider;MCP)에서 제공하는 멀티미디어 컨텐츠를 제공받는 고객의 CRM 정보를 이용하여 특성화된 동영상 광고를 원천 멀티미디어 컨텐츠에 실시간 겹

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쳐서 전송하거나, 원천 멀티미디어 컨텐츠가 재생되고 있는 중간에 동영상 광고를 연속적으로 삽입하거나, 또는 CDN (Content Delivery Network)을 통해 캐시 서버가 운용되고 있는 지역의 특성에 맞는 지역 광고를 실시간 삽입하는 시스템에 관한 것이다.

인터넷을 통한 멀티미디어 컨텐츠 서비스 방법에는, 전자우편 기능을 확장하여 기존 텍스트 정보 이외의 그림, 오디오, 그리고 동영상 등과 같은 멀티미디어 정보를 메일을 통해 전송하는 MIME(Multipurpose Internet Mail Extensions) 규약에 의해 컨텐츠 제공자로부터 해당 멀티미디어 컨텐츠를 다운로드 받아 저장하는 방법과, 컨텐츠 제공자로부터 작게 나누어 압축된 멀티미디어 데이터를 실시간 재생 프로그램이 탑재된 클라이언트로 전송하고, 클라이언트의 실시간 재생 프로그램에서 해당 데이터를 받아들임과 동시에 연속적으로 재생하여 사용자에게 실시간 멀티미디어 서비스를 제공하는 방법 등이 있다.

기 서술한 멀티미디어 컨텐츠 서비스 중에서 MIME을 이용한 다운로드 방법은 컨텐츠 제공 시스템에서 전송한 모든 패킷을 클라이언트가 모두 수신하여 저장한 후에만, 사용자가 해당 멀티디미어 컨텐츠 서비스를 제공받을 수 있기 때문에 해당 패킷 수신 중에 내용의 일부 또는 전체를 확인하는 것을 불가능하다. 반면 실시간 스트림 서비스를 이용하는 방법은 클라이언트가 멀티미디어 컨텐츠를 수신하여 저장하는 것을 물론, 패킷을 수신하는 동안에 실시간 재생 프로그램에 의한 확인이 가능한 특징이 있다. 이와 같은 특징에 의하여 실시간 스트림 서비스가 정상적으로 처리되기 위해서는 멀티미디어 컨텐츠를 수신하는 클라이언트 입장에서 스트림 서비스를 처리할 수 있는 푸시(Push) 기술이 기본적으로 탑재되어 있는 웹 브라우져가 있어야만 하고, 컨텐츠 제공자 입장에서는 실시간 멀티미디어 컨텐츠 제작 기술, 동영상 압축 기술, 그리고 초고속 통신망 등과 같은 네트워크 인프라가 필요하다. 그러나 이와 같은 조건은 어디까지나 실시간 멀티미디어 컨텐츠를 제공하기 위한 기본 조건이며, 고화질의 멀티미디어 컨텐츠 제공을 위해서는 지역적으로 분산되어 있는 CDN을 통해 캐시 서버 운용이 반드시 필요하다.

도면1은 배너를 이용하는 기존 인터넷 방송국의 광고 삽입 및 운용에 대한 예시도로써, 실시간 재생 프로그램을 웹 브라우져에 탑재한 후, 해당 브라우져에서 멀티미디어 컨텐츠 화면을 간섭하지 않고, 배너 광고를 삽입하는 경우에 대한 것이다.

도면1에서 imbc.com의 배너 광고는 재생 프로그램이 탑재된 브라우져의 하단에 속보 창과 같은 문자 위주의 광고를 삽입하고 있는 경우이며, sbs.co.kr의 경우에는 브라우져에 탑재된 재생 프로그램 상단에 배너를 삽입하는 방법을 사용하고 있다. 그러나 이와 같은 인터넷상의 배너 광고는 기존 매스미디어를 이용한 광고보다 효과 면에서 상당히 비효율적이다.

물론, 배너 광고가 수용자 참여가 적극으로 발생하기 때문에 양방향 커뮤니케이션에 의한 차별화 된 멀티미디어 컨텐츠 제공이 가능하고, 시간과 공간의 제약을 덜 받으며, 방송 주체에 대한 제약이 거의 없고, 이벤트 및 멀티미디어 컨텐츠에 대한 평가가 신속하게 이루어지며, 그 결과에 대한 처리가 용이하다는 장점이 있기는 하지만, 광고의 효과라는 측면에서 공중파 방송국의 CF 광고만큼 효과적인 광고가 될 수 없다.

도면2는 도면1보다 진보적인 멀티미디어 컨텐츠 광고 기법으로써, 멀티미디어 컨텐츠가 재생되고 있는 화면 안에 배너 광고를 삽입한 경우에 대한 예시도이다.

도면2는 멀티미디어 컨텐츠를 제공하고 있는 재생 프로그램 화면의 상단 또는 하단에 일정 크기 이하의 광고 박스 또는 배너를 항상 위치시킴으로써, 고객이 멀티미디어 컨텐츠를 제공받는 동안 지속적으로 배너 광고에 노출되도록 하는 것이다. 이것은 멀티미디어 컨텐츠 화면에 직접 광고를 삽입한다는 점에서 본 발명과 유사하지만, 분명한 차이점이 존재하며, 그 중에서 몇 가지 특징적인 것을 분석하면 다음과 같다.

첫째, 상기 서술한 광고 기법은 광고와 멀티미디어 컨텐츠가 한 화면에 동시에 출력되지만, 광고의 형태가 동영상이 아니라 단순한 고정 이미지 형태의 배너이며, UDP(User Datagram Protocol) 데이터 전송과 결합된 MMS 프로토콜인 MMSU (MMS Udp)를 통해 멀티미디어 컨텐츠 서비스가 개시되는 시점에서 배너광고를 다운 받아 재생 프로그램에 출력한다는 점이 본 발명과의 가장 큰 차이점이다. 즉, 도면2의 예시도는 멀티미디어 컨텐츠 서비스 개시 시점에 클라이언트가 배너광고를 다운로드 받아 화면에 출력시키는 것이기 때문에, 멀티미디어 컨텐츠 제공 주소와 배너 주소가 분리되어 있으며, 이것을 서비스 개시 시점에 멀티미디어 재생 프로그램에서 해독하여 출력시켜야만 한다. 그러나 본 발명의 광고는 배너가 아니라 동영상의 형태로 전송되며, 서비스 개시 시점에서 클라이언트로 전송되는 것이 아니라 멀티미디어 컨텐츠가 제공되는 동안 지속적인 서비스가 가능하다.

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둘째, 본 발명은 원천 멀티미디어 컨텐츠에 동영상 광고를 삽입함에 있어, MCP에서 직접 광고를 삽입할 수 있음은 물론, 원천 멀티미디어 컨텐츠를 CDN 상의 캐시서버로 실시간 캐싱하고, 해당 캐시 서버에서 직접 광고를 삽입할 수 있기 때문에, 멀티미디어 컨텐츠와 함께 고화질의 동영상 광고를 전송할 수 있으며, MCP에 걸리는 시스템 부하 및 네트워크 트래픽을 분산시킬 수 있다.

셋째, 도면2와 같은 광고 기법은 배너 광고의 형식을 취하고 있기 때문에, 선택할 수 있는 광고의 폭이 웹사이트 소개 및 이벤트 홍보와 같은 단순 링크형 광고로 제한된다. 그러나 본 발명은 CDN은 통해 분산된 네트워크 인프라를 이용하기 때문에 고화질의 동영상 광고를 삽입할 수 있음은 물론, 기존 매스미디어 광고와 같은 유형의 고화질 동영상 광고 등을 취할 수 있을 뿐만 아니라, 유형의 상품, 제품, 그리고 오프라인 상점의 홍보 광고들을 선택할 수도 있다.

넷째, 본 발명은 CDN과 캐시 서버를 이용하여 지역적으로 분산된 형태로 가공되기 때문에, 멀티미디어 컨텐츠를 제공받는 광고 수용자에 대하여, 해당 고객이 위치하고 있는 지역에 특성화된 광고를 처리할 수 있다.

도면3은 멀티미디어 컨텐츠 제공자의 대표적인 예인 인터넷 방송국의 시스템 구성에 대한 간단한 블록도이다.

인터넷 방송국 시스템에서 인코딩 서버는 아날로그 미디어 촬영 장치로 생성된 디지털화로 저장하고 편집하는 작업을 담당하며, 편집 서버는 디지털 미디어 저장장치에 저장되어 있는 멀티미디어 컨텐츠를 인터넷 방송에 맞게 편집하는 역할을 수행한다. 미디어 서버는 인코딩 서버와 편집 서버에서 생성된 실시간 멀티미디어 컨텐츠를 스트리밍 기법을 이용하여 인터넷 상에 존재하는 클라이언트로 실시간 전송하는 역할을 수행하며, 웹서버는 클라이언트와 미디어 서버 중간에서 멀티미디어 컨텐츠 제공을 위한 인터페이스 역할을 수행하며, WWW(World Wide Web) 기반의 범용화된 인터페이스를 통해 클라이언트가 MCP에 접근할 수 있는 방법을 제공한다.

인터넷 사용자 또는 클라이언트가 인터넷 방송국에서 제공하는 멀티미디어 컨텐츠를 제공받기 위해서는 브라우져를 통해서 웹 서버를 접속한 후, 멀티미디어 컨텐츠 주소를 클릭하거나, 사용자 브라우져에서 직접 멀티미디어 컨텐츠 주소를 직접 입력해야 한다. 그러면 사용자 브라우져는 자신의 DNS(Domain Name Server)를 통해 멀티미디어 컨텐츠 서비스를 제공하는 미디어 서버의 주소를 해당 MCP의 DNS에 요청하고, MCP의 DNS는 미디어 서버의 주소를 전달한다.

미디어 서버의 주소를 전달받은 사용자 브라우져는 MMS(Microsoft Media Server)와 같은 멀티미디어 컨텐츠 전송 프로토콜을 통해 미디어 서버로부터 멀티미디어 컨텐츠 전송을 요청하게 되고, 미디어 서버는 해당 브라우져로 멀티미디어 컨텐츠 전송을 시작한다.

MMS 프로토콜을 사용하여 멀티미디어 컨텐츠 전송을 시작할 때는 UDP 데이터 전송과 결합된 MMSU를 통해 클라이언트와 서버를 연결하며, 만약 MMSU 연결이 실패하면 TCP를 이용하는 MMST(MMS TCP)를 사용하여 멀티미디어 컨텐츠 전송을 시작한다. 그리고 멀티미디어 컨텐츠 전송이 개시된 후, 인터넷 사용자 또는 클라이언트로부터 스트림을 앞으로 감거나, 되감거나, 일시 중지, 시작, 그리고 중지를 요청하는 명령이 실행되면, 사용자가 요청한 위치로 멀티미디어 컨텐츠의 전송 위치를 변경한 후, 기 서술한 과정을 통해 MMSU나 MMST를 이용하여 멀디미디어 컨텐츠 전송 서비스를 다시 시작하여야만 한다.

발명이 이루고자 하는 기술적 과제

상기와 같은 문제점을 해결하기 위한 본 발명의 목적은 멀티미디어 컨텐츠를 제공받는 고객의 CRM 정보를 이용하여 특성화된 동영상 광고를 원천 멀티미디어 컨텐츠에 실시간 겹쳐서 전송하는 방법, 원천 멀티미디어 컨텐츠가 재생되고 있는 중간에 동영상 광고를 연속적으로 삽입하는 방법, 그리고 CDN(Content Delivery Network)을 통해 캐시 서버가 운용되고 있는 지역의 특성에 맞는 지역 광고를 실시간 삽입하는 방법을 제공함에 있다.

발명의 구성 및 작용

본 발명은 멀티미디어 컨텐츠에 실시간 동영상 광고 삽입 방법에 관한 것으로써, 인터넷을 통한 멀티미디어 동영상 강의, 세미나, 그리고 인터넷 영화관과 같은 VOD(Video On Demand) 시스템이나 인터넷 방송국 등과 같은 멀티미디어 컨텐츠 제공 시스템(Multimedia Contents Provider; MCP)에서 제공하는 멀티미디어 컨텐츠를 제공받는 고객의 CRM 정보를 이용하여 특성화된 동영상 광고를 원천 멀티미디어 컨텐츠에 실시간 겹쳐서 전송하거나, 원천 멀티미디어 컨텐츠가 재생되고 있는 중간에 동영상 광고를 연속적으로 삽입하는 방법, 그리고 CDN(Content Delivery Network)을 통해 캐시 서버가 운용되고 있는 지역의 특성에 맞는 지역 광고를 실시간 삽입하는 방법에 관한 것이다.

또한, 본 발명은 기존 멀티미디어 컨텐츠 제공자 시스템 내부 또는 멀티미디어 컨텐츠를 재분배하는 CDN(Content Delivery Network) 상의 캐시 서버 시스템 내부에 고객의 CRM(Customer Relationship Management) 정보 등을 관리하는 CRM 서버, 광고 의뢰자로부터 제공된 광고를 광고 수용자가 원하는 형태로 가공하는 광고 관리 서버, 그리고 멀티미디어 컨텐츠 제공 시스템의 미디어 서버로부터 송출되는 멀티미디어 컨텐츠에 연속적으로 동영상 광고를 삽입하는 광고 처리 서버 등으로 구성되어 지는 실시간 광고 처리 시스템을 탑재한 후, 상기 시스템을 통하여 고객에게 최적화되고, 지역 특성에 맞는 고화질의 동영상 광고를 멀티미디어 컨텐츠에 실시간 삽입하는 방법과, 해당 광고 삽입 및 노출에 의한 광고 효과를 실시간 측정하는 방법에 관한 것이다.

이하 첨부된 도면을 참조하여 본 발명의 실시예를 상세히 설명한다. 단, 다음의 실시예는 본 발명을 가장 적절하게 설명하기 위한 여러 가지 방법 중 한 가지이며, 본 발명이 다음의 실시예로 한정되지는 않는다.

본 발명의 첫번째 실시예는 실시간 스트림 시스템의 대표적인 시스템인 도면3과 같은 인터넷 방송국 내부에 실시간 광고 처리 시스템(100)을 탑재한 후, 광고 수용자의 CRM을 분석한 결과를 바탕으로 고객 중심의 광고를 생성하고, 이 광고를 광고 수용자에게 전달되는 기존 멀티미디어 컨텐츠(500)에 삽입함으로써, 해당 광고 수용자에게 최적화된 광고를 멀티미디어 컨텐츠(500)와 함께 광고를 노출시키는 과정에 대한 것이다. 본 실시예는 CDN을 사용하지 않고, 멀티미디어 컨텐츠(500) 제공 시스템을 통하여 직접 동영상 광고를 삽입하는 방법에 관한 것이다.

도면4는 도면3과 같은 기존 인터넷 방송국 시스템 구성도에 실시간 광고 처리 시스템(100)이 탑재되어 있는 블록도이다.

실시간 광고 처리 시스템(100)은 시스템 구성상 웹 서버(200)와 미디어 서버(300) 중간에 위치하며, 인터넷 방송국에서 제공되는 멀티미디어 컨텐츠(500) 입장에서 보면 미디어 서버(300)와 인터넷 상의 클라이언트(400) 사이에 존재한다.

도면4에서 웹 서버(200)는 기 서술한 바와 같이 클라이언트(400)가 접근할 수 있는 인터페이스를 제공하며, 클라이언트(400) 또는 인터넷 방송 시청자는 웹 서버(200)를 통해 인터넷 방송국에 접속하고, 회원 등록 과정과 일련의 개인 정보 제공 과정을 통해 실시간 광고 처리 시스템(100)의 CRM 서버(130)의 CRM D/B(131)에 필요한 정보를 저장시킨다.

CRM 서버(130)의 CRM D/B(131)는 인터넷 사용자의 고객 정보를 지속적으로 획득하는 웹 서버(200)에 의해 갱신되며, 이 정보는 광고 관리 서버(110)의 광고 D/B(111)에 저장되어 있는 광고 중에서 해당 클라이언트(400) 또는 인터넷 사용자에게 가장 효과적인 광고를 선택하는 기준을 제공한다.

광고 관리 서버(110)는 광고 의뢰자 또는 의뢰 기관에서 제공한 광고를 인터넷 방송에 맞게 편집하고, 광고 처리 서버(120)에서 실시간으로 처리할 수 있는 다양한 형태로 가공하여 저장하고 있다. 이렇게 저장되어 있는 광고는 편집 서버(310)와 인코딩 서버(320)에서 미디어 서버(300)로 전송되는 원천 멀티미디어 컨텐츠(500)에 주어진 조건 및 스케줄에 의해 실시간으로 삽입된다.

광고 처리 서버(120)는 미디어 서버(300)에서 제공되는 원천 멀티미디어 컨텐츠(500)에 CRM 서버(130)의 CRM D/B(131)의 고객 정보를 참조하여, 광고 수용자에게 최적화 된 광고를 선택하고, 이것을 주어진 조건 또는 스케줄에 의해 원천 멀티미디어 컨텐츠(500)에 삽입한 후, 인터넷 사용자 또는 클라이언트(400)로 전송하는 역할을 담당한다.

기 서술한 실시간 광고 처리시스템(100)의 광고 관리 서버(110), CRM 서버(130), 그리고 광고 처리 서버(120)에 의해 본 발명은 미디어 서버(300)에서 제공되는 원천 멀티미디어 컨텐츠(500)를 훼손하지 않고, 각각의 인터넷 사용자 또는 클라이언트(400)에게 각각의 고객 정보에 최적화되어 있는 동영상 광고를 전송할 수 있다. 그리고, 본 발명에 의해 실시간 동영상 광고가 삽입된 멀티미디어 컨텐츠(500)를 제공받은 인터넷 사용자 또는 클라이언트(400)의 반응은 다시 웹 서버(200)에 의해 수집되며, 이 정보는 다시 CRM 서버(130)로 전송되고, 관리됨으로써 향 후, 해당 고객에게 보다 최적화된 광고를 전송할 수 있는 정보를 생성한다.

도면5와 도면6는 미디어 서버(300)의 원천 멀티미디어 컨텐츠(500)에 실시간 광고 처리 시스템(100)을 통해 실시간 동영상 광고를 삽입하는 대표적인 방법에 대한 대표적인 예시도이다.

도면5는 실시간 광고 처리 시스템(100)을 이용하여 미디어 서버(300)에서 전송되는 원천 멀티미디어 컨텐츠(500)에 실시간 동영상 광고를 겹치도록 삽입하는 경우에 대한 예시도로써, 인터넷 사용자 또는 클라이언트(400)는 해당 멀티미디어 컨텐츠(500)를 제공받는 동안 실시간 동영상 광고에 지속적으로 노출된다.

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도면5에서 미디어 서버(300)는 16:9 비율의 원천 멀티미디어 컨텐츠(500)를 송출하고 있으며, 실시간 광고 처리 시스템(100)은 이것을 4:3 비율의 화면 상단에 위치시키고, 하단에는 64:9 화면 비율의 동영상 광고를 겹쳐서 삽입한다. 이 때 화면 하단에 삽입되는 광고는 원천 멀티미디어 컨텐츠(500)를 간섭하지 않기 위해 오디오가 제거된 형태로 삽입된다.

도면6은 미디어 서버(300)에서 전송되는 원천 멀티미디어 컨텐츠(500)가 재생되고 있는 중간에 재생의 단절 없이 동영상 광고를 삽입하는 경우에 대한 예시도로써, 원천 멀티미디어 컨텐츠(500)가 재생되고 있는 중간에 삽입되는 동영상 광고는 영상 데이터와 오디오 데이터 등을 모두 포함하고 있다.

도면6에서 광고 처리 서버(120)가 원천 멀티미디어 컨텐츠(500)가 재생되고 있는 중간에 광고를 삽입하는 위치는 광고 처리 서버(120)의 스케줄링 과정에서 컨텐츠(500)의 내용과 특성을 고려하여 미리 결정되며, 광고 삽입 위치는 원천 멀티미디어 컨텐츠(500)가 인터넷 사용자 또는 클라이언트(400)에게 전달하고자 하는 메시지를 훼손하지 않는 시간대로 한정된다.

이와 같은 과정을 통해 원천 멀티미디어 컨텐츠(500)에 대한 광고 삽입 위치가 결정되면, 광고 처리 서버(120)는 광고 삽입 위치가 될 때까지 원천 멀티미디어 컨텐츠(500)를 지속적으로 전송한다. 이 과정에서 광고 처리 서버(120)는 단순히 원천 멀티미디어 컨텐츠(500)가 인터넷 사용자 또는 클라이언트(400)로 전송되는 경로를 제공하며, 원천 멀티미디어 컨텐츠(500)에 광고를 삽입하는 작업은 수행하지 않는다.

그러나, 원천 멀티미디어 컨텐츠(500)가 결정된 스케줄에 의해 실시간 동영상 광고를 삽입하는 위치에 도달하면, 광고 처리 서버(120)는 미디어 서버(300)로부터 전달되고 있는 원천 멀티미디어 컨텐츠(500)를 클라이언트(400)로 전송하지 않고 내부 저장공간에 임시 저장하거나, 미디어 서버(300)로 원천 멀티미디어 컨텐츠(500)의 전송을 임시 중단시킨다. 그리고 광고 처리 서버(120)는 원천 멀티미디어 컨텐츠(500)를 전송하던 것과 동일한 방법으로 동영상 광고를 인터넷 사용자 또는 클라이언트(400)로 전송한다. 이 과정에서 인터넷 사용자 또는 클라이언트(400)로 전송되던 원천 멀티미디어 컨텐츠(500)와 동영상 광고는 단절되거나 끊어지지 않고 연속적으로 전송된다.

인터넷 사용자 또는 클라이언트(400)로 동영상 광고 전송을 종료한 광고 처리 서버(120)는 내부에 임시 저장하고 있던 원천 멀티미디어 컨텐츠(500) 전송을 재개하거나, 미디어 서버(300)로 원천 멀티미디어 컨텐츠(500) 전송을 재요청하게 된다. 이 과정에서 인터넷 사용자 또는 클라이언트(400)로 전송되는 멀티미디어 컨텐츠(500)는 기 서술한 것과 같이 단절되거나 끊어짐 없이 연속적으로 전송된다.

도면7은 실시간 광고 처리 시스템(100)을 통하여 미디어 서버(300)에서 전송되는 원천 멀티미디어 컨텐츠(500)에 광고를 삽입하고, 이것을 인터넷 사용자 또는 클라이언트(400)로 전송하는 과정에 대한 흐름도이다.

*인터넷 사용자 또는 클라이언트(400)가 멀티미디어 컨텐츠(500) 제공 시스템에 접속한 후, 멀티미디어 컨텐츠(500) 서비스를 요청하면, 웹 서버(200)는 해당 클라이언트(400) 정보가 실시간 광고 처리 시스템(100)의 CRM 서버(130)에 존재하는지 확인한다. 만약 CRM 서버(130)의 CRM D/B(131) 안에 해당 고객의 정보가 존재하면, 실시간 광고 처리 시스템(100)은 CRM D/B(131)로부터 해당 클라이언트(400)의 CRM 정보를 추출한다. 그러나 반대로 CRM D/B(131) 안에 해당 고객의 CRM 정보가 존재하지 않으면, 실시간 광고 처리 시스템(100)은 웹 서버(200)를 통해 클라이언트(400)에게 회원가입을 요청하거나, CRM 정보 입력을 요청한다.

CRM 서버(130)로부터 고객의 CRM 정보가 추출되면, 광고 처리 서버(120)는 이 정보를 참조하여 광고 삽입 조건과 광고 처리 스케줄을 생성하고, 광고 삽입 조건과 광고 처리 스케줄이 정상적으로 생성된 것을 확인하면, 미디어 서버(300)로 하여금 원천 멀티미디어 컨텐츠(500)를 전송하도록 요청한다.

광고 처리 서버(120)는 미디어 서버(300)로부터 원천 멀티미디어 컨텐츠(500)가 전송되면, 광고 처리 서버(120)는 생성된 스케줄을 참조하여 해당 멀티미디어 컨텐츠(500)에 광고를 삽입할지를 결정한다. 만약 광고 처리 스케줄에 의해 광고 삽입이 결정되면, 광고 처리 서버(120)는 주어진 광고 삽입 조건을 참조하여 원천 멀티미디어 컨텐츠(500)에 실시간 동영상 광고를 삽입한다.

광고 처리 서버(120)는 미디어 서버(300)에서 전송된 원천 멀티미디어 컨텐츠(500)에 광고를 삽입하고, 이것을 인터넷 사용자 또는 클라이언트(400)로 전송한 후, 광고 처리 서버(120)는 멀티미디어 컨텐츠(500) 전송이 종료되었는지, 또는 사용자에 의해 강제로 종료되었는지 확인한다. 만약 멀티미디어 컨텐츠(500) 전송이 종료되었다면, 해당 멀티미디어 컨텐츠(500)에 대한 광고 삽입 조건과 광고 처리 스케줄을 삭제하고, 광고 삽입 작업을 종료한다. 그러나 반대로 멀티미디어 컨텐

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츠(500) 전송이 종료되지 않았다면, 광고 처리 서버(120)는 해당 멀티미디어 컨텐츠(500)에 대한 광고 삽입 작업을 기 서술한 순서에 의해 반복 작업함으로써, 원천 멀티미디어 컨텐츠(500)에 대한 실시간 동영상 광고 삽입 작업을 지속적으로 수행한다.

본 발명의 두번째 실시예는 CDN을 이용하여 지역화된 광고를 멀티미디어 컨텐츠(500) 제공자로부터 전송되는 원천 멀티미디어 컨텐츠(500)에 삽입하는 방법으로써, CDN의 캐시 서버(600) 시스템에 실시간 광고 삽입 시스템(100)을 탑재한 후, 멀티미디어 컨텐츠(500) 제공자로부터 원천 멀티미디어 컨텐츠(500)와 임베디드 오브젝트 형태의 CRM 정보가 CDN의 캐시서버(600)로 전송되고, 해당 캐시 서버(600)에 실시간 광고 처리 시스템(100)을 이용하여 동영상 광고를 실시간으로 삽입하는 과정에 대한 것이다. 본 실시예는 CDN을 사용하며, 인터넷 사용자 또는 클라이언트(400)가 위치한 지역에 특성화된 광고를 원천 멀티미디어 컨텐츠(500) 화면의 하단에 동영상의 형태로 노출시키는 것으로 가정한다.

도면8은 CDN의 캐시 서버(600)에 캐싱되어 있는 원천 멀티미디어 컨텐츠(500)에 실시간 광고 처리 시스템(100)을 이용하여 실시간 동영상 광고를 삽입하는 방법에 관한 간단한 블록도이다.

도면8에서 CRM 서버(130), 광고 관리 서버(110), 그리고 광고 처리 서버(120) 등은 도면4와 동일한 역할을 담당하지만, CDN의 특징에 의해 시스템상의 위치가 약간 다르다. 본 실시예는 도면4와 달리 CDN을 이용하여 원천 멀티미디어 컨텐츠(500)에 동영상 광고를 삽입하기 때문에, 캐시 서버(600)에 탑재되는 실시간 광고 처리 시스템(100)은 도면4의 광고 관리 서버(110)와 광고 처리 서버(120)이며, 웹 서버(200)를 통해 고객 정보를 저장하고 관리하는 CRM 서버(130)는 멀티미디어 컨텐츠(500) 제공 시스템 내부에 존재한다.

도면8에서 미디어 서버(300)는 CDN의 기본 원리에 의해 편집 서버(310)나 인코딩 서버(320)에서 생성된 원천 멀티미디어 컨텐츠(500)를 인터넷 상에 전략적으로 설치되어 있는 캐시 서버(600)로 실시간 캐싱하고 있으며, 캐시 서버(600)는 자신이 위치한 지역 또는 Middle-mile이 최소인 인터넷 사용자 또는 클라이언트(400)에 대하여 캐싱되어 있는 멀티미디어 컨텐츠(500)를 제공하는 역할을 담당한다.

이와 같은 CDN 시스템에서 동영상 광고가 삽입된 멀티미디어 컨텐츠(500)를 제공받는 순서는 다음과 같이 간단히 설명할 수 있다.

인터넷 사용자 또는 클라이언트(400)가 멀티미디어 컨텐츠(500) 전송을 요청하면, 해당 클라이언트(400) 측의 지역 네트워크의 DNS는 멀티미디어 컨텐츠(500) 제공자의 DNS에게 미디어 서버(300)의 IP 주소를 요청하게 되고, 멀티미디어 컨텐츠(500) 제공자 측의 DNS는 CDN의 기본 원리에 의해 해당 클라이언트(400)가 속해 있는 지역 네트워크 또는 최소의 Middle-mile에 위치해 있는 캐시 서버(600)의 IP 주소를 전달한다.

캐시 서버(600)의 IP를 전달받은 인터넷 사용자 또는 클라이언트(400)는 해당 캐시 서버(600)로 멀티미디어 컨텐츠(500) 전송을 요청하게 되고, 멀티미디어 컨텐츠(500) 전송을 요청 받은 캐시 서버(600)는 해당 인터넷 사용자 또는 클라이언트(400)로 멀티미디어 컨텐츠(500)를 전송하기에 앞서, CRM 서버(130)로 해당 고객의 CRM 정보를 요청한다.

캐시 서버(600)로부터 해당 고객의 CRM 정보를 요청 받은 CRM 서버(130)는, 해당 정보를 캐시 서버(600)로 전송하고, 캐시 서버(600)는 이 정보를 참조하여 실시간 광고 처리 시스템(100)의 광고 처리 서버(120)로 하여금 해당 고객에게 노출시킬 최적의 광고의 종류와 광고 삽입 스케줄을 작성하도록 요청한다.

광고 처리 서버(120)로부터 해당 고객에 대한 최적의 광고 삽입 스케줄이 작성되면, 광고 처리 서버(120)는 캐시 서버(600)에 캐싱되어 있는 원천 멀티미디어 컨텐츠(500)에 광고 관리 서버(110)에 저장되어 있는 동영상 광고를 결정된 조건과 스케줄에 의해 삽입하고, 이것을 해당 멀티미디어 컨텐츠(500)를 요청한 인터넷 사용자 또는 클라이언트(400)로 전송한다

도면9는 인터넷 사용자 또는 클라이언트(400)와 Middle-mile이 최소인 캐시 서버(600)에 캐싱되어 있는 원천 멀티미디어 컨텐츠(500)에 대하여, 해당 지역에에 위치한 패스트 푸드점의 실시간 동영상 광고를 삽입하는 경우에 대한 예시도이다.

본 예시도는 CRM 서버(130)를 통해 멀티미디어 컨텐츠(500)를 제공받는 고객의 취향과 특성을 분석한 후, 현재 고객이 위치하고 있는 지역 정보를 바탕으로 해당 지역에서 고객에게 가장 효과적인 광고를 분석하고, 이 자료를 바탕으로 CDN의 캐시 서버(600)가 멀티미디어 컨텐츠(500)를 전송하는 동안 실시간 광고 처리 시스템(100)의 광고 처리 서버(120)를 통해 해당 고객에게 최적화된 광고를 삽입하고 있는 경우에 대한 것이다.

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본 예시도에서 도면9와 같은 패스트 푸드점 광고가 CDN의 캐시 서버(600)에 탑재되어 있는 실시간 광고 처리 시스템(100)을 통해 원천 멀티미디어 컨텐츠(500)에 삽입되는 과정을 보면 다음과 같다.

인터넷 사용자 또는 클라이언트(400)가 멀티미디어 컨텐츠(500) 전송을 요청하면, CRM 서버(130)는 CDN의 기본 원리에 의해 해당 고객이 위치한 지역을 확인할 수 있다. 그리고 CRM 서버(130)는 해당 고객의 위치 정보와 CRM D/B(131)에 저장되어 있는 기본 CRM 정보를 통해 현재 멀티미디어 컨텐츠(500)를 요청한 고객이, 패스트 푸드점을 자주 이용하는 10대이고, 기본 매쓰미디어를 통해 수차례 패스트푸드점 광고에 노출된 적이 있으며, 현재 고객이 위치한 지역의 지리를 비교적 정확하게 알고 있다는 사실을 확인할 수 있다.

이와 같은 고객의 CRM 정보를 제공받은 광고 처리 서버(120)는 광고 관리 서버(110)에서 해당 고객에게 최적화된 광고를 추출하고, 이렇게 추출된 실시간 동영상 광고를 도면9와 같이 원천 멀티미디어 컨텐츠(500)에 삽입한다.

도면10은 미디어 서버(300)로부터 CDN상의 캐시 서버(600)로 실시간 캐싱되는 원천 멀티미디어 컨텐츠(500)에 실시간 광고 처리 시스템(100)을 이용하여 동영상 광고를 삽입하는 경우에 대한 흐름도이다.

CDN상의 캐시 서버(600)에 미디어 서버(300)로부터 원천 멀티미디어 컨텐츠(500)가 캐싱되기 시작하는 위치는, VOD 시스템의 경우에는 인터넷 사용자 또는 클라이언트(400)가 해당 멀티미디어 컨텐츠(500)를 요청하고, MCP의 DNS가 해당 사용자와 Middle-mile이 최소인 캐시 서버(600)를 선택한 후부터이며, 인터넷 방송국과 같은 라이브 멀티미디어 컨텐츠(500) 서비스의 경우에는 MCP의 미디어 서버(300)에서 멀티미디어 컨텐츠(500)가 생성됨과 동시에 CDN상의 캐시 서버(600)에 해당 멀티미디어 컨텐츠(500)를 캐싱한다.

본 예시도는 인터넷 방송국의 라이브 멀티미디어 컨텐츠(500) 서비스와 같이 CDN 상의 캐시 서버(600)에 원천 멀티미디어 컨텐츠(500)가 이미 캐싱되고 있는 시스템에 대하여, 인터넷 사용자 또는 클라이언트(400)가 해당 멀티미디어 컨텐츠(500) 전송을 요청한 경우에, 해당 고객의 CRM 정보 및 고객 위치 정보 등을 이용하여 실시간 동영상 광고를 삽입하는 경우에 대한 것이다.

*인터넷 사용자 또는 클라이언트(400)가 MCP에 멀티미디어 컨텐츠(500) 전송을 요청하면, MCP의 DNS는 해당 고객과 Middle-mile이 최소인 캐시 서버(600)의 주소를 클라이언트(400)로 전달하고, 클라이언트(400)는 이 정보를 바탕으로 CDN상의 캐시 서버(600)로 접속을 요청한다. 그러면 캐시 서버(600)는 MCP의 CRM 서버(130)에게 해당 고객에 대한 CRM 정보를 요청하고, CRM 서버(130)는 광고 삽입에 필요한 CRM 정보를 추출하여 캐시 서버(600)로 전달한다. 그러나 CRM 서버(130)에 해당 고객에 대한 CRM 정보가 없다면, CRM 서버(130)는 이 사실을 MCP의 웹 서버(200)를 통해 클라이언트(400)에게 회원 가입을 요청하거나, CRM 정보 입력을 요청한다.

CRM 서버(130)로부터 CRM 정보가 전달되면, 캐시 서버(600)에 탑재된 실시간 광고 처리 시스템(100)의 광고 처리 서버(120)는 이 정보를 참조하여 광고 삽입 조건과 광고 처리 스케줄을 생성한다. 만약 해당 고객에 대한 광고 삽입 조건과 광고 처리 스케줄이 정상적으로 생성된 것을 확인하면, 광고 처리 서버(120)는 캐시 서버(600)에 캐싱 되어 있는 원천 멀티미디어 컨텐츠(500)를 전송하도록 요청한다.

캐시 서버(600)에 캐싱 되어 있는 원천 멀티미디어 컨텐츠(500)가 전송되면, 광고 처리 서버(120)는 생성된 스케줄을 참조하여 해당 멀티미디어 컨텐츠(500)에 광고를 삽입할지를 결정한다. 만약 광고 처리 스케줄에 의해 광고 삽입이 결정되면, 광고 처리 서버(120)는 주어진 광고 삽입 조건을 참조하여 원천 멀티미디어 컨텐츠(500)에 실시간 동영상 광고를 삽입한다.

광고 처리 서버(120)는 캐시 서버(600)에 캐싱 되어 있는 원천 멀티미디어 컨텐츠(500)에 광고를 삽입하고, 이것을 인터넷 사용자 또는 클라이언트(400)로 전송한 후, 광고 처리 서버(120)는 멀티미디어 컨텐츠(500) 전송이 종료되었는지, 또는 사용자에 의해 강제로 종료되었는지 확인한다. 만약 멀티미디어 컨텐츠(500) 전송이 종료되었다면, 해당 멀티미디어 컨텐츠(500)에 대한 광고 삽입 조건과 광고 처리 스케줄을 삭제하고, 광고 삽입 작업을 종료한다. 그러나 반대로 멀티미디어 컨텐츠(500) 전송이 종료되지 않았다면, 광고 처리 서버(120)는 해당 멀티미디어 컨텐츠(500)에 대한 광고 삽입 작업을 기 서술한 순서에 의해 반복 작업함으로써, 원천 멀티미디어 컨텐츠(500)에 대한 실시간 동영상 광고 삽입 작업을 지속적으로 수행한다.

발명의 효과

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본 발명에 따르면, 기존의 광고 기법은 광고의 형태가 동영상이 아니라 단순한 고정 이미지 형태의 배너이며, 멀티미디어 컨텐츠 서비스 개시 시점에 클라이언트가 배너광고를 다운로드 받아 화면에 출력시키는 것이기 때문에, 멀티미디어 컨텐츠 제공 주소와 배너 주소가 분리되어 있으며, 이것을 서비스 개시 시점에 멀티미디어 재생 프로그램에서 해독하여 출력시켜야만 했으나, 본 발명의 광고는 배너가 아니라 동영상의 형태로 전송되며, 서비스 개시 시점에서 클라이언트로 전송되는 것이 아니라 멀티미디어 컨텐츠가 제공되는 동안 지속적인 서비스가 가능하므로 고객에게 보다 효과적인 광고를 제공할 수 있는 장점이 있다.

또한, 본 발명은 원천 멀티미디어 컨텐츠에 동영상 광고를 삽입함에 있어, MCP에서 직접 광고를 삽입할 수 있음은 물론, 원천 멀티미디어 컨텐츠를 CDN 상의 캐시서버로 실시간 캐싱하고, 해당 캐시 서버(600)에서 직접 광고를 삽입할 수 있기 때문에, 멀티미디어 컨텐츠와 함께 고화질의 동영상 광고를 전송할 수 있으며, MCP에 걸리는 시스템 부하 및 네트워크 트래픽을 분산 시킬 수 있는 효과가 있다.

또한, 기존의 광고 기법은 배너 광고의 형식을 취하고 있기 때문에, 선택할 수 있는 광고의 폭이 웹사이트 소개 및 이벤트 홍보와 같은 단순 링크형 광고로 제한되어지나, 본 발명은 CDN은 통해 분산된 네트워크 인프라를 이용하기 때문에 고화질의 동영상 광고를 삽입할 수 있음은 물론, 기존 매스미디어 광고와 같은 유형의 고화질 동영상 광고 등을 취할 수 있을 뿐만 아니라, 유형의 상품, 제품, 그리고 오프라인 상점의 홍보 광고들을 선택할 수도 있다.

또한, 본 발명은 CDN과 캐시 서버를 이용하여 지역적으로 분산된 형태로 가공되기 때문에, 멀티미디어 컨텐츠를 제공받는 광고 수용자에 대하여, 해당 고객이 위치하고 있는 지역에 특성화된 광고를 처리할 수 있으므로 보다 최적화된 광고 제공을 할 수 있는 장점이 있다.

(57) 청구의 범위

청구항 1.

멀티미디어 컨텐츠를 제공받는 클라이언트와, 상기 클라이언트에게 멀티미디어 컨텐츠를 제공하는 미디어 서버와, 광고 의뢰자 또는 의뢰 기관에서 제공한 광고를 상기 미디어 서버에서 제공되는 멀티미디어 형식에 맞게 편집 및 가공 처리하여 저장 관리하는 광고 관리 서버 및 상기 광고 관리 서버에서 추출한 광고 데이터를 상기 미디어 서버에서 제공되는 멀티미디어 컨텐츠에 삽입한 후, 상기 클라이언트에게 전송하는 광고 처리 서버를 포함하여 이루어지는 것을 특징으로 하는 멀티미디어 컨텐츠에 실시간 동영상 광고 삽입 시스템에 있어서,

상기 광고 처리 서버는,

상기 미디어 서버에서 상기 클라이언트로 송출되는 멀티미디어 컨텐츠의 화면 상단 또는 하단에 소정의 동영상 광고를 실시간 겹쳐서 삽입하는 수단 및 상기 동영상 광고가 삽입된 멀티미디어 컨텐츠를 상기 클라이언트에게 실시간 송출하는 수단을 구비하거나, 또는

상기 미디어 서버에서 상기 클라이언트로 송출되는 멀티미디어 컨텐츠에 삽입되는 광고의 삽입 위치 및/또는 삽입 시간대를 스케줄링하는 수단과, 상기 미디어 서버에서 상기 클라이언트로 멀티미디어 컨텐츠 송출시, 상기 송출되는 멀티미디어 컨텐츠의 내용 및/또는 송출시간이 상기 스케줄링된 광고 삽입 위치 및/또는 시간대에 도달하는지 확인한 후, 상기 송출되는 멀티미디어 컨텐츠의 내용 및/또는 송출시간이 상기 스케줄링된 광고 삽입 위치 및/또는 시간대에 도달하면, 상기 미디어 서버에서 상기 클라이언트로 송출되는 멀티미디어 컨텐츠의 전송을 임시 중단시키도록 하고, 상기 클라이언트에게 상기 멀티미디어 컨텐츠 송출 대신 기 설정된 광고 동영상을 송출하고, 상기 광고 동영상 송출 종료시, 상기 클라이언트로 송출되는 멀티미디어 컨텐츠의 전송을 재개시키도록 하는 수단을 구비하여,

상기 미디어 서버에서 상기 클라이언트에게 송출되는 멀티미디어 컨텐츠에 실시간 광고 동영상을 삽입하도록 하는 것을 특징으로 하는 멀티미디어 컨텐츠에 실시간 동영상 광고 삽입 시스템.

도면

도면1



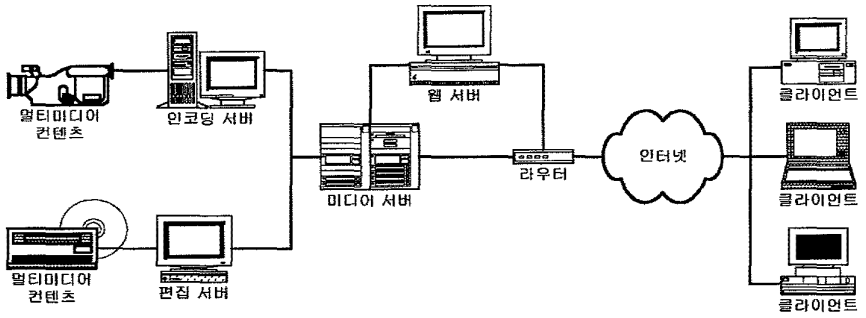


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도면2

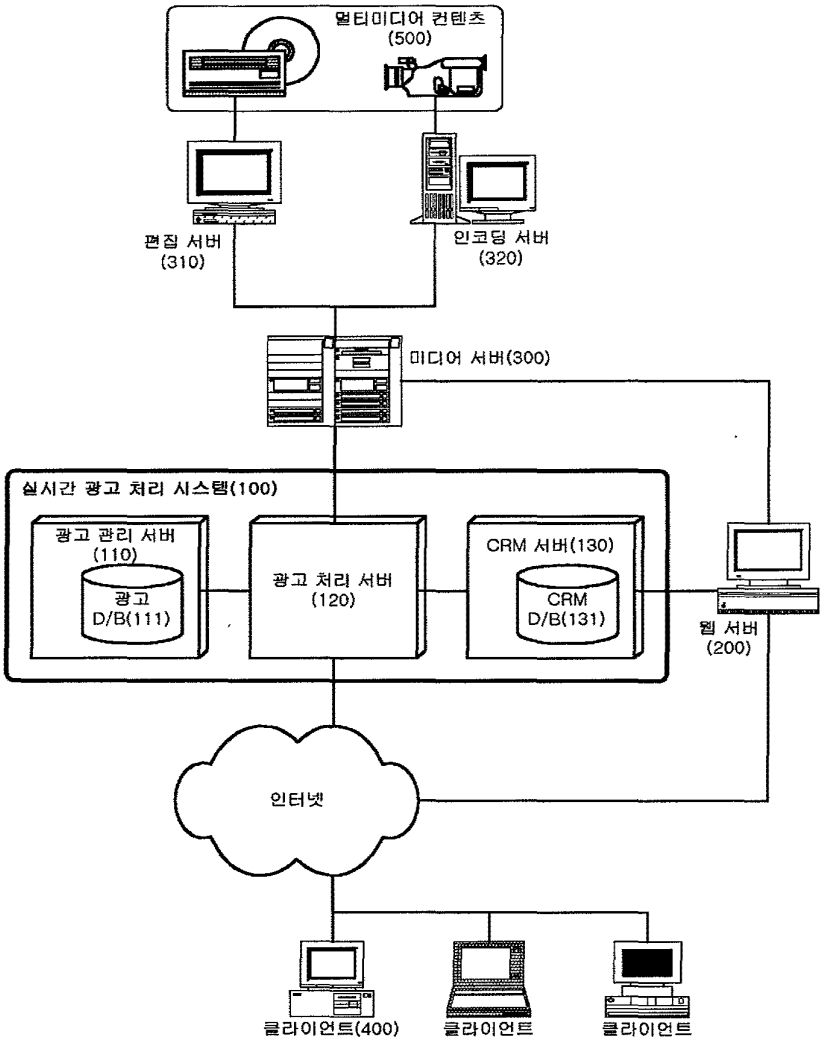

NSCREEN - EmovieZone
screen
NSCREEN - EmovieZone
클립: 공동공비구역
만든 이: (주)엔스크린
저작권: (c)2000 (주)엔스크린

도면3



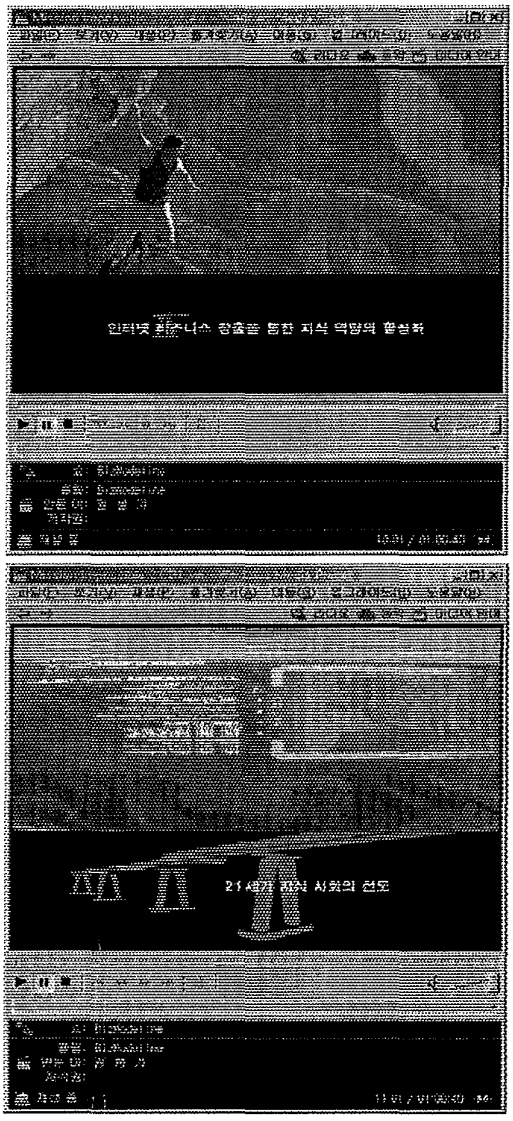
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도면4



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Samsung v. TVnGO, IPR2026-00213

도면5



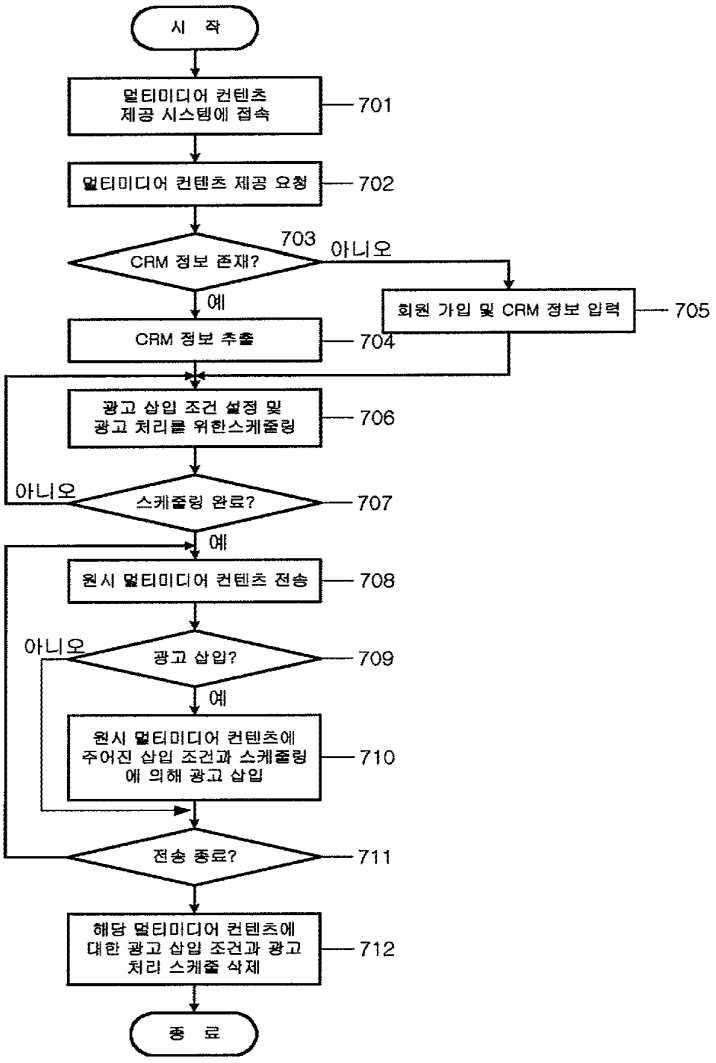
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Page 2009-83
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도면6



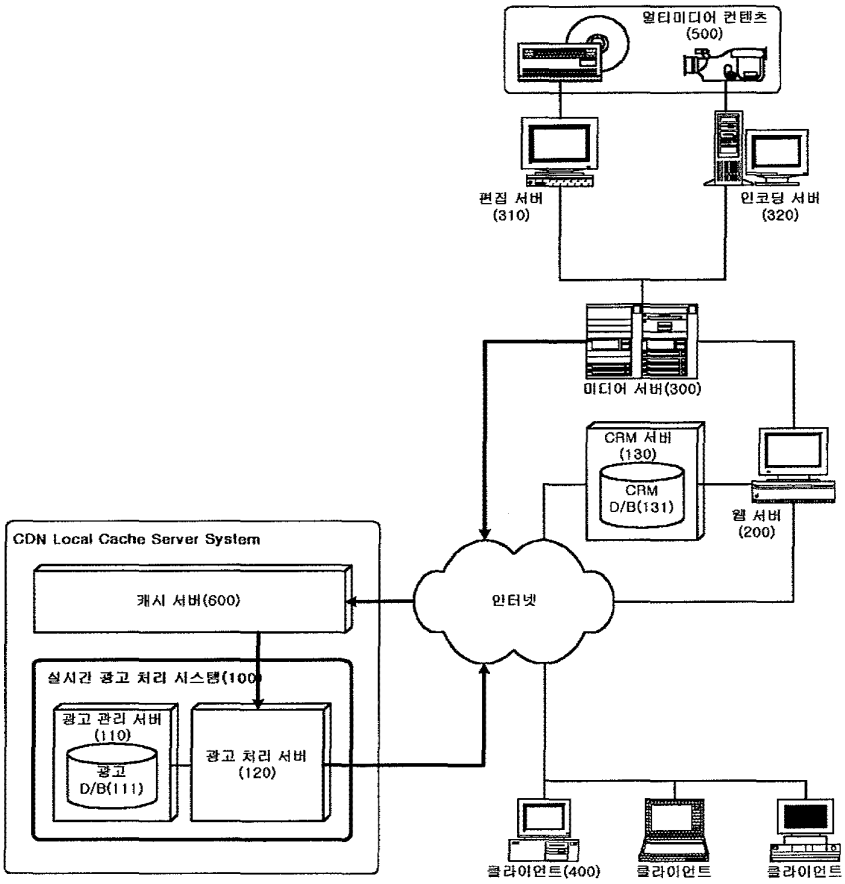
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도면7



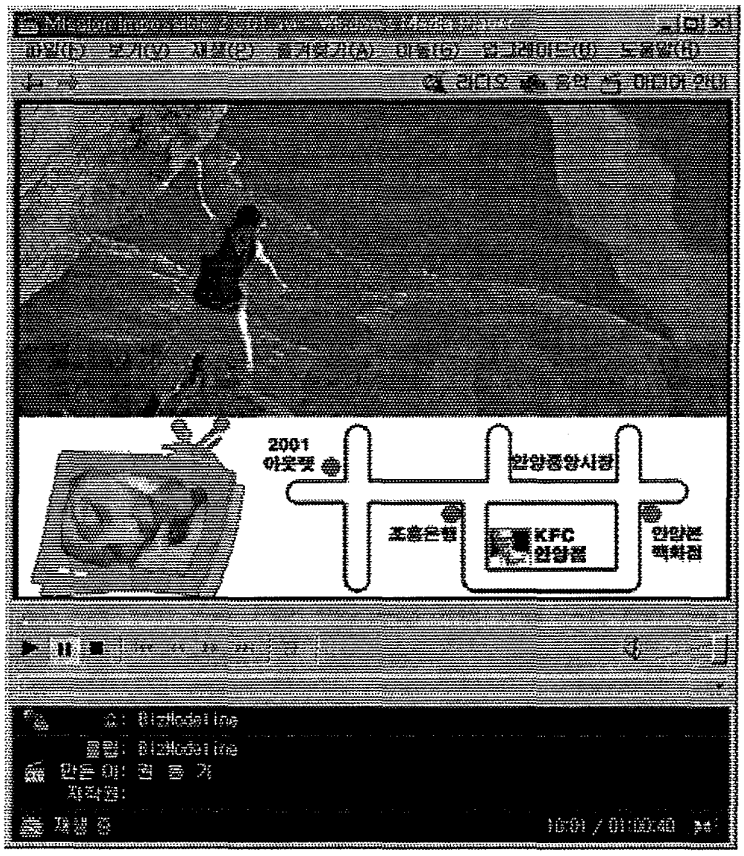
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도면8



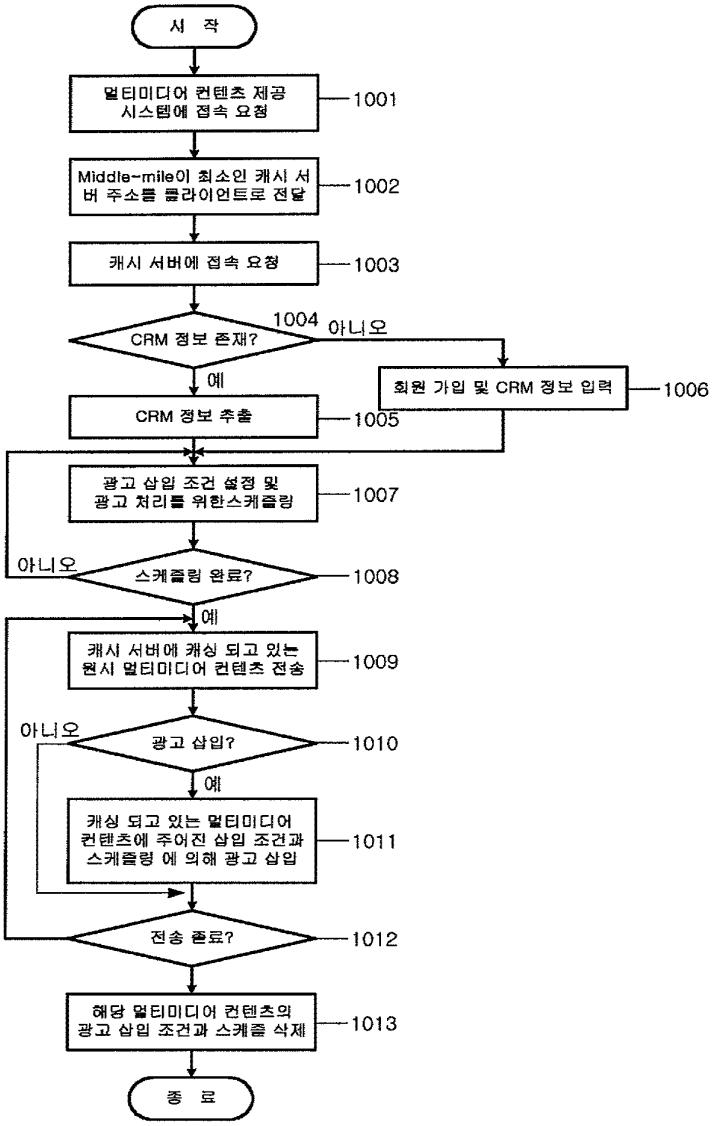
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도면9



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도면10



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Electronic Patent Application Fee Transmittal

Application Number:	
Filing Date:	
Title of Invention:	BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS
First Named Inventor/Applicant Name:	Hwa-kyung LEE
Filer:	Darryl Mexic/Tennille Hall
Attorney Docket Number:	Q105659

Filed as Large Entity

Utility Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Utility application filing	1011	1	310	310
Utility Search Fee	1111	1	510	510
Utility Examination Fee	1311	1	210	210
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
		Total in USD ($)		**1030**

Electronic Acknowledgement Receipt

EFS ID:	3281041
Application Number:	12118041
International Application Number:	
Confirmation Number:	1215
Title of Invention:	BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS
First Named Inventor/Applicant Name:	Hwa-kyung LEE
Customer Number:	23373
Filer:	Darryl Mexic/Tennille Hall
Filer Authorized By:	Darryl Mexic
Attorney Docket Number:	Q105659
Receipt Date:	09-MAY-2008
Filing Date:	
Time Stamp:	14:42:33
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$1030
RAM confirmation Number	16
Deposit Account	194880
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes) /Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal of New Application	TRANS.pdf	42832 95421185582f37cd3ff3468427034579dabc6906	no	2
Warnings:					
Information:					
2		SPEC.pdf	96882 d700536f41d6745d3110a25694f91d7e2d586e2a	yes	18

Multipart Description/PDF files in .zip description

Document Description	Start	End
Specification	1	13
Claims	14	17
Abstract	18	18

Warnings:					
Information:					
3	Drawings-only black and white line drawings	DRAWINGS.pdf	98655 cf157c7006c7539ab82a5e5bedc45609e0116716	no	4
Warnings:					
Information:					
4	Oath or Declaration filed	DEC.pdf	167517 7bbf1b36ad8710c67842c727d9b3f92a346afcc3	no	3
Warnings:					
Information:					
5	Application Data Sheet	ADS.pdf	1008880 af0526017722b093941a815a68d501256d00d0f0	no	4
Warnings:					
Information:					
6	Information Disclosure Statement (IDS) Filed	IDS.pdf	19735 2b963fdeaa59c3970af513fbad144b0512aeab74	no	2
Warnings:					
Information:					

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7	Information Disclosure Statement (IDS) Filed	SB08.pdf	72628 64a49248cbc18ebb8c9c732b944e750c6b3b95c6	no	2
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8	Foreign Reference	JP2006311120.pdf	1432879 d3c817d97adcc46c5efb6016988ff675f76aad57	no	24
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9	Foreign Reference	KR2005110477.pdf	273121 5b02a47d2f52cc841d67d018df2d423869b38d8e	no	5
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12	Fee Worksheet (PTO-06)	fee-info.pdf	8399 86fa12bf0fe156dd014ade155f842827296dd73a	no	2
Warnings:					
Information:					
			Total Files Size (in bytes):	4740386	

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New Applications Under 35 U.S.C. 111

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

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

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

New International Application Filed with the USPTO as a Receiving Office

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

OIPE IAP59
MAY 09 2008
PATENT & TRADEMARK OFFICE

IFW

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Hwa-kyung LEE

Docket No: Q105659

Appln. No.: 12/118,041

Group Art Unit: Not Yet Assigned

Confirmation No.: 1215

Examiner: Not Yet Assigned

Filed: May 9, 2008

For: BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS

SUBMISSION OF PRIORITY DOCUMENT

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

Sir:

Submitted herewith is a certified copy of the priority document on which a claim to priority was made under 35 U.S.C. § 119. The Examiner is respectfully requested to acknowledge receipt of said priority document.

Respectfully submitted,

/darrylmexic/

Darryl Mexic
Registration No. 23,063

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WASHINGTON OFFICE
23373
CUSTOMER NUMBER

Enclosures: Korea, Republic of 10-2007-0090104
Date: May 9, 2008

Issue Number : 5-5-2007-065290483

대한민국 특허청
KOREAN INTELLECTUAL PROPERTY OFFICE

별첨 사본은 아래 출원의 원본과 동일함을 증명함.

This is to certify that the following application annexed hereto is a true copy from the records of the Korean Intellectual Property Office.

출 원 번 호 : Application Number		10-2007-0090104
출 원 년 월 일 : Filing Date		2007년 09월 05일 SEP 05, 2007
출 원 인 : Applicant(s)		삼성전자주식회사 SAMSUNG ELECTRONICS CO., LTD.

2007년 11월 28일

특 허 청
COMMISSIONER

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Issue Date : 2007.11.28

1020070090104

【서지사항】

【서류명】 특허출원서

【출원구분】 특허출원

【출원인】

【명칭】 삼성전자 주식회사

【출원인코드】 1-1998-104271-3

【대리인】

【명칭】 특허법인 가산

【대리인코드】 9-2007-100101-9

【지정된변리사】 김국현, 정상빈, 김동진

【포괄위임등록번호】 2007-031430-1

【발명의 국문명칭】 방송 수신 장치 및 방송 수신 장치에서의 데이터 출력 방법

【발명의 영문명칭】 Broadcast receiver and method for outputting data therein

【발명자】

【성명】 이화경

【성명의 영문표기】 LEE, Hwa Kyung

【주민등록번호】 681004-2XXXXXX

【우편번호】 135-990

【주소】 서울 강남구 일원본동 샘터마을아파트 101동 1404호

【국적】 KR

위와 같이 특허청장에게 제출합니다.

대리인 특허법인 가산 (인)

【수수료】

【출원료】 0 면 38,000 원

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1020070090104

【가산출원료】	21 면	0 원
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【심사청구료】	0 항	0 원
【합계】	38,000 원	

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【요약서】

【요약】

본 발명은 방송 수신 장치 및 방송 수신 장치에서의 데이터 출력 방법에 관한 것으로서, 보다 상세하게는 미디어 컨텐츠를 출력하고 있는 동안에도 데이터 방송에서 제공되는 실시간 데이터를 동시에 출력할 수 있는 방송 수신 장치 및 방송 수신 장치에서의 데이터 출력 방법에 관한 것이다.

본 발명의 실시예에 따른 방송 수신 장치는, 소정 채널의 데이터 방송 신호를 수신하는 수신부; 상기 수신된 데이터 방송 신호로부터 데이터를 추출하는 추출부; 및 상기 추출된 데이터를 현재 출력되고 있는 미디어 컨텐츠에 머지시켜 출력하는 머지부를 포함한다.

【대표도】

도 1

【색인어】

방송 수신 장치, 데이터 방송

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【명세서】

【발명의 명칭】

방송 수신 장치 및 방송 수신 장치에서의 데이터 출력 방법{Broadcast receiver and method for outputting data therein}

【발명의 상세한 설명】

【기술분야】

<1> 본 발명은 방송 수신 장치에 관한 것으로서, 보다 상세하게는 미디어 컨텐츠를 출력하고 있는 동안에도 데이터 방송에서 제공되는 실시간 데이터를 동시에 출력할 수 있는 방송 수신 장치 및 방송 수신 장치에서의 데이터 출력 방법에 관한 것이다.

【배경기술】

<2> 최근 디지털 방송에 관한 논란이 종식되면서, 디지털 방송을 송출하는 각 방송사에서는 디지털 방송으로 할 수 있는 여러 가지 기능에 관해 관심을 가지고 시험방송을 하고 있다. 그 중에서 눈에 띄는 것이 데이터 방송 기능이다. 데이터 방송이라 함은 오디오 및 비디오뿐만 아니라 디지털 방송 기준 규격인 ATSC 규격에 정의되어 있는 데이터 방송 규격을 이용하여 각종 데이터를 송출하고 이를 데이터 방송 수신 기능이 구현되어 있는 단말기(TV 또는 셋톱박스)에서 수신하여 적절한 형태로 화면에 디스플레이하는 것을 말한다. 최근 ATSC에서는 ACAP(Advanced Common Application Platform)이란 이름으로 케이블과 지상파의 데이터 방송 콘텐

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츠가 호환되도록 한 북미지상파 DTV 데이터 방송 미들웨어 표준을 확립하였으며, 각 제조업체에서는 이에 맞는 데이터 방송 수신장치 개발에 다양한 노력을 기울이고 있다.

<3> 이러한 상황에서 사용자가 동영상 컨텐츠 혹은 녹화된 컨텐츠를 보면서 실시간으로 데이터 방송에 함께 전달되는 데이터를 보는 기능이 아직 존재하지 않는다.

<4> 예를 들면, 시청자는 녹화된 드라마 컨텐츠를 보려고 한다. 그런데, 현재 국회의원 선거 개표가 진행되고 있다. 선거 개표 현황은 소정 채널에서 실시간으로 방송 컨텐츠에 데이터로 포함되어 전송이 되고 있으며, 시청자는 녹화된 드라마와 선거 개표 현황을 동시에 보기를 원한다. 그러나, 현 상황에서는 이러한 경우를 만족시킬 기술이 존재하지 않는다.

【발명의 내용】

【해결하고자 하는 과제】

<5> 본 발명은 상기한 문제점을 개선하기 위해 안출된 것으로, 미디어 컨텐츠를 출력하고 있는 동안에도 데이터 방송에서 제공되는 실시간 데이터를 동시에 출력할 수 있는 방송 수신 장치 및 방송 수신 장치에서의 데이터 출력 방법을 제공하는 데 그 목적이 있다.

<6> 그러나 본 발명의 목적들은 상기에 언급된 목적으로 제한되지 않으며, 언급되지 않은 또 다른 목적들은 아래의 기재로부터 당업자에게 명확하게 이해될 수 있을 것이다.

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【과제 해결 수단】

<7> 상기 목적을 달성하기 위하여, 본 발명의 실시예에 따른 방송 수신 장치는, 소정 채널의 데이터 방송 신호를 수신하는 수신부; 상기 수신된 데이터 방송 신호로부터 데이터를 추출하는 추출부; 및 상기 추출된 데이터를 현재 출력되고 있는 미디어 컨텐츠에 머지시켜 출력하는 머지부를 포함한다.

<8> 상기 목적을 달성하기 위하여, 본 발명의 실시예에 따른 방송 수신 장치에서의 데이터 출력 방법은, 소정 채널의 데이터 방송 신호를 수신하는 단계; 상기 수신된 데이터 방송 신호로부터 데이터를 추출하는 단계; 및 상기 추출된 데이터를 현재 출력되고 있는 미디어 컨텐츠에 머지시켜 출력하는 단계를 포함한다.

【효과】

<9> 상기한 바와 같이 본 발명에 의한 방송 수신 장치 및 방송 수신 장치에서의 데이터 출력 방법에 따르면, 미디어 컨텐츠를 출력하고 있는 동안에도 데이터 방송에서 제공되는 실시간 데이터를 동시에 출력할 수 있는 효과가 있다.

【발명의 실시를 위한 구체적인 내용】

<10> 기타 실시예들의 구체적인 사항들은 상세한 설명 및 도면들에 포함되어 있으며, 본 발명의 이점 및 특징, 그리고 그것들을 달성하는 방법은 첨부되는 도면과 함께 상세하게 후술되어 있는 실시예들을 참조하면 명확해질 것이다.

<11> 그러나 본 발명은 이하에서 개시되는 실시예들에 한정되는 것이 아니라 서로 다른 다양한 형태로 구현될 수 있으며, 단지 본 실시예들은 본 발명의 개시가 완전

하도록 하고, 본 발명이 속하는 기술 분야에서 통상의 지식을 가진 자에게 발명의 범주를 완전하게 알려주기 위해 제공되는 것이며, 본 발명은 청구항의 범주에 의해 정의될 뿐이다. 명세서 전체에 걸쳐 동일 참조 부호는 동일 구성 요소를 지칭한다.

<12> 이하, 첨부된 블록도 또는 처리 흐름도에 대한 도면들을 참고하여 본 발명의 실시예에 따른 방송 수신 장치 및 방송 수신 장치에서의 데이터 출력 방법에 대해 설명하도록 한다.

<13> 이 때, 처리 흐름도 도면들의 각 블록과 흐름도 도면들의 조합들은 컴퓨터 프로그램 인스트럭션들에 의해 수행될 수 있음을 이해할 수 있을 것이다.

<14> 이들 컴퓨터 프로그램 인스트럭션들은 범용 컴퓨터, 특수용 컴퓨터 또는 기타 프로그램 가능한 데이터 프로세싱 장비의 프로세서에 탑재될 수 있으므로, 컴퓨터 또는 기타 프로그램 가능한 데이터 프로세싱 장비의 프로세서를 통해 수행되는 그 인스트럭션들이 흐름도 블록(들)에서 설명된 기능들을 수행하는 수단을 생성하게 된다.

<15> 이들 컴퓨터 프로그램 인스트럭션들은 특정 방식으로 기능을 구현하기 위해 컴퓨터 또는 기타 프로그램 가능한 데이터 프로세싱 장비를 지향할 수 있는 컴퓨터 이용 가능 또는 컴퓨터 판독 가능 메모리에 저장되는 것도 가능하므로, 그 컴퓨터 이용가능 또는 컴퓨터 판독 가능 메모리에 저장된 인스트럭션들은 흐름도 블록(들)에서 설명된 기능을 수행하는 인스트럭션 수단을 내포하는 제조 품목을 생산하는 것도 가능하다. 컴퓨터 프로그램 인스트럭션들은 컴퓨터 또는 기타 프로그램 가능한 데이터 프로세싱 장비 상에 탑재되는 것도 가능하므로, 컴퓨터 또는 기타 프

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로그램 가능한 데이터 프로세싱 장비 상에서 일련의 동작 단계들이 수행되어 컴퓨터로 실행되는 프로세스를 생성해서 컴퓨터 또는 기타 프로그램 가능한 데이터 프로세싱 장비를 수행하는 인스트럭션들은 흐름도 블록(들)에서 설명된 기능들을 실행하기 위한 단계들을 제공하는 것도 가능하다.

<16> 또한, 각 블록은 특정된 논리적 기능(들)을 실행하기 위한 하나 이상의 실행 가능한 인스트럭션들을 포함하는 모듈, 세그먼트 또는 코드의 일부를 나타낼 수 있다. 또, 몇 가지 대체 실행예들에서는 블록들에서 언급된 기능들이 순서를 벗어나서 발생하는 것도 가능함을 주목해야 한다. 예컨대, 잇달아 도시되어 있는 두 개의 블록들은 사실 실질적으로 동시에 수행되는 것도 가능하고 또는 그 블록들이 때때로 해당하는 기능에 따라 역순으로 수행되는 것도 가능하다.

<17> 도 1은 본 발명의 실시예에 따른 방송 수신 장치의 구성을 나타낸 블록도이다. 본 방송 수신 장치는 데이터 방송을 수신하는 장치로서, 디지털 TV, 셋탑박스 등에 적용될 수 있다.

<18> 도시된 바와 같이, 본 발명의 실시예에 따른 방송 수신 장치는, 방송 신호를 수신하는 수신부(10)와, 수신된 방송 신호를 처리하는 신호 처리부(20)와, 처리된 방송 신호가 출력되는 출력부(30)와, 방송 신호로부터 데이터를 추출하는 추출부(32)와, 출력부(30)에 출력되고 있는 방송 신호를 녹화하기 위한 녹화 처리부(34)와, 추출된 데이터와 현재 출력부(30)에 출력되고 있는 미디어 컨텐츠를 머지(merge)시키는 머지부(36)와, 이들을 제어하는 제어부(38)와, 사용자 입력을 위한 사용자 인터페이스부(40)를 포함한다.

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<19> 수신부(10)는 방송 신호를 수신하는 튜너를 포함할 수 있다. 이러한 튜너는 사용자가 선택한 채널 혹은 기설정된 채널의 방송 신호를 수신하도록 튜닝한다.

<20> 신호 처리부(20)는 수신된 방송 신호를 복조하는 복조부(22)와, 복조된 방송 신호를 역다중화하는 역다중화부(24)와, 역다중화된 신호를 원래의 신호로 복원하는 디코딩부(26)(예를 들면, 비디오 디코더, 오디오 디코더)를 포함할 수 있다.

<21> 복조부(22)에 의해 복조되어 얻어지는 방송 신호 스트림은 역다중화부(24)로 출력된다. 역다중화부(24)는 입력되는 방송 신호 스트림을 역다중화하여 오디오, 비디오, 데이터로 각각 분리한다. 즉, 상기 복조된 오디오, 비디오, 데이터는 트랜스포트 패킷의 형태로 다중화되어 있으므로 역다중화하여 오디오, 비디오, 데이터를 분리할 수 있게 되는 것이다.

<22> 여기서, 상기 데이터는 화면 상에 그래픽 혹은 문자로 표시될 수 있는 정보, 어플리케이션 데이터, 데이터 캐루젤(carousel) 데이터 중 적어도 하나를 포함하나, 이에 한정되지 않는다. 여기서, 데이터 캐루젤 방식의 경우 DVB(Digital Video Broadcasting) 호환 방송망 상에서 데이터 모듈을 주기적으로 전송하여 수신기에서 데이터를 받을 수 있게 하는 것이다.

<23> 예를 들면, 상기 데이터는 데이터 방송에서 제공되는 실시간 데이터인 뉴스 정보, 기상 정보, 교통 정보, 홈쇼핑 정보, 증권 정보, 긴급 속보 등과 실시간 동작하는 어플리케이션 등을 포함할 수 있다. 물론, 이에 한정되는 것은 아니며, 이외의 데이터도 적용 가능하다.

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<24> 역다중화부(24)로부터 출력된 오디오 신호는 오디오 디코더로 출력되고, 오디오 디코더는 압축된 오디오 신호를 원래의 오디오 신호로 복원한 후 출력부(30)(예를 들면, 스피커)로 출력한다. 또한, 역다중화부(24)로부터 출력된 비디오 신호는 비디오 디코더로 출력되고, 비디오 디코더는 압축된 비디오 신호를 원래의 비디오 신호로 복원한 후 출력부(30)(예를 들면, 화면)에 표시한다.

<25> 추출부(32)는 역다중화부(24)에 의해 분리된 데이터를 추출하여 컨텐츠화시킨다. 즉, 상기 데이터는 헤더 부분(예컨대, 신호의 시작을 알려주는 정보, 다음에 오는 페이로드 부분에 실려 있는 정보를 알 수 있는 패킷 인식 번호 등이 실려 있음)과 페이로드 부분(순수 데이터 부분)으로 구성된 데이터 스트림 형태이므로 상기 순수 데이터 성분만을 추출한 후 하나의 컨텐츠를 구성하는 조각들을 묶어서 이를 하나의 컨텐츠(이하, "데이터 컨텐츠"라 칭함)로 만든다.

<26> 추출부(32)에 의해 생성된 데이터 컨텐츠는 비디오 디코더를 통해 실시간으로 출력되는 비디오 신호와 함께 화면에 표시되거나 후술할 머지부(36)로 출력된다. 여기서, 데이터 컨텐츠가 비디오 디코더를 통해 실시간으로 출력되는 비디오 신호와 함께 화면에 표시되는 경우는 데이터 방송이 출력부(30)에 출력되는 경우를 의미한다.

<27> 한편, 머지부(36)로 출력되는 데이터 컨텐츠는 사용자의 데이터 추출 명령 입력시 생성되는 것이 바람직하다. 여기서, 데이터 추출 명령 입력은 데이터가 추출될 채널 정보에 대한 입력을 포함할 수 있다. 예를 들면, 사용자가 데이터가 추출될 채널 정보를 채널 5로 설정하였을 때, 추출부(32)는 채널 5에서 수신되는 방

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송 신호에서 데이터를 추출하여 컨텐츠화시킨다. 이를 위해, 데이터 추출 명령 입력을 위한 버튼을 구비한 리모컨, 그래픽 유저 인터페이스(GUI, Graphic User Interface)와 같은 사용자 인터페이스부(40)를 구비하는 것이 바람직하다.

<28> 상기와 같은 구성에 의해 방송 수신 장치에 데이터 방송 신호가 출력될 수 있으며, 이렇게 출력되는 방송 신호는 녹화 처리부(34)에 의해 녹화되는 것이 가능하다. 녹화된 방송 신호는 각각 비디오, 오디오, 데이터로 분리되어 내부나 외부의 저장 매체에 저장된다. 그리고, 사용자가 녹화된 방송 신호의 재생을 요청할 경우, 제어부(38)는 저장 매체에 저장된 방송 신호를 추출하고, 추출된 방송 신호를 디코딩부(26)를 통해 디코딩하도록 한다. 디코딩된 방송 신호는 출력부(30)로 출력된다. 물론, 제어부(38)는 녹화된 방송 신호의 재생 요청뿐만 아니라, 네트워크(예를 들면, 인터넷망)를 통하여 수신되거나 혹은 저장 매체에 저장된 동영상 컨텐츠 등의 재생 요청을 수행하는 것도 가능하다. 이하, 녹화된 방송 신호, 네트워크를 통하여 수신되거나 혹은 저장 매체에 저장된 동영상 컨텐츠 등을 통칭하여 "재생 컨텐츠"라 칭하기로 한다.

<29> 머지부(36)는 재생 컨텐츠와 데이터 컨텐츠를 머지(merge)하여 출력한다. 이 때, 도 2와 같이 재생 컨텐츠(42) 상에 데이터 컨텐츠(44)를 PIP(Picture In Picture)로 표시하여 사용자가 재생 컨텐츠(42)를 보고 있는 중에도 데이터 컨텐츠(44)를 함께 확인할 수 있도록 하는 것이 바람직하다.

<30> 한편, 도 2는 재생 컨텐츠(42)를 주화면에, 데이터 컨텐츠(44)를 부화면에 표시하는 경우를 나타내고 있으나, 데이터 컨텐츠(44)를 주화면에, 재생 컨텐츠

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(42)를 부화면에 표시할 수도 있다. 또한, 두 가지 경우의 상호 변경도 가능하다. 즉, 사용자의 입력에 따라 데이터 컨텐츠(44)를 부화면에서 주화면으로, 혹은 주화면에서 부화면으로 변경하도록 할 수도 있다. 이에 따라, 사용자가 재생 컨텐츠를 보고 있는 중에, PIP로 표시되는 데이터 컨텐츠를 더 크게 보고자 하는 경우에는 데이터 컨텐츠를 주화면으로 표시하도록 변경할 수 있다.

<31> 물론, 재생 컨텐츠와 데이터 컨텐츠를 함께 표시할 때 PIP로 표시하는 것에 한정되는 것은 아니며, 도 3과 같이 화면을 소정 방향(예를 들면, 가로 혹은 세로 방향)을 따라 소정 비율로 분할하여 재생 컨텐츠(42)와 데이터 컨텐츠(44)를 함께 표시하는 것도 가능하며, 그 외 다양한 화면 구성이 가능하다.

<32> 또한, 소정의 시간을 경과한 경우, 또는 데이터 컨텐츠를 비표시로 선택하는 경우, 또는 데이터 컨텐츠 표시 완료 후에는 재생 컨텐츠 화면만이 표시되도록 할 수도 있다.

<33> 한편, 머지부(36)는 데이터 컨텐츠가 재생 컨텐츠와 머지되는 것으로 상술하였으나, 소정 채널의 실시간 방송 컨텐츠가 출력부(30)로 출력되고 있는 경우, 상기 채널과 다른 채널의 방송 신호에서 데이터 컨텐츠를 추출하고, 추출된 데이터 컨텐츠를 상기 실시간 방송 컨텐츠와 머지하여 출력하도록 할 수도 있다.

<34> 제어부(38)는 사용자로부터 시청할 채널을 입력받으면, 입력된 채널로부터 방송 신호를 수신하여 출력하도록 수신부(10), 신호 처리부(20)를 제어한다. 물론, 전술한 바와 같이 데이터 방송 신호의 경우, 추출부(32)를 통해 생성된 데이터 컨텐츠도 함께 출력부(30)에 출력되게 된다.

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<35> 그리고, 제어부(38)는 녹화 명령을 입력받으면, 현재 출력부(30)에 출력되고 있는 방송 신호를 처리하여 저장 매체에 저장하도록 녹화 처리부(34)를 제어한다.

<36> 제어부(38)는 데이터가 추출될 채널 정보에 대한 입력을 수신하면, 입력된 채널로부터 수신되는 방송 신호로부터 데이터를 추출하여 컨텐츠화하도록 수신부(10), 신호 처리부(20) 및 추출부(32)를 제어한다. 그리고, 제어부(38)는 머지부(36)를 제어하여 추출부(32)로부터 생성된 데이터 컨텐츠를 재생 컨텐츠(혹은 실시간 방송 컨텐츠)와 머지시켜 출력하도록 한다.

<37> 이러한 구성을 갖는 본 발명의 실시예에 따른 방송 수신 장치에서의 데이터 출력 방법을 도 4를 참조하여 설명하면 다음과 같다.

<38> 설명하기에 앞서, 출력부(30)에는 재생 컨텐츠가 출력되고 있는 상황이라고 가정하자.

<39> 사용자가 재생 컨텐츠를 보고 있는 중에(S10), 날씨 정보를 확인하고자 하는 경우 사용자는 데이터 추출 명령을 입력하게 된다. 이 때, 사용자는 데이터가 추출될 채널 정보를 입력할 수 있다. 예를 들어, 날씨 정보가 채널 10에서 수신된다고 하자.

<40> 사용자가 데이터가 추출될 채널 정보로서 채널 10을 입력하게 되면(S20), 추출부(32)는 채널 10으로부터 수신되는 방송 신호에서 날씨 정보에 관한 데이터를 추출하여 컨텐츠화시킨다(S30).

<41> 날씨 정보에 관한 데이터 컨텐츠는 머지부(36)에 출력되고, 머지부(36)는 날

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씨 정보에 관한 데이터 컨텐츠와 현재 재생 컨텐츠를 머지시켜 출력부(30)에 출력한다(S40).

<42> 이에, 사용자는 재생 컨텐츠를 시청하면서 동시에 날씨 정보를 확인할 수 있게 된다.

<43> 한편, 추출부(32)에 의해 추출된 데이터 컨텐츠는 저장되어 추후 사용자 필요에 따라 재표시하도록 구현하는 것도 가능하다.

<44> 이상과 같이 예시된 도면을 참조로 하여, 본 발명에 따른 방송 수신 장치 및 방송 수신 장치에서의 데이터 출력 방법에 대하여 설명하였으나, 본 발명은 본 명세서에 개시된 실시예와 도면에 의해 한정되지 않으며, 그 발명의 기술사상 범위 내에서 당업자에 의해 다양한 변형이 이루어질 수 있음은 물론이다.

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【특허청구범위】

【청구항 1】

소정 채널의 데이터 방송 신호를 수신하는 수신부;

상기 수신된 데이터 방송 신호로부터 데이터를 추출하는 추출부; 및

상기 추출된 데이터를 현재 출력되고 있는 미디어 컨텐츠에 머지시켜 출력하는 머지부를 포함하는, 방송 수신 장치.

【청구항 2】

제 1 항에 있어서,

상기 미디어 컨텐츠는 녹화된 방송 신호, 네트워크를 통하여 수신되거나 혹은 저장 매체에 저장된 동영상 컨텐츠, 상기 채널과 다른 채널로부터 수신되는 방송 신호 중 어느 하나를 포함하는, 방송 수신 장치.

【청구항 3】

제 1 항에 있어서,

상기 채널을 입력하기 위한 사용자 인터페이스부를 더 포함하는, 방송 수신 장치.

【청구항 4】

제 1 항에 있어서,

상기 데이터는 화면 상에 그래픽 혹은 문자로 표시될 수 있는 정보, 어플리케이션 데이터, 데이터 캐루젤(carousel) 데이터 중 적어도 하나를 포함하는, 방송

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수신 장치.

【청구항 5】

제 1 항에 있어서,

상기 머지부는 상기 추출된 데이터를 상기 미디어 컨텐츠 상에 PIP(Picture In Picture) 형태 혹은 화면을 소정 방향을 따라 소정 비율로 분할하여 상기 미디어 컨텐츠와 상기 데이터를 함께 출력하도록 하는, 방송 수신 장치.

【청구항 6】

제 5 항에 있어서,

사용자 입력에 따라 상기 추출된 데이터의 출력 위치가 변경되는, 방송 수신 장치.

【청구항 7】

제 1 항에 있어서,

상기 머지부는 소정의 시간을 경과한 경우, 또는 상기 데이터를 비표시로 선택하는 경우, 또는 상기 데이터의 표시 완료 후에는 상기 미디어 컨텐츠만이 출력되도록 하는, 방송 수신 장치.

【청구항 8】

소정 채널의 데이터 방송 신호를 수신하는 단계;

상기 수신된 데이터 방송 신호로부터 데이터를 추출하는 단계; 및

상기 추출된 데이터를 현재 출력되고 있는 미디어 컨텐츠에 머지시켜 출력하

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는 단계를 포함하는, 방송 수신 장치에서의 데이터 출력 방법.

【청구항 9】

제 8 항에 있어서,

상기 미디어 컨텐츠는 녹화된 방송 신호, 네트워크를 통하여 수신되거나 혹은 저장 매체에 저장된 동영상 컨텐츠, 상기 채널과 다른 채널로부터 수신되는 방송 신호 중 어느 하나를 포함하는, 방송 수신 장치에서의 데이터 출력 방법.

【청구항 10】

제 8 항에 있어서,

상기 채널을 입력받는 단계를 더 포함하고;

상기 수신하는 단계는 상기 입력받은 채널의 데이터 방송 신호를 수신하는 단계를 포함하는, 방송 수신 장치에서의 데이터 출력 방법.

【청구항 11】

제 8 항에 있어서,

상기 데이터는 화면 상에 그래픽 혹은 문자로 표시될 수 있는 정보, 어플리케이션 데이터, 데이터 캐루젤(carousel) 데이터 중 적어도 하나를 포함하는, 방송 수신 장치에서의 데이터 출력 방법.

【청구항 12】

제 8 항에 있어서,

상기 머지시켜 출력하는 단계는 상기 추출된 데이터를 상기 미디어 컨텐츠

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상에 PIP(Picture In Picture) 형태 혹은 화면을 소정 방향을 따라 소정 비율로 분할하여 상기 미디어 컨텐츠와 상기 데이터를 함께 출력하도록 하는 단계를 포함하는, 방송 수신 장치에서의 데이터 출력 방법.

【청구항 13】

제 12 항에 있어서,

사용자 입력에 따라 상기 추출된 데이터의 출력 위치가 변경되는 단계를 더 포함하는, 방송 수신 장치에서의 데이터 출력 방법.

【청구항 14】

제 8 항에 있어서,

소정의 시간을 경과한 경우, 또는 상기 데이터를 비표시로 선택하는 경우, 또는 상기 데이터의 표시 완료 후에는 상기 미디어 컨텐츠만이 출력되도록 하는 단계를 더 포함하는, 방송 수신 장치에서의 데이터 출력 방법.

【도면의 간단한 설명】

<45> 도 1은 본 발명의 실시예에 따른 방송 수신 장치의 구성을 나타낸 블록도이다.

<46> 도 2 및 도 3은 본 발명의 실시예에 따른 방송 수신 장치에서 데이터의 화면 출력 예를 나타낸 도면이다.

<47> 도 4는 본 발명의 실시예에 따른 방송 수신 장치에서의 데이터 출력 방법을 나타낸 흐름도이다.

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<48> <도면의 주요 부분에 대한 부호의 설명>

<49> 10 : 수신부 20 : 신호 처리부

<50> 22 : 복조부 24 : 역다중화부

<51> 26 : 디코딩부 30 : 출력부

<52> 32 : 추출부 34 :녹화 처리부

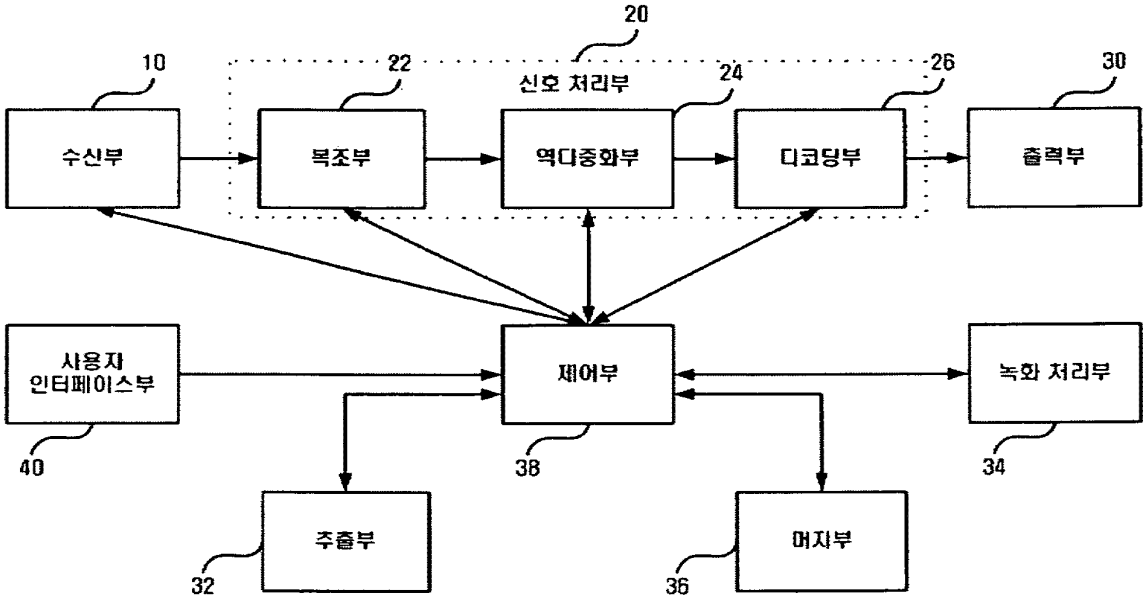
<53> 36 : 머지부 38 : 제어부

<54> 40 : 사용자 인터페이스부

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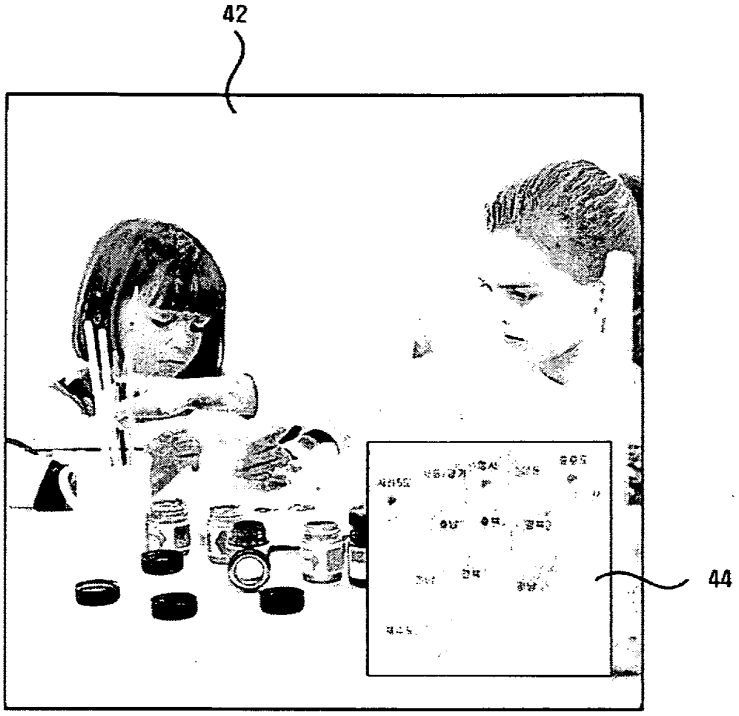
【도면】

【도 1】



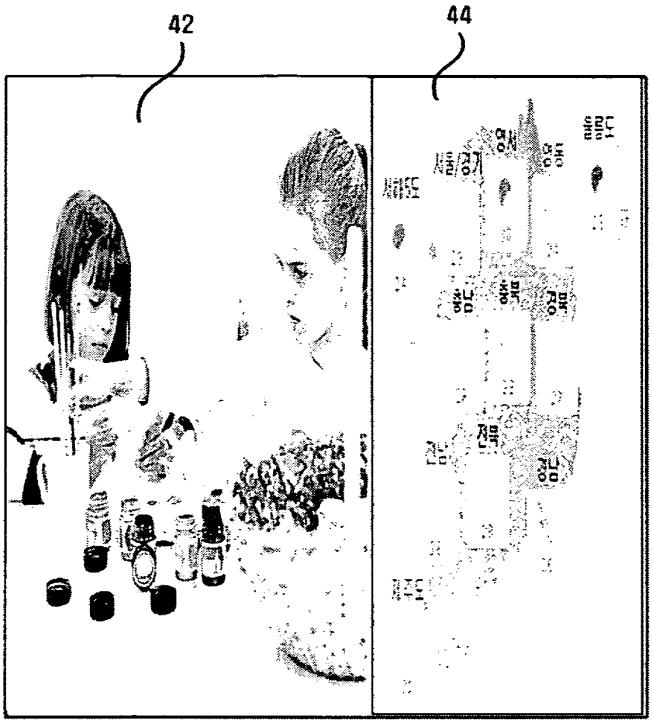
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【도 2】



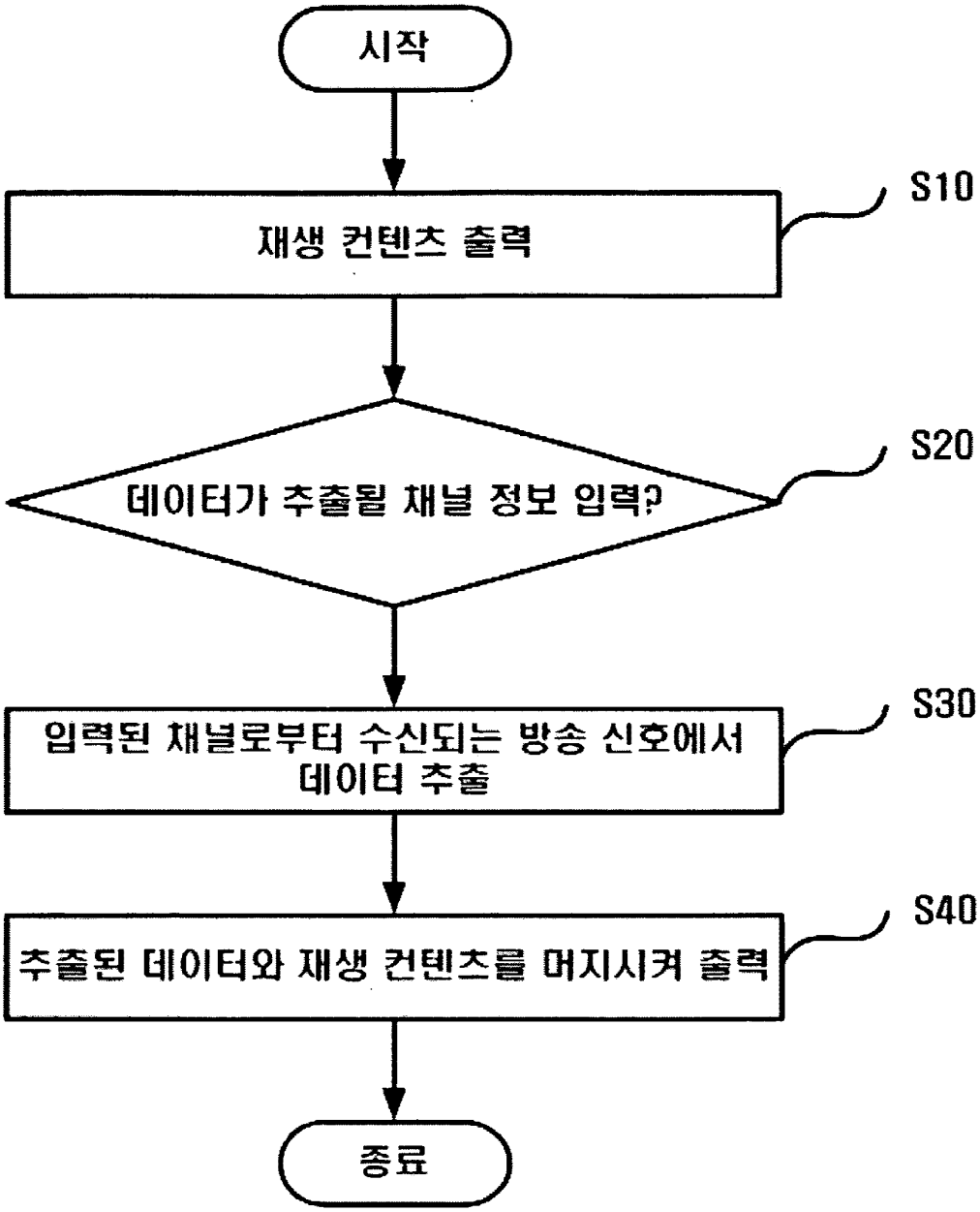
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【도 3】



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【도 4】



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Filing Date: 05/09/08

Approved for use through 7/31/2006. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number: 12/118,041

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY RATE ($)	SMALL ENTITY FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY FEE ($)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	310
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	510
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	210
TOTAL CLAIMS (37 CFR 1.16(i))	15 minus 20 =	0	X$ 25		OR	X$50	0
INDEPENDENT CLAIMS (37 CFR 1.16(h))	2 minus 3 =	* 0	X$100			X$210	0
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))			185			370	
			TOTAL	0		TOTAL	1030

* If the difference in column 1 is less than zero, enter "0" in column 2.

APPLICATION AS AMENDED – PART II

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE ($)	SMALL ENTITY ADDITIONAL FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE ($)
AMENDMENT A	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					N/A		OR	N/A	
						TOTAL ADD'T FEE		OR	TOTAL ADD'T FEE	

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)	OR	RATE ($)	ADDITIONAL FEE ($)
AMENDMENT B	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					N/A		OR	N/A	
						TOTAL ADD'T FEE		OR	TOTAL ADD'T FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
12/118,041	05/09/2008	2618	1030	Q105659	18	2

CONFIRMATION NO. 1215

23373
SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

FILING RECEIPT

OC000000030078231

Date Mailed: 05/23/2008

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Applicant(s)

Hwa-Kyung Lee, Seoul, KOREA, REPUBLIC OF;

Assignment For Published Patent Application

Samsung Electronics Co., Ltd., Suwon-si, KOREA, REPUBLIC OF

Power of Attorney: The patent practitioners associated with Customer Number 23373

Domestic Priority data as claimed by applicant

Foreign Applications

REPUBLIC OF KOREA 10-2007-0090104 09/05/2007

If Required, Foreign Filing License Granted: 05/21/2008

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 12/118,041**

Projected Publication Date: 03/05/2009

Non-Publication Request: No

Early Publication Request: No

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Title

BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS

Preliminary Class

455

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

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Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where

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the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

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NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
12/118,041	05/09/2008	Hwa-Kyung Lee	Q105659

CONFIRMATION NO. 1215

23373
SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

PUBLICATION NOTICE

OC000000034854658

Title:BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS

Publication No.US-2009-0064263-A1
Publication Date:03/05/2009

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently http://www.uspto.gov/patft/.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Office of Public Records. The Office of Public Records can be reached by telephone at (703) 308-9726 or (800) 972-6382, by facsimile at (703) 305-8759, by mail addressed to the United States Patent and Trademark Office, Office of Public Records, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently http://pair.uspto.gov/. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Managment, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/118,041	05/09/2008	Hwa-Kyung Lee	Q105659	1215

23373 7590 10/04/2010

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WASHINGTON, DC 20037

EXAMINER	
BAIG, SAHAR A	

ART UNIT	PAPER NUMBER
2424	

NOTIFICATION DATE	DELIVERY MODE
10/04/2010	ELECTRONIC

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

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

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

sughrue@sughrue.com
PPROCESSING@SUGHRUE.COM
USPTO@SUGHRUE.COM

Office Action Summary	Application No.	Applicant(s)	
	12/118,041	LEE, HWA-KYUNG	
	Examiner	Art Unit	
	SAHAR A. BAIG	2424	

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

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 May 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 May 2010* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6, 9-15, and 18 rejected under 35 U.S.C. 102(b) as being anticipated by Hayashi et al. US Patent No. 5,708,475.

Regarding Claims 1 and 10, Hayashi discloses a broadcast-receiving apparatus comprising: a receiving unit which receives a data broadcasting signal through a data broadcasting channel [Col. 2 lines 23-24];
an extracting unit which extracts data from the received data broadcasting signal [Col. 2 lines 26-28]; and a merging unit which merges the extracted data with media content that is being output [Col. 2 lines 31-33].

Regarding Claims 2 and 11, Hayashi discloses a broadcast-receiving apparatus wherein the media content includes at least one of recorded broadcasting signals, moving picture content that is received through a network or stored in a storage medium, and broadcasting signals that are received through a channel different from the data broadcasting channel [Col. 6 lines 15-25].

Regarding Claims 3 and 12, Hayashi discloses a broadcast-receiving apparatus further comprising: a user interface which receives input for determining the data broadcasting channel [Col. 8 lines 52-62; *The remote controller receives the user input for the desired channel*].

Regarding Claims 4 and 13, Hayashi discloses a broadcast-receiving apparatus wherein the extracted data includes at least one of data carousel data, application data, and information that can be displayed on a screen as one of graphics and characters [Col. 10 lines 15-24].

Regarding Claim 5 and 14, Hayashi discloses a broadcast-receiving apparatus wherein the merging unit merges the extracted data and the media content in a picture in picture (PIP) mode [Figure 7B and Col. 12 lines 30-37].

Regarding Claim 6 and15, Hayashi discloses a broadcast-receiving wherein the merging unit merges the extracted data and the media content by dividing an image of the media content being output in a predetermined direction at a predetermined ratio, and providing the media content in one division and the extracted data in another division [Figure 7B *the ratio illustrated is 1:2*].

Regarding Claim 9 and 18, Hayashi discloses a broadcast-receiving wherein the merging unit merges the extracted data with the media content only for a predetermined amount of time , when one of a display mode in which the extracted data is not displayed is selected, and the display of the extracted data is completed [Col. 13 lines 17-25].

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 7, 8, 16 and 17 rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi et al. US Patent No. 5,708,475 in view of Ciciora US Patent No. 5,815,297.

Regarding Claims 7, 8, 16 and 17 Hayashi fails to disclose that the PIP position of the extracted data changes according to a user input. In an analogous art, Ciciora discloses that a user is able to control format adjustments such as, split-screen, PIP, zoom, aspect ratio, and display of teletext on the television [Col. 5 line 64 – Col. 6 line 5]. Therefore it would have been obvious to one of ordinary skill in the art to combine the

teachings of Hayashi and Ciciora to allow customized options to suit the needs of individual users [Ciciora Col. 4 lines 18-21].

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. It includes Tsuria et al. US Patent Publication No. 2003/0163832, Dyer US Patent No. 6,903,779, Im US Patent Publication No. 2005/0117654 and Singh US Patent No. 6,493,038.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAHAR A. BAIG whose telephone number is (571)270-3005. The examiner can normally be reached on Monday-Friday (8:00 - 4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christopher Kelley/
Supervisory Patent Examiner, Art Unit 2424

SB

Notice of References Cited	Application/Control No. 12/118,041	Applicant(s)/Patent Under Reexamination LEE, HWA-KYUNG	
	Examiner SAHAR A. BAIG	Art Unit 2424	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2003/0163832	08-2003	Tsuria et al.	725/135
*	B	US-6,903,779	06-2005	Dyer, Thomas Christopher	348/465
*	C	US-5,708,475	01-1998	Hayashi et al.	348/468
*	D	US-5,815,297	09-1998	Ciciora, Walter S.	398/112
*	E	US-2005/0117654	06-2005	Im, Jin Seok	375/240.26
*	F	US-6,493,038	12-2002	Singh et al.	348/565
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

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CONFIRMATION NO. 1215

SERIAL NUMBER	FILING or 371(c) DATE RULE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
12/118,041	05/09/2008	455	2424	Q105659

APPLICANTS
Hwa-Kyung Lee, Seoul, KOREA, REPUBLIC OF;

**** CONTINUING DATA ***************************

**** FOREIGN APPLICATIONS ***************************
REPUBLIC OF KOREA 10-2007-0090104 09/05/2007

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ****
05/21/2008

Foreign Priority claimed ☑ Yes ☐ No 35 USC 119(a-d) conditions met ☑ Yes ☐ No Verified and Acknowledged /SAHAR A BAIG/ Examiner's Signature	☐ Met after Allowance SB Initials	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
		KOREA, REPUBLIC OF	4	18	2

ADDRESS

SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037
UNITED STATES

TITLE

BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS

FILING FEE RECEIVED		
1030	FEES: Authority has been given in Paper No._____ to charge/credit DEPOSIT ACCOUNT No._____ for following:	☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12118041	LEE, HWA-KYUNG
	Examiner	Art Unit
	SAHAR A BAIG	2424

SEARCHED			
Class	Subclass	Date	Examiner
725	24, 47, 136, 137	09/26/2010	SB

SEARCH NOTES		
Search Notes	Date	Examiner
Checked for 101 nd Double Patenting Issues	09/26/2010	SB
Inventor Search	09/26/2010	SB

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner

/S. A. B./ Examiner.Art Unit 2424	

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12118041	LEE, HWA-KYUNG
	Examiner	**Art Unit**
	SAHAR A BAIG	2424

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

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

CLAIM		DATE								
Final	Original	09/26/2010								
	1	✓								
	2	✓								
	3	✓								
	4	✓								
	5	✓								
	6	✓								
	7	✓								
	8	✓								
	9	✓								
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	11	✓								
	12	✓								
	13	✓								
	14	✓								
	15	✓								
	16	✓								
	17	✓								
	18	✓								

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L3	15157	harrison.in.	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:18
L4	2103	composite with supplement$6	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:19
L5	0	3 and 4	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:19
L6	557	3 and supplement$6	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:20
L7	10	3 and (stream$6 with supplement$6)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:20
L8	35	3 and (stream$6 with primary)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:20
L9	1	("2004/0045039").URPN.	USPAT	OR	OFF	2010/09/27 02:22
L10	412	(primary with secondary with data with stream$4)	USPAT	OR	OFF	2010/09/27 02:23
L11	3	(primary with secondary with data with stream$4 with extract$6)	USPAT	OR	OFF	2010/09/27 02:23
L14	2651	pip.ab.	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:28
L15	489	pip.ab.	US-PGPUB; USPAT	OR	OFF	2010/09/27 02:28
L16	26	(two same signal$5 same pip).ab.	US-PGPUB; USPAT	OR	OFF	2010/09/27 02:29
L17	83	pip.ti.	US-PGPUB; USPAT	OR	OFF	2010/09/27 02:32
L18	99	split screen pip	US-PGPUB; USPAT	WITH	OFF	2010/09/27 02:33

L19	1	("6903779").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/09/27 02:44
L20	46	("20010039546" | "20010049826" | "20020023165" | "20020059637" | "20020067428" | "20020078144" | "20030020671" | "20030212997" | "20030227568" | "20040012717" | "20040040042" | "20040045040" | "20040080528" | "5481296" | "5517254" | "5576768" | "5671019" | "5703655" | "5708475" | "5835153" | "5945987" | "6025837" | "6061056" | "6239843" | "6243676" | "6260194" | "6266094" | "6285407" | "6295092" | "6308329" | "6348951" | "6412111" | "6425061" | "6532041" | "6564383" | "6567127" | "6642966" | "6661467" | "6701524" | "6710812" | "6724431" | "6742188" | "6766163" | "6766528" | "6775842" | "6816201").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/09/27 02:45
S1	1	12/118041	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 21:22
S2	1211	(725/24,47,136,137).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/09/26 21:43
S3	119	(725/137).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/09/26 21:44
S4	2	S3 and (merg$6 same extract $7 same signal$4 same data)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 21:46
S5	1	S3 and (merg$6 and extract $7 and signal$4 and data and pip)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 21:51
S6	333	(merg$6 and extract$7 and signal$4 and data and pip)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 21:51

S7	0	(merg$6 and extract$7 and signal$4 and data and pip).ab.	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 21:51
S8	52	(merg$6 and extract$7 and signal$4 and data).ab.	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 21:51
S9	8	(merg$6 and extract$7 and signal$4 and data).ab.	US-PGPUB; USPAT	OR	OFF	2010/09/26 21:52
S10	5	(ticker$3 and signal$4 and data).ab.	US-PGPUB; USPAT	OR	OFF	2010/09/26 21:52
S11	137	(ticker$3 and signal$4 and data and pip)	US-PGPUB; USPAT	OR	OFF	2010/09/26 21:55
S12	0	(ticker$3 and signal$4 and data and pip).ab.	US-PGPUB; USPAT	OR	OFF	2010/09/26 21:55
S13	1	11/043990	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 22:05
S14	1	11/871554	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 22:08
S15	17	split same screen same user same control$5 same ratio	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 22:13
S16	16	split same screen same user same control$5 same ratio	US-PGPUB; USPAT	OR	OFF	2010/09/26 22:15
S17	3	(teletext$3 or (closed caption $4)) and (split same screen same user same control$5 same ratio)	US-PGPUB; USPAT	OR	OFF	2010/09/26 22:24
S18	811	(teletext$3 or (closed caption $4)) with ((phas$5 adj out) or fad$5)	US-PGPUB; USPAT	OR	OFF	2010/09/26 22:30

9/27/2010 3:42:14 AM
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	Not Yet Assigned
Confirmation Number	Not Yet Assigned
Filing Date	May 9, 2008
First Named Inventor	Hwa-kyung LEE
Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	Q105659

U.S. PATENTS

Examiner Initials*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	1					

U.S. PATENT APPLICATION PUBLICATIONS

Examiner Initials*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	1					

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No	Foreign Document Number[3]	Country Code[2]	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[5]
/S.B./	1	1020060088437	KR	A	2006-08-04	BIZMODELINE CO., LTD.		N
/S.B./	2	1020050033599	KR	A	2005-04-12	CHO, HO CHEOL		N
/S.B./	3	1020050110477	KR	A	2005-11-23	DAEWOO ELECTRONICS CORPORATION		N
/S.B./	4	2006311120	JP	A	2006-11-09	MATSUSHITA ELECTRIC IND CO LTD		N

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city, and/or country where published.	T[5]
	1		

EXAMINER SIGNATURE

Examiner Signature	/Sahar A Baig/	Date Considered	09/26/2010

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

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

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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of	Docket No: Q105659
Hwa-kyung LEE	
Appln. No.: 12/118,041	Group Art Unit: 2618
Confirmation No.: 1215	Examiner: BAIG, Sahar A
Filed: May 9, 2008	

For: BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS

AMENDMENT UNDER 37 C.F.R. § 1.111

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

Sir:

In response to the Office Action dated October 4, 2010, please amend the above-identified application as follows on the accompanying pages.

TABLE OF CONTENTS

AMENDMENTS TO THE CLAIMS 2

REMARKS 8

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A broadcast-receiving apparatus comprising:

a receiving unit which receives a data broadcasting signal through a data broadcasting channel;

an extracting unit which extracts data from the received data broadcasting signal; and

a merging unit which merges the extracted data with media content that is being output,

wherein the media content is not obtained from a TV broadcasting signal that is being currently received at the time the media content is being output.

2. (original): The broadcast-receiving apparatus of claim 1, wherein the media content includes at least one of recorded broadcasting signals, moving picture content that is received through a network or stored in a storage medium, and broadcasting signals that are received through a channel different from the data broadcasting channel.

3. (original): The broadcast-receiving apparatus of claim 1, further comprising:

a user interface which receives input for determining the data broadcasting channel.

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4. (original): The broadcast-receiving apparatus of claim 1, wherein the extracted data includes at least one of data carousel data, application data, and information that can be displayed on a screen as one of graphics and characters.

5. (original): The broadcast-receiving apparatus of claim 1, wherein the merging unit merges the extracted data and the media content in a picture in picture (PIP) mode.

6. (original): The broadcast-receiving apparatus of claim 1, wherein the merging unit merges the extracted data and the media content by dividing an image of the media content being output in a predetermined direction at a predetermined ratio, and providing the media content in one division and the extracted data in another division.

7. (original): The broadcast-receiving apparatus of claim 5, wherein a PIP position of the extracted data changes according to a user input.

8. (original): The broadcast-receiving apparatus of claim 6, wherein a division position of the extracted data changes according to a user input.

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9. (original): The broadcast-receiving apparatus of claim 1, wherein the merging unit merges the extracted data with the media content only for a predetermined amount of time , when one of a display mode in which the extracted data is not displayed is selected, and the display of the extracted data is completed.

10. (currently amended): A method of outputting data by a broadcast-receiving apparatus, comprising:

receiving a data broadcasting signal through a data broadcasting channel;

extracting data from the received data broadcasting signal; and

merging the extracted data with media content that is being output,

wherein the media content is not obtained from a TV broadcasting signal that is being currently received at the time the media content is being output.

11. (original): The method of claim 10, wherein the media content includes at least one of recorded broadcasting signals, moving picture content that is received through a network or stored in a storage medium, and broadcasting signals that are received through a channel different from the data broadcasting channel.

12. (original): The method of claim 10, further comprising:

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determining the data broadcasting channel through a user interface,

wherein the data broadcasting signal is received through the determined data broadcasting channel.

13. (original): The method of claim 10, wherein the data includes at least one of data carousel data, application data, and information that can be displayed on a screen as graphics or characters.

14. (original): The method of claim 10, wherein the merging comprises merging the extracted data and the media content in a picture in picture (PIP) mode.

15. (original): The method of claim 10, wherein the merging comprises merging the extracted data and the media content by dividing an image of the media content being output in a predetermined direction at a predetermined ratio, and providing the media content in one division and the extracted data in another division.

16. (original): The method of claim 14, further comprising:

changing a PIP position of the extracted data according to a user input.

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17. (original): The method of claim 15, further comprising:

changing a division of the extracted data according to a user input.

18. (original): The method of claim 10, further comprising:

merging the extracted data with the media content only for a predetermined amount of time , when one of a display mode in which the extracted data is not displayed is selected, and the display of the extracted data is completed.

19. (new): The broadcast-receiving apparatus of claim 1, wherein the media content is obtained from one of a prerecorded broadcasting signal which is recorded in the broadcast-receiving apparatus, a moving picture which is received by the broadcast-receiving apparatus through a network, and a moving picture which is stored in a storage medium.

20. (new): The method of claim 10, wherein the media content is obtained from one of a prerecorded broadcasting signal which is recorded in the broadcast-receiving apparatus, a moving picture which is received by the broadcast-receiving apparatus through a network, and a moving picture which is stored in a storage medium.

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21. (new): The broadcast-receiving apparatus of claim 1, wherein the extracted data is outputted in real time.

22. (new): The method of claim 10, wherein the extracted data is outputted in real time.

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REMARKS

Reconsideration and allowance of the subject application are respectively requested. By this Amendment, Applicant has amended claims 1 and 10 and added new claims 19-22. Therefore, upon entry of this Amendment, claims 1-22 are all the claims pending in the application. In response to the Office Action, Applicants respectfully submit that the claims define patentable subject matter.

I. Formal Matters

Applicant thanks the Examiner for acknowledging Applicant's claim to priority and receipt of the certified copy of the priority document. Further, Applicant notes with appreciation that the Examiner has considered the references cited in the Information Disclosure Statement filed concurrently with the application. Additionally, Applicant thanks the Examiner for accepting the drawings.

II. Rejections under 35 U.S.C. § 102(b)

Claims 1-6, 9-15, and 18 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,708,475 to Hayashi et al. (hereinafter Hayashi).

A. Independent Claims 1 and 10

Claims 1 and 10 recite "wherein the media content is not obtained from a TV broadcasting signal that is being currently received at the time the media content is being

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output."[1] Applicant respectfully submits that Hayashi does not disclose or suggest at least this recitation.

The Office Action alleges that telecast signal which is output from either the processing circuit 4 or the processing circuit 5 in FIG. 4 of Hayashi corresponds to the "media content" of claim 1. However, as can be seen in FIG. 4, these telecast signals are being received at the same time as they are being output, so Hayashi does not disclose "wherein the media content is not obtained from a TV broadcasting signal that is being currently received at the time the media content is being output," as recited in amended claims 1 and 10.

At least for the above reasons, Applicant respectfully requests that the rejections of independent claims 1 and 10 be withdrawn.

B. Dependent Claims 2-6, 9, 11-15, and 18

Since claims 2-6, 9, 11-15, and 18 depend from claims 1 and 10 respectively, Applicant submits that claims 2-6, 9, 11-15, and 18 are patentable over the cited art at least by virtue of their dependency.

III. Rejections under 35 U.S.C. § 103(a)

Claims 7, 8, 16, and 17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hayashi in view of U.S. Patent No. 5,815,297 to Ciciora (hereinafter Ciciora). Since claims 7, 8, 16, and 17 depend from claims 1 and 10 respectively, Applicant submits that claims 7, 8, 16, and 17 are patentable over the cited art at least by virtue of their dependency.

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[1] Support is found in the Specification at least at paragraph [28].

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IV. New Claims

By this Amendment, Applicant has added new claims 19-22 in order to claim additional aspects which are not disclosed by the cited references.

Claims 19 and 20 depend from claims 1 and 10 respectively and recite "wherein the media content is obtained from one of a prerecorded broadcasting signal which is recorded in the broadcast-receiving apparatus, a moving picture which is received by the broadcast-receiving apparatus through a network, and a moving picture which is stored in a storage medium."[2]

Claims 21 and 22 depend from claims 1 and 10 respectively and recite "wherein the extracted data is outputted in real time."[3]

Applicant respectfully submits that claims 19-22 are patentable over the cited art at least by virtue of their dependency.

V. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

---

[2] Support is found in the Specification at least at paragraph [28].

[3] Support is found in the Specification at least at paragraph [05].

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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

/Blake A. Tankersley/
Blake A. Tankersley
Registration No. 59,238

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Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE
23373
CUSTOMER NUMBER

Date: January 4, 2011

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Electronic Patent Application Fee Transmittal

Application Number:	12118041
Filing Date:	09-May-2008
Title of Invention:	BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS
First Named Inventor/Applicant Name:	Hwa-Kyung Lee
Filer:	Brian William Hannon/Paula Volk
Attorney Docket Number:	Q105659

Filed as Large Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Claims in excess of 20	1202	2	52	104
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
		Total in USD ($)		**104**

Electronic Acknowledgement Receipt

EFS ID:	9161692
Application Number:	12118041
International Application Number:	
Confirmation Number:	1215
Title of Invention:	BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS
First Named Inventor/Applicant Name:	Hwa-Kyung Lee
Customer Number:	23373
Filer:	Brian William Hannon/Paula Volk
Filer Authorized By:	Brian William Hannon
Attorney Docket Number:	Q105659
Receipt Date:	04-JAN-2011
Filing Date:	09-MAY-2008
Time Stamp:	16:19:23
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$104
RAM confirmation Number	2543
Deposit Account	194880
Authorized User	SUGHRUE MION, PLLC

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		q105659amendment.pdf	336368 22eecaa3d6878884375d25f05bfb70183e22380c	yes	13

Multipart Description/PDF files in .zip description		
Document Description	**Start**	**End**
Miscellaneous Incoming Letter	1	2
Amendment/Req. Reconsideration-After Non-Final Reject	3	3
Claims	4	9
Applicant Arguments/Remarks Made in an Amendment	10	13

Warnings:

Information:

2	Fee Worksheet (PTO-875)	fee-info.pdf	30599 e343ed8fe018e4f366e96ee906d41a2357fc5b36	no	2

Warnings:

Information:

Total Files Size (in bytes):	366967

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.

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Hwa-kyung LEE

Docket No: Q105659

Appln. No.: 12/118,041

Group Art Unit: 2618

Confirmation No.: 1215

Examiner: BAIG, Sahar A

Filed: May 9, 2008

For: BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS

EXCESS CLAIM FEE PAYMENT LETTER

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

Sir:

An Amendment Under 37 C.F.R. § 1.111 is attached hereto for concurrent filing in the above-identified application. The resulting excess claim fee has been calculated as shown below:

	After Amendment		Highest No. Previously Paid For						
All Claims	22	-	20	=	2	X	$52.00	=	$104.00
Independent	2	-	3	=		X	$220.00	=	$.00
					TOTAL			=	**$104.00**

EXCESS CLAIM FEE PAYMENT LETTER
U.S. Application No.: 12/118,041

Attorney Docket No.: Q105659

The statutory fee of $104.00 is being remitted. The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

/Blake A. Tankersley/
Blake A. Tankersley
Registration No. 59,238

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE
23373
CUSTOMER NUMBER

Date: January 4, 2011

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/118,041	05/09/2008	Hwa-Kyung Lee	Q105659	1215

23373 7590 03/14/2011

SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER	
BAIG, SAHAR A	

ART UNIT	PAPER NUMBER
2424	

NOTIFICATION DATE	DELIVERY MODE
03/14/2011	ELECTRONIC

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

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

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

sughrue@sughrue.com
PPROCESSING@SUGHRUE.COM
USPTO@SUGHRUE.COM

Office Action Summary	Application No.	Applicant(s)	
	12/118,041	LEE, HWA-KYUNG	
	Examiner	Art Unit	
	SAHAR A. BAIG	2424	

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

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01/04/2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

TVnGO Exhibit 2009
Page 2009-158
Samsung v. TVnGO, IPR2026-00213

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claim 1-6, 9-15, and 18-22 rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi et al. US Patent No. 5,708,475 in view of Gaughan US Patent Publication No. 2003/0192057.

Regarding Claims 1, 10, 21, and 22, Hayashi discloses a broadcast-receiving apparatus comprising: a receiving unit which receives a data broadcasting signal through a data broadcasting channel [Col. 2 lines 23-24]; an extracting unit which extracts data from the received data broadcasting signal [Col. 2 lines 26-28]; and a merging unit which merges the extracted data with media content that is being output [Col. 2 lines 31-33]. However, Hayashi fails to teach that the media content is not obtained from a TV broadcasting signal that is being currently received at the time the media content is being output. In an analogous art, Gaughan discloses an apparatus wherein a web television is capable of

providing internet video along with a user selected television video in a picture-in-picture (PIP) format [0012 & 0013]. Therefore it would have been obvious to combine the teachings of Hayashi and Gaughan to provide media content which is different than the currently broadcasted content.

Regarding Claims 2 and 11, Hayashi discloses a broadcast-receiving apparatus wherein the media content includes at least one of recorded broadcasting signals, moving picture content that is received through a network or stored in a storage medium, and broadcasting signals that are received through a channel different from the data broadcasting channel [Col. 6 lines 15-25].

Regarding Claims 3 and 12, Hayashi discloses a broadcast-receiving apparatus further comprising: a user interface which receives input for determining the data broadcasting channel [Col. 8 lines 52-62; *The remote controller receives the user input for the desired channel*].

Regarding Claims 4 and 13, Hayashi discloses a broadcast-receiving apparatus wherein the extracted data includes at least one of data carousel data, application data, and information that can be displayed on a screen as one of graphics and characters [Col. 10 lines 15-24].

Regarding Claim 5 and 14, Hayashi discloses a broadcast-receiving apparatus wherein the merging unit merges the extracted data and the media content in a picture in picture (PIP) mode [Figure 7B and Col. 12 lines 30-37].

Regarding Claim 6 and 15, Hayashi discloses a broadcast-receiving wherein the merging unit merges the extracted data and the media content by dividing an image of the media content being output in a predetermined direction at a predetermined ratio, and providing the media content in one division and the extracted data in another division [Figure 7B *the ratio illustrated is 1:2*].

Regarding Claim 9 and 18, Hayashi discloses a broadcast-receiving wherein the merging unit merges the extracted data with the media content only for a predetermined amount of time , when one of a display mode in which the extracted data is not displayed is selected, and the display of the extracted data is completed [Col. 13 lines 17-25].

Regarding Claim 19 and 20, Gaughan discloses a broadcast-receiving apparatus wherein the media content is obtained from one of a prerecorded broadcasting signal which is recorded in the broadcast-receiving apparatus, **a moving picture which is received by the broadcast-receiving apparatus through a network**, and a moving picture which is stored in a storage medium [0012 & 0013; *Internet video is received via online access*].

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 7, 8, 16 and 17 rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi et al. US Patent No. 5,708,475 in view of Gaughan US Patent Publication No. 2003/0192057 in view of Ciciora US Patent No. 5,815,297.

Regarding Claims 7, 8, 16 and 17 Hayashi and Gaughan fails to disclose that the PIP position of the extracted data changes according to a user input. In an analogous art, Ciciora discloses that a user is able to control format adjustments such as, split-screen, PIP, zoom, aspect ratio, and display of teletext on the television [Col. 5 line 64 – Col. 6 line 5]. Therefore it would have been obvious to one of ordinary skill in the art to combine the teachings of Hayashi, Gaughan and Ciciora to allow customized options to suit the needs of individual users [Ciciora Col. 4 lines 18-21].

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAHAR A. BAIG whose telephone number is (571)270-3005. The examiner can normally be reached on Monday-Friday (8:00 - 4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christopher Kelley/
Supervisory Patent Examiner, Art Unit 2424

SB

Notice of References Cited	Application/Control No. 12/118,041	Applicant(s)/Patent Under Reexamination LEE, HWA-KYUNG	
	Examiner SAHAR A. BAIG	Art Unit 2424	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2003/0192057	10-2003	Gaughan et al.	725/110
*	B	US-2003/0020832	01-2003	Carlsgaard et al.	348/565
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12118041	LEE, HWA-KYUNG
	Examiner	**Art Unit**
	SAHAR A BAIG	2424

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

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

CLAIM		DATE								
Final	Original	09/26/2010	03/03/2011							
	1	✓	✓							
	2	✓	✓							
	3	✓	✓							
	4	✓	✓							
	5	✓	✓							
	6	✓	✓							
	7	✓	✓							
	8	✓	✓							
	9	✓	✓							
	10	✓	✓							
	11	✓	✓							
	12	✓	✓							
	13	✓	✓							
	14	✓	✓							
	15	✓	✓							
	16	✓	✓							
	17	✓	✓							
	18	✓	✓							
	19		✓							
	20		✓							
	21		✓							
	22		✓							

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12118041	LEE, HWA-KYUNG
	Examiner	Art Unit
	SAHAR A BAIG	2424

SEARCHED

Class	Subclass	Date	Examiner
725	24, 47, 136, 137	09/26/2010	SB
	Updated	03/03/2011	SB

SEARCH NOTES

Search Notes	Date	Examiner
Checked for 101 nd Double Patenting Issues	09/26/2010	SB
Inventor Search	09/26/2010	SB

INTERFERENCE SEARCH

Class	Subclass	Date	Examiner

/S. A. B./ Examiner.Art Unit 2424	

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1	12/118041	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2011/03/03 12:32
L2	1	("5708475").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2011/03/03 12:35
L3	769	record$5 with PIP	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2011/03/03 12:39
L4	5	record$5 with PIP with split with screen$3	US-PGPUB; USPAT	OR	OFF	2011/03/03 12:40
L5	14	record$5 with PIP with (overlay or overlaid)	US-PGPUB; USPAT	OR	OFF	2011/03/03 12:41
L6	9	5 not 4	US-PGPUB; USPAT	OR	OFF	2011/03/03 12:42
L7	5	dvd with play$5 with PIP with split with screen$3	US-PGPUB; USPAT	OR	OFF	2011/03/03 12:55
L8	0	internet with PIP with split with screen$3	US-PGPUB; USPAT	OR	OFF	2011/03/03 14:26
L9	38	internet with PIP with receiv $6	US-PGPUB; USPAT	OR	OFF	2011/03/03 14:27
L10	46	(ip or internet or iptv) with PIP with receiv$6	US-PGPUB; USPAT	OR	OFF	2011/03/03 14:28
S1	1	12/118041	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 21:22
S2	1211	(725/24,47,136,137).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/09/26 21:43
S3	119	(725/137).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/09/26 21:44
S4	2	S3 and (merg$6 same extract $7 same signal$4 same data)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 21:46
S5	1	S3 and (merg$6 and extract $7 and signal$4 and data and pip)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 21:51

S6	333	(merg$6 and extract$7 and signal$4 and data and pip)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 21:51
S7	0	(merg$6 and extract$7 and signal$4 and data and pip). ab.	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 21:51
S8	52	(merg$6 and extract$7 and signal$4 and data).ab.	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 21:51
S9	8	(merg$6 and extract$7 and signal$4 and data).ab.	US-PGPUB; USPAT	OR	OFF	2010/09/26 21:52
S10	5	(ticker$3 and signal$4 and data).ab.	US-PGPUB; USPAT	OR	OFF	2010/09/26 21:52
S11	137	(ticker$3 and signal$4 and data and pip)	US-PGPUB; USPAT	OR	OFF	2010/09/26 21:55
S12	0	(ticker$3 and signal$4 and data and pip).ab.	US-PGPUB; USPAT	OR	OFF	2010/09/26 21:55
S13	1	11/043990	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 22:05
S14	1	11/871554	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 22:08
S15	17	split same screen same user same control$5 same ratio	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 22:13
S16	16	split same screen same user same control$5 same ratio	US-PGPUB; USPAT	OR	OFF	2010/09/26 22:15
S17	3	(teletext$3 or (closed caption $4)) and (split same screen same user same control$5 same ratio)	US-PGPUB; USPAT	OR	OFF	2010/09/26 22:24
S18	811	(teletext$3 or (closed caption $4)) with ((phas$5 adj out) or fad$5)	US-PGPUB; USPAT	OR	OFF	2010/09/26 22:30
S19	15157	harrison.in.	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:18
S20	2103	composite with supplement$6	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:19

S21	0	S19 and S20	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:19
S22	557	S19 and supplement$6	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:20
S23	10	S19 and (stream$6 with supplement$6)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:20
S24	35	S19 and (stream$6 with primary)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:20
S25	1	("2004/0045039").URPN.	USPAT	OR	OFF	2010/09/27 02:22
S26	412	(primary with secondary with data with stream$4)	USPAT	OR	OFF	2010/09/27 02:23
S27	3	(primary with secondary with data with stream$4 with extract$6)	USPAT	OR	OFF	2010/09/27 02:23
S28	2651	pip.ab.	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:28
S29	489	pip.ab.	US-PGPUB; USPAT	OR	OFF	2010/09/27 02:28
S30	26	(two same signal$5 same pip).ab.	US-PGPUB; USPAT	OR	OFF	2010/09/27 02:29
S31	83	pip.ti.	US-PGPUB; USPAT	OR	OFF	2010/09/27 02:32
S32	99	split screen pip	US-PGPUB; USPAT	WITH	OFF	2010/09/27 02:33
S33	1	("6903779").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/09/27 02:44
S34	46	("20010039546" | "20010049826" | "20020023165" | "20020059637" | "20020067428" | "20020078144" | "20030020671" | "20030212997" | "20030227568" | "20040012717" | "20040040042" | "20040045040" | "20040080528" | "5481296" | "5517254" | "5576768" | "5671019" | "5703655" | "5708475" | "5835153" |	US-PGPUB; USPAT; USOCR	OR	OFF	2010/09/27 02:45

		"5945987" | "6025837" | "6061056" | "6239843" | "6243676" | "6260194" | "6266094" | "6285407" | "6295092" | "6308329" | "6348951" | "6412111" | "6425061" | "6532041" | "6564383" | "6567127" | "6642966" | "6661467" | "6701524" | "6710812" | "6724431" | "6742188" | "6766163" | "6766528" | "6775842" | "6816201").PN.				

3/3/2011 2:36:34 PM
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RESPONSE UNDER 37 C.F.R. § 1.116
EXPEDITED PROCEDURE
GROUP 2424
PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of	Docket No: Q105659
Hwa-kyung LEE	
Appln. No.: 12/118,041	Group Art Unit: 2424
Confirmation No.: 1215	Examiner: BAIG, Sahar A
Filed: May 9, 2008	

For: BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS

RESPONSE UNDER 37 C.F.R. § 1.116

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

Sir:

In response to the Office Action dated March 14, 2011, please consider the remarks as submitted herewith on the accompanying pages.

TABLE OF CONTENTS

REMARKS 2

REMARKS

This Response, submitted in reply to the Office Action dated March 14, 2011, is believed to be fully responsive to each point of rejection raised therein. Accordingly, favorable reconsideration on the merits is respectfully requested.

Claims 1-22 are all the claims pending in the application.

I. Claim Rejections- 35 U.S.C. § 103

Claims 1-6, 9-15 and 18-22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hayashi et al. US Patent No. 5,708,475 in view of Gaughan US Patent Publication No. 2003/0192057.

Claim 1

Claim 1 recites:

A broadcast-receiving apparatus comprising:
a receiving unit which receives a data broadcasting signal through a data broadcasting channel;
an extracting unit which extracts data from the received data broadcasting signal; and
a merging unit which merges the extracted data with media content that is being output,
wherein the media content is not obtained from a TV broadcasting signal that is being currently received at the time the media content is being output.

The Examiner concedes that Hayashi does not teach "wherein the media content is not obtained from a TV broadcasting signal that is being currently received at the time the media content is being output," and cites Gaughan to cure the deficiency. However, Applicant submits that Gaughan does not cure the deficiencies of Hayashi.

Gaughan discloses that a PIP module is arranged to provide a PIP area within a main area of the display. The integrated television/internet controller is arranged to supply internet video

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for display on the display and to supply internet audio for display by the speaker of the web television. The internet video and internet audio are derived from internet communications between the web television and internet content providers. The integrated television/internet controller is also arranged to swap the internet video and the television video between the PIP area and the main area of the display and to swap the internet audio and the television audio between the speaker of the web television. See paragraph [0013].

Therefore, Gaughan does not teach that the media content which is merged with the extracted data is not obtained from a TV broadcasting signal that is being currently received at the time the media content is being output.

Moreover, it would not be obvious to modify Hayashi to teach that the media content is not obtained from a TV broadcasting signal that is being currently received at the time the media content is being output. Hayashi discloses a program of a channel currently displayed on a monitor as a parent picture and displaying a program of another channel as a child picture. See col. 8, lines 52-56.

Further, Hayashi discloses that a microcomputer 11 controls a dual-picture processing block 8 to display the output of the processing circuit 5 as a child picture, whereby the video signal supplied from the processing circuit 5 converted to form a child picture in the dual-picture processing block 8. At this time, the microcomputer 11 further sends a control signal to the mixer 9 for compositing a picture-in-picture image where the output of the processing circuit 4 is displayed as a parent picture while the output of the dual-picture processing block 8 is displayed as a child picture, so that the output of the processing circuit 4 and the output of the dual-picture processing block 8 are combined with each other in the mixer 9 to form a picture-in-picture

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image. And this picture-in-picture image is outputted to the monitor 10 to be displayed thereon. See col. 9, lines 4-24.

Therefore, it would not be obvious to modify Hayashi to disclose that the media content which is merged with the extracted data is not obtained from a TV broadcasting signal that is being currently received at the time the media content is being output. Specifically, this would be contrary to the explicit teachings of Hayashi. Therefore, since the proposed modification would change the principle of operation of Hayashi, the modification is not obvious. If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959); MPEP 2143.01.

For at least the above reasons, claim 1 and its dependent claims 2-9, 19 and 21 should be deemed allowable.

To the extent independent claim 10 recites similar subject matter, claim 10 and dependent claims 11-19, 20 and 22 should be deemed allowable for at least the same reasons.

II. Claim Rejections- 35 U.S.C. § 103

Claims 7, 8, 16 and 17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hayashi et al. US Patent No. 5,708,475 in view of Gaughan US Patent Publication No. 2003/0192057 in view of Ciciora US Patent No. 5,815,297. Claims 7, 8, 16 and 17 should be deemed allowable by virtue of their dependency to independent claims 1 and 10 for at least the

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reasons set forth above. Moreover, Ciciora does not cure the deficiencies of Hayashi and Gaughan.

III. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

/Ruthleen E. Uy/

Ruthleen E. Uy
Registration No. 51,361

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WASHINGTON OFFICE
23373
CUSTOMER NUMBER

Date: May 16, 2011

TVnGO Exhibit 2009
Page 2009-176
Samsung v. TVnGO, IPR2026-00213

Electronic Acknowledgement Receipt

EFS ID:	10097769
Application Number:	12118041
International Application Number:	
Confirmation Number:	1215
Title of Invention:	BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS
First Named Inventor/Applicant Name:	Hwa-Kyung Lee
Customer Number:	23373
Filer:	Ruthleen Ellice Uy
Filer Authorized By:	
Attorney Docket Number:	Q105659
Receipt Date:	16-MAY-2011
Filing Date:	09-MAY-2008
Time Stamp:	15:38:55
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		response.pdf	91292 4308ea992a0805d4aa5bd70d5c4309d9e25b12f2	yes	5

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Amendment After Final	1	1
	Applicant Arguments/Remarks Made in an Amendment	2	5
Warnings:			
Information:			
	Total Files Size (in bytes):	91292	

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
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National Stage of an International Application under 35 U.S.C. 371
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New International Application Filed with the USPTO as a Receiving Office
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UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/118,041	05/09/2008	Hwa-Kyung Lee	Q105659	1215

23373 7590 06/06/2011

SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER	
BAIG, SAHAR A	

ART UNIT	PAPER NUMBER
2424	

NOTIFICATION DATE	DELIVERY MODE
06/06/2011	ELECTRONIC

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

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

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

sughrue@sughrue.com
PPROCESSING@SUGHRUE.COM
USPTO@SUGHRUE.COM

Interview Summary	Application No.	Applicant(s)	
	12/118,041	LEE, HWA-KYUNG	
	Examiner	Art Unit	
	SAHAR BAIG	2424	

All participants (applicant, applicant's representative, PTO personnel):

(1) *SAHAR BAIG*. (3)_____.

(2) *RUTHLEEN UY*. (4)_____.

Date of Interview: *27 May 2011*.

Type: a)☒ Telephonic b)☐ Video Conference
c)☐ Personal [copy given to: 1)☐ applicant 2)☐ applicant's representative]

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

Claim(s) discussed: *1,2, and 19*.

Identification of prior art discussed: *Hayashi et al. US Patent No. 5,708,475 and Gaughan et al. US Patent Publication No. 20030192057*.

Agreement with respect to the claims f)☒ was reached. g)☐ was not reached. h)☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: *Applicant discussed modifying the claim language to include that the media content is a pre-recorded signal that is being output at the same time as the media content which is extracted from the received data broadcasting signal. This change will overcome the prior art of record.* .

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

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

/Pankaj Kumar/
Supervisory Patent Examiner, Art Unit 2424

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record
A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews
Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.
All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:
- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

1) A brief description of the nature of any exhibit shown or any demonstration conducted,
2) an identification of the claims discussed,
3) an identification of the specific prior art discussed,
4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
5) a brief identification of the general thrust of the principal arguments presented to the examiner,
   (The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
6) a general indication of any other pertinent matters discussed, and
7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/118,041	05/09/2008	Hwa-Kyung Lee	Q105659	1215

23373 7590 06/07/2011

SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER	
BAIG, SAHAR A	

ART UNIT	PAPER NUMBER
2424	

NOTIFICATION DATE	DELIVERY MODE
06/07/2011	ELECTRONIC

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

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

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

sughrue@sughrue.com
PPROCESSING@SUGHRUE.COM
USPTO@SUGHRUE.COM

Advisory Action Before the Filing of an Appeal Brief	**Application No.** 12/118,041	**Applicant(s)** LEE, HWA-KYUNG	
	Examiner SAHAR BAIG	**Art Unit** 2424	

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

THE REPLY FILED 16 May 2011 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:
   a) ☐ The period for reply expires _____months from the mailing date of the final rejection.
   b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
   Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
   (b) ☐ They raise the issue of new matter (see NOTE below);
   (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.
   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
   The status of the claim(s) is (or will be) as follows:
   Claim(s) allowed: _____.
   Claim(s) objected to: _____.
   Claim(s) rejected: *1-22*.
   Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____
13. ☒ Other: Applicant argues that Gaughan does not teach that the media content which is merged with the extracted data is not obtained from a TV broadcasting signal that is being currently received at the time the media content is being output. Examiner respectfully disagrees. Gaughan's teachings are used to show that it is known in the art to provide media content which is not received from a TV broadcasting signal along with media which is being obtained from a TV broadcasting signal. Gaughan's teachings are combined with Hayashi's teachings to show that it is possible to merge two signals in such a way that the output is displayed simultaneously from two distinct sources on the TV screen. Therefore it would have been obvious to one of ordinary skill in the art to combine these two references to implement the claimed subject matter .

/Pankaj Kumar/
Supervisory Patent Examiner, Art Unit 2424

REQUEST FOR CONTINUED EXAMINATION (RCE) TRANSMITTAL

Application Number	12/118,041	Filing Date	May 9, 2008	Confirmation Number	1215	Docket Number	Q105659
First Named Inventor	Hwa-kyung LEE		Examiner Name	BAIG, Sahar A		Art Unit	2424
Title	BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS						

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.

SUBMISSION REQUIRED UNDER 37 CFR 1.114

Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

☐ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

- ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____
- ☐ Other _____

☐ Do NOT consider the amendment(s)/reply under 37 CFR 1.116 previously filed on _____

☑ Enclosed

- ☑ Amendment/Reply
- ☐ Information Disclosure Statement (IDS)
- ☐ Affidavit(s)/Declaration(s)
- ☐ Other _____

MISCELLANEOUS

☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of _____ months. (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

☐ Other _____

FEES

The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.

☑ The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

CORRESPONDENCE ADDRESS

Direct all correspondence to the address for SUGHRUE MION, PLLC filed under the Customer Number listed below:

WASHINGTON OFFICE
23373
CUSTOMER NUMBER

SIGNATURE OF REGISTERED U.S. PATENT PRACTITIONER

Signature /Ruthleen E. Uy/ Date June 14, 2011

Name Ruthleen E. Uy Registration No. 51,361

TVnGO Exhibit 2009
Page 2009-185
Samsung v. TVnGO, IPR2026-00213

Electronic Patent Application Fee Transmittal

Application Number:	12118041
Filing Date:	09-May-2008
Title of Invention:	BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS
First Named Inventor/Applicant Name:	Hwa-Kyung Lee
Filer:	Ruthleen Ellice Uy
Attorney Docket Number:	Q105659

Filed as Large Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
Request for continued examination	1801	1	810	810
		Total in USD ($)		**810**

Electronic Acknowledgement Receipt

EFS ID:	10304126
Application Number:	12118041
International Application Number:	
Confirmation Number:	1215
Title of Invention:	BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS
First Named Inventor/Applicant Name:	Hwa-Kyung Lee
Customer Number:	23373
Filer:	Ruthleen Ellice Uy
Filer Authorized By:	
Attorney Docket Number:	Q105659
Receipt Date:	14-JUN-2011
Filing Date:	09-MAY-2008
Time Stamp:	19:05:41
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$810
RAM confirmation Number	6678
Deposit Account	194880
Authorized User	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)

TVnGO Exhibit 2009
Page 2009-188
Samsung v. TVnGO, IPR2026-00213

1		amend.pdf	175584 ba12ed88a02e65a0f24fba4a2555cb82007c87f7	yes	11

Multipart Description/PDF files in .zip description		
Document Description	**Start**	**End**
Amendment Submitted/Entered with Filing of CPA/RCE	1	1
Applicant summary of interview with examiner	2	2
Claims	3	6
Applicant Arguments/Remarks Made in an Amendment	7	10
Request for Continued Examination (RCE)	11	11

Warnings:

Information:

2	Fee Worksheet (SB06)	fee-info.pdf	30628 60fac91a8d6f91cbd893cd04ccc62ac687e1c94a	no	2

Warnings:

Information:

Total Files Size (in bytes):	206212

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New Applications Under 35 U.S.C. 111

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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.

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of	Docket No: Q105659
Hwa-kyung LEE	
Appln. No.: 12/118,041	Group Art Unit: 2424
Confirmation No.: 1215	Examiner: BAIG, Sahar A
Filed: May 9, 2008	

For: BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS

AMENDMENT UNDER 37 C.F.R. § 1.114(c)

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

Sir:

In response to the Advisory Action dated June 7, 2011 and the Office Action dated March 14, 2011, please amend the above-identified application as follows on the accompanying pages.

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STATEMENT OF SUBSTANCE OF INTERVIEW

As indicated in the Examiner's Interview Summary Record (PTO-413) dated June 6, 2011, an interview was conducted between Examiner Sahar Baig and the Applicant's undersigned representative on May 27, 2011.

During the interview, Applicant's representative clarified the differences between the claimed invention and cited references. The Examiner indicated that based the current claim language, the Examiner believes that the claimed elements are taught. Therefore, in the interest of moving prosecution forward, amendments to the claims were discussed.

Applicant has amended the claims as discussed with the examiner. The Examiner indicated that such amendments will overcome the current rejection. The Examiner also suggests amendments to dependent claims 2 and 11 and canceling dependent claim 19 for antecedence reasons

It is respectfully submitted that the instant STATEMENT OF SUBSTANCE OF INTERVIEW complies with the requirements of 37 C.F.R. §§1.2 and 1.133 and MPEP §713.04.

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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A broadcast-receiving apparatus comprising:

a receiving unit which receives a data broadcasting signal through a data broadcasting channel;

an extracting unit which extracts data from the received data broadcasting signal; and

a merging unit which merges the extracted data, which is real time broadcasting content, with media content, which has been recorded, that is being output,

wherein the media content is not obtained from a TV broadcasting signal that is being currently received at the time the media content is being output.

2. (currently amended): The broadcast-receiving apparatus of claim 1, wherein the media content includes at least one of ~~recorded broadcasting signals,~~ moving picture content that is received through a network or stored in a storage medium, and broadcasting signals that are received through a channel different from the data broadcasting channel.

3. (original): The broadcast-receiving apparatus of claim 1, further comprising:

a user interface which receives input for determining the data broadcasting channel.

4. (original): The broadcast-receiving apparatus of claim 1, wherein the extracted data includes at least one of data carousel data, application data, and information that can be displayed on a screen as one of graphics and characters.

5. (original): The broadcast-receiving apparatus of claim 1, wherein the merging unit merges the extracted data and the media content in a picture in picture (PIP) mode.

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6. (original): The broadcast-receiving apparatus of claim 1, wherein the merging unit merges the extracted data and the media content by dividing an image of the media content being output in a predetermined direction at a predetermined ratio, and providing the media content in one division and the extracted data in another division.

7. (original): The broadcast-receiving apparatus of claim 5, wherein a PIP position of the extracted data changes according to a user input.

8. (original): The broadcast-receiving apparatus of claim 6, wherein a division position of the extracted data changes according to a user input.

9. (original): The broadcast-receiving apparatus of claim 1, wherein the merging unit merges the extracted data with the media content only for a predetermined amount of time , when one of a display mode in which the extracted data is not displayed is selected, and the display of the extracted data is completed.

10. (currently amended): A method of outputting data by a broadcast-receiving apparatus, comprising:

receiving a data broadcasting signal through a data broadcasting channel;

extracting data from the received data broadcasting signal; and

merging the extracted data, which is real time broadcasting content, with media content, which has been recorded, that is being output,

wherein the media content is not obtained from a TV broadcasting signal that is being currently received at the time the media content is being output.

11. (currently amended): The method of claim 10, wherein the media content includes at least one of ~~recorded broadcasting signals,~~ moving picture content that is received

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through a network or stored in a storage medium, and broadcasting signals that are received through a channel different from the data broadcasting channel.

12. (original): The method of claim 10, further comprising:

determining the data broadcasting channel through a user interface,

wherein the data broadcasting signal is received through the determined data broadcasting channel.

13. (original): The method of claim 10, wherein the data includes at least one of data carousel data, application data, and information that can be displayed on a screen as graphics or characters.

14. (original): The method of claim 10, wherein the merging comprises merging the extracted data and the media content in a picture in picture (PIP) mode.

15. (original): The method of claim 10, wherein the merging comprises merging the extracted data and the media content by dividing an image of the media content being output in a predetermined direction at a predetermined ratio, and providing the media content in one division and the extracted data in another division.

16. (original): The method of claim 14, further comprising:

changing a PIP position of the extracted data according to a user input.

17. (original): The method of claim 15, further comprising:

changing a division of the extracted data according to a user input.

18. (original): The method of claim 10, further comprising:

merging the extracted data with the media content only for a predetermined amount of time , when one of a display mode in which the extracted data is not displayed is selected, and the display of the extracted data is completed.

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19. (canceled).

20. (previously presented): The method of claim 10, wherein the media content is obtained from one of a prerecorded broadcasting signal which is recorded in the broadcast-receiving apparatus, a moving picture which is received by the broadcast-receiving apparatus through a network, and a moving picture which is stored in a storage medium.

21. (previously presented): The broadcast-receiving apparatus of claim 1, wherein the extracted data is outputted in real time.

22. (previously presented): The method of claim 10, wherein the extracted data is outputted in real time.

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REMARKS

This Amendment, submitted in reply to the Advisory Action dated June 7, 2011 and the Office Action dated March 14, 2011, is believed to be fully responsive to each point of rejection raised therein. Accordingly, favorable reconsideration on the merits is respectfully requested.

Claims 1-8 and 20-22 are all the claims pending in the application. Claims 1, 2, 10, and 11 have been amended. Claim 19 has been canceled.

I. Claim Rejections- 35 U.S.C. § 103

Claims 1-6, 9-15 and 18-22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hayashi et al. US Patent No. 5,708,475 in view of Gaughan US Patent Publication No. 2003/0192057.

Claim 1

Claim 1 recites:

> A broadcast-receiving apparatus comprising:
> a receiving unit which receives a data broadcasting signal through a data broadcasting channel;
> an extracting unit which extracts data from the received data broadcasting signal; and
> a merging unit which merges the extracted data, **which is real time broadcasting content,** with media content, **which has been recorded,** that is being output,
> **wherein the media content is not obtained from a TV broadcasting signal that is being currently received at the time the media content is being output.**

Claim 1 has been amended to recite "a merging unit which merges the extracted data, **which is real time broadcasting content,** with media content, **which has been recorded,** that is being output." As discussed with the Examiner, the cited art does not teach that the extracted data **is real time broadcasting content,** or that the media content **has been recorded**. For at least this reason, the cited art does not teach the elements of claim 1.

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The Examiner concedes that Hayashi does not teach "wherein the media content is not obtained from a TV broadcasting signal that is being currently received at the time the media content is being output," and cites Gaughan to cure the deficiency. However, Applicant submits that Gaughan does not cure the deficiencies of Hayashi.

Gaughan discloses that a PIP module is arranged to provide a PIP area within a main area of the display. The integrated television/internet controller is arranged to supply internet video for display on the display and to supply internet audio for display by the speaker of the web television. The internet video and internet audio are derived from internet communications between the web television and internet content providers. The integrated television/internet controller is also arranged to swap the internet video and the television video between the PIP area and the main area of the display and to swap the internet audio and the television audio between the speaker of the web television. See paragraph [0013].

Therefore, Gaughan does not teach that the media content which is merged with the extracted data is not obtained from a TV broadcasting signal that is being currently received at the time the media content is being output.

Moreover, it would not be obvious to modify Hayashi to teach that the media content is not obtained from a TV broadcasting signal that is being currently received at the time the media content is being output. Hayashi discloses a program of a channel currently displayed on a monitor as a parent picture and displaying a program of another channel as a child picture. See col. 8, lines 52-56.

Further, Hayashi discloses that a microcomputer 11 controls a dual-picture processing block 8 to display the output of the processing circuit 5 as a child picture, whereby the video signal supplied from the processing circuit 5 converted to form a child picture in the dual-picture

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processing block 8. At this time, the microcomputer 11 further sends a control signal to the mixer 9 for compositing a picture-in-picture image where the output of the processing circuit 4 is displayed as a parent picture while the output of the dual-picture processing block 8 is displayed as a child picture, so that the output of the processing circuit 4 and the output of the dual-picture processing block 8 are combined with each other in the mixer 9 to form a picture-in-picture image. And this picture-in-picture image is outputted to the monitor 10 to be displayed thereon. See col. 9, lines 4-24.

Therefore, it would not be obvious to modify Hayashi to disclose that the media content which is merged with the extracted data is not obtained from a TV broadcasting signal that is being currently received at the time the media content is being output. Specifically, this would be contrary to the explicit teachings of Hayashi. Therefore, since the proposed modification would change the principle of operation of Hayashi, the modification is not obvious. If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959); MPEP 2143.01.

For at least the above reasons, claim 1 and its dependent claims 2-9, 19 and 21 should be deemed allowable.

To the extent independent claim 10 recites similar subject matter, claim 10 and dependent claims 11-19, 20 and 22 should be deemed allowable for at least the same reasons.

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II. Claim Rejections- 35 U.S.C. § 103

Claims 7, 8, 16 and 17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hayashi et al. US Patent No. 5,708,475 in view of Gaughan US Patent Publication No. 2003/0192057 in view of Ciciora US Patent No. 5,815,297. Claims 7, 8, 16 and 17 should be deemed allowable by virtue of their dependency to independent claims 1 and 10 for at least the reasons set forth above. Moreover, Ciciora does not cure the deficiencies of Hayashi and Gaughan.

III. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

/Ruthleen E. Uy/

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Date: June 14, 2011

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PTO/SB/06 (07-06)
Approved for use through 1/31/2007. OMB 0651-0032
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PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number	Filing Date	☐ To be Mailed
12/118,041	05/09/2008	

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY ☐ RATE ($)	SMALL ENTITY ☐ FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =		OR	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =			X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							
			TOTAL			TOTAL	

* If the difference in column 1 is less than zero, enter "0" in column 2.

APPLICATION AS AMENDED – PART II

AMENDMENT	06/14/2011	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE ($)	SMALL ENTITY ADDITIONAL FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 21	Minus	** 22	= 0	X $ =		OR	X $52=	0
	Independent (37 CFR 1.16(h))	* 2	Minus	***3	= 0	X $ =		OR	X $220=	0
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	0

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

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

Legal Instrument Examiner:
/DIANE WILLIAMS/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/118,041	05/09/2008	Hwa-Kyung Lee	Q105659	1215

23373 7590 09/30/2011

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EXAMINER	
BAIG, SAHAR A	

ART UNIT	PAPER NUMBER
2424	

NOTIFICATION DATE	DELIVERY MODE
09/30/2011	ELECTRONIC

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

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

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

sughrue@sughrue.com
PPROCESSING@SUGHRUE.COM
USPTO@SUGHRUE.COM

Office Action Summary	Application No.	Applicant(s)	
	12/118,041	LEE, HWA-KYUNG	
	Examiner	Art Unit	
	SAHAR BAIG	2424	

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

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 June 2011*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5)☒ Claim(s) *1-18 and 20-22* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-18 and 20-22* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☒ The drawing(s) filed on *09 May 2008* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

12)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/14/2011 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-18 and 20-22 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 1-6, 9-15, 18, and 20-22 rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi et al. US Patent No. 5,708,475 in view of Hong US Patent Publication No. 2007/0133617.

Regarding Claims 1, 10, 21, and 22, Hayashi discloses a broadcast-receiving apparatus comprising: a receiving unit which receives a data broadcasting signal through a data broadcasting channel [Col. 2 lines 23-24]; an extracting unit which extracts data from the received data broadcasting signal [Col. 2 lines 26-28]; and a merging unit which merges the extracted data with media content that is being output [Col. 2 lines 31-33; *the two outputs are combined*]. However, Hayashi fails to teach that the media content is not obtained from a TV broadcasting signal that is being currently received at the time the media content is being output. Hayashi also fails to teach that the extracted data is real time broadcasting content and media content is content that has been recorded. In an analogous art, Hong discloses an apparatus which reproduces media content from a personal video recorder along with auxiliary data that is being broadcasted in real-time [Figure 3 & [0020]]. Therefore it would have been obvious to combine the teachings of Hayashi and Hong to provide media content which is different than the currently broadcasted content.

Regarding Claims 2 and 11, the combined teachings of Hayashi and Hong disclose a broadcast-receiving apparatus wherein the media content includes at least one of moving picture content that is received through a network or stored in a storage medium, and broadcasting signals that are received through a channel different from the data broadcasting channel [Hong [0034]].

Regarding Claims 3 and 12, the combined teachings of Hayashi and Hong discloses a broadcast-receiving apparatus further comprising: a user interface which receives input for determining the data broadcasting channel [Hayashi Col. 8 lines 52-62; *The remote controller receives the user input for the desired channel*].

Regarding Claims 4 and 13, the combined teachings of Hayashi and Hong discloses a broadcast-receiving apparatus wherein the extracted data includes at least one of data carousel data, application data, and information that can be displayed on a screen as one of graphics and characters [Hayashi Col. 10 lines 15-24].

Regarding Claim 5 and 14, the combined teachings of Hayashi and Hong discloses a broadcast-receiving apparatus wherein the merging unit merges the extracted data and the media content in a picture in picture (PIP) mode [Hong Figure 3].

Regarding Claim 6 and 15, the combined teachings of Hayashi and Hong discloses a broadcast-receiving wherein the merging unit merges the extracted data and the media content by dividing an image of the media content being output in a predetermined direction at a predetermined ratio, and providing the

media content in one division and the extracted data in another division [Hayashi Figure 7B *the ratio illustrated is 1:2*].

Regarding Claim 9 and 18, the combined teachings of Hayashi and Hong discloses a broadcast-receiving wherein the merging unit merges the extracted data with the media content only for a predetermined amount of time , when one of a display mode in which the extracted data is not displayed is selected, and the display of the extracted data is completed [Hayashi Col. 13 lines 17-25].

Regarding Claim 20, the combined teachings of Hayashi and Hong discloses a broadcast-receiving apparatus wherein the media content is obtained from one of a prerecorded broadcasting signal which is recorded in the broadcast-receiving apparatus, a moving picture which is received by the broadcast-receiving apparatus through a network, and a moving picture which is stored in a storage medium [Hong [0020]].

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claim 7, 8, 16 and 17 rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi et al. US Patent No. 5,708,475 in view of Hong US Patent Publication No. 2007/0133617 in further view of Ciciora US Patent No. 5,815,297.

Regarding Claims 7, 8, 16 and 17 Hayashi and Hong fails to disclose that the PIP position of the extracted data changes according to a user input. In an analogous art, Ciciora discloses that a user is able to control format adjustments such as, split-screen, PIP, zoom, aspect ratio, and display of teletext on the television [Col. 5 line 64 – Col. 6 line 5]. Therefore it would have been obvious to one of ordinary skill in the art to combine the teachings of Hayashi, Hong and Ciciora to allow customized options to suit the needs of individual users [Ciciora Col. 4 lines 18-21].

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. It includes Sim US Patent No. 6,031,580, McDonough US Patent Publication No. 2007/0079335, Kim et al. US Patent Publication No. 2005/0210145, and Matoba US Patent No. 6,754,438.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAHAR BAIG whose telephone number is (571)270-3005. The examiner can normally be reached on Monday-Friday (9:30 - 6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pankaj Kumar can be reached on 571-272-3011. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SAB
/Pankaj Kumar/
Supervisory Patent Examiner, Art Unit 2424

Notice of References Cited	Application/Control No. 12/118,041	Applicant(s)/Patent Under Reexamination LEE, HWA-KYUNG	
	Examiner SAHAR BAIG	Art Unit 2424	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2007/0079335	04-2007	McDonough, John C.	725/058
*	B	US-6,754,438	06-2004	Matoba, Hiroshi	386/201
*	C	US-2005/0210145	09-2005	Kim et al.	709/231
*	D	US-2007/0133617	06-2007	Hong, Kyung Dug	370/510
*	E	US-6,031,580	02-2000	Sim, Soon Sun	725/43
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12118041	LEE, HWA-KYUNG
	Examiner	**Art Unit**
	SAHAR A BAIG	2424

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

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

CLAIM		DATE								
Final	Original	09/26/2010	03/03/2011	09/24/2011						
	1	✓	✓	✓						
	2	✓	✓	✓						
	3	✓	✓	✓						
	4	✓	✓	✓						
	5	✓	✓	✓						
	6	✓	✓	✓						
	7	✓	✓	✓						
	8	✓	✓	✓						
	9	✓	✓	✓						
	10	✓	✓	✓						
	11	✓	✓	✓						
	12	✓	✓	✓						
	13	✓	✓	✓						
	14	✓	✓	✓						
	15	✓	✓	✓						
	16	✓	✓	✓						
	17	✓	✓	✓						
	18	✓	✓	✓						
	19		✓	-						
	20		✓	✓						
	21		✓	✓						
	22		✓	✓						

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12118041	LEE, HWA-KYUNG
	Examiner	Art Unit
	SAHAR A BAIG	2424

SEARCHED

Class	Subclass	Date	Examiner
725	24, 47, 136, 137	09/26/2010	SB
	Updated	03/03/2011	SB
	Updated	09/24/2011	SB

SEARCH NOTES

Search Notes	Date	Examiner
Checked for 101 nd Double Patenting Issues	09/26/2010	SB
Inventor Search	09/26/2010	SB
Inventor and Double Patenting Search	09/24/2011	SB

INTERFERENCE SEARCH

Class	Subclass	Date	Examiner

/S. A. B./ Examiner.Art Unit 2424	

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	510	(lee-hwa$.in.)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2011/09/24 21:46
L2	2	broadcast same receiv$5 same real-time same extract $5 same merg$6	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2011/09/24 21:47
L3	1	1 and 2	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2011/09/24 21:47
L4	1353	(725/24,47,136,137).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2011/09/24 21:47
L5	1	("5708475").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2011/09/24 21:50
L6	21	("5708475").URPN.	USPAT	OR	OFF	2011/09/24 21:50
L7	8	record$ and 6	USPAT	OR	OFF	2011/09/24 21:51
L8	43647	(ticker$3 or secondary or auxiliary or additional) with (data or information) with record$7	US-PGPUB; USPAT	OR	OFF	2011/09/24 22:09
L9	660	(ticker$3 or secondary or auxiliary or additional) with (data or information) with record$7 with ((real-time) or synchroniz$4)	US-PGPUB; USPAT	OR	OFF	2011/09/24 22:10
L10	230	(ticker$3 or secondary or auxiliary) with (data or information) with record$7 with ((real-time) or synchroniz $4)	US-PGPUB; USPAT	OR	OFF	2011/09/24 22:10
L11	61	((ticker$3 or secondary or auxiliary) with (data or information) with record$7 with ((real-time) or synchroniz $4)) and television	US-PGPUB; USPAT	OR	OFF	2011/09/24 22:11
L12	74	((ticker$3 or secondary or auxiliary) with (data or information) with (recording $2 or recorded or reproduc$5) with ((real-time) or synchroniz $4)) and television	US-PGPUB; USPAT	OR	OFF	2011/09/24 22:13

L13	1122	(dvr or pvr) same ((real-time) or synchroniz$4)	US-PGPUB; USPAT	OR	OFF	2011/09/24 22:25
L14	103	(dvr or pvr) same ((real-time) or synchroniz$4) same (auxiliary or secondary or related or additional) same (data or information)	US-PGPUB; USPAT	OR	OFF	2011/09/24 22:26
S1	1	12/118041	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 21:22
S2	1211	(725/24,47,136,137).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/09/26 21:43
S3	119	(725/137).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/09/26 21:44
S4	2	S3 and (merg$6 same extract $7 same signal$4 same data)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 21:46
S5	1	S3 and (merg$6 and extract $7 and signal$4 and data and pip)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 21:51
S6	333	(merg$6 and extract$7 and signal$4 and data and pip)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 21:51
S7	0	(merg$6 and extract$7 and signal$4 and data and pip).ab.	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 21:51
S8	52	(merg$6 and extract$7 and signal$4 and data).ab.	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 21:51
S9	8	(merg$6 and extract$7 and signal$4 and data).ab.	US-PGPUB; USPAT	OR	OFF	2010/09/26 21:52
S10	5	(ticker$3 and signal$4 and data).ab.	US-PGPUB; USPAT	OR	OFF	2010/09/26 21:52
S11	137	(ticker$3 and signal$4 and data and pip)	US-PGPUB; USPAT	OR	OFF	2010/09/26 21:55
S12	0	(ticker$3 and signal$4 and data and pip).ab.	US-PGPUB; USPAT	OR	OFF	2010/09/26 21:55
S13	1	11/043990	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 22:05
S14	1	11/871554	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 22:08

S15	17	split same screen same user same control$5 same ratio	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 22:13
S16	16	split same screen same user same control$5 same ratio	US-PGPUB; USPAT	OR	OFF	2010/09/26 22:15
S17	3	(teletext$3 or (closed caption $4)) and (split same screen same user same control$5 same ratio)	US-PGPUB; USPAT	OR	OFF	2010/09/26 22:24
S18	811	(teletext$3 or (closed caption $4)) with ((phas$5 adj out) or fad$5)	US-PGPUB; USPAT	OR	OFF	2010/09/26 22:30
S19	15157	harrison.in.	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:18
S20	2103	composite with supplement$6	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:19
S21	0	S19 and S20	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:19
S22	557	S19 and supplement$6	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:20
S23	10	S19 and (stream$6 with supplement$6)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:20
S24	35	S19 and (stream$6 with primary)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:20
S25	1	("2004/0045039").URPN.	USPAT	OR	OFF	2010/09/27 02:22
S26	412	(primary with secondary with data with stream$4)	USPAT	OR	OFF	2010/09/27 02:23
S27	3	(primary with secondary with data with stream$4 with extract$6)	USPAT	OR	OFF	2010/09/27 02:23
S28	2651	pip.ab.	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:28
S29	489	pip.ab.	US-PGPUB; USPAT	OR	OFF	2010/09/27 02:28

S30	26	(two same signal$5 same pip).ab.	US-PGPUB; USPAT	OR	OFF	2010/09/27 02:29
S31	83	pip.ti.	US-PGPUB; USPAT	OR	OFF	2010/09/27 02:32
S32	99	split screen pip	US-PGPUB; USPAT	WITH	OFF	2010/09/27 02:33
S33	1	("6903779").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/09/27 02:44
S34	46	("20010039546" | "20010049826" | "20020023165" | "20020059637" | "20020067428" | "20020078144" | "20030020671" | "20030212997" | "20030227568" | "20040012717" | "20040040042" | "20040045040" | "20040080528" | "5481296" | "5517254" | "5576768" | "5671019" | "5703655" | "5708475" | "5835153" | "5945987" | "6025837" | "6061056" | "6239843" | "6243676" | "6260194" | "6266094" | "6285407" | "6295092" | "6308329" | "6348951" | "6412111" | "6425061" | "6532041" | "6564383" | "6567127" | "6642966" | "6661467" | "6701524" | "6710812" | "6724431" | "6742188" | "6766163" | "6766528" | "6775842" | "6816201").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/09/27 02:45
S35	1	12/118041	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2011/03/03 12:32
S36	1	("5708475").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2011/03/03 12:35
S37	769	record$5 with PIP	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2011/03/03 12:39
S38	5	record$5 with PIP with split with screen$3	US-PGPUB; USPAT	OR	OFF	2011/03/03 12:40
S39	14	record$5 with PIP with (overlay or overlaid)	US-PGPUB; USPAT	OR	OFF	2011/03/03 12:41
S40	9	S39 not S38	US-PGPUB; USPAT	OR	OFF	2011/03/03 12:42

S41	5	dvd with play$5 with PIP with split with screen$3	US-PGPUB; USPAT	OR	OFF	2011/03/03 12:55
S42	0	internet with PIP with split with screen$3	US-PGPUB; USPAT	OR	OFF	2011/03/03 14:26
S43	38	internet with PIP with receiv $6	US-PGPUB; USPAT	OR	OFF	2011/03/03 14:27
S44	46	(ip or internet or iptv) with PIP with receiv$6	US-PGPUB; USPAT	OR	OFF	2011/03/03 14:28
S45	0	11/118219	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2011/03/07 15:24
S46	1	12/253818	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2011/03/07 15:55

EAST Search History (Interference)

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9/24/2011 10:42:13 PM
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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of	Docket No: Q105659
Hwa-kyung LEE	
Appln. No.: 12/118,041	Group Art Unit: 2424
Confirmation No.: 1215	Examiner: BAIG, Sahar A
Filed: May 9, 2008	

For: BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS

AMENDMENT UNDER 37 C.F.R. § 1.111

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

Sir:

In response to the Office Action dated September 30, 2011, please amend the above-identified application as follows on the accompanying pages.

TABLE OF CONTENTS

AMENDMENTS TO THE CLAIMS 2

REMARKS 7

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (previously presented): A broadcast-receiving apparatus comprising:

a receiving unit which receives a data broadcasting signal through a data broadcasting channel;

an extracting unit which extracts data from the received data broadcasting signal; and

a merging unit which merges the extracted data, which is real time broadcasting content, with media content, which has been recorded, that is being output,

wherein the media content is not obtained from a TV broadcasting signal that is being currently received at the time the media content is being output.

2. (previously presented): The broadcast-receiving apparatus of claim 1, wherein the media content includes at least one of moving picture content that is received through a network or stored in a storage medium, and broadcasting signals that are received through a channel different from the data broadcasting channel.

3. (original): The broadcast-receiving apparatus of claim 1, further comprising:

a user interface which receives input for determining the data broadcasting channel.

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4. (original): The broadcast-receiving apparatus of claim 1, wherein the extracted data includes at least one of data carousel data, application data, and information that can be displayed on a screen as one of graphics and characters.

5. (original): The broadcast-receiving apparatus of claim 1, wherein the merging unit merges the extracted data and the media content in a picture in picture (PIP) mode.

6. (original): The broadcast-receiving apparatus of claim 1, wherein the merging unit merges the extracted data and the media content by dividing an image of the media content being output in a predetermined direction at a predetermined ratio, and providing the media content in one division and the extracted data in another division.

7. (original): The broadcast-receiving apparatus of claim 5, wherein a PIP position of the extracted data changes according to a user input.

8. (original): The broadcast-receiving apparatus of claim 6, wherein a division position of the extracted data changes according to a user input.

9. (original): The broadcast-receiving apparatus of claim 1, wherein the merging unit merges the extracted data with the media content only for a predetermined amount of time , when one of a display mode in which the extracted data is not displayed is selected, and the display of the extracted data is completed.

10. (previously presented): A method of outputting data by a broadcast-receiving apparatus, comprising:

receiving a data broadcasting signal through a data broadcasting channel;

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extracting data from the received data broadcasting signal; and

merging the extracted data, which is real time broadcasting content, with media content, which has been recorded, that is being output,

wherein the media content is not obtained from a TV broadcasting signal that is being currently received at the time the media content is being output.

11. (previously presented): The method of claim 10, wherein the media content includes at least one of moving picture content that is received through a network or stored in a storage medium, and broadcasting signals that are received through a channel different from the data broadcasting channel.

12. (original): The method of claim 10, further comprising:

determining the data broadcasting channel through a user interface,

wherein the data broadcasting signal is received through the determined data broadcasting channel.

13. (original): The method of claim 10, wherein the data includes at least one of data carousel data, application data, and information that can be displayed on a screen as graphics or characters.

14. (original): The method of claim 10, wherein the merging comprises merging the extracted data and the media content in a picture in picture (PIP) mode.

15. (original): The method of claim 10, wherein the merging comprises merging the extracted data and the media content by dividing an image of the media content being output

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in a predetermined direction at a predetermined ratio, and providing the media content in one division and the extracted data in another division.

16. (original): The method of claim 14, further comprising:

changing a PIP position of the extracted data according to a user input.

17. (original): The method of claim 15, further comprising:

changing a division of the extracted data according to a user input.

18. (original): The method of claim 10, further comprising:

merging the extracted data with the media content only for a predetermined amount of time, when one of a display mode in which the extracted data is not displayed is selected, and the display of the extracted data is completed.

19. (canceled).

20. (previously presented): The method of claim 10, wherein the media content is obtained from one of a prerecorded broadcasting signal which is recorded in the broadcast-receiving apparatus, a moving picture which is received by the broadcast-receiving apparatus through a network, and a moving picture which is stored in a storage medium.

21. (previously presented): The broadcast-receiving apparatus of claim 1, wherein the extracted data is outputted in real time.

22. (previously presented): The method of claim 10, wherein the extracted data is outputted in real time.

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23. (new): The apparatus according to claim 1, wherein the media content and the extracted data are from different channels.

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REMARKS

This Amendment, submitted in reply to the Office Action dated September 30, 2011, is believed to be fully responsive to each point of rejection raised therein. Accordingly, favorable reconsideration on the merits is respectfully requested.

Claims 1-18 and 20-23 are all the claims pending in the application.

I. Rejection of Claims 1-6, 9-15, 18 and 20-22 under 35 U.S.C. § 103(a)

Claims 1-6, 9-15, 18 and 20-22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hayashi et al. US Patent No. 5,708,475 in view of Hong US Patent Publication No. 2007/0133617.

Claim 1

Claim 1 recites:

A broadcast-receiving apparatus comprising:
a receiving unit which receives a data broadcasting signal through a data broadcasting channel;
an extracting unit which extracts data from the received data broadcasting signal; and
a merging unit which merges the extracted data, which is real time broadcasting content, with media content, which has been recorded, that is being output,
wherein the media content is not obtained from a TV broadcasting signal that is being currently received at the time the media content is being output.

The Examiner states that Hayashi teaches the elements of claim 1 except for "a merging unit which merges the extracted data, **which is real time broadcasting content,** with media content, **which has been recorded**, that is being output," and "wherein the media content is not obtained from a TV broadcasting signal that is being currently received at the time the media content is being output," and cites Hong to cure the deficiency. However, Applicant submits that

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Hayashi does not teach the elements of claim 1, and Hong does not cure the deficiencies of Hayashi.

As recited in claim 1, the media content is not obtained from a TV broadcasting signal that is being currently received at the time the media content is being output.

Hong discloses a method of displaying a television receiver input signal according to a time-shift function. Hong discloses that the time-shifted display of a real-time broadcast signal prohibits a viewing by the user of the broadcast signal received in real time on the same channel. A playback operation according to the time-shift function, which utilizes the entire screen, precludes any other simultaneous display to the user (viewer) for a monitoring or visual confirmation of the incoming broadcast signal and its progress status. Therefore, Hong provides a television receiver and a display method which **enables a real-time display of a television receiver input signal in the event that a time-shift function is being executed with respect to the input signal itself.** See paragraph [0007].

Further, Hong discloses displaying on a screen an input signal of one channel, by storing the input signal in a storage medium according to the time-shift function; checking whether a user requests the input signal of the channel stored in the stored medium to be output according to the time-shift function; and, if the stored input signal according to the time-shift function is requested to be output, displaying the input signal stored in the storage medium on a first area of the screen and a real-time input signal of the channel on a second area of the screen according to a display mode selected by the user. See paragraph [0034].

Therefore, Hong disclose displaying an input signal in real time and displaying the same input signal which was stored in the storage medium. Hong discloses that the stored broadcast

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signal is displayed on the main area (media content as cited by the Examiner) and the real-time broadcast signal is displayed on an auxiliary area (extracted data as cited by the Examiner). Hong enables simultaneous display of a real-time-received broadcast signal and a time-shifted version **of the received broadcast signal**. See paragraph [0043].

Consequently, Hong does not teach that the media content is not obtained from a TV broadcasting signal that is being currently received at the time the media content is being output, since Hong discloses that the stored broadcast signal displayed on the main area and the real-time broadcast signal displayed on an auxiliary area are the same broadcast signal.

Moreover, it would not be obvious to modify Hayashi to teach that the media content is not obtained from a TV broadcasting signal that is being currently received at the time the media content is being output.

Hayashi discloses that a microcomputer 11 controls a dual-picture processing block 8 to display the output of the processing circuit 5 as a child picture, whereby the video signal supplied from the processing circuit 5 converted to form a child picture in the dual-picture processing block 8. At this time, the microcomputer 11 further sends a control signal to the mixer 9 for compositing a picture-in-picture image where the output of the processing circuit 4 is displayed as a parent picture while the output of the dual-picture processing block 8 is displayed as a child picture, so that the output of the processing circuit 4 and the output of the dual-picture processing block 8 are combined with each other in the mixer 9 to form a picture-in-picture image. And this picture-in-picture image is outputted to the monitor 10 to be displayed thereon. See col. 9, lines 4-24.

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Therefore, it would not be obvious to modify Hayashi to disclose that the media content which is merged with the extracted data is not obtained from a TV broadcasting signal that is being currently received at the time the media content is being output. Specifically, this would be contrary to the explicit teachings of Hayashi. Therefore, since the proposed modification would change the principle of operation of Hayashi, the modification is not obvious. If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959); MPEP 2143.01.

For at least the above reasons, claim 1 and its dependent claims 2-9, 19 and 21 should be deemed allowable.

To the extent independent claim 10 recites similar subject matter, claim 10 and dependent claims 11-19, 20 and 22 should be deemed allowable for at least the same reasons.

II. Rejection of Claims 7, 8, 16 and 17 under 35 U.S.C. § 103(a)

Claims 7, 8, 16 and 17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hayashi et al. US Patent No. 5,708,475 in view of Hong US Patent Publication No. 2007/0133617 in view of Ciciora US Patent No. 5,815,297.

Claims 7, 8, 16 and 17 should be deemed allowable by virtue of their dependency to independent claims 1 and 10 for at least the reasons set forth above. Moreover, Ciciora does not cure the deficiencies of Hayashi and Hong.

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III. New Claim

Applicant has added new claim 23. Support for claim 23 can be found at, for example, paragraph [0033] of the Applicant's specification. The art cited by the Examiner does not teach the elements of claim 23, therefore, claim 23 should be deemed allowable.

IV. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

/Ruthleen E. Uy/

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23373
CUSTOMER NUMBER

Date: December 30, 2011

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Electronic Acknowledgement Receipt

EFS ID:	11736521
Application Number:	12118041
International Application Number:	
Confirmation Number:	1215
Title of Invention:	BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS
First Named Inventor/Applicant Name:	Hwa-Kyung Lee
Customer Number:	23373
Filer:	Ruthleen Ellice Uy/Jennifer Mundee
Filer Authorized By:	Ruthleen Ellice Uy
Attorney Docket Number:	Q105659
Receipt Date:	30-DEC-2011
Filing Date:	09-MAY-2008
Time Stamp:	13:42:43
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		Q105659_Amend111.pdf	113085 676132eb4673f382f329c12e7d710a1d80fb9e78	yes	11

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Amendment/Req. Reconsideration-After Non-Final Reject	1	1
	Claims	2	6
	Applicant Arguments/Remarks Made in an Amendment	7	11
Warnings:			
Information:			
	Total Files Size (in bytes):	113085	

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New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

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

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

PTO/SB/06 (07-06)
Approved for use through 1/31/2007. OMB 0651-0032
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PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number	Filing Date	☐ To be Mailed
12/118,041	05/09/2008	

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY ☐ RATE ($)	SMALL ENTITY ☐ FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =		OR	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =			X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							
			TOTAL			TOTAL	

* If the difference in column 1 is less than zero, enter "0" in column 2.

APPLICATION AS AMENDED – PART II

AMENDMENT	12/30/2011	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE ($)	SMALL ENTITY ADDITIONAL FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 22	Minus	** 22	= 0	X $ =		OR	X $60=	0
	Independent (37 CFR 1.16(h))	* 2	Minus	***3	= 0	X $ =		OR	X $250=	0
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	0

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

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

Legal Instrument Examiner:
/LASHAWN MARKS/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/118,041	05/09/2008	Hwa-Kyung Lee	Q105659	1215

23373 7590 05/22/2012

SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
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WASHINGTON, DC 20037

EXAMINER	
BAIG, SAHAR A	

ART UNIT	PAPER NUMBER
2424	

NOTIFICATION DATE	DELIVERY MODE
05/22/2012	ELECTRONIC

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

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

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTO@sughrue.com
sughrue@sughrue.com
PPROCESSING@SUGHRUE.COM

Office Action Summary	Application No.	Applicant(s)	
	12/118,041	LEE, HWA-KYUNG	
	Examiner	Art Unit	
	SAHAR BAIG	2424	

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

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 December 2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5)☒ Claim(s) *1-18 and 20-23* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-18 and 20-23* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☒ The drawing(s) filed on *09 May 2008* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

12)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 12/30/2011 have been fully considered but they are not persuasive. Applicant's main argument appears to be that Hong fails to teach that the media content is not obtained from a TV broadcasting signal that is being currently received at the time the media content is being output. Examiner respectfully disagrees. Hong's teachings in paragraph [0040] show that there is a stored broadcast signal that is shown in the main area of the screen and then there is a real time broadcast signal that is being shown in the auxiliary screen. The stored broadcast signal can be obtained from different sources such as a DVD player or other peripheral device. Therefore, media content is not obtained from a TV broadcasting signal that is being currently received at the time the media content is being output.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claim 1-6, 9-15, 18, and 20-23 rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi et al. US Patent No. 5,708,475 in view of Hong US Patent Publication No. 2007/0133617.

Regarding Claims 1, 10, 21, and 22, Hayashi discloses a broadcast-receiving apparatus comprising: a receiving unit which receives a data broadcasting signal through a data broadcasting channel [Col. 2 lines 23-24]; an extracting unit which extracts data from the received data broadcasting signal [Col. 2 lines 26-28]; and a merging unit which merges the extracted data with media content that is being output [Col. 2 lines 31-33; *the two outputs are combined*]. However, Hayashi fails to teach that the media content is not obtained from a TV broadcasting signal that is being currently received at the time the media content is being output. Hayashi also fails to teach that the extracted data is real time broadcasting content and media content is content that has been recorded. In an analogous art, Hong discloses an apparatus which reproduces media content from a personal video recorder along with auxiliary data that is being broadcasted in real-time [Figure 3, [0020] & [0040]]. Therefore it would have been obvious to combine the teachings of Hayashi and Hong to provide media content which is different than the currently broadcasted content.

Regarding Claims 2 and 11, the combined teachings of Hayashi and Hong disclose a broadcast-receiving apparatus wherein the media content includes at least one of moving picture content that is received through a network or stored in a storage medium, and broadcasting signals that are received through a channel different from the data broadcasting channel [Hong [0034]].

Regarding Claims 3 and 12, the combined teachings of Hayashi and Hong discloses a broadcast-receiving apparatus further comprising: a user interface which receives input for determining the data broadcasting channel [Hayashi Col. 8 lines 52-62; *The remote controller receives the user input for the desired channel*].

Regarding Claims 4 and 13, the combined teachings of Hayashi and Hong discloses a broadcast-receiving apparatus wherein the extracted data includes at least one of data carousel data, application data, and information that can be displayed on a screen as one of graphics and characters [Hayashi Col. 10 lines 15-24].

Regarding Claim 5 and 14, the combined teachings of Hayashi and Hong discloses a broadcast-receiving apparatus wherein the merging unit merges the extracted data and the media content in a picture in picture (PIP) mode [Hong Figure 3].

Regarding Claim 6 and 15, the combined teachings of Hayashi and Hong discloses a broadcast-receiving wherein the merging unit merges the extracted data and the media content by dividing an image of the media content being output in a predetermined direction at a predetermined ratio, and providing the

media content in one division and the extracted data in another division [Hayashi Figure 7B *the ratio illustrated is 1:2*].

Regarding Claim 9 and 18, the combined teachings of Hayashi and Hong discloses a broadcast-receiving wherein the merging unit merges the extracted data with the media content only for a predetermined amount of time, when one of a display mode in which the extracted data is not displayed is selected, and the display of the extracted data is completed [Hayashi Col. 13 lines 17-25].

Regarding Claim 20, the combined teachings of Hayashi and Hong discloses a broadcast-receiving apparatus wherein the media content is obtained from one of a prerecorded broadcasting signal which is recorded in the broadcast-receiving apparatus, a moving picture which is received by the broadcast-receiving apparatus through a network, and a moving picture which is stored in a storage medium [Hong [0020]].

Regarding Claim 23, the combined teachings of Hayashi and Hong discloses an apparatus wherein the media content and the extracted data are from different channels [Hayashi Col. 2 lines 15-35; Figure 4 Tuner 2 and Tuner 3; *the two tuners are capable of receiving two different broadcasts from two different channels and merging them*].

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 7, 8, 16 and 17 rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi et al. US Patent No. 5,708,475 in view of Hong US Patent Publication No. 2007/0133617 in further view of Ciciora US Patent No. 5,815,297.

Regarding Claims 7, 8, 16 and 17 Hayashi and Hong fails to disclose that the PIP position of the extracted data changes according to a user input. In an analogous art, Ciciora discloses that a user is able to control format adjustments such as, split-screen, PIP, zoom, aspect ratio, and display of teletext on the television [Col. 5 line 64 – Col. 6 line 5]. Therefore it would have been obvious to one of ordinary skill in the art to combine the teachings of Hayashi, Hong and Ciciora to allow customized options to suit the needs of individual users [Ciciora Col. 4 lines 18-21].

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAHAR BAIG whose telephone number is (571)270-3005. The examiner can normally be reached on Monday-Friday (9:30 - 6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pankaj Kumar can be reached on 571-272-3011. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SAB
/Pankaj Kumar/
Supervisory Patent Examiner, Art Unit 2424

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12118041	LEE, HWA-KYUNG
	Examiner	Art Unit
	SAHAR A BAIG	2424

SEARCHED

Class	Subclass	Date	Examiner
725	24, 47, 136, 137	09/26/2010	SB
	Updated	03/03/2011	SB
	Updated	09/24/2011	SB
	Updated	5/15/2012	SB

SEARCH NOTES

Search Notes	Date	Examiner
Checked for 101 and Double Patenting Issues	09/26/2010	SB
Inventor Search	09/26/2010	SB
Inventor and Double Patenting Search	09/24/2011	SB
Inventor and Double Patenting Search	5/15/2012	SB

INTERFERENCE SEARCH

Class	Subclass	Date	Examiner

/S. A. B./ Examiner.Art Unit 2424	

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1434	(725/24,47,136,137).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2012/05/15 18:55
L2	553	(lee-hwa$.in.)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2012/05/15 18:55
L3	3	broadcast same receiv$5 same real-time same extract$5 same merg$6	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2012/05/15 18:56
L4	1	2 and 3	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2012/05/15 19:00
S1	1	12/118041	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 21:22
S2	1211	(725/24,47,136,137).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/09/26 21:43
S3	119	(725/137).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/09/26 21:44
S4	2	S3 and (merg$6 same extract$7 same signal$4 same data)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 21:46
S5	1	S3 and (merg$6 and extract$7 and signal$4 and data and pip)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 21:51
S6	333	(merg$6 and extract$7 and signal$4 and data and pip)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 21:51
S7	0	(merg$6 and extract$7 and signal$4 and data and pip).ab.	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 21:51

S8	52	(merg$6 and extract$7 and signal$4 and data).ab.	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 21:51
S9	8	(merg$6 and extract$7 and signal$4 and data).ab.	US-PGPUB; USPAT	OR	OFF	2010/09/26 21:52
S10	5	(ticker$3 and signal$4 and data).ab.	US-PGPUB; USPAT	OR	OFF	2010/09/26 21:52
S11	137	(ticker$3 and signal$4 and data and pip)	US-PGPUB; USPAT	OR	OFF	2010/09/26 21:55
S12	0	(ticker$3 and signal$4 and data and pip).ab.	US-PGPUB; USPAT	OR	OFF	2010/09/26 21:55
S13	1	11/043990	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 22:05
S14	1	11/871554	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 22:08
S15	17	split same screen same user same control$5 same ratio	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 22:13
S16	16	split same screen same user same control$5 same ratio	US-PGPUB; USPAT	OR	OFF	2010/09/26 22:15
S17	3	(teletext$3 or (closed caption$4)) and (split same screen same user same control$5 same ratio)	US-PGPUB; USPAT	OR	OFF	2010/09/26 22:24
S18	811	(teletext$3 or (closed caption$4)) with ((phas$5 adj out) or fad$5)	US-PGPUB; USPAT	OR	OFF	2010/09/26 22:30
S19	15157	harrison.in.	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:18
S20	2103	composite with supplement$6	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:19
S21	0	S19 and S20	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:19
S22	557	S19 and supplement$6	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:20
S23	10	S19 and (stream$6 with supplement$6)	US-PGPUB; USPAT; EPO;	OR	OFF	2010/09/27 02:20

			DERWENT; IBM_TDB			
S24	35	S19 and (stream$6 with primary)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:20
S25	1	("2004/0045039").URPN.	USPAT	OR	OFF	2010/09/27 02:22
S26	412	(primary with secondary with data with stream$4)	USPAT	OR	OFF	2010/09/27 02:23
S27	3	(primary with secondary with data with stream$4 with extract$6)	USPAT	OR	OFF	2010/09/27 02:23
S28	2651	pip.ab.	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:28
S29	489	pip.ab.	US-PGPUB; USPAT	OR	OFF	2010/09/27 02:28
S30	26	(two same signal$5 same pip).ab.	US-PGPUB; USPAT	OR	OFF	2010/09/27 02:29
S31	83	pip.ti.	US-PGPUB; USPAT	OR	OFF	2010/09/27 02:32
S32	99	split screen pip	US-PGPUB; USPAT	WITH	OFF	2010/09/27 02:33
S33	1	("6903779").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/09/27 02:44
S34	46	("20010039546" | "20010049826" | "20020023165" | "20020059637" | "20020067428" | "20020078144" | "20030020671" | "20030212997" | "20030227568" | "20040012717" | "20040040042" | "20040045040" | "20040080528" | "5481296" | "5517254" | "5576768" | "5671019" | "5703655" | "5708475" | "5835153" | "5945987" | "6025837" | "6061056" | "6239843" | "6243676" | "6260194" | "6266094" | "6285407" | "6295092" | "6308329" | "6348951" | "6412111" | "6425061" | "6532041" | "6564383" | "6567127" | "6642966" | "6661467" | "6701524" | "6710812" | "6724431" | "6742188" | "6766163" | "6766528" | "6775842" | "6816201").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/09/27 02:45
S35	1	12/118041	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2011/03/03 12:32
S36	1	("5708475").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2011/03/03 12:35
S37	769	record$5 with PIP	US-PGPUB; USPAT; EPO; DERWENT;	OR	OFF	2011/03/03 12:39

			IBM_TDB			
S38	5	record$5 with PIP with split with screen$3	US-PGPUB; USPAT	OR	OFF	2011/03/03 12:40
S39	14	record$5 with PIP with (overlay or overlaid)	US-PGPUB; USPAT	OR	OFF	2011/03/03 12:41
S40	9	S39 not S38	US-PGPUB; USPAT	OR	OFF	2011/03/03 12:42
S41	5	dvd with play$5 with PIP with split with screen$3	US-PGPUB; USPAT	OR	OFF	2011/03/03 12:55
S42	0	internet with PIP with split with screen$3	US-PGPUB; USPAT	OR	OFF	2011/03/03 14:26
S43	38	internet with PIP with receiv$6	US-PGPUB; USPAT	OR	OFF	2011/03/03 14:27
S44	46	(ip or internet or iptv) with PIP with receiv$6	US-PGPUB; USPAT	OR	OFF	2011/03/03 14:28
S45	0	11/118219	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2011/03/07 15:24
S46	1	12/253818	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2011/03/07 15:55
S47	510	(lee-hwa$.in.)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2011/09/24 21:46
S48	2	broadcast same receiv$5 same real-time same extract$5 same merg$6	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2011/09/24 21:47
S49	1	S47 and S48	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2011/09/24 21:47
S50	1353	(725/24,47,136,137).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2011/09/24 21:47
S51	1	("5708475").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2011/09/24 21:50
S52	21	("5708475").URPN.	USPAT	OR	OFF	2011/09/24 21:50
S53	8	record$ and S52	USPAT	OR	OFF	2011/09/24 21:51
S54	43647	(ticker$3 or secondary or auxiliary or additional) with (data or information) with record$7	US-PGPUB; USPAT	OR	OFF	2011/09/24 22:09
S55	660	(ticker$3 or secondary or auxiliary or additional) with (data or information) with record$7 with ((real-time) or synchroniz$4)	US-PGPUB; USPAT	OR	OFF	2011/09/24 22:10

S56	230	(ticker$3 or secondary or auxiliary) with (data or information) with record$7 with ((real-time) or synchroniz$4)	US-PGPUB; USPAT	OR	OFF	2011/09/24 22:10
S57	61	((ticker$3 or secondary or auxiliary) with (data or information) with record$7 with ((real-time) or synchroniz$4)) and television	US-PGPUB; USPAT	OR	OFF	2011/09/24 22:11
S58	74	((ticker$3 or secondary or auxiliary) with (data or information) with (recording$2 or recorded or reproduc$5) with ((real-time) or synchroniz$4)) and television	US-PGPUB; USPAT	OR	OFF	2011/09/24 22:13
S59	1122	(dvr or pvr) same ((real-time) or synchroniz$4)	US-PGPUB; USPAT	OR	OFF	2011/09/24 22:25
S60	103	(dvr or pvr) same ((real-time) or synchroniz$4) same (auxiliary or secondary or related or additional) same (data or information)	US-PGPUB; USPAT	OR	OFF	2011/09/24 22:26
S61	1	12/527462	US-PGPUB; USPAT	OR	OFF	2011/09/24 23:25
S62	552	(lee-hwa$.in.)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2012/04/25 18:22
S63	478	(merg$6 same extract$7 same signal$4 same data)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2012/04/25 18:22
S64	1	S62 and S63	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2012/04/25 18:22
S65	1	("5708475").PN.	USPAT; USOCR	OR	OFF	2012/04/25 19:18

EAST Search History (Interference)

<This search history is empty>

5/15/2012 7:00:37 PM
C:\Users\sbaig\Documents\EAST\Workspaces\12118041.wsp

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12118041	LEE, HWA-KYUNG
	Examiner	Art Unit
	SAHAR A BAIG	2424

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

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

CLAIM		DATE								
Final	Original	09/26/2010	03/03/2011	09/24/2011	05/15/2012					
	1	✓	✓	✓	✓					
	2	✓	✓	✓	✓					
	3	✓	✓	✓	✓					
	4	✓	✓	✓	✓					
	5	✓	✓	✓	✓					
	6	✓	✓	✓	✓					
	7	✓	✓	✓	✓					
	8	✓	✓	✓	✓					
	9	✓	✓	✓	✓					
	10	✓	✓	✓	✓					
	11	✓	✓	✓	✓					
	12	✓	✓	✓	✓					
	13	✓	✓	✓	✓					
	14	✓	✓	✓	✓					
	15	✓	✓	✓	✓					
	16	✓	✓	✓	✓					
	17	✓	✓	✓	✓					
	18	✓	✓	✓	✓					
	19		✓	-	-					
	20		✓	✓	✓					
	21		✓	✓	✓					
	22		✓	✓	✓					

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/118,041	05/09/2008	Hwa-Kyung Lee	Q105659	1215

23373 7590 06/28/2012

SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER	
BAIG, SAHAR A	

ART UNIT	PAPER NUMBER
2424	

NOTIFICATION DATE	DELIVERY MODE
06/28/2012	ELECTRONIC

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

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

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTO@sughrue.com
sughrue@sughrue.com
PPROCESSING@SUGHRUE.COM

Applicant-Initiated Interview Summary	Application No.	Applicant(s)	
	12/118,041	LEE, HWA-KYUNG	
	Examiner	Art Unit	
	SAHAR BAIG	2424	

All participants (applicant, applicant's representative, PTO personnel):

(1) *SAHAR BAIG*. (3)_____.

(2) *RUTHLEEN E. UY*. (4)_____.

Date of Interview: *18 June 2012*.

Type: ☒ Telephonic ☐ Video Conference
☐ Personal [copy given to: ☐ applicant ☐ applicant's representative]

Exhibit shown or demonstration conducted: ☐ Yes ☒ No.
If Yes, brief description: _____.

Issues Discussed ☐101 ☐112 ☐102 ☒103 ☐Others
(For each of the checked box(es) above, please describe below the issue and detailed description of the discussion)

Claim(s) discussed: *1*.

Identification of prior art discussed: *Hayashi et al. US Patent No. 5,708,475 and Hong US Patent Publication No. 2007/0133617* .

Substance of Interview
(For each issue discussed, provide a detailed description and indicate if agreement was reached. Some topics may include: identification or clarification of a reference or a portion thereof, claim interpretation, proposed amendments, arguments of any applied references etc...)

The previous rejection was explained to the applicant. In particular, it was explained that since "TV broadcasting signal" in Claim 1 is not well defined the Examiner is interpreting it as the data broadcsting signal that is defined earlier in Claim 1. Hence, the teachings of Hong are in accordance with the claimed invention .

Applicant recordation instructions: The formal written reply to the last Office action must include the substance of the interview. (See MPEP section 713.04). If a reply to the last Office action has already been filed, applicant is given a non-extendable period of the longer of one month or thirty days from this interview date, or the mailing date of this interview summary form, whichever is later, to file a statement of the substance of the interview

Examiner recordation instructions: Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

☐ Attachment

/Pankaj Kumar/
Supervisory Patent Examiner, Art Unit 2424

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record
A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews
Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.
All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:
- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:
1) A brief description of the nature of any exhibit shown or any demonstration conducted,
2) an identification of the claims discussed,
3) an identification of the specific prior art discussed,
4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
5) a brief identification of the general thrust of the principal arguments presented to the examiner,
   (The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
6) a general indication of any other pertinent matters discussed, and
7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

AMENDMENT UNDER 37 C.F.R. § 1.116
EXPEDITED PROCEDURE
GROUP 2424
PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Hwa-kyung LEE

Appln. No.: 12/118,041

Confirmation No.: 1215

Filed: May 9, 2008

Docket No: Q105659

Group Art Unit: 2424

Examiner: BAIG, SAHAR A

For: BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS

AMENDMENT UNDER 37 C.F.R. § 1.116

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

Sir:

In response to the Office Action dated May 22, 2012, please consider the remarks as submitted herewith on the accompanying pages.

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STATEMENT OF SUBSTANCE OF INTERVIEW

As indicated in the Interview Summary dated June 28, 2012, an interview was conducted between Examiner Sahar Baig and the Applicant's undersigned representative on June 18, 2012.

During the interview, Applicants representative clarified the Applicant's invention with respect to the cited art. Further, the Examiner clarified the Examiner's position regarding the rejection. Applicant is amending the claims in light of the interview with the Examiner. Therefore, Applicant submits that the current rejection should be withdrawn.

It is respectfully submitted that the instant STATEMENT OF SUBSTANCE OF INTERVIEW complies with the requirements of 37 C.F.R. §§1.2 and 1.133 and MPEP §713.04.

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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A broadcast-receiving apparatus comprising:

a receiving unit which receives a data broadcasting signal through a data broadcasting channel;

an extracting unit which extracts data from the received data broadcasting signal; and

a merging unit which merges the extracted data, which is real time broadcasting content, with media content, which has been recorded, that is being output,

wherein the media content is not obtained from a ~~TV broadcasting~~ signal that is being currently received at the time the media content is being output.

2. (previously presented): The broadcast-receiving apparatus of claim 1, wherein the media content includes at least one of moving picture content that is received through a network or stored in a storage medium, and broadcasting signals that are received through a channel different from the data broadcasting channel.

3. (original): The broadcast-receiving apparatus of claim 1, further comprising:

a user interface which receives input for determining the data broadcasting channel.

4. (original): The broadcast-receiving apparatus of claim 1, wherein the extracted data includes at least one of data carousel data, application data, and information that can be displayed on a screen as one of graphics and characters.

5. (original): The broadcast-receiving apparatus of claim 1, wherein the merging unit merges the extracted data and the media content in a picture in picture (PIP) mode.

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6. (original): The broadcast-receiving apparatus of claim 1, wherein the merging unit merges the extracted data and the media content by dividing an image of the media content being output in a predetermined direction at a predetermined ratio, and providing the media content in one division and the extracted data in another division.

7. (original): The broadcast-receiving apparatus of claim 5, wherein a PIP position of the extracted data changes according to a user input.

8. (original): The broadcast-receiving apparatus of claim 6, wherein a division position of the extracted data changes according to a user input.

9. (original): The broadcast-receiving apparatus of claim 1, wherein the merging unit merges the extracted data with the media content only for a predetermined amount of time , when one of a display mode in which the extracted data is not displayed is selected, and the display of the extracted data is completed.

10. (currently amended): A method of outputting data by a broadcast-receiving apparatus, comprising:

receiving a data broadcasting signal through a data broadcasting channel;

extracting data from the received data broadcasting signal; and

merging the extracted data, which is real time broadcasting content, with media content, which has been recorded, that is being output,

wherein the media content is not obtained from a ~~TV broadcasting~~ signal that is being currently received at the time the media content is being output.

11. (previously presented): The method of claim 10, wherein the media content includes at least one of moving picture content that is received through a network or stored in a

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storage medium, and broadcasting signals that are received through a channel different from the data broadcasting channel.

12. (original): The method of claim 10, further comprising:

determining the data broadcasting channel through a user interface,

wherein the data broadcasting signal is received through the determined data broadcasting channel.

13. (original): The method of claim 10, wherein the data includes at least one of data carousel data, application data, and information that can be displayed on a screen as graphics or characters.

14. (original): The method of claim 10, wherein the merging comprises merging the extracted data and the media content in a picture in picture (PIP) mode.

15. (original): The method of claim 10, wherein the merging comprises merging the extracted data and the media content by dividing an image of the media content being output in a predetermined direction at a predetermined ratio, and providing the media content in one division and the extracted data in another division.

16. (original): The method of claim 14, further comprising:

changing a PIP position of the extracted data according to a user input.

17. (original): The method of claim 15, further comprising:

changing a division of the extracted data according to a user input.

18. (original): The method of claim 10, further comprising:

merging the extracted data with the media content only for a predetermined amount of time, when one of a display mode in which the extracted data is not displayed is selected, and the display of the extracted data is completed.

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19. (canceled).

20. (previously presented): The method of claim 10, wherein the media content is obtained from one of a prerecorded broadcasting signal which is recorded in the broadcast-receiving apparatus, a moving picture which is received by the broadcast-receiving apparatus through a network, and a moving picture which is stored in a storage medium.

21. (previously presented): The broadcast-receiving apparatus of claim 1, wherein the extracted data is outputted in real time.

22. (previously presented): The method of claim 10, wherein the extracted data is outputted in real time.

23. (previously presented): The apparatus according to claim 1, wherein the media content and the extracted data are from different channels.

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REMARKS

This Amendment, submitted in reply to the Office Action dated May 22, 2012, is believed to be fully responsive to each point of rejection raised therein. Accordingly, favorable reconsideration on the merits is respectfully requested.

Claims 1-18 and 20-23 are all the claims pending in the application.

I. Rejection of claims 1-6, 9-15, 18 and 20-23 under 35 U.S.C. § 103

Claims 1-6, 9-15, 18 and 20-23 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hayashi et al. US Patent No. 5,708,475 in view of Hong US Patent Publication No. 2007/0133617.

Claim 1

Claim 1 recites:

A broadcast-receiving apparatus comprising:
a receiving unit which receives a data broadcasting signal through a data broadcasting channel;
an extracting unit which extracts data from the received data broadcasting signal; and
a merging unit which merges the extracted data, which is real time broadcasting content, with media content, which has been recorded, that is being output,
wherein the media content is not obtained from a signal that is being currently received at the time the media content is being output.

The Examiner states that Hayashi teaches the elements of claim 1 except for "a merging unit which merges the extracted data, **which is real time broadcasting content,** with media content, **which has been recorded**, that is being output," and "wherein the media content is not obtained from a signal that is being currently received at the time the media content is being output," and cites Hong to cure the deficiency. However, Applicant submits that Hayashi does not teach the elements of claim 1, and Hong does not cure the deficiencies of Hayashi.

As recited in claim 1, the media content is not obtained from a signal that is being currently received at the time the media content is being output.

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Hong discloses a method of displaying a television receiver input signal according to a time-shift function. Hong discloses that the time-shifted display of a real-time broadcast signal prohibits a viewing by the user of the broadcast signal received in real time on the same channel. A playback operation according to the time-shift function, which utilizes the entire screen, precludes any other simultaneous display to the user (viewer) for a monitoring or visual confirmation of the incoming broadcast signal and its progress status. Therefore, Hong provides a television receiver and a display method which **enables a real-time display of a television receiver input signal in the event that a time-shift function is being executed with respect to the input signal itself.** See paragraph [0007].

Further, Hong discloses displaying on a screen an input signal of one channel, by storing the input signal in a storage medium according to the time-shift function; checking whether a user requests the input signal of the channel stored in the stored medium to be output according to the time-shift function; and, if the stored input signal according to the time-shift function is requested to be output, displaying the input signal stored in the storage medium on a first area of the screen and a real-time input signal of the channel on a second area of the screen according to a display mode selected by the user. See paragraph [0034].

Therefore, Hong disclose displaying an input signal in real time and displaying the same input signal which was stored in the storage medium. Hong discloses that the stored broadcast signal is displayed on the main area (media content as cited by the Examiner) and the real-time broadcast signal is displayed on an auxiliary area (extracted data as cited by the Examiner). Hong enables simultaneous display of a real-time-received broadcast signal and a time-shifted version **of the received broadcast signal**. See paragraph [0043].

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Consequently, Hong does not teach that the media content is not obtained from a signal that is being currently received at the time the media content is being output, since Hong discloses that the stored broadcast signal displayed on the main area and the real-time broadcast signal displayed on an auxiliary area are the same broadcast signal.

Further, Paragraph [0040] of Hong discloses that the input signal can be reproduced from a video source such as a DVD player or other peripheral device. However, Hong disclose displaying an input signal in real time and **displaying the same input signal which was stored in the storage medium**. Hong discloses that the stored broadcast signal is displayed on the main area (media content as cited by the Examiner) and the real-time broadcast signal is displayed on an auxiliary area (extracted data as cited by the Examiner). Hong enables simultaneous display of a real-time-received broadcast signal and a time-shifted version **of the received broadcast signal**. See paragraph [0043].

Therefore, Hong does not teach or suggest that the media content is not obtained from a signal that is being currently received at the time the media content is being output. Specifically, the broadcast signal of Hong is the same signal.

Moreover, it would not be obvious to modify Hayashi to teach that the media content is not obtained from a signal that is being currently received at the time the media content is being output.

Hayashi discloses that a microcomputer 11 controls a dual-picture processing block 8 to display the output of the processing circuit 5 as a child picture, whereby the video signal supplied from the processing circuit 5 converted to form a child picture in the dual-picture processing block 8. At this time, the microcomputer 11 further sends a control signal to the mixer 9 for compositing a picture-in-picture image where the output of the processing circuit 4 is

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displayed as a parent picture while the output of the dual-picture processing block 8 is displayed as a child picture, so that the output of the processing circuit 4 and the output of the dual-picture processing block 8 are combined with each other in the mixer 9 to form a picture-in-picture image. And this picture-in-picture image is outputted to the monitor 10 to be displayed thereon. See col. 9, lines 4-24.

Therefore, it would not be obvious to modify Hayashi to disclose that the media content which is merged with the extracted data is not obtained from a signal that is being currently received at the time the media content is being output. Specifically, this would be contrary to the explicit teachings of Hayashi. Therefore, since the proposed modification would change the principle of operation of Hayashi, the modification is not obvious. If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959); MPEP 2143.01.

For at least the above reasons, claim 1 and its dependent claims 2-9, 19 and 21 should be deemed allowable.

To the extent independent claim 10 recites similar subject matter, claim 10 and dependent claims 11-19, 20 and 22 should be deemed allowable for at least the same reasons.

Claim 23

Claim 23 recites "wherein the media content and the extracted data are from different channels." The Examiner asserts that Hayashi teaches the elements of claim 23. However, assuming Hayashi teaches this element, Applicant submits it would not be obvious to modify Hong to include the teaching of Hayashi.

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Hong discloses that the stored broadcast signal displayed on the main area and the real-time broadcast signal displayed on an auxiliary area are the same broadcast signal. Therefore, modifying Hong to teach that media content and the extracted data are from different channels, is contrary to the teachings of Hong.

Therefore, claim 23 should be deemed allowable.

II. Rejection of Claims 7, 8, 16 and 17 under 35 U.S.C. § 103(a)

Claims 7, 8, 16 and 17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hayashi et al. US Patent No. 5,708,475 in view of Hong US Patent Publication No. 2007/0133617 in view of Ciciora US Patent No. 5,815,297.

Claims 7, 8, 16 and 17 should be deemed allowable by virtue of their dependency to independent claims 1 and 10 for at least the reasons set forth above. Moreover, Ciciora does not cure the deficiencies of Hayashi and Hong.

III. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

/Ruthleen E. Uy/

Ruthleen E. Uy
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WASHINGTON OFFICE
23373
CUSTOMER NUMBER

Date: September 13, 2012

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PTO/SB/(09-11)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARMENT OF COMMERCE
Under the paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless if displays a valid OMB control number.

PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a)	Docket Number (Optional) Q105659
Application Number 12/118,041	Filed May 9, 2008
For BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA IN BROADCAST-RECEIVING APPARATUS	
Art Unit 2424	Examiner BAIG, SAHAR A

This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a reply in the above identified application.

The requested extension and fee are as follows (check time period desired and enter the appropriate fee below):

		Fee	Small Entity Fee	
☑	One month (37 CFR 1.17(a)(1))	$150	$75	$ 150.00
☐	Two months (37 CFR 1.17(a)(2))	$560	$280	$
☐	Three months (37 CFR 1.17(a)(3))	$1270	$635	$
☐	Four months (37 CFR 1.17(a)(4))	$1980	$990	$
☐	Five months (37 CFR 1.17(a)(5))	$2690	$1345	$

☐ Applicant claims small entity status. See 37 CFR 1.27.

☐ A check in the amount of the fee is enclosed.

☑ Payment by credit card. Form PTO-2038 is attached.

☐ The Director has already been authorized to charge fees in this application to a Deposit Account.

☑ The Director is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number 19-4880.

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest. See 37 CFR 3.71.
Statement under 37 CFR 3.73(b) is enclosed (Form PTO/SB/96).

☑ attorney or agent of record. Registration Number 51,361

☐ attorney or agent under 37 CFR 1.34.
Registration number if acting under 37 CFR 1.34 _____

/Ruthleen E. Uy/ — Signature

September13, 2012 — Date

Ruthleen E. Uy — Typed or printed name

202-293-7060 — Telephone Number

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.136(a). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 6 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Electronic Patent Application Fee Transmittal

Application Number:	12118041
Filing Date:	09-May-2008
Title of Invention:	BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS
First Named Inventor/Applicant Name:	Hwa-Kyung Lee
Filer:	Ruthleen Ellice Uy/Jennifer Mundee
Attorney Docket Number:	Q105659

Filed as Large Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Extension - 1 month with $0 paid	1251	1	150	150

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
		Total in USD ($)		**150**

Electronic Acknowledgement Receipt

EFS ID:	13741863
Application Number:	12118041
International Application Number:	
Confirmation Number:	1215
Title of Invention:	BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS
First Named Inventor/Applicant Name:	Hwa-Kyung Lee
Customer Number:	23373
Filer:	Ruthleen Ellice Uy/Jennifer Mundee
Filer Authorized By:	Ruthleen Ellice Uy
Attorney Docket Number:	Q105659
Receipt Date:	13-SEP-2012
Filing Date:	09-MAY-2008
Time Stamp:	19:51:44
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$150
RAM confirmation Number	7895
Deposit Account	194880
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		Q105659_Amend116.pdf	119066 c5498162b520c27781a94319939df6054f3e379a	yes	12

Multipart Description/PDF files in .zip description

Document Description	Start	End
Amendment After Final	1	1
Applicant summary of interview with examiner	2	2
Claims	3	6
Applicant Arguments/Remarks Made in an Amendment	7	12

Warnings:

Information:

2	Extension of Time	Q105659_EOT.pdf	88842 cebe7aa4ee4175a183646a5391c3d284725cef4d	no	1

Warnings:

Information:

3	Fee Worksheet (SB06)	fee-info.pdf	30711 b63cb72cbab8009bed877ebdfc463454e6156156	no	2

Warnings:

Information:

Total Files Size (in bytes):	238619

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.

PTO/SB/06 (07-06)
Approved for use through 1/31/2007. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number	Filing Date	☐ To be Mailed
12/118,041	05/09/2008	

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY ☐ RATE ($)	SMALL ENTITY ☐ FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =		OR	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =			X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							
			TOTAL			TOTAL	

* If the difference in column 1 is less than zero, enter "0" in column 2.

APPLICATION AS AMENDED – PART II

AMENDMENT	09/13/2012	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE ($)	SMALL ENTITY ADDITIONAL FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 22	Minus	** 22	= 0	X $ =		OR	X $60=	0
	Independent (37 CFR 1.16(h))	* 2	Minus	***3	= 0	X $ =		OR	X $250=	0
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	0

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

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

Legal Instrument Examiner:
/PATSY ZIMMERMAN/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/118,041	05/09/2008	Hwa-Kyung Lee	Q105659	1215

23373 7590 09/28/2012

SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER	
BAIG, SAHAR A	

ART UNIT	PAPER NUMBER
2424	

NOTIFICATION DATE	DELIVERY MODE
09/28/2012	ELECTRONIC

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

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

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTO@sughrue.com
sughrue@sughrue.com
PPROCESSING@SUGHRUE.COM

Advisory Action Before the Filing of an Appeal Brief	**Application No.** 12/118,041	**Applicant(s)** LEE, HWA-KYUNG
	Examiner SAHAR BAIG	**Art Unit** 2424

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

THE REPLY FILED 13 September 2012 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

NO NOTICE OF APPEAL FILED

1. ☒ The reply was filed after a final rejection. No Notice of Appeal has been filed. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance;

(2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114 if this is a utility or plant application. Note that RCEs are not permitted in design applications. The reply must be filed within one of the following time periods:

a) ☒ The period for reply expires *3* months from the mailing date of the final rejection.

b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action; or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

c) ☐ A prior Advisory Action was mailed more than 3 months after the mailing date of the final rejection in response to a first after-final reply filed within 2 months of the mailing date of the final rejection. The current period for reply expires months from the mailing date of *the prior Advisory Action* or SIX MONTHS from the mailing date of the final rejection, whichever is earlier.

Examiner Note: If box 1 is checked, check either box (a), (b) or (c). ONLY CHECK BOX (b) WHEN THIS ADVISORY ACTION IS THE FIRST RESPONSE TO APPLICANT'S FIRST AFTER-FINAL REPLY WHICH WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. ONLY CHECK BOX (c) IN THE LIMITED SITUATION SET FORTH UNDER BOX (c). See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) or (c) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendments filed after a final rejection, but prior to the date of filing a brief, will not be entered because

a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);

b) ☐ They raise the issue of new matter (see NOTE below);

c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): _____.

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☒ For purposes of appeal, the proposed amendment(s): (a) ☐ will not be entered, or (b) ☒ will be entered, and an explanation of how the new or amended claims would be rejected is provided below or appended.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing the Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: Applicant argues that Hong fails to teach that the media content is not obtained from a signal that is being currently received at the time the media content is being output. Examiner respectfully disagrees. Hong discloses displaying a real-time broadcast signal on an auxiliary area of the screen [0037] while simultaneously outputting another signal that may be reproduced from another video source such as a DVD player or a peripheral device [0040]. Therefore, Hong discloses not obtaining the media content (signal from the DVD player) from a signal that is being currently received (real-time broadcast signal) .

12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____

13. ☐ Other: _____.

STATUS OF CLAIMS

14. The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: .

/Pankaj Kumar/ Supervisory Patent Examiner, Art Unit 2424	/Sahar A Baig/ Examiner, Art Unit 2424

TVnGO Exhibit 2009
Page 2009-270
Samsung v. TVnGO, IPR2026-00213

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A broadcast-receiving apparatus comprising:

a receiving unit which receives a data broadcasting signal through a data broadcasting channel;

OK TO ENTER
S.B. 9/21/2012

an extracting unit which extracts data from the received data broadcasting signal; and

a merging unit which merges the extracted data, which is real time broadcasting content, with media content, which has been recorded, that is being output,

wherein the media content is not obtained from a ~~TV broadcasting~~ signal that is being currently received at the time the media content is being output.

2. (previously presented): The broadcast-receiving apparatus of claim 1, wherein the media content includes at least one of moving picture content that is received through a network or stored in a storage medium, and broadcasting signals that are received through a channel different from the data broadcasting channel.

3. (original): The broadcast-receiving apparatus of claim 1, further comprising:

a user interface which receives input for determining the data broadcasting channel.

4. (original): The broadcast-receiving apparatus of claim 1, wherein the extracted data includes at least one of data carousel data, application data, and information that can be displayed on a screen as one of graphics and characters.

5. (original): The broadcast-receiving apparatus of claim 1, wherein the merging unit merges the extracted data and the media content in a picture in picture (PIP) mode.

TVnGO Exhibit 2009
Page 2009-271
Samsung v. TVnGO, IPR2026-00213

REQUEST FOR CONTINUED EXAMINATION (RCE) TRANSMITTAL

Application Number	12/118,041	Filing Date	May 9, 2008	Confirmation Number	1215	Docket Number	Q105659
First Named Inventor	Hwa-kyung LEE		Examiner Name	BAIG, SAHAR A		Art Unit	2424
Title	BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS						

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.

SUBMISSION REQUIRED UNDER 37 CFR 1.114

Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

☐ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

- ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____
- ☐ Other _____

☐ Do NOT consider the amendment(s)/reply under 37 CFR 1.116 previously filed on _____

☑ Enclosed

- ☑ Amendment/Reply
- ☐ Information Disclosure Statement (IDS)
- ☐ Affidavit(s)/Declaration(s)
- ☐ Other _____

MISCELLANEOUS

☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of _____ months. (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

☐ Other _____

FEES

The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.

☑ Payment by credit card.

☑ The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

CORRESPONDENCE ADDRESS

Direct all correspondence to the address for SUGHRUE MION, PLLC filed under the Customer Number listed below:

WASHINGTON OFFICE
23373
CUSTOMER NUMBER

SIGNATURE OF REGISTERED U.S. PATENT PRACTITIONER

Signature /Ruthleen E. Uy/ Date October 22, 2012

Name Ruthleen E. Uy Registration No. 51,361

PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a)

Docket Number	
Q105659	
Confirmation Number	
1215	

Application Number	12/118,041	Filing Date	May 9, 2008
For	BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS		
Art Unit	2424	Examiner Name	BAIG, SAHAR A

This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a reply in the above identified application.

The requested extension and fee are as follows (check time period desired and enter the appropriate fee below):

		Fee	Small Entity Fee	
☐	One month (37 CFR 1.17(a)(1))	$150.00	$75.00	
☑	Two month (37 CFR 1.17(a)(2))	$570.00	$285.00	$420.00
☐	Three month (37 CFR 1.17(a)(3))	$1290.00	$645.00	
☐	Four month (37 CFR 1.17(a)(4))	$2010.00	$1005.00	
☐	Five month (37 CFR 1.17(a)(5))	$2730.00	$1365.00	

☑ Previous Payment Amount $150.00 Date Submitted September 13, 2012

☐ Applicant claims small entity status. See 37 CFR 1.27

☐ A check in the amount of the fee is enclosed.

☑ Payment by credit card.

☐ The Director has already been authorized to charge fees in this application to a Deposit Account.

☑ The Director is hereby authorized to charge any fees, **except for the Issue Fee and the Publication Fee**, or credit any overpayment, to Deposit Account Number 19-4880.

I am the

☐ applicant/inventor

☐ assignee of record of the entire interest. See 37 CFR 3.71.
Statement under 37 CFR 3.73(b) is enclosed (Form PTO/SB/96).

☑ attorney or agent of record. Registration Number 51,361

☐ attorney or agent under 37 CFR 1.34.
Registration number if acting under 37 CFR 1.34

WASHINGTON OFFICE
23373
CUSTOMER NUMBER

/Ruthleen E. Uy/ — Signature

October 22, 2012 — Date

Ruthleen E. Uy — Typed or printed name

202.293.7060 — Telephone Number

Note: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

☑ Total of __1__ form is submitted.

Electronic Patent Application Fee Transmittal

Application Number:	12118041
Filing Date:	09-May-2008
Title of Invention:	BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS
First Named Inventor/Applicant Name:	Hwa-Kyung Lee
Filer:	Ruthleen Ellice Uy/Jennifer Mundee
Attorney Docket Number:	Q105659

Filed as Large Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Extension - 2 months with $150 paid	1252	1	420	420

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
Request for continued examination	1801	1	930	930
		Total in USD ($)		**1350**

Electronic Acknowledgement Receipt

EFS ID:	14048152
Application Number:	12118041
International Application Number:	
Confirmation Number:	1215
Title of Invention:	BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS
First Named Inventor/Applicant Name:	Hwa-Kyung Lee
Customer Number:	23373
Filer:	Ruthleen Ellice Uy/Jennifer Mundee
Filer Authorized By:	Ruthleen Ellice Uy
Attorney Docket Number:	Q105659
Receipt Date:	22-OCT-2012
Filing Date:	09-MAY-2008
Time Stamp:	20:37:20
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$1350
RAM confirmation Number	7155
Deposit Account	194880
Authorized User	UY, RUTHLEEN

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		Q105659_Amend114.pdf	116301 77b1c3b838270593504bfa690e0434fc52f899df	yes	11

Multipart Description/PDF files in .zip description		
Document Description	**Start**	**End**
Amendment Submitted/Entered with Filing of CPA/RCE	1	1
Claims	2	5
Applicant Arguments/Remarks Made in an Amendment	6	11

Warnings:

Information:

2		Q105659_RCE_EOT.pdf	87278 6e2b6966a9bb88cc9fd6285a647bf483555bbc00	yes	2

Multipart Description/PDF files in .zip description		
Document Description	**Start**	**End**
Request for Continued Examination (RCE)	1	1
Extension of Time	2	2

Warnings:

Information:

3	Fee Worksheet (SB06)	fee-info.pdf	32525 80d01c676b6ebc28bc827c98e3648285f01c21cb	no	2

Warnings:

Information:

Total Files Size (in bytes):	236104

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New Applications Under 35 U.S.C. 111

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

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

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

New International Application Filed with the USPTO as a Receiving Office

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

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of	Docket No: Q105659
Hwa-kyung LEE	
Appln. No.: 12/118,041	Group Art Unit: 2424
Confirmation No.: 1215	Examiner: BAIG, SAHAR A
Filed: May 9, 2008	

For: BROADCAST-RECEIVING APPARATUS AND METHOD OF OUTPUTTING DATA BY A BROADCAST-RECEIVING APPARATUS

AMENDMENT UNDER 37 C.F.R. § 1.114(c)

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

Sir:

In response to the Office Action dated May 22, 2012, and the Advisory Action dated September 28, 2012, please amend the above-identified application as follows on the accompanying pages.

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REMARKS 6

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A broadcast-receiving apparatus comprising:

a receiving unit which receives a data broadcasting signal through a data broadcasting channel;

an extracting unit which extracts specific data from the received data broadcasting signal; and

a merging unit which merges the extracted data, which is real time broadcasting content, with media content, which has been recorded, that is being output,

wherein the media content is not obtained from a signal that is being currently received at the time the media content is being output.

2. (previously presented): The broadcast-receiving apparatus of claim 1, wherein the media content includes at least one of moving picture content that is received through a network or stored in a storage medium, and broadcasting signals that are received through a channel different from the data broadcasting channel.

3. (original): The broadcast-receiving apparatus of claim 1, further comprising:

a user interface which receives input for determining the data broadcasting channel.

4. (original): The broadcast-receiving apparatus of claim 1, wherein the extracted data includes at least one of data carousel data, application data, and information that can be displayed on a screen as one of graphics and characters.

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5. (original): The broadcast-receiving apparatus of claim 1, wherein the merging unit merges the extracted data and the media content in a picture in picture (PIP) mode.

6. (original): The broadcast-receiving apparatus of claim 1, wherein the merging unit merges the extracted data and the media content by dividing an image of the media content being output in a predetermined direction at a predetermined ratio, and providing the media content in one division and the extracted data in another division.

7. (original): The broadcast-receiving apparatus of claim 5, wherein a PIP position of the extracted data changes according to a user input.

8. (original): The broadcast-receiving apparatus of claim 6, wherein a division position of the extracted data changes according to a user input.

9. (original): The broadcast-receiving apparatus of claim 1, wherein the merging unit merges the extracted data with the media content only for a predetermined amount of time , when one of a display mode in which the extracted data is not displayed is selected, and the display of the extracted data is completed.

10. (currently amended): A method of outputting data by a broadcast-receiving apparatus, comprising:

receiving a data broadcasting signal through a data broadcasting channel;

extracting specific data from the received data broadcasting signal; and

merging the extracted data, which is real time broadcasting content, with media content, which has been recorded, that is being output,

wherein the media content is not obtained from a signal that is being currently received at the time the media content is being output.

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11. (previously presented): The method of claim 10, wherein the media content includes at least one of moving picture content that is received through a network or stored in a storage medium, and broadcasting signals that are received through a channel different from the data broadcasting channel.

12. (original): The method of claim 10, further comprising:

determining the data broadcasting channel through a user interface,

wherein the data broadcasting signal is received through the determined data broadcasting channel.

13. (original): The method of claim 10, wherein the data includes at least one of data carousel data, application data, and information that can be displayed on a screen as graphics or characters.

14. (original): The method of claim 10, wherein the merging comprises merging the extracted data and the media content in a picture in picture (PIP) mode.

15. (original): The method of claim 10, wherein the merging comprises merging the extracted data and the media content by dividing an image of the media content being output in a predetermined direction at a predetermined ratio, and providing the media content in one division and the extracted data in another division.

16. (original): The method of claim 14, further comprising:

changing a PIP position of the extracted data according to a user input.

17. (original): The method of claim 15, further comprising:

changing a division of the extracted data according to a user input.

18. (original): The method of claim 10, further comprising:

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merging the extracted data with the media content only for a predetermined amount of time, when one of a display mode in which the extracted data is not displayed is selected, and the display of the extracted data is completed.

19. (canceled).

20. (previously presented): The method of claim 10, wherein the media content is obtained from one of a prerecorded broadcasting signal which is recorded in the broadcast-receiving apparatus, a moving picture which is received by the broadcast-receiving apparatus through a network, and a moving picture which is stored in a storage medium.

21. (previously presented): The broadcast-receiving apparatus of claim 1, wherein the extracted data is outputted in real time.

22. (previously presented): The method of claim 10, wherein the extracted data is outputted in real time.

23. (previously presented): The apparatus according to claim 1, wherein the media content and the extracted data are from different channels.

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REMARKS

This Amendment, submitted in reply to the Office Action dated May 22, 2012, and the Advisory Action dated September 28, 2012, is believed to be fully responsive to each point of rejection raised therein. Accordingly, favorable reconsideration on the merits is respectfully requested.

Claims 1-18 and 20-23 are all the claims pending in the application. Claims 1 and 10 have been amended as indicated above.

I. Rejection of claims 1-6, 9-15, 18 and 20-23 under 35 U.S.C. § 103

Claims 1-6, 9-15, 18 and 20-23 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hayashi et al. US Patent No. 5,708,475 in view of Hong US Patent Publication No. 2007/0133617.

Claim 1

Claim 1 now recites:

A broadcast-receiving apparatus comprising:
a receiving unit which receives a data broadcasting signal through a data broadcasting channel;
an extracting unit **which extracts specific data** from the received data broadcasting signal; and
a merging unit which merges the extracted data, which is real time broadcasting content, with media content, which has been recorded, that is being output,
wherein the media content is not obtained from a signal that is being currently received at the time the media content is being output.

As indicated above, claim 1 has been amended to recite "an extracting unit **which extracts specific data** from the received data broadcasting signal." Hayashi and Hong do not teach or suggest an extracting unit **which extracts specific data** from the received data broadcasting signal. Specifically, there is no teaching or suggestion of extracting specific data

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from the demodulated signals output for the first and second receiving circuit (data broadcasting signal as cited by the Examiner). Therefore, claim 1 should be deemed allowable.

The Examiner states that Hayashi teaches the elements of claim 1 except for "a merging unit which merges the extracted data, **which is real time broadcasting content,** with media content, **which has been recorded**, that is being output," and "wherein the media content is not obtained from a signal that is being currently received at the time the media content is being output," and cites Hong to cure the deficiency. However, Applicant submits that Hayashi does not teach the elements of claim 1, and Hong does not cure the deficiencies of Hayashi.

As recited in claim 1, the media content is not obtained from a signal that is being currently received at the time the media content is being output.

Hong discloses a method of displaying a television receiver input signal according to a time-shift function. Hong discloses that the time-shifted display of a real-time broadcast signal prohibits a viewing by the user of the broadcast signal received in real time on the same channel. A playback operation according to the time-shift function, which utilizes the entire screen, precludes any other simultaneous display to the user (viewer) for a monitoring or visual confirmation of the incoming broadcast signal and its progress status. Therefore, Hong provides a television receiver and a display method which **enables a real-time display of a television receiver input signal in the event that a time-shift function is being executed with respect to the input signal itself.** See paragraph [0007].

Further, Hong discloses displaying on a screen an input signal of one channel, by storing the input signal in a storage medium according to the time-shift function; checking whether a user requests the input signal of the channel stored in the stored medium to be output according to the time-shift function; and, if the stored input signal according to the time-shift function is

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requested to be output, displaying the input signal stored in the storage medium on a first area of the screen and a real-time input signal of the channel on a second area of the screen according to a display mode selected by the user. See paragraph [0034].

Therefore, Hong disclose displaying an input signal in real time and displaying the same input signal which was stored in the storage medium. Hong discloses that the stored broadcast signal is displayed on the main area (media content as cited by the Examiner) and the real-time broadcast signal is displayed on an auxiliary area (extracted data as cited by the Examiner). Hong enables simultaneous display of a real-time-received broadcast signal and a time-shifted version **of the received broadcast signal**. See paragraph [0043].

Consequently, Hong does not teach that the media content is not obtained from a signal that is being currently received at the time the media content is being output, since Hong discloses that the stored broadcast signal displayed on the main area and the real-time broadcast signal displayed on an auxiliary area are the same broadcast signal.

Further, Paragraph [0040] of Hong discloses that the input signal can be reproduced from a video source such as a DVD player or other peripheral device. However, Hong disclose displaying an input signal in real time and **displaying the same input signal which was stored in the storage medium**. Hong discloses that the stored broadcast signal is displayed on the main area (media content as cited by the Examiner) and the real-time broadcast signal is displayed on an auxiliary area (extracted data as cited by the Examiner). Hong enables simultaneous display of a real-time-received broadcast signal and a time-shifted version **of the received broadcast signal**. See paragraph [0043].

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Therefore, Hong does not teach or suggest that the media content is not obtained from a signal that is being currently received at the time the media content is being output. Specifically, the broadcast signal of Hong is the same signal.

Moreover, it would not be obvious to modify Hayashi to teach that the media content is not obtained from a signal that is being currently received at the time the media content is being output.

Hayashi discloses that a microcomputer 11 controls a dual-picture processing block 8 to display the output of the processing circuit 5 as a child picture, whereby the video signal supplied from the processing circuit 5 converted to form a child picture in the dual-picture processing block 8. At this time, the microcomputer 11 further sends a control signal to the mixer 9 for compositing a picture-in-picture image where the output of the processing circuit 4 is displayed as a parent picture while the output of the dual-picture processing block 8 is displayed as a child picture, so that the output of the processing circuit 4 and the output of the dual-picture processing block 8 are combined with each other in the mixer 9 to form a picture-in-picture image. And this picture-in-picture image is outputted to the monitor 10 to be displayed thereon. See col. 9, lines 4-24.

Therefore, it would not be obvious to modify Hayashi to disclose that the media content which is merged with the extracted data is not obtained from a signal that is being currently received at the time the media content is being output. Specifically, this would be contrary to the explicit teachings of Hayashi. Therefore, since the proposed modification would change the principle of operation of Hayashi, the modification is not obvious. If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention

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being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959); MPEP 2143.01.

For at least the above reasons, claim 1 and its dependent claims 2-9, 19 and 21 should be deemed allowable.

To the extent independent claim 10 recites similar subject matter, claim 10 and dependent claims 11-19, 20 and 22 should be deemed allowable for at least the same reasons.

Claim 23

Claim 23 recites "wherein the media content and the extracted data are from different channels." The Examiner asserts that Hayashi teaches the elements of claim 23. However, assuming Hayashi teaches this element, Applicant submits it would not be obvious to modify Hong to include the teaching of Hayashi.

Hong discloses that the stored broadcast signal displayed on the main area and the real-time broadcast signal displayed on an auxiliary area are the same broadcast signal. Therefore, modifying Hong to teach that media content and the extracted data are from different channels, is contrary to the teachings of Hong.

Therefore, claim 23 should be deemed allowable.

II. Rejection of Claims 7, 8, 16 and 17 under 35 U.S.C. § 103(a)

Claims 7, 8, 16 and 17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hayashi et al. US Patent No. 5,708,475 in view of Hong US Patent Publication No. 2007/0133617 in view of Ciciora US Patent No. 5,815,297.

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Claims 7, 8, 16 and 17 should be deemed allowable by virtue of their dependency to independent claims 1 and 10 for at least the reasons set forth above. Moreover, Ciciora does not cure the deficiencies of Hayashi and Hong.

III. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

/Ruthleen E. Uy/

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WASHINGTON OFFICE
23373
CUSTOMER NUMBER

Date: October 22, 2012

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PTO/SB/06 (07-06)
Approved for use through 1/31/2007. OMB 0651-0032
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PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number	Filing Date	☐ To be Mailed
12/118,041	05/09/2008	

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY ☐ RATE ($)	SMALL ENTITY ☐ FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =		OR	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =			X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT 10/22/2012	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE ($)	SMALL ENTITY ADDITIONAL FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 22	Minus	** 22	= 0	X $ =		OR	X $62=	0
Independent (37 CFR 1.16(h))	* 2	Minus	***3	= 0	X $ =		OR	X $250=	0
☐ Application Size Fee (37 CFR 1.16(s))									
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	0

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

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

Legal Instrument Examiner:
/DORIS KING/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/118,041	05/09/2008	Hwa-Kyung Lee	Q105659	1215

23373 7590 12/19/2012

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EXAMINER	
BAIG, SAHAR A	

ART UNIT	PAPER NUMBER
2424	

NOTIFICATION DATE	DELIVERY MODE
12/19/2012	ELECTRONIC

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

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

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTO@sughrue.com
sughrue@sughrue.com
PPROCESSING@SUGHRUE.COM

Office Action Summary	Application No.	Applicant(s)	
	12/118,041	LEE, HWA-KYUNG	
	Examiner	Art Unit	
	SAHAR BAIG	2424	

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

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 October 2012*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5)☒ Claim(s) *1-18 and 20-23* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-18 and 20-23* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☒ The drawing(s) filed on *09 May 2008* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

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DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/22/2012 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-18 and 20-23 have been considered but are moot because the arguments do not apply to any of the references being used in the current rejection.

Claim Rejections - 35 USC § 112

3. The following is a quotation of 35 U.S.C. 112(a):
(a) IN GENERAL.—The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.

The following is a quotation of 35 U.S.C. 112 (pre-AIA), first paragraph:
The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-18 and 20-23 rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement. The

claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor or a joint inventor, or for pre-AIA the inventor(s), at the time the application was filed, had possession of the claimed invention. The newly added term "specific" to distinguish between the types of data is not supported by the specification.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-6, 9-15, 18, 20-23 rejected under 35 U.S.C. 102(B) as being anticipated by Kang US Patent No. 2006/0114363.

Regarding Claims 1 and 10, Kang discloses a broadcast-receiving apparatus comprising: a receiving unit which receives a data broadcasting signal through a data broadcasting channel **[0014 & 0015];** an extracting unit which extracts specific data from the received data broadcasting signal **[0054]**; and a merging unit which merges the extracted data, which is real time broadcasting content, with media content, which has been recorded, that is being output **[0027-0029]**, wherein the media content is not obtained from a signal that is being currently received at the time the media content is being output **[0070]**.

Regarding Claims 2 and 11, Kang discloses a broadcast-receiving apparatus wherein the media content includes at least one of moving picture content that is received through a network or stored in a storage medium, and broadcasting signals that are received through a channel different from the data broadcasting channel **[0013 & 0060].**

Regarding Claims 3 and 12, Kang discloses a broadcast-receiving apparatus further comprising: a user interface which receives input for determining the data broadcasting channel **[Figure 3 Controller 110 & [0052]].**

Regarding Claims 4 and 13, Kang discloses a broadcast-receiving apparatus wherein the extracted data includes at least one of data carousel data, application data, and information that can be displayed on a screen as one of graphics and characters **[0060;** *Animation Effects***]**.

Regarding Claims 5 and 14, Kang discloses a broadcast-receiving apparatus wherein the merging unit merges the extracted data and the media content in a picture in picture (PIP) mode **[0060;** *PIP***]**.

Regarding Claims 6 and 15, Kang discloses a broadcast-receiving apparatus wherein the merging unit merges the extracted data and the media content by dividing an image of the media content being output in a predetermined direction

at a predetermined ratio, and providing the media content in one division and the extracted data in another division **[0106-0108]**.

Regarding Claims 9 and 18, Kang discloses a broadcast-receiving apparatus wherein the merging unit merges the extracted data with the media content only for a predetermined amount of time, when one of a display mode in which the extracted data is not displayed is selected, and the display of the extracted data is completed **[0071 & 0111]**.

Regarding Claim 20, Kang discloses a broadcast-receiving method wherein the media content is obtained from one of a prerecorded broadcasting signal which is recorded in the broadcast- receiving apparatus, a moving picture which is received by the broadcast-receiving apparatus through a network, and a moving picture which is stored in a storage medium **[0060 & 0070].**

Regarding Claims 21 and 22, Kang discloses a broadcast-receiving apparatus wherein the extracted data is outputted in real time **[0094].**

Regarding Claim 23, Kang discloses a broadcast-receiving apparatus wherein the media content and the extracted data are from different channels **[0013 & 0060].**

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 7-8 and 16-17 rejected under 35 U.S.C. 103(a) as being unpatentable over Kang US Patent No. 2006/0114363 in view of Ciciora US Patent No. 5,815,297.

Regarding Claims 7, 8, 16 and 17 Kang fails to disclose that the PIP position of the extracted data changes according to a user input. In an analogous art, Ciciora discloses that a user is able to control format adjustments such as, split-screen, PIP, zoom, aspect ratio, and display of teletext on the television **[Col. 5 line 64 – Col. 6 line 5].** Therefore it would have been obvious to one of ordinary skill in the art to combine the teachings of Kang and Ciciora to allow customized options to suit the needs of individual users **[Ciciora Col. 4 lines 18-21].**

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. It includes Merlin US Patent No. 8,132,220, Yoshikawa et al. US Patent No. 7,836,476, Ito et al. US Patent No. 7,511,742, and Kitsukawa et al. US Patent No. 7,096,489.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAHAR BAIG whose telephone number is (571)270-3005. The examiner can normally be reached on Monday-Friday (9:30 - 6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pankaj Kumar can be reached on 571-272-3011. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SAB
/Pankaj Kumar/
Supervisory Patent Examiner, Art Unit 2424

Notice of References Cited	Application/Control No. 12/118,041	Applicant(s)/Patent Under Reexamination LEE, HWA-KYUNG	
	Examiner SAHAR BAIG	Art Unit 2424	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-8,132,220	03-2012	Merlin, Yakkov	725/109
*	B	US-2006/0114363	06-2006	Kang et al.	348/838
*	C	US-7,836,476 B2	11-2010	Yoshikawa et al.	725/105
*	D	US-7,511,742 B2	03-2009	Ito et al.	348/231.2
*	E	US-7,096,489 B2	08-2006	Kitsukawa et al.	725/109
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	586	(lee-hwa$.in.)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2012/12/07 13:34
L2	3	broadcast same receiv$5 same real-time same extract$5 same merg$6	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2012/12/07 13:35
L3	1	1 and 2	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2012/12/07 13:35
L5	13	("20050210145" | "20030192057" | "6754438" | "20070133617" | "5708475" | "20070079335" | "20030163832" | "5815297" | "6493038" | "6903779" | "20030020832" | "6031580" | "20050117654").PN.	US-PGPUB; USPAT	OR	OFF	2012/12/07 13:45
L6	1462	(merg$4 or combin$4) with (broadcast$4 or real-time or (real adj time)) with (stored or recorded)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2012/12/07 14:01
L7	272	(merg$4 or combin$4) with (broadcast$4 or real-time or (real adj time)) with (stored or recorded) with signal$3	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2012/12/07 14:01
L8	246	(merg$4 or combin$4) with (broadcast$4 or real-time or (real adj time)) with (stored or recorded) with signal$3	US-PGPUB; USPAT	OR	OFF	2012/12/07 14:02
L9	173278	"348".clas.	US-PGPUB; USPAT	OR	OFF	2012/12/07 14:02
L10	31069	"725".clas.	US-PGPUB; USPAT	OR	OFF	2012/12/07 14:02
L11	101	8 and (9 or 10)	US-PGPUB; USPAT	OR	OFF	2012/12/07 14:02
L12	5	02/19689	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2012/12/07 14:05
L13	2	("20020093594").PN.	US-PGPUB;	OR	OFF	2012/12/07

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			14:37
L14	1	("20060114363").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2012/12/07 15:25
S1	1	12/118041	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 21:22
S2	1211	(725/24,47,136,137).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/09/26 21:43
S3	119	(725/137).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/09/26 21:44
S4	2	S3 and (merg$6 same extract$7 same signal$4 same data)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 21:46
S5	1	S3 and (merg$6 and extract$7 and signal$4 and data and pip)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 21:51
S6	333	(merg$6 and extract$7 and signal$4 and data and pip)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 21:51
S7	0	(merg$6 and extract$7 and signal$4 and data and pip).ab.	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 21:51
S8	52	(merg$6 and extract$7 and signal$4 and data).ab.	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 21:51
S9	8	(merg$6 and extract$7 and signal$4 and data).ab.	US-PGPUB; USPAT	OR	OFF	2010/09/26 21:52
S10	5	(ticker$3 and signal$4 and data).ab.	US-PGPUB; USPAT	OR	OFF	2010/09/26 21:52
S11	137	(ticker$3 and signal$4 and data and pip)	US-PGPUB; USPAT	OR	OFF	2010/09/26 21:55
S12	0	(ticker$3 and signal$4 and data and pip).ab.	US-PGPUB; USPAT	OR	OFF	2010/09/26 21:55
S13	1	11/043990	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 22:05

S14	1	11/871554	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 22:08
S15	17	split same screen same user same control$5 same ratio	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/26 22:13
S16	16	split same screen same user same control$5 same ratio	US-PGPUB; USPAT	OR	OFF	2010/09/26 22:15
S17	3	(teletext$3 or (closed caption$4)) and (split same screen same user same control$5 same ratio)	US-PGPUB; USPAT	OR	OFF	2010/09/26 22:24
S18	811	(teletext$3 or (closed caption$4)) with ((phas$5 adj out) or fad$5)	US-PGPUB; USPAT	OR	OFF	2010/09/26 22:30
S19	15157	harrison.in.	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:18
S20	2103	composite with supplement$6	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:19
S21	0	S19 and S20	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:19
S22	557	S19 and supplement$6	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:20
S23	10	S19 and (stream$6 with supplement$6)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:20
S24	35	S19 and (stream$6 with primary)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:20
S25	1	("2004/0045039").URPN.	USPAT	OR	OFF	2010/09/27 02:22
S26	412	(primary with secondary with data with stream$4)	USPAT	OR	OFF	2010/09/27 02:23
S27	3	(primary with secondary with data with stream$4 with extract$6)	USPAT	OR	OFF	2010/09/27 02:23
S28	2651	pip.ab.	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2010/09/27 02:28

S29	489	pip.ab.	US-PGPUB; USPAT	OR	OFF	2010/09/27 02:28
S30	26	(two same signal$5 same pip).ab.	US-PGPUB; USPAT	OR	OFF	2010/09/27 02:29
S31	83	pip.ti.	US-PGPUB; USPAT	OR	OFF	2010/09/27 02:32
S32	99	split screen pip	US-PGPUB; USPAT	WITH	OFF	2010/09/27 02:33
S33	1	("6903779").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/09/27 02:44
S34	46	("20010039546" | "20010049826" | "20020023165" | "20020059637" | "20020067428" | "20020078144" | "20030020671" | "20030212997" | "20030227568" | "20040012717" | "20040040042" | "20040045040" | "20040080528" | "5481296" | "5517254" | "5576768" | "5671019" | "5703655" | "5708475" | "5835153" | "5945987" | "6025837" | "6061056" | "6239843" | "6243676" | "6260194" | "6266094" | "6285407" | "6295092" | "6308329" | "6348951" | "6412111" | "6425061" | "6532041" | "6564383" | "6567127" | "6642966" | "6661467" | "6701524" | "6710812" | "6724431" | "6742188" | "6766163" | "6766528" | "6775842" | "6816201").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/09/27 02:45
S35	1	12/118041	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2011/03/03 12:32
S36	1	("5708475").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2011/03/03 12:35
S37	769	record$5 with PIP	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2011/03/03 12:39
S38	5	record$5 with PIP with split with screen$3	US-PGPUB; USPAT	OR	OFF	2011/03/03 12:40
S39	14	record$5 with PIP with (overlay or overlaid)	US-PGPUB; USPAT	OR	OFF	2011/03/03 12:41
S40	9	S39 not S38	US-PGPUB; USPAT	OR	OFF	2011/03/03 12:42
S41	5	dvd with play$5 with PIP with split with screen$3	US-PGPUB; USPAT	OR	OFF	2011/03/03 12:55
S42	0	internet with PIP with split with screen$3	US-PGPUB; USPAT	OR	OFF	2011/03/03 14:26
S43	38	internet with PIP with receiv$6	US-PGPUB; USPAT	OR	OFF	2011/03/03 14:27
S44	46	(ip or internet or iptv) with PIP with receiv$6	US-PGPUB; USPAT	OR	OFF	2011/03/03 14:28
S45	0	11/118219	US-PGPUB; USPAT;	OR	OFF	2011/03/07 15:24

			EPO; DERWENT; IBM_TDB			
S46	1	12/253818	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2011/03/07 15:55
S47	510	(lee-hwa$.in.)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2011/09/24 21:46
S48	2	broadcast same receiv$5 same real-time same extract$5 same merg$6	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2011/09/24 21:47
S49	1	S47 and S48	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2011/09/24 21:47
S50	1353	(725/24,47,136,137).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2011/09/24 21:47
S51	1	("5708475").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2011/09/24 21:50
S52	21	("5708475").URPN.	USPAT	OR	OFF	2011/09/24 21:50
S53	8	record$ and S52	USPAT	OR	OFF	2011/09/24 21:51
S54	43647	(ticker$3 or secondary or auxiliary or additional) with (data or information) with record$7	US-PGPUB; USPAT	OR	OFF	2011/09/24 22:09
S55	660	(ticker$3 or secondary or auxiliary or additional) with (data or information) with record$7 with ((real-time) or synchroniz$4)	US-PGPUB; USPAT	OR	OFF	2011/09/24 22:10
S56	230	(ticker$3 or secondary or auxiliary) with (data or information) with record$7 with ((real-time) or synchroniz$4)	US-PGPUB; USPAT	OR	OFF	2011/09/24 22:10
S57	61	((ticker$3 or secondary or auxiliary) with (data or information) with record$7 with ((real-time) or synchroniz$4)) and television	US-PGPUB; USPAT	OR	OFF	2011/09/24 22:11
S58	74	((ticker$3 or secondary or auxiliary) with (data or information) with (recording$2 or recorded or reproduc$5) with ((real-time) or synchroniz$4)) and television	US-PGPUB; USPAT	OR	OFF	2011/09/24 22:13
S59	1122	(dvr or pvr) same ((real-time) or synchroniz$4)	US-PGPUB; USPAT	OR	OFF	2011/09/24 22:25
S60	103	(dvr or pvr) same ((real-time) or synchroniz$4) same (auxiliary or secondary or related or additional) same (data or information)	US-PGPUB; USPAT	OR	OFF	2011/09/24 22:26
S61	1	12/527462	US-PGPUB;	OR	OFF	2011/09/24

			USPAT			23:25
S62	552	(lee-hwa$.in.)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2012/04/25 18:22
S63	478	(merg$6 same extract$7 same signal$4 same data)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2012/04/25 18:22
S64	1	S62 and S63	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2012/04/25 18:22
S65	1	("5708475").PN.	USPAT; USOCR	OR	OFF	2012/04/25 19:18
S66	1434	(725/24,47,136,137).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2012/05/15 18:55
S67	553	(lee-hwa$.in.)	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2012/05/15 18:55
S68	3	broadcast same receiv$5 same real-time same extract$5 same merg$6	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2012/05/15 18:56
S69	1	S67 and S68	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	OFF	2012/05/15 19:00

EAST Search History (Interference)

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12/7/2012 4:00:12 PM
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Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12118041	LEE, HWA-KYUNG
	Examiner	**Art Unit**
	SAHAR A BAIG	2424

SEARCHED

Class	Subclass	Date	Examiner
725	24, 47, 136, 137	09/26/2010	SB
	Updated	03/03/2011	SB
	Updated	09/24/2011	SB
	Updated	5/15/2012	SB
	Updated	12/7/2012	SB

SEARCH NOTES

Search Notes	Date	Examiner
Checked for 101 and Double Patenting Issues	09/26/2010	SB
Inventor Search	09/26/2010	SB
Inventor and Double Patenting Search	09/24/2011	SB
Inventor and Double Patenting Search	5/15/2012	SB
Inventor and Double Patenting Search	12/7/2012	SB

INTERFERENCE SEARCH

Class	Subclass	Date	Examiner

/S. A. B./ Examiner.Art Unit 2424	

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12118041	LEE, HWA-KYUNG
	Examiner	**Art Unit**
	SAHAR A BAIG	2424

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

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

CLAIM		DATE								
Final	Original	09/26/2010	03/03/2011	09/24/2011	05/15/2012	12/07/2012				
	1	✓	✓	✓	✓	✓				
	2	✓	✓	✓	✓	✓				
	3	✓	✓	✓	✓	✓				
	4	✓	✓	✓	✓	✓				
	5	✓	✓	✓	✓	✓				
	6	✓	✓	✓	✓	✓				
	7	✓	✓	✓	✓	✓				
	8	✓	✓	✓	✓	✓				
	9	✓	✓	✓	✓	✓				
	10	✓	✓	✓	✓	✓				
	11	✓	✓	✓	✓	✓				
	12	✓	✓	✓	✓	✓				
	13	✓	✓	✓	✓	✓				
	14	✓	✓	✓	✓	✓				
	15	✓	✓	✓	✓	✓				
	16	✓	✓	✓	✓	✓				
	17	✓	✓	✓	✓	✓				
	18	✓	✓	✓	✓	✓				
	19		✓	-	-	-				
	20		✓	✓	✓	✓				
	21		✓	✓	✓	✓				
	22		✓	✓	✓	✓				

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/118,041	05/09/2008	Hwa-Kyung Lee	Q105659	1215

23373 7590 07/01/2013

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EXAMINER	
BAIG, SAHAR A	

ART UNIT	PAPER NUMBER
2424	

NOTIFICATION DATE	DELIVERY MODE
07/01/2013	ELECTRONIC

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

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

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PPROCESSING@SUGHRUE.COM
sughrue@sughrue.com
USPTO@sughrue.com

Notice of Abandonment	Application No.	Applicant(s)
	12/118,041	LEE, HWA-KYUNG
	Examiner	Art Unit
	SAHAR BAIG	2424

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

This application is abandoned in view of:

1. ☒ Applicant's failure to timely file a proper reply to the Office letter mailed on *19 December 2012*.
   (a) ☐ A reply was received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the period for reply (including a total extension of time of _____ month(s)) which expired on _____.
   (b) ☐ A proposed reply was received on _____, but it does not constitute a proper reply under 37 CFR 1.113 (a) to the final rejection.
   (A proper reply under 37 CFR 1.113 to a final rejection consists only of: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114).
   (c) ☐ A reply was received on _____ but it does not constitute a proper reply, or a bona fide attempt at a proper reply, to the non-final rejection. See 37 CFR 1.85(a) and 1.111. (See explanation in box 7 below).
   (d) ☒ No reply has been received.

2. ☐ Applicant's failure to timely pay the required issue fee and publication fee, if applicable, within the statutory period of three months from the mailing date of the Notice of Allowance (PTOL-85).
   (a) ☐ The issue fee and publication fee, if applicable, was received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the statutory period for payment of the issue fee (and publication fee) set in the Notice of Allowance (PTOL-85).
   (b) ☐ The submitted fee of $_____ is insufficient. A balance of $_____ is due.
   The issue fee required by 37 CFR 1.18 is $_____. The publication fee, if required by 37 CFR 1.18(d), is $_____.
   (c) ☐ The issue fee and publication fee, if applicable, has not been received.

3. ☐ Applicant's failure to timely file corrected drawings as required by, and within the three-month period set in, the Notice of Allowability (PTO-37).
   (a) ☐ Proposed corrected drawings were received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the period for reply.
   (b) ☐ No corrected drawings have been received.

4. ☐ The letter of express abandonment which is signed by the attorney or agent of record, the assignee of the entire interest, or all of the applicants.

5. ☐ The letter of express abandonment which is signed by an attorney or agent (acting in a representative capacity under 37 CFR 1.34(a)) upon the filing of a continuing application.

6. ☐ The decision by the Board of Patent Appeals and Interference rendered on _____ and because the period for seeking court review of the decision has expired and there are no allowed claims.

7. ☒ The reason(s) below:

Attorney telephonically confirmed the abandonment on 06/25/2013.

/Pankaj Kumar/ Supervisory Patent Examiner, Art Unit 2424	/Sahar A Baig/ Examiner, Art Unit 2424

Petitions to revive under 37 CFR 1.137(a) or (b), or requests to withdraw the holding of abandonment under 37 CFR 1.181, should be promptly filed to minimize any negative effects on patent term.