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UTILITY PATENT APPLICATION TRANSMITTAL

(ONLY FOR NEW NONPROVISIONAL APPLICATIONS UNDER 37 CFR 1.53(B))

Attorney Docket No.	003597-0375-103
First Named Inventor	Charles Cordray
Title	SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT
Express Mail Label No.	

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. [ ] **Fee Transmittal Form** (PTO/SB/17 or equivalent)
2. [ ] **Applicant asserts small entity status.** See 37 CFR 1.27
3. [ ] **Applicant certifies micro entity status.** See 37 CFR 1.29. Applicant must attach form PTO/SB/15A or B or equivalent.
4. [X] **Specification** [*Total Pages* 93]
   Both the claims and abstract must start on a new page.
   (See MPEP § 608.01(a) for information on the preferred arrangement)
5. [X] **Drawing(s)** (35 U.S.C. 113) [*Total Sheets* 20]
6. **Inventor's Oath or Declaration** [*Total Pages*]
   (including substitute statements under 37 CFR 1.64 and assignments serving as an oath or declaration under 37 CFR 1.63(e))
   a. [ ] Newly executed (original or copy)
   b. [ ] A copy from a prior application (37 CFR 1.63(d))
7. [X] **Application Data Sheet** ** See note below.*
   See 37 CFR 1.76 (PTO/AIA/14 or equivalent)
8. **CD-ROM or CD-R** in duplicate, large table, or Computer Program (*Appendix*)
   [ ] Landscape Table on CD
9. **Nucleotide and/or Amino Acid Sequence Submission** (*if applicable, items a. – c. are required*)
   a. [ ] Computer Readable Form (CRF)
   b. [ ] Specification Sequence Listing on:
      i. [ ] CD-ROM or CD-R (2 copies); or
      ii. [ ] Paper
   c. [ ] Statements verifying identity of above copies

ADDRESS TO: **Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450**

ACCOMPANYING APPLICATION PAPERS

10. [ ] **Assignment Papers** (cover sheet & document(s))
    Name of Assignee
11. [ ] **37 CFR 3.73(c) Statement** (*when there is an assignee*) [ ] **Power of Attorney**
12. [ ] **English Translation Document** (*if applicable*)
13. [ ] **Information Disclosure Statement** (PTO/SB/08 or PTO-1449)
    [ ] Copies of citations attached
14. [X] **Preliminary Amendment**
15. [ ] **Return Receipt Postcard** (*MPEP § 503*) (*Should be specifically itemized*)
16. [ ] **Certified Copy of Priority Document(s)** (*if foreign priority is claimed*)
17. [ ] **Nonpublication Request** Under 35 U.S.C. 122(b)(2)(B)(i). Applicant must attach form PTO/SB/35 or equivalent.
18. [ ] **Other:**

***Note:** (1) Benefit claims under 37 CFR 1.78 and foreign priority claims under 1.55 **must** be included in an Application Data Sheet (ADS).
(2) For applications filed under 35 U.S.C. 111, the application must contain an ADS specifying the applicant if the applicant is an assignee, person to whom the inventor is under an obligation to assign, or person who otherwise shows sufficient proprietary interest in the matter. See 37 CFR 1.46(b).

19. CORRESPONDENCE ADDRESS

[X] The address associated with Customer Number: 75563 **OR** [ ] Correspondence address below

Name					
Address					
City		State		Zip Code	
Country		Telephone		Email	

Signature	/Drew J. Schulte/	Date	March 17, 2015
Name (Print/Type)	Drew J. Schulte	Registration No. (Attorney/Agent)	63,216

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	003597-0375-103
	Application Number	
Title of Invention	SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT	

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.)

Inventor Information:

Inventor 1 Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
Mr.	Charles		Cordray	

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

City	New York	State/Province	NY	Country of Residence i	US

Mailing Address of Inventor:

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Prefix	Given Name	Middle Name	Family Name	Suffix
Mr.	Todd	A.	Walker	

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

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Mailing Address of Inventor:

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Address 2			
City	Bixby	State/Province	OK
Postal Code	74008	Country i	US

Inventor 3 Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
Mr.	Samir	B.	Armaly	

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

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	003597-0375-103
	Application Number	
Title of Invention	SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT	

City	La Canada Flintridge	State/Province	CA	Country of Residence i	US

Mailing Address of Inventor:

Address 1	4400 Bel Aire Drive		
Address 2			
City	La Canada Flintridge	State/Province	CA
Postal Code	91011	Country i	US

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	75563		
Email Address	USPatentMail@ropesgray.com	Add Email	Remove Email

Application Information:

Title of the Invention	SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT		
Attorney Docket Number	003597-0375-103	Small Entity Status Claimed	☐
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	20	Suggested Figure for Publication (if any)	

Filing By Reference :

Only complete this section when filing an application by reference under 35 U.S.C. 111(c) and 37 CFR 1.57(a). Do not complete this section if application papers including a specification and any drawings are being filed. Any domestic benefit or foreign priority information must be provided in the appropriate section(s) below (i.e., "Domestic Benefit/National Stage Information" and "Foreign Priority Information").

For the purposes of a filing date under 37 CFR 1.53(b), the description and any drawings of the present application are replaced by this reference to the previously filed application, subject to conditions and requirements of 37 CFR 1.57(a).

Application number of the previously filed application	Filing date (YYYY-MM-DD)	Intellectual Property Authority or Country i

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.

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	003597-0375-103
	Application Number	
Title of Invention	SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT	

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).
Either enter 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	75563		

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.
When referring to the current application, please leave the application number blank.

Prior Application Status	Pending		Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
	Continuation of	11323464	2005-12-29

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 priority to a foreign application. 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(d). When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX) [i]the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(h)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

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Application Number	Country [i]	Filing Date (YYYY-MM-DD)	Access Code[i] (if applicable)

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	003597-0375-103
	Application Number	
Title of Invention	SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT	

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

☐ This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013.
NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.

Authorization to Permit Access:

☐ Authorization to Permit Access to the Instant Application by the Participating Offices

If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the instant patent application is filed access to the instant patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, WIPO, or other intellectual property office in which a foreign application claiming priority to the instant patent application is filed to have access to the instant patent application.

In accordance with 37 CFR 1.14(h)(3), access will be provided to a copy of the instant patent application with respect to: 1) the instant patent application-as-filed; 2) any foreign application to which the instant patent application claims priority under 35 U.S.C. 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the instant patent application; and 3) any U.S. application-as-filed from which benefit is sought in the instant patent application.

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing this Authorization.

Applicant Information:

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

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	Application Number	
Title of Invention	SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT	

Applicant 1 Remove

If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.

Clear

(◉) Assignee ( ) Legal Representative under 35 U.S.C. 117 ( ) Joint Inventor

( ) Person to whom the inventor is obligated to assign. ( ) Person who shows sufficient proprietary interest

If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:

Name of the Deceased or Legally Incapacitated Inventor :

If the Applicant is an Organization check here. [X]

Organization Name	Rovi Guides, Inc.		
Mailing Address Information:			
Address 1	2830 De La Cruz Boulevard		
Address 2			
City	Santa Clara	**State/Province**	CA
Country [i]	US	Postal Code	95050
Phone Number		Fax Number	
Email Address			

Additional Applicant Data may be generated within this form by selecting the Add button. Add

Assignee Information including Non-Applicant Assignee Information:

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Assignee 1

Complete this section if assignee information, including non-applicant assignee information, is desired to be included on the patent application publication . An assignee-applicant identified in the "Applicant Information" section will appear on the patent application publication as an applicant. For an assignee-applicant, complete this section only if identification as an assignee is also desired on the patent application publication.

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Title of Invention	SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT	

Prefix	**Given Name**	Middle Name	**Family Name**	Suffix

Mailing Address Information For Assignee including Non-Applicant Assignee:

Address 1			
Address 2			
City		**State/Province**	
Country i		Postal Code	
Phone Number		Fax Number	
Email Address			

Additional Assignee or Non-Applicant Assignee Data may be generated within this form by selecting the Add button. Add

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Signature:

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Signature	/Drew Schulte/			Date (YYYY-MM-DD)	2015-03-17
First Name	Drew	Last Name	Schulte	Registration Number	63216

Additional Signature may be generated within this form by selecting the Add button. Add

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.**

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

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

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

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

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

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

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

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

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SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT

Background of the Invention

[0001] This invention relates to interactive media environments, and more particularly, to interactive media environments that monitor a user's viewing progress.

[0002] Interactive media environments allow users to customize a user's media experience using interactive media applications, such as interactive television applications. For example, a user may direct an interactive media application to display program reminders, record media content, search for media content, and enforce parental controls. Interactive media applications, such as interactive television program guides, may also be configured to provide a host of other interactive features, such as television program listings and summaries, pay-per-view (PPV) services, web browsing services, and other interactive features, to the user.

[0003] An interactive feature that is becoming increasingly important in interactive media environments is video-on-demand (VOD) services. Using

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VOD services, a user may be presented with selected media content on-request and at virtually any time specified by the user. VOD services are especially beneficial for users who are unable to view media content when the content is broadcast or otherwise made available to the user equipment. In these instances, a user that subscribes to a VOD service may request the missed content to be delivered or presented at a later time when the user is ready to view or receive the content.

[0004] Another important interactive feature available in some interactive media environments is digital video recording (DVR) services. Using DVR services, a user may program an interactive media application to automatically record a show (or series of shows) onto a storage medium or recording device. DVR services, like VOD services, allow a user to be presented with media content at times other than the times when the media content was originally broadcast or made available to the user equipment.

[0005] Known interactive media environments, through the use of DVR, VOD, and other similar services, allow a user to become disconnected with the rigid broadcast schedule of media content. Users may then watch the media content at the user's own pace. Some of this media content may be episodic content. Episodic content typically is self-contained within each episode and does not include a common storyline with other episodes of the media content. For example, episodes of the series "Seinfeld" are typically episodic. Viewers may watch one episode without watching all of the previous episodes in the series to understand the story. However, other media content may be serial in

nature. Serial programming is any programming containing a temporal component, such as a recommended order of viewing. Serial programming may share themes and/or plot sequences with other episodes in the series. An example of serial programming includes episodes of the television series "24." A user who watches an episode of the television series "24" out of sequence may not recognize or understand certain characters, themes, or plot elements that were introduced in previous, unwatched episodes. This often causes the viewer to be confused or lose interest in the media content. In order to fully comprehend episodes of serial programming, other related programming must typically be watched prior to watching the serial programming.

[0006] Known interactive media environments do not track and report a user's progress through a series of related programming, such as a broadcast television series or a set of movie sequels. Known interactive media environments also do not filter other media content (e.g., web, news, and advertising content) that may be presented on the user equipment so that this other content is consistent with the user's media viewing progress. For example, a user, who is watching a particular episode of a certain television series, may not wish to see spoilers or other irrelevant media content related to unwatched shows in a series of related programs.

[0007] In view of the foregoing, it would be desirable to provide systems and methods for monitoring a user's viewing progress of a user-selected series of related programs. It would also be desirable to use such monitoring techniques to provide a media

environment that is consistent with the user's viewing progress.

Summary of the Invention

[0008] In accordance with the principles of the present invention, systems and methods for an interactive media monitoring application are provided. The interactive media monitoring application monitors a user's viewing progress of user-selected series of programs or media.

[0009] The interactive media monitoring application may create and maintain a user media profile that tracks a user's viewing progress as the user advances through a series of related programming or a collection of media content. In some embodiments, the interactive media monitoring application may also access a set of replacement media content for substitution with media content about to be presented on the user equipment. If the media monitoring application determines that content about to be presented on the user equipment is inconsistent with the user's media profile, the media monitoring application may remove or replace the inconsistent media content.

[0010] In some embodiments, the interactive media monitoring application may use a dynamic filter to analyze incoming media content in real-time. In these environments, media content that the filter determines to be inconsistent with a user's viewing progress may be automatically removed or substituted with alternate content so as to be consistent with the user's current viewing progress.

[0011] In some embodiments, the interactive media monitoring application may maintain separate media profiles for each user accessing the user equipment. In these embodiments, each user's viewing progress may be individually monitored. The media monitoring application may then present a consistent media environment based on each user's individual media viewing progress. In some of these embodiments, a user's media profile may be portable to any user equipment in the interactive media system.

Brief Description of the Drawings

[0012] The above and other objects and advantages of the invention will be apparent upon consideration of the following detailed description, taken in conjunction with the accompanying drawings, in which like reference characters refer to like parts throughout, and in which:

[0013] FIG. 1 is a diagram of an illustrative interactive media system in accordance with one embodiment of the invention;

[0014] FIG. 2 is a diagram of the illustrative user equipment of FIG. 1 based on a set-top box arrangement in accordance with one embodiment of the invention;

[0015] FIG. 3 is a diagram of an illustrative arrangement for the user television equipment of FIG. 1 in accordance with one embodiment of the invention;

[0016] FIG. 4 is a diagram of an illustrative user input device in accordance with one embodiment of the invention;

[0017] FIG. 5 is a diagram of an illustrative arrangement for the user computer equipment of FIG. 1 in accordance with one embodiment of the invention;

[0018] FIG. 6 is a generalized diagram of the illustrative user equipment of FIG. 1 in accordance with one embodiment of the invention;

[0019] FIGS. 7A and 7B show illustrative user profile and media profile records in accordance with one embodiment of the invention;

[0020] FIGS. 8A and 8B show illustrative profiles flags associated with media content in accordance with one embodiment of the invention;

[0021] FIG. 9 is a diagram of illustrative network resources accessible by the user equipment of FIG. 1 in accordance with one embodiment of the invention.

[0022] FIG. 10 is an illustrative display of a log-in or authentication screen for the interactive media monitoring application in accordance with one embodiment of the invention;

[0023] FIG. 11 is an illustrative display of a user welcome summary screen in accordance with one embodiment of the invention;

[0024] FIG. 12 is an illustrative display of a user media viewing progress screen in accordance with one embodiment of the invention;

[0025] FIG. 13 is an illustrative display of a media monitoring application setup screen in accordance with one embodiment of the invention;

[0026] FIG. 14 is an illustrative display of a user reminder screen in accordance with one embodiment of the invention;

[0027] FIG. 15 is an illustrative display of a filtered web content screen in accordance with one embodiment of the invention;

[0028] FIG. 16 is an illustrative display of an interactive program guide listing screen in accordance with one embodiment of the invention;

[0029] FIG. 17 is an illustrative display of a user network communities screen in accordance with one embodiment of the invention;

[0030] FIG. 18 is a flow chart of an illustrative process for accessing and initializing the media monitoring application in accordance with one embodiment of the invention;

[0031] FIG. 19 is a flow chart of an illustrative process for filtering media content in accordance with one embodiment of the invention; and

[0032] FIG. 20 is a flow chart of an illustrative process for tracking media viewing progress and accessing network communities in accordance with one embodiment of the invention.

Detailed Description of the Preferred Embodiments

[0033] The amount of media available to users in any given media delivery system can be substantial. Consequently, many users desire a form of media guidance, an interface that allows users to efficiently navigate media selections and easily identify media that they may desire. An application which provides such guidance is referred to herein as an interactive media guidance application or, sometimes, a guidance application.

[0034] Interactive media guidance applications may take various forms depending on the media for which they provide guidance. One typical type of media guidance application is an interactive television program guide. Interactive television program guides are well-known guidance applications that, among other things, allow users to navigate among and locate television programming viewing choices and, in some systems, digital music. The television programming (and music programming) may be provided via traditional broadcast, cable, satellite, the Internet, or other delivery schemes. The programming may be provided on a subscription basis (sometimes referred to as premium programming), as pay-per-view programs, or on-demand such as in video-on-demand (VOD) systems.

[0035] With the advent of the Internet, mobile computing, and high-speed wireless networks, users are able to access media on personal computers (PCs) and devices on which they traditionally could not. Non-television-centric platforms (i.e., platforms that distribute media with equipment not part of the user's broadcast, cable or satellite television-delivery network) allow users to navigate among and locate desirable video clips, full motion videos (which may include television programs), images, music files, and other suitable media. Consequently, media guidance is also necessary on modern non-television-centric platforms. For example, media guidance applications may be provided as on-line applications (i.e., provided on a web-site), or as stand-alone applications or clients on hand-held computers, personal digital assistants (PDAs) or cellular telephones. In some systems, users may control equipment remotely via a

media guidance application. For example, users may access an online media guide and set recordings or other settings on their in home equipment. This may be accomplished by the on-line guide controlling the user's equipment directly or via another media guide that runs on the user's equipment. Systems for remote recording of media content are described in more detail in Ellis et al. U.S. Patent Application Publication Nos. 20030149988 and 20050229213, both of which are hereby incorporated by reference herein in their entireties.

[0036] An interactive media monitoring application may track a user's viewing progress through a series of related programs, such as a broadcast television series made available via a VOD or DVR service. The interactive media monitoring application may be a stand-alone application or be integrated with an existing interactive media guidance application, such as an interactive television program guide. The interactive media monitoring application may use guidance application data, such as program schedule and content data, as well as other data associated with media content in the media delivery system to filter media content and other information (e.g., web or Internet data) so that this content and information is consistent with the user's viewing progress.

[0037] An illustrative interactive media system 100 in accordance with the present invention is shown in FIG. 1. System 100 is intended to illustrate a number of approaches by which media of various types, and guidance for such media, may be provided to (and accessed by) end-users. The present invention, however, may be applied in systems employing any one or

a subset of these approaches, or in systems employing other approaches for delivering media and providing media guidance.

[0038] The first approach represents a typical television-centric system in which users may access television (and in some systems music) programming. This includes programming sources 102 and distribution facility 104. Media such as television programming and digital music is provided from programming sources 102 to distribution facility 104, using communications path 106. Communications path 106 may be a satellite path, a fiber-optic path, a cable path, or any other suitable wired or wireless communications path or combination of such paths.

[0039] Programming sources 102 may be any suitable sources of television and music programming, such as television broadcasters (e.g., NBC, ABC, and HBO) or other television or music production studios. Programming sources 102 may provide television programming in a variety of formats in high definition and standard definition, such as, for example, 1080p, 1080i, 720p, 480p, 480i, and any other suitable format.

[0040] Distribution facility 104 may be a cable system headend, a satellite television distribution facility, a television broadcaster, or any other suitable facility for distributing video media (e.g., television programs, video-on-demand programs, pay-per-view programs) and audio media (e.g., music programming and music clips) to the equipment of users. In some approaches, distribution facility 104 may also distribute other media to users, such as video and audio clips, web pages, and interactive applications, that may be offered to subscribers of a given cable or

satellite system. There are typically numerous television distribution facilities 104 in system 100, but only one is shown in FIG. 1 to avoid overcomplicating the drawing.

[0041] Distribution facility 104 may be connected to various user equipment devices 108, 110, and 112. Such user equipment devices may be located, for example, in the homes of users. User equipment devices may include user television equipment 110, user computer equipment 112, or any other type of user equipment suitable for accessing media. User equipment 108 may be any type of user equipment (e.g., user television equipment, user computer equipment, etc.) and, for simplicity, user equipment devices may be referred to generally as user equipment 108.

[0042] User equipment devices 108, 110, and 112 may receive media (such as television, music, web pages, etc.) and other data from distribution facility 104 over communications paths, such as communications paths 114, 116, and 118, respectively. User equipment devices 108, 110, 112 may also transmit signals to distribution facility 104 over paths 114, 116, and 118, respectively. Paths 114, 116, and 118 may be cables or other wired connections, free-space connections (e.g., for broadcast or other wireless signals), satellite links, or any other suitable link or combination of links.

[0043] A second approach illustrated in FIG. 1 by which media and media guidance are provided to end users is a non-television-centric approach. In this approach media such as video (which may include television programming), audio, images, web pages, or a suitable combination thereof, are provided to equipment

of a plurality of users (e.g., user equipment 108, user television equipment 110, and user computer equipment 112) by server 130 via communications network 126. This approach is non-television-centric because media is provided by and delivered at least partially, and sometimes exclusively, via equipment that is not part of users' traditional broadcast, cable or satellite television delivery systems. In non-television-centric approaches, television programming may be only one type of media that is provided (if at all).

[0044] In some embodiments for this approach, communications network 126 is the Internet. Server 130 may provide for example, a web site that is accessible to the user's equipment and provides an on-line guidance application for the user. In such approaches, the user's equipment may be, for example, a PC or a hand-held device such as a PDA or web-enabled cellular telephone that incorporates a web browser. In other embodiments, server 130 uses the Internet as a transmission medium but does not use the Web. In such approaches, the user's equipment may run a client application that enables the user to access media. In still other approaches, communications network 126 is a private communications network, such as a cellular phone network, that does not include the Internet.

[0045] In yet other approaches, communications network 126 includes a private communications network and the Internet. For example, a cellular telephone or other mobile-device service provider may provide Internet access to its subscribers via a private communications network, or may provide media such as video clips or television programs to its subscribers via the Internet and its own network.

[0046] The aforementioned approaches for providing media may, in some embodiments, be combined. For example, a distribution facility 104 may provide a television-centric media delivery system, while also providing users' equipment (e.g., 108, 110 and 112) with access to other non-television-centric delivery systems provided by server 130. For example, a user's equipment may include a web-enabled set-top box or a television enabled PC. Distribution facility 104 may, in addition to television and music programming, provide the user with Internet access whereby the user may access server 130 via communications network 126. Distribution facility 104 may communicate with communications network 126 over any suitable path 134, such as a wired path, a cable path, fiber-optic path, satellite path, or combination of such paths.

[0047] Media guidance and monitoring applications may be provided using any approach suitable for the type of media and distribution system for which the applications are used. Media guidance and monitoring applications may be, for example, stand alone applications implemented on users' equipment. In other embodiments, media guidance and monitoring applications may be client-server applications where only the client resides on the users' equipment. In still other embodiments, guidance and monitoring applications may be provided as web sites accessed by a browser implemented on the users' equipment. Whatever the chosen implementation, the media guidance and/or media monitoring application will require information about the media for which it is providing guidance or monitoring. For example, titles or names of media, brief descriptions, schedule information, or other

information may be necessary to allow users to navigate among, find, and track the viewing progress of desired media selections.

[0048] In some television-centric embodiments, for example, the guidance application may be a stand-alone interactive television program guide that receives program guide data via a data feed (e.g., a continuous feed, trickle feed, or data in the vertical blanking interval of a channel). Data source 120 in system 100 may include a program listings database that is used to provide the user with television program-related information such as scheduled broadcast times, titles, channels, ratings information (e.g., parental ratings and critic's ratings), detailed title descriptions, genre or category information (e.g., sports, news, movies, etc.), program format (e.g., standard definition, high definition) and information on actors and actresses. Data source 120 may also contain media content attribute flags and other data associated with programs, such as program number, episode number, and season information for programs that are part of program series. Data source 120 may also be used to provide advertisements (e.g., program guide advertisements and advertisements for other interactive television applications), real-time data such as sports scores, stock quotes, news data, and weather data, application data for one or more media guidance applications or other interactive applications, and any other suitable data for use by system 100. As another example, data source 120 may provide data indicating the types of information that may be included in interactive media guidance overlays (e.g., at the request of the user, absent user modification, etc.).

[0049] Program guide data may be provided to user equipment, including user equipment located on home network 113, using any suitable approach. For example, the data may be transmitted to the user equipment as a broadcast, multicast, unicast, or any other suitable transmission stream. Program schedule data and other data may be provided to the user equipment on a television channel sideband, in the vertical blanking interval of a television channel, using an in-band digital signal, using an out-of-band digital signal, or by any other suitable data transmission technique. Program schedule data and other data may be provided to user equipment on multiple analog or digital television channels. Program schedule data and other data may be provided to the user equipment with any suitable frequency (e.g., continuously, daily, in response to a request from user equipment, etc.).

[0050] In some television-centric embodiments, guidance data from data source 120 may be provided to users' equipment using a client-server approach. For example, a guidance application client residing on the user's equipment may initiate sessions with server 140 to obtain guidance data when needed.

[0051] There may be multiple data sources (such as data source 120) in system 100, although only one data source is shown in FIG. 1 to avoid overcomplicating the drawing. For example, a separate data source may be associated with each of a plurality of television broadcasters and may provide data that is specific to those broadcasters (e.g., advertisements for future programming of the broadcasters, logo data for displaying broadcasters' logos in program guide display screens, etc.). Data source 120 and any other system

components of FIG. 1 may be provided using equipment at one or more locations. Systems components are drawn as single boxes in FIG. 1 to avoid overcomplicating the drawings.

[0052] Data source 120 may provide data to distribution facility 104 over communications path 122 for distribution to the associated user equipment and home network 113 (discussed below) over paths 114, 116, 118, and 119 (e.g., when data source 120 is located at a main facility). Communications path 122 may be any suitable communications path such as a satellite communications path or other wireless path, a fiber-optic or other wired communications path, a path that supports Internet communications, or other suitable path or combination of such paths.

[0053] In some television-centric and non-television centric approaches, data source 120 may provide guidance data directly to user equipment 108 over path 124, communications network 126, and path 128 (e.g., when data source 120 is located at a facility such as one of programming sources 102). In some embodiments of the present invention, data source 120 may provide guidance data directly to user equipment located on home network 113 (discussed below) over path 124, communications network 126, and path 139 (e.g., when data source 120 is located at a facility such as one of programming sources 102). Paths 124, 128, and 139 may be wired paths such as telephone lines, cable paths, fiber-optic paths, satellite paths, wireless paths, any other suitable paths or a combination of such paths. Communications network 126 may be any suitable communications network, such as the Internet, the

public switched telephone network, or a packet-based network.

[0054] User equipment devices, including user equipment devices located on home network 113 (discussed below), such as user television equipment and personal computers, may use the program schedule data and other interactive media guidance application data to display program listings and other information (e.g., information on digital music) for the user. An interactive television program guide application or other suitable interactive media guidance application may be used to display the information on the user's display (e.g., in one or more overlays that are displayed on top of video for a given television channel). Interactive displays may be generated and displayed for the user using any suitable approach. In one suitable approach, distribution facility 104, server 130, or another facility, may generate application display screens and may transmit the display screens to user equipment for display. In another suitable approach, user equipment may store data for use in one or more interactive displays (e.g., program schedule data, advertisements, logos, etc.), and an interactive media guidance application implemented at least partially on the user equipment may generate the interactive displays based on instructions received from distribution facility 104, server 130 or another facility. In some embodiments of the present invention, user equipment may store only the data that is used to generate the interactive television displays (e.g., storing logo data for a particular television broadcaster only if the logo is to be included in one or more interactive television

displays). In some embodiments of the present invention, user equipment may store data that is not necessarily used to generate the interactive television displays (e.g., storing advertisements associated with a particular television broadcaster that may or may not be displayed depending on, for example, the outcome of negotiations with the television broadcaster). Any other suitable approach or combination of approaches may be used to generate and display interactive overlays for the user.

[0055] In still other embodiments, interactive media guidance applications (television-centric and non-television centric) may be provided online as, for example, websites. For example, server 130 may provide an online interactive television program guide. As another example, user equipment 108 may be a mobile device, such as a cellular telephone or personal digital assistant (PDA). The mobile device may be web-enabled to allow the user to access an on-line guidance application (which may be modified from its original version to make it appropriate for a cellular phone). Alternatively, the mobile device may have an applet that communicates with server 130 to obtain guidance data via the Internet.

[0056] Server 130 may receive program schedule data and other data from data source 120 via communications path 124, communications network 126, and communications path 132 or via another suitable path or combination of paths. Path 132 may be a satellite path, fiber-optic path, wired path, or any other path or combination of paths. User equipment 108 may access the on-line interactive media guidance application and other sources from server 130 via communications path

128. User equipment 108 may also access the application and other services on server 130 via communications path 114, distribution facility 104, and communications path 134. For example, a cable modem or other suitable equipment may be used by user equipment 108 to communicate with distribution facility 104.

[0057] User equipment such as user television equipment 110, user computer equipment 112, and user equipment located on home network 113 may access the on-line interactive media guidance application and server 130 using similar arrangements. User television equipment 110 may access the on-line interactive media guidance application and server 130 using communications path 136 or using path 116, distribution facility 104, and path 134. User computer equipment 112 may access the on-line interactive media guidance application and server 130 using communications path 138 or using path 118, distribution facility 104, and path 134. User equipment located on home network 113 may access the on-line media guidance application and server 130 using communications path 139 or using path 119, distribution facility 104, and path 134. Paths 136, 138, and 139 may be any suitable paths such as wired paths, cable paths, fiber-optic paths, wireless paths, satellite paths, or a combination of such paths.

[0058] An interactive media monitoring application implemented at least partially on user equipment 108, user television equipment 110, user computer equipment 112, distribution facility 104, or another device of media system 100 may use program schedule data and other interactive media application data to monitor a user's viewing progress of media content on the user equipment. The user's viewing progress may be tracked

and recorded in user media profiles, which may be stored locally on the user equipment or on a network device (e.g., server 130 and/or server 140) within media system 100. The media monitoring application may also filter media content and other information (e.g., web or Internet data) that is inconsistent with the user's viewing progress. For example, a spoiler advertisement relating to an unwatched program may be replaced with an advertisement relating to an already watched program. For the sake of simplicity, media content that is inconsistent with a user's media profile (and hence the user's viewing progress) will be referred to herein as inconsistent media content. This content may include advertising, news segment, web content, or any other media content available in media system 100.

[0059] In some embodiments, system 100 may support other interactive applications in addition to the interactive media guidance and media monitoring applications. Such applications may be implemented using any suitable approach. For example, the interactive applications may be implemented locally on the user equipment or in a distributed fashion (e.g., using a client-server architecture in which the user equipment serves at least partly, and for at least some of the time, as the client and a server, such as server 140 at distribution facility 104, server 130, or other suitable equipment acts as the server). Other distributed architectures may also be used if desired. Moreover, some or all of the features of the interactive applications of system 100 (including the media guidance application and media monitoring application) may be provided using operating system

software or middleware software. Such operating system software and middleware may be used instead of or in combination with application-level software. In yet other approaches, interactive applications may also be supported by servers or other suitable equipment at one or more service providers such as service provider 142. Regardless of the particular arrangement used, the software that supports these features may be referred to as an application or applications.

[0060] For example, an interactive application such as a home shopping service may be supported by a service provider such as service provider 142 that has sales representatives, order fulfillment facilities, account maintenance facilities, and other equipment for supporting interactive home shopping features. A home shopping application that is implemented using the user equipment may be used to access the service provider to provide such features to the user. The user equipment may access service provider 142 via distribution facility 104 and communications path 144 or via communications network 126 and communications path 146. Communications paths such as paths 144 and 146 may be any suitable paths such as wired paths, cable paths, fiber-optic paths, satellite paths, or a combination of such paths.

[0061] Another example of an interactive application is a home banking application. A home banking service may be supported using personnel at facilities such as service provider 142. An interactive home banking application that is implemented using the user equipment may access the home banking service via distribution facility 104 and communications path 144

or via communications network 126 and communications path 146.

[0062] If desired, an interactive media guidance application such as a network-based video recorder or a video-on-demand application may be supported using server 140, server 130, or equipment at service provider 142. Video-on-demand content and video recorded using a network-based video recorder arrangement may be stored on server 140 or server 130 or at service provider 142 and may be provided to the user equipment when requested by users. An interactive television program guide, for example, may be used to support the functions of a personal video recorder (sometimes called a digital video recorder) that is implemented using user equipment 108. Illustrative equipment that may be used to support personal video recorder functions include specialized personal video recorder devices, integrated receiver decoders (IRDs), set-top boxes with integrated or external hard drives, or personal computers with video recording capabilities.

[0063] Interactive applications such as media guidance applications (e.g., interactive television program guide applications and video-on-demand applications), home shopping applications, home banking applications, game applications, and other applications (e.g., applications related to e-mail and chat or other communications functions, etc.) may be provided as separate applications that are accessed through a navigation shell application (i.e., a menu application with menu options corresponding to the applications). The features of such applications may be combined. For example, games, video-on-demand services, home shopping

services, network-based video recorder functions, personal video recorder functions, navigational functions, program guide functions, communications functions, and other suitable functions may be provided using one application or any other suitable number of applications. The one or more applications may display various overlays on user equipment including, for example, interactive television information on top of video for a given television channel.

[0064] Interactive television program guide applications, home banking applications, home shopping applications, network-based video recorder and personal video recorder applications, video-on-demand applications, gaming applications, communications applications, and navigational applications are only a few illustrative examples of the types of interactive media guidance and other applications that may be supported by system 100. Other suitable interactive applications that may be supported include news services, web browsing and other Internet services, and interactive wagering services (e.g., for wagering on horse races, sporting events, and the like). Interactive television overlays that are displayed by these applications may also be customized in accordance with the present invention.

[0065] Users may have multiple types of user equipment by which they access media and obtain media guidance. For example, some users may have home networks that are accessed by in-home and mobile devices. As shown in FIG. 1, home network 113 communicates with distribution facility 104 and server 130 over paths 119 and 139 (and, in the case of server 130, communications network 126). Such home networks

113 may be located, for example, in homes of users or distributed, for example, among homes of users. Home networks 113 may each include a plurality of interconnected user equipment devices, such as, for example user equipment devices 108, 110 and 112. In some embodiments, users may control in-home devices via a media guidance application implemented on a remote device. For example, users may access an online media guidance application on a website via a personal computer at their office, or a mobile device such as a PDA or web-enabled cellular telephone. The user may set settings (e.g., recordings, reminders, or other settings) on the on-line guidance application to control the user's in-home equipment. The on-line guide may control the user's equipment directly, or by communicating with a media guidance application on the user's in-home equipment.

[0066] FIGS. 2-6 show illustrative arrangements for user equipment. An illustrative set-top box-based arrangement for user equipment 110 is shown in FIG. 2. User television equipment 110 may be stand-alone or a part of home network 113 (FIG. 1). Input/output 202 may be connected to communications paths such as paths 116 and 136 (FIG. 1). Input/output functions may be provided by one or more wires or communications paths, but are shown as a single path in FIG. 2 to avoid overcomplicating the drawing. Television programming, program guide data, and any other suitable interactive media guidance application data or other data may be received using input/output 202. Commands and requests and other data generated as a result of user interactions with the interactive media guidance

application may also be transmitted over input/output 202.

[0067] Set-top box 204 may be any suitable analog or digital set-top box (e.g., a cable set-top box). Set-top box 204 may contain an analog tuner for tuning to a desired analog television channel (e.g., a channel comprising television programming, interactive television data, or both). Set-top box 204 may also contain digital decoding circuitry for receiving digital television channels (e.g., channels comprising television or music programming, interactive television data, etc.). Set-top box 204 may also contain a high-definition television tuner for receiving and processing high-definition television channels. Analog, digital, and high-definition channels may be handled together if desired. Multiple tuners may be provided (e.g., to handle simultaneous watch and record functions or picture-in-picture (PIP) functions). Box 204 may be an integrated receiver decoder (IRD) that handles satellite television. If desired, box 204 may have circuitry for handling cable, over-the-air broadcast, and satellite content.

[0068] Set-top box 204 may be configured to output media, such as television programs, in a preferred format. Because television programs may be received in a variety of formats, set-top box 204 may contain scaler circuitry for upconverting and downconverting television programs into the preferred output format used by set-top box 204. For example, set-top box 204 may be configured to output television programs in 720p. In this example, the scaler circuitry may upconvert standard-definition television programs having 480 lines of vertical resolution to 720p format

and downconvert certain high-definition television programs having 1080 lines of vertical resolution to 720p format.

[0069] Box 204 may include a storage device (e.g., a digital storage device such as a hard disk drive) for providing recording capabilities. Box 204 may also be connected to a recording device 206 such as a video cassette recorder, personal video recorder, optical disc recorder, or other device or devices with storage capabilities. In some embodiments, box 204 may be configured to record either standard-definition television programs or high-definition television programs. In some embodiments, box 204 may be configured to record both standard-definition television programs and high-definition television programs.

[0070] Set-top box 204 contains a processor (e.g., a microcontroller or microprocessor or the like) that is used to execute software applications. Set-top box 204 may contain memory such as random-access memory for use when executing applications. Nonvolatile memory may also be used (e.g., to launch a boot-up routine and other instructions). Hard disk storage in box 204 or in recording device 206 may be used to back up data and to otherwise support larger databases and storage requirements than may be supported using random-access memory approaches. Hard disk storage in box 204 or in recording device 206 may also be used to store and back up program guide settings or saved user preferences.

[0071] Set-top box 204 may have infrared (IR) or other communications circuitry for communicating with a remote control or wireless keyboard. Set-top box 204 may also have dedicated buttons and a front-panel

display. The front-panel display may, for example, be used to display the current channel to which the set-top box is tuned.

[0072] Set-top box 204 may also have communications circuitry such as a cable modem, an integrated services digital network (ISDN) modem, a digital subscriber line (DSL) modem, a telephone modem, or a wireless modem for communications with other equipment. Such communications may involve the Internet or any other suitable communications networks or paths. If desired, the components of set-top box 204 may be integrated into other user equipment (e.g., a television or videocassette recorder).

[0073] Recording device 206 may be used to record videos provided by set-top box 204. For example, if set-top box 204 is tuned to a given television channel, the video signal for that television channel may be passed to recording device 206 for recording on a videocassette, compact disc, digital video disk, or internal hard drive or other storage device. In some embodiments, recording device 206 may be configured to record either standard-definition television programs or high-definition television programs. In some embodiments, recording device 206 may be configured to record both standard-definition television programs and high-definition television programs. Recording device 206 may have communications circuitry such as a cable modem, an ISDN modem, a DSL modem, or a telephone modem for communications with other equipment. Such communications may involve the Internet or any other suitable communications networks or paths. The components of recording device 206 may be integrated

into other user equipment (e.g., a television, stereo equipment, etc.).

[0074] Recording device 206 may be controlled using a remote control or other suitable user interface. If desired, video recorder functions such as start, stop, record and other functions for device 206 may be controlled by set-top box 204. For example, set-top box 204 may control recording device 206 using infrared commands directed toward the remote control inputs of recording device 206 or set-top box 204 may control recording device 206 using other wired or wireless communications paths between box 204 and device 206.

[0075] The output of recording device 206 may be provided to television 208 for display to the user. In some embodiments, television 208 may be capable of displaying high-definition programming (i.e., HDTV-capable). If desired, multiple recording devices 206 or no recording device 206 may be used. If recording device 206 is not present or is not being actively used, the video signals from set-top box 204 may be provided directly to television 208. Any suitable television or monitor may be used to display the video. For example, if the video is in a high-definition format, an HDTV-capable television or monitor is required to display the video. In the equipment of FIG. 2 and the other equipment of system 100 (FIG. 1), the audio associated with various video items is typically distributed with those video items and is generally played back to the user as the videos are played. In some embodiments, the audio may be distributed to a receiver (not shown), which processes and outputs the audio via external speakers (not shown).

[0076] Another illustrative arrangement for user television equipment 110 (FIG. 1) is shown in FIG. 3. User television equipment 110 may be stand-alone or a part of home network 113 (FIG. 1). In the example of FIG. 3, user television equipment 110 includes a recording device 302 such as a digital video recorder (e.g., a personal video recorder (PVR)) that uses a hard disk or other storage for recording video. Recording device 302 may alternatively be a digital video disc recorder, compact disc recorder, videocassette recorder, or other suitable recording device. Equipment 110 of FIG. 3 may also include a television 304. In some embodiments, television 304 may be HDTV-capable. Input/output 306 may be connected to communications paths such as paths 116 and 136 (FIG. 1). Television programming, program schedule data, and other data (e.g., advertisement data, data indicating one or more television channels for which the display of an overlay is to be customized, etc.) may be received using input/output 306. Commands and requests and other data from the user may be transmitted over input/output 306.

[0077] Recording device 302 may contain at least one analog tuner for tuning to a desired analog television channel (e.g., to display video for a given television channel to a user, to receive program guide data and other data) and multiple other tuners may also be provided. Recording device 302 may also contain digital decoding circuitry for receiving digital television programming, music programming, program guide data, and other data on one or more digital channels. Recording device 302 may also contain circuitry for receiving high-definition television

channels. If desired, recording device 302 may contain circuitry for handling analog, digital, and high-definition channels. Recording device 302 also contains a processor (e.g., a microcontroller or microprocessor or the like) that is used to execute software applications. Recording device 302 may contain memory such as random-access memory for use when executing applications. Nonvolatile memory may also be used to store a boot-up routine or other instructions. The hard disk and other storage in recording device 302 may be used to support databases (e.g., program guide databases or other interactive television application databases). The hard disk or other storage in recording device 302 may also be used to record video such as television programs or video-on-demand content or other content provided to recording device 302 over input/output 306.

[0078] Recording device 302 may have IR communications circuitry or other suitable communications circuitry for communicating with a remote control. Recording device 302 may also have dedicated buttons and a front-panel display. The front-panel display may, for example, be used to display the current channel to which the recording device is tuned.

[0079] Recording device 302 may also have communications circuitry such as a cable modem, an ISDN modem, a DSL modem, a telephone modem, or a wireless modem for communications with other equipment. Such communications may involve the Internet or other suitable communications networks or paths.

[0080] If desired, recording device 302 may include a satellite receiver or other equipment that has

wireless communications circuitry for receiving satellite signals.

[0081] Recording device 302 of FIG. 3 or recording device 206 of FIG. 2 may record new video while previously recorded video is being played back on television 304 or 208. This allows users to press a pause button during normal television viewing. When the pause button is pressed, the current television program is stored on the hard disk of digital video recorder 302. When the user presses play, the recorded video may be played back. This arrangement allows the user to seamlessly pause and resume television viewing. Recording devices 302 and 206 may also be used to allow a user to watch a previously-recorded program while simultaneously recording a new program.

[0082] The set-top box arrangement of FIG. 2 and the personal video recorder with a built-in set-top box arrangement of FIG. 3 are merely illustrative. Other arrangements may be used if desired. For example, user television equipment may be based on a WebTV box, a personal computer television (PC/TV), or any other suitable television equipment arrangement. If desired, the functions of components such as set-top box 204, recording device 302, a WebTV box, or PC/TV or the like may be integrated into a television or personal computer or other suitable device.

[0083] An illustrative remote control 400 for operating user television equipment 110 (FIG. 1) or suitable user computer equipment 112 is shown in FIG. 4. Remote control 400 is only illustrative and any other suitable user input interface may be used to operate user equipment (e.g., a mouse, trackball, keypad, keyboard, touch screen, voice recognition

system, etc.). Remote control 400 may have function keys 402 and other keys 404 such as keypad keys, power on/off keys, pause, stop, fast-forward and reverse keys. Volume up and down keys 406 may be used for adjusting the volume of the audio portion of a video. Channel up and down keys 408 may be used to change television channels and to access content on virtual channels. Cursor keys 410 may be used to navigate on-screen menus. For example, cursor keys 410 may be used to position an on-screen cursor, indicator, or highlight (sometimes all generically referred to herein as a highlight or highlight region) to indicate interest in a particular option or other item on a display screen that is displayed by the interactive television application.

[0084] OK key 412 (sometimes called a select or enter key) may be used to select on-screen options that the user has highlighted.

[0085] Keys 402 may include RECORD key 414 for initiating recordings. MENU button 416 may be used to direct an interactive media guidance application to display a menu on the user's display screen (e.g., on television 208 or 304 or on a suitable monitor or computer display). INFO button 418 may be used to direct an interactive media guidance application to display an information display screen. For example, when a user presses INFO key 418 while video for a given television channel is displayed for the user, an interactive television program guide may display a FLIP/BROWSE overlay including program schedule information for the current program on the given television channel on top of the video. As another example, when a particular program listing in an

interactive television program listings display screen is highlighted, the user pressing INFO button 418 may cause an interactive television program guide to provide additional program information associated with that program listing (e.g., a program description, actor information, schedule information, etc.).

[0086] PROFILES button 420 may be used to quickly access the current user's media profile or viewing progress display screen 1200 of FIG. 12 (described below). In some embodiments, PROFILES button 420 may be used to access a list of all media profiles stored on the user equipment. In other embodiments, PROFILES button 420 may access the interactive media monitoring application setup, log-in, or configuration display screens.

[0087] EXIT button 422 may be used to exit the interactive media guidance application or to exit a portion of the interactive media guidance application (e.g., to cause an interactive television program guide to remove a FLIP, BROWSE, or other interactive television overlay from the display screen). GUIDE button 424 may be used to invoke an interactive television program guide (e.g., a program guide menu screen, program listings screen, or other program guide screen).

[0088] The keys shown in FIG. 4 are merely illustrative. Other keys or buttons may be provided if desired. For example, a music button may be used to access music with the interactive media guidance application. An edit button may be used to edit stored content (e.g., to remove commercials, remove portions of a video, etc.). Alphanumeric buttons may be used to enter alphanumeric characters. A last or back button

may be used to browse backward in the interactive media guidance application (e.g., to return to a previous channel, web page, or other display screen). Video recorder function buttons such as a play button, pause button, stop button, rewind button, fast-forward button, and record button, may be used to control video recorder functions (local or network-based) in system 100 (FIG. 1). A help key may be used to invoke help functions such as context-sensitive on-screen help functions.

[0089] Illustrative user computer equipment 112 (FIG. 1) is shown in FIG. 5. User computer equipment 112 may be stand-alone or a part of home network 113 (FIG. 1). In the arrangement of FIG. 5, personal computer unit 502 may be controlled by the user using keyboard 504 and/or other suitable user input device such as a trackball, mouse, touch pad, touch screen, voice recognition system, or a remote control, such as remote control 400 of FIG. 4. Video content, such as television programming or web pages having video elements, and interactive media guidance application display screens may be displayed on monitor 506. Television and music programming, media guidance application data (e.g., television program guide data), video-on-demand content, video recordings played back from a network-based video recorder, and other data may be received from paths 118 and 138 (FIG. 1) using input/output 508. User commands and other information generated as a result of user interactions with the interactive media guidance application and system 100 (FIG. 1) may also be transmitted over input/output 508.

[0090] Personal computer unit 502 may contain a television or video card, such as a television tuner

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card, for decoding analog, digital, and high-definition television channels and for handling streaming video content. Multiple video cards (e.g., tuner cards) may be provided if desired. An illustrative television tuner card that may be used may contain an analog television tuner for tuning to a given analog channel, digital decoding circuitry for filtering out a desired digital television or music channel from a packetized digital data stream, and a high-definition television tuner for tuning to a high-definition channel. Any suitable card or components in computer unit 502 may be used to handle video and other content delivered via input/output line 508 if desired.

[0091] Personal computer unit 502 may contain one or more processors (e.g., microprocessors) that are used to run the interactive media guidance application or a portion of the interactive media guidance application.

[0092] Personal computer unit 502 may include a hard drive, a recordable DVD drive, a recordable CD drive, or other suitable storage device or devices that stores video, program guide data, and other content. The interactive media guidance application and personal computer unit 502 may use a storage device or devices to, for example, provide the functions of a personal video recorder.

[0093] User equipment, such as user equipment 108, user television equipment 110, user computer equipment 112, and user equipment located on home network 113 (FIG. 1), may be used with network equipment such as server 130, server 140, and equipment at service providers such as service provider 142 of FIG. 1 to provide network-based video recording functions. Video recording functions may be provided by storing copies

of television programs and other video content on a remote server (e.g., server 130 or server 140) or other network-based equipment, such as equipment at a service provider such as service provider 142.

[0094] Video recordings may be made in response to user commands that are entered at user equipment 108 or user equipment located on home network 113 (FIG. 1). In a personal video recorder arrangement, the interactive media guidance application may be used to record video locally on the user equipment in response to the user commands. In a network-based video recorder arrangement, the interactive media guidance application may be used to record video or to make virtual recordings (described below) on network equipment such as server 130, server 140, or equipment at service provider 142 in response to the user commands. The user commands may be provided to the network equipment over the communications paths shown in FIG. 1. The personal video recorder arrangement and the network-based video recorder arrangement can support functions such as fast-forward, rewind, pause, play, and record.

[0095] To avoid unnecessary duplication in a network-based video recorder environment, system 100 may provide network-based video recording capabilities by using virtual copies or recordings. With this approach, each user may be provided with a personal area on the network that contains a list of that user's recordings. The video content need only be stored once (or a relatively small number of times) on the network equipment, even though a large number of users may have that video content listed as one of their recordings in their network-based video recorder personal area.

Personal settings or any other suitable data may be stored in a user's personal area on the network.

[0096] The user television equipment and user computer equipment arrangements described above are merely illustrative. A more generalized embodiment of illustrative user equipment 108, 110, and 112 (FIG. 1) and user equipment located on home network 113 (FIG. 1) is shown in FIG. 6. Control circuitry 602 is connected to input/output 604. Input/output 604 may be connected to one or more communications paths such as paths 114, 116, 118, 128, 136, and 138 of FIG. 1. Media (e.g., television programming, music programming, other video and audio, and web pages) may be received via input/output 604 (e.g., from programming sources 102, servers or other equipment, such as server 130, service providers such as service provider 142, distribution facility 104, etc.). Interactive media guidance application data, such as program schedule information for an interactive television program guide, may be received from data source 120 via input/output 604. Input/output 604 may also be used to receive data from data source 120 for other interactive television applications. The user may use control circuitry 602 to send and receive commands, requests, and other suitable data using input/output 604.

[0097] Control circuitry 602 may be based on any suitable processing circuitry 606 such as processing circuitry based on one or more microprocessors, microcontrollers, digital signal processors, programmable logic devices, etc. In some embodiments, control circuitry 602 executes instructions for an interactive media guidance application or other interactive application (e.g., web browser) from

memory. Memory (e.g., random-access memory and read-only memory), hard drives, optical drives, or any other suitable memory or storage devices may be provided as storage 608 that is part of control circuitry 602. Tuning circuitry such as one or more analog tuners, one or more MPEG-2 decoders or other digital video circuitry, high-definition tuners, or any other suitable tuning or video circuits or combinations of such circuits may also be included as part of circuitry 602. Encoding circuitry (e.g., for converting over-the-air, analog, or digital signals to MPEG signals for storage) may also be provided. The tuning and encoding circuitry may be used by the user equipment to receive and display, play, or record a particular television or music channel or other desired audio and video content (e.g., video-on-demand content or requested network-based or local video recorder playback). Television programming and other video and on-screen options and information may be displayed on display 610. Display 610 may be a monitor, a television, or any other suitable equipment for displaying visual images. In some embodiments, display 610 may be HDTV-capable. Speakers 612 may be provided as part of a television or may be stand-alone units. Digital music and the audio component of videos displayed on display 610 may be played through speakers 612. In some embodiments, the audio may be distributed to a receiver (not shown), which processes and outputs the audio via speakers 612.

[0098] A user may control the control circuitry 602 using user input interface 614. User input interface 614 may be any suitable user interface, such as a mouse, trackball, keypad, keyboard, touch screen, touch pad, voice recognition interface, or a remote control.

[0099] The media delivery system of FIG. 1 allows users at user equipment 108, user television equipment 110, and user computer equipment 112 to view media content at virtually any user-selected time. Typically, a signal is sent from the user equipment to distribution facility 104 via communications paths 114, 116, and/or 118 requesting on-demand media content. Alternatively or additionally, the user equipment could request media content via communications network 126, which could include the Internet. Through VOD or other similar services, distribution facility 104 may then deliver the user-requested content to the user equipment for presentation. Therefore, media system 100 (FIG. 1) may make selected television programming and other media content available to the user equipment after the programming or content was initially broadcast or aired. A user may then request and view the media content on the user's own schedule.

[0100] However, some media content contains a temporal component, such as a recommended order of viewing. For example, a television program series, a set of movie sequels, and a sporting event series are typically intended to be watched serially, i.e., one episode, show, or game after another. If the user watches the series out of order, certain fact patterns, characters, and themes may be out of place in the series timeline. Some episodes in the series may be encapsulated single episodes that may be watched out of order, while other episodes may rely on plot details and other information from one or more previous episodes. In addition, some episodes may be arching episodes that contain plot information relevant to the entire series. For example, the first episode in a

program series may introduce key characters and over-arching themes. A user should watch these arching episodes before watching any other episodes in the series that rely on, or make reference to, the arching episodes.

[0101] There are many other examples of temporal components commonly found in media content. For example, some media content may include multiple parts that should be watched sequentially. These multi-part shows are often linked together with "to be continued" messages at the conclusion of each part. A user who watches the multi-part content out of sequence (or fails to watch a part entirely) may miss overriding themes, the introduction of new characters, and other plot events. The aforementioned temporal components are presented for the purposes of illustration and not limitation. Many other examples of temporal components may be found in popular media content.

[0102] In addition, the user may inadvertently watch other media content that contains spoilers or other undesirable or irrelevant content about programs the user has not yet seen, but have already been broadcast or otherwise made available to the user equipment. Spoilers may include any information that can reveal (and thereby "spoil") a plot point in a movie, program, show, etc. that the user has not yet seen. To reduce the presentation of this undesirable content, the interactive media monitoring application may create and maintain user media profiles that track the user's progress through user-selected series of programming, episode by episode, show by show, or game by game. When the user has completed viewing an episode in the series, the interactive media monitoring application

may update the appropriate entry in the user's media profile to reflect the completion of the episode. In some embodiments, a user is associated with one media profile containing all the user-selected media content to be monitored. In other embodiments, a user is associated with a separate media profile for each series of related programs to be monitored.

[0103] In some embodiments, media profiles may be portable. For example, a user who accesses public or remote user equipment in media system 100 (FIG. 1) may be authenticated and presented with the user's current "roaming" media profile. This roaming profile could be stored at any suitable location in media system 100, including, for example, the user equipment, distribution facility 104, server 130, and/or server 140 (FIG. 1). In addition, updates to the user's roaming profile may be committed and stored to a network location (e.g., the user's home user equipment, distribution facility 104, server 130, and/or server 140 of FIG. 1). This way, media profiles are updated even when the user is accessing user equipment other then the user's primary user equipment (e.g., the user equipment residing at the user's home or office). Users may also access their media profile at public user equipment, such as user equipment kiosks, or at another location, such as a friend's user equipment.

[0104] For example, a user may record Game 2 of the World Series and not have time to watch the game. If the World Series is added to the user's media profile, the user may access his or her media profile from any suitable device with network access. The interactive media monitoring application may then filter or replace any content presented on the user device related to

Game 2 of the World Series. For example, the score of the game may be removed or replaced from Internet page headlines that are accessed from the user's office computer or PDA. After the user watches the game, the interactive media monitoring application may update the user's profile to reflect the user's new viewing progress.

[0105] FIGS. 7A and 7B show illustrative user profile record 700 and media profile record 710 in accordance with one embodiment of the invention. User profile record 700 includes user column 702 and profile column 704. User column 702 may include the usernames (or other unique identifier) of all or some of the users accessing the local user equipment. Profile column 704 may contain pointers to the media profile or profiles associated with the user in user column 702. In some embodiments, users may be associated with a single profile for all media content. In other embodiments, users may be associated separate media profiles for each series to be monitored. Additionally or alternatively, users may be associated with a local media profile and a roaming media profile. A user's roaming media profile may be available by any user equipment in the media system. The interactive media monitoring application may read user profile record 700 after accessing the user equipment, the media system, or the monitoring application. The interactive media monitoring application may then follow the pointers contained in profile column 704 to access the profiles associated with the current user. Media profiles may be stored locally at the user equipment or at any convenient location within media system 100 (FIG. 1).

[0106] Media profiles may be stored in any convenient fashion (e.g., as records in one or more relational databases, as lists in memory, and/or as files on a hard drive or other storage media). If the media profiles are stored remote from the user equipment, the user equipment may access the profiles through any available communications path (e.g., communications path 128 and/or 114 of FIG. 1) or service. Additionally or alternatively, media profiles may be downloaded periodically to the user equipment or the user equipment may periodically query a remote server (e.g., server 140 and/or server 130 of FIG. 1) to deliver media profile updates to the user equipment. The user equipment may also commit media profile changes to a server or remote location for access by any user equipment in media system 100.

[0107] Media profile record 710 shows an illustrative media profile record stored in a relational database. Media profile record 710 may contain program column 712, progress column 714, position column 716, and last action column 718. The various programs monitored by the interactive media monitoring application may be listed in program column 712. Associated with each program in program column 712 may be a media progress indicator, a position indicator, and a last action indicator. Progress column 714 may contain the user's current viewing progress. For example, the user's season number and/or episode number may be contained in progress column 714. The episode and season number may be separated in progress column 714 by any suitable delimiter. If the user has not completed the entire episode of the series listed in program column 712, position column 716 may

contain the user's elapsed viewing time within the episode. Finally, last action column 718 may contain the user's last monitored action, if appropriate. For example, last action column 718 may include a macro corresponding to the user's most recent action in the series. Macros may include, for example, "SK" if the user skipped the last episode, "WA" if the user watched the last episode, "SC" if the user scheduled the last episode for viewing at a later day or time, and "BP" if the user delayed his or her viewing schedule by one or more episodes. Other macros may be included in last action column 718 as appropriate. Last monitoring actions are discussed in more detail below in regard to viewing progress display 1200 (FIG. 12).

[0108] Records 700 and 710 are exemplary. Other records containing more or less information may also be used, as desired. Records 700 and 710 may be stored in any convenient data structure and on any suitable storage or memory device. The storage format of data in records 700 and 710 may also be modified, if desired. Records 700 and 710 may be manipulated and maintained by the interactive media monitoring application, other applications resident on the user equipment, distribution facility 104 (FIG. 1), or any other device in the media system.

[0109] FIGS. 8A and 8B show illustrative media profile flags 800 and 810 in accordance with one embodiment of the invention. The interactive media monitoring application may remove or replace any media content that is determined to be inconsistent with the user's current viewing progress. Content substitutions may be based, in part, on metadata associated with the substitute content and/or the content to be

substituted. Metadata may be used to describe programming and may include any information that may be associated with a program and/or that may describe a program, its content, or services related to a program. Further features of an illustrative system for delivering metadata-linked content is described in Moore et al. U.S. Patent Application Publication No. 20010047298, which is hereby incorporated by reference herein in its entirety.

[0110] The interactive media monitoring application may analyze content metadata in the form of profile flags associated with certain media content accessible by the user equipment. For example, advertisements, news segments, and web content may be associated with one or more media profile flags. These media profile flags may indicate that the media content is related to, or associated with, one or more program series identified in the flags. These flags may be stored in any suitable format. In the example of FIGS. 8A and 8B, media profile flags are defined using a mark-up language, such as XML. However, any suitable data structure may be used to store media profile flags or any other metadata associated with media content.

[0111] Media profile flag 800 may be associated with advertisement 802 or any other content accessible by the user equipment. Advertisement 802 may include broadcast media content, recorded media content, or media content stored on data source 120 (FIG. 1) or substitute data/content source 902 (FIG. 9) described below. Media profile flag 800 is associated with tag 804, which may indicate the program or programs that relate to advertisement 802. In the example of FIG. 8A, tag 804 indicates that advertisement 802

relates to season 2, episode 4 of the broadcast series "Nip/Tuck." Tag 804 may indicate that advertisement 802 is related to one or more programs by associating more than one profile flag with tag 804. For example, tag 804 may indicate that advertisement 802 is also related to season 2, episode 1 of the broadcast series "Nip/Tuck" by including another profile flag in tag 804. Some programming, such as programming with a strong temporal component, may be associated with numerous profile flags. For example, an advertisement relating to season 2, episode 4 of the series "24" may be associated with profile flags for all the previous episodes in the season and all the episodes in the previous season. There is no limit to the number of profile flags that may be associated with media content. Tag 804 may also indicate the length of advertisement 802, the relevance level to the program identified by the profile flag, and any other suitable information.

[0112] Media profile flag 810 of FIG. 8B may be associated with substitute content 812. The interactive media monitoring application may analyze media profile 810 to determine its candidacy for substitution with advertisement 802 (FIG. 8A). In the example of FIG. 8B, tag 814 may indicate that content 812 relates to season 2, episode 1 of the broadcast series "Nip/Tuck." Tag 814 may also indicate the length of substitute content 812, the relevance level to the program identified by the profile flag, and any other related information.

[0113] FIG. 9 shows illustrative network resources 914 and substitute data/content source 902 accessible by user equipment 108, 110, and 112 in

accordance with one embodiment of the invention. Communications paths 903 and 904 may be any suitable paths, including one or more of communications paths 114, 116, 118, 128, 136, and 138 of FIG. 1. Network access node 906 may comprise any network access point, modem, or communications circuitry. Through network access node 906, the user equipment may connect to a variety of interactive forums. These interactive forums may include real-time forums (e.g., chat, instant message, or other similar forums). Network access node 906 may connect the user equipment with stored data 908, interactive content 910 (e.g., interactive games), and discussion forums 912. Discussion forums 912 may include web logs (blogs), chat rooms, newsgroups, electronic bulletin boards, or any other electronic forum capable of exchanging messages and/or content between a plurality of network users. Interactive content 910 and discussion forums 912 may access stored data 908, which may contain, for example, stored messages or postings, forum membership lists, user preferences, etc. These forums may be accessible through the public Internet or accessible only through a private or secured network.

[0114] The user equipment may have the ability to create new discussion forums based on a user's media profile and control the new forum's membership. For example, a user who has just watched a certain episode of a broadcast series may be automatically connected to a new discussion forum associated with the episode. The interactive media monitoring application may associate topic data with the forum indicating that the forum is related to a particular program, show, or other media content. For example, the interactive

media monitoring application may analyze media profile data and connect the user to an Internet chatroom associated with an episode of "24" the user has just watched. The interactive media monitoring application may also connect a user to forums relating to previously watched episodes or connect a user to a forum with other users with a similar viewing progress in a particular series. In some embodiments, the interactive media monitoring application may create or connect a user to a forum relating to more than one series. For example, users who recently watched season 1, episode 2 of "Nip/Tuck" and season 2, episode 4 of "24" may be connected to the same forum. In this way, a community of forum members that have similar viewing experiences may interact and converse in real-time, if desired.

[0115] The user equipment may also be connected to substitute content/data source 902 through communications path 903. Substitute content/data source 902 may include a set of substitute media content for presentation on the user equipment. This set of substitute content may be tailored to a user's current viewing progress on the user equipment. For example, if a user at the user equipment has watched only episodes 1 and 2 of the series "24" on the FOX® network via VOD or DVR services, the interactive media monitoring application may assemble substitute content/data source 902 to contain advertisements, promotions, news segments, and other media content associated with watched episodes or the next unwatched episode in the series (i.e., episode 3). The interactive media monitoring application may analyze media profile flags of content accessible by the user

equipment to determine which content should be included in substitute content/data source 902. In this way, the interactive media monitoring application may create one or more substitute data sources containing content for replacing media content inconsistent with a user's current viewing progress. The media content replacement may create a media environment that is more consistent with the user's current viewing progress.

[0116] In some embodiments, substitute content/data source 902 contains content related to all episodes in a series of related programs and is indexed by program name, season number, and/or episode number for easy access by the interactive media monitoring application. Substitute content/data source 902 may be at least partially stored at the user equipment, if desired. In other embodiments, substitute content/data source 902 is stored at distribution facility 104, server 130, data source 120, service provider 142, or any other suitable location in system 100 (FIG. 1).

[0117] To access the interactive media monitoring application, the application's media profiles, or associated application functions, a user may log-in or be authenticated by a device of media system 100 (e.g., distribution facility 104 and/or server 130). Upon log-in or authentication, the user may access data saved by or for the user including, for example, the user's media profile, substitute media content, and other application settings and data. The settings and data may be stored on any device of media system 100 (e.g., distribution facility 104 and/or server 130). In some embodiments, a user device may automatically log-in or authenticate a user on behalf of the user of the device. For example, the user device may

automatically send its log-in information (available from a previous log-in or authentication of the user) over a communications path to the appropriate device of system 100 and access the interactive media monitoring application features. Biometric authentication (e.g., a fingerprint scan, voice verification, and/or an iris scan) may authenticate the user at the device of media system 100 before sending the user's log-in information. In some embodiments, the interactive media monitoring application may prompt the user for log-in or authentication information (e.g., when the user accesses some user equipment in the media system).

[0118] FIGS. 10-17 show illustrative interactive media monitoring application display screens. The display screens may be displayed to the user as part of an interactive media application accessed over a suitable communications link or the screens may be displayed locally on the user equipment currently being accessed by the user. FIGS. 10-17 are shown and described herein in the context of illustrative interactive media monitoring application display screens. Any other suitable pages or display screens may be used. Display screens of the interactive media monitoring application as shown in FIGS. 10-17 use commonly-used application selection objects such as hyperlinks, buttons, lists, dropdown boxes, and checkboxes. It will be understood that these selection objects are only illustrative, and other selection objects can be used by those skilled in the art without departing from the scope and spirit of the present invention.

[0119] FIG. 10 shows illustrative log-in (or authentication) display screen 1000 that the

interactive media monitoring application may display on the user equipment. In some embodiments, users may always be required to log-in using log-in screen 1000. In other embodiments, users may be required to log-in only if the interactive media monitoring application is in multi-user mode. If the interactive media monitoring application is setup for single-user mode, log-in screen 1000 may be bypassed (or authentication credentials of the user may be automatically supplied). The user may access screen 1000 by any suitable means including, for example, pressing PROFILES key 420 of remote control 400 (FIG. 4) or other suitable key or key sequence, navigating from another interactive media monitoring application screen (e.g., when navigating from a public screen to a user-specific or private screen), or by any other suitable means. Log-in screen 1000 may be integrated with log-in display screens from other interactive media applications so that one "master" log-in screen is displayed on the user equipment. Authentication tokens may be passed between interactive media applications so that all applications receive the same authentication credentials.

[0120] Log-in screen 1000 includes information section 1002 that provides instructions for the user to enter the user's username and password to log-in (or authenticate) to the interactive media monitoring application. The user may use a user input device (e.g., remote control 400 of FIG. 4) to enter his username in a username box (e.g., box 1020) and his password in a password box (e.g., box 1022). The user may submit the username and password using a enter option (e.g., button 1024). Log-in screen 1000 may

include an option (e.g., button 1032) that the user may select if the user has forgotten his username and/or password, as indicated by description 1030. In response to selecting the forgotten username/password option, the interactive media monitoring application may transmit the appropriate username and password to the user (e.g., by electronic mail, regular mail, text message, and/or telephone). Log-in screen 1000 includes an option (e.g., button 1036) for creating a new user account, as indicated by description 1031. In response to selecting button 1036, the interactive media monitoring application may prompt the user to create a new username and password, which may be transmitted to the appropriate device of system 100 (e.g., distribution facility 104 and/or server 130).

[0121] The interactive media monitoring application may transmit username and password data entered by the user to the appropriate device of system 100 (e.g., the user equipment, distribution facility 104, and/or server 130), which may in turn compare data to authentication data stored on the system to authenticate the user. Once the user has been authenticated, the interactive media monitoring application may retrieve the user's media profile and access or connect to any substitute media content or data sources required to present the user with a consistent media environment. For example, substitute advertisements may be downloaded from a server (e.g., server 130 and/or server 140), data source (e.g., data source 120 or substitute data/content source 902 of FIG. 9), or network provider to replace any advertisements relating to future or unwatched episodes of media content contained in the user's media profile.

In some embodiments, content relating to the next unwatched episode or program in the series is considered consistent with the user's media profile, while more distant programs in the series are considered inconsistent with the user's media profile. For example, in some embodiments, a user, who has watched through episode 5 of a certain television series, may be presented with advertisements relating to episode 6 of the series, but advertisements relating to episode 7 and beyond may be removed or replaced with content from the substitute content or data source. This reduces irrelevant or undesired content (e.g., spoilers) from being presented on the user equipment.

[0122] FIG. 11 shows illustrative user welcome summary display screen 1100 in accordance with one embodiment of the invention. In some embodiments, upon logging into the interactive media monitoring application, a user may be presented with summary screen 1100. A user may also access summary screen 1100 via an interactive program guide or another interactive media application. Summary screen 1100 may list the programs or other media content that the user has missed since the user's last log-in to the interactive media monitoring application. The programs displayed in content column 1102 may correspond to programs the interactive media application is monitoring for the current user (i.e., programs, series, or other media content the user has included in the user's media profile to be monitored). In some embodiments, the programs to be monitored are included in program column 712 of media profile record 710. In the example of FIG. 11, content column 1102 contains three broadcast series and one broadcast sporting

event. Source column 1104 lists the channel or source of the media content in content column 1102. The user may select one or more of actions 1106, 1108, and 1110 for each program listed in content column 1102 by highlighting the appropriate selection and selecting accept button 1112. For example, the user may schedule viewing of a missed episode for a later date and time by selecting schedule selection 1106. The scheduled program may then be automatically accessed and presented on the user equipment at the scheduled date and time. To skip the episode and advance the user's media profile as if the episode had been watched, the user may select skip selection 1108. A user may then be given options similar to actions 1106, 1108, and 1110 relating to subsequent media content related to the media content in content column 1102. For example, the user's media profile may advance to the next episode in the series. To view a content summary of the missed episode, the user may select summary selection 1110. Upon selecting summary selection 1110, the user may be presented with a text-only content summary, a text and graphics content summary, or a content summary containing text, graphics, and video.

[0123] Several options may be presented to a user for watching a program or series of programs on a time-shifted basis depending on such factors as, for example, the type of program (e.g., whether the program is more of a serial program or more of an episodic program), how far the user's viewing progress is behind, etc. Exemplary options may include: (1) watch this program now; (2) watch this program before the next episode in the series (or at the next regularly

schedule time for this program); (3) show the user a summary (video/highlights, text, or a combination of the two) of this episode (e.g., via tvguide.com, or TV Guide Spot) so that the user can keep up with the series even though the user does not wish to watch this entire episode; or (4) skip this episode. Other suitable viewing options may also be presented.

[0124] The content summary may be at least partially derived from one or more data sources, such as tvguide.com and/or TV Guide Spot. TV Guide Spot, which is available online and via an interactive channel accessible by the user equipment, features original entertainment programming designed to help viewers decide what to watch. TV Guide Spot also provides showcase segments on upcoming programming and events, "catch-up" segments that update viewers on plot developments of popular shows, and many other interactive features. In some embodiments, closed captioning data is analyzed and used to create content summaries, as described in more detail in patent application Serial No. _____, filed _____ (Attorney Docket No. UV-349/UV-383), which is hereby incorporated by reference herein in its entirety. After being presented with the content summary, the user may watch the full program, schedule the program for presentation on the user equipment at a later date and time, or skip the program and advance the user's media profile.

[0125] To configure settings for the interactive media monitoring application, the user may select setup button 1114. Upon selecting setup button 1114, the user may be linked to settings screen 1300 (FIG. 13) described below. To setup an episode viewing reminder,

such as the reminder of FIG. 14 (described below), the user may select reminders button 1116. To exit welcome summary screen 1100 without making any changes, the user may select cancel button 1118. To accept the selections made in summary screen 1100, the user may select accept button 1112.

[0126] FIG. 12 shows illustrative user media viewing progress screen 1200 in accordance with one embodiment of the invention. In one embodiment, progress screen 1200 may be accessed via PROFILES button 420 of remote control 400 of FIG. 4. In other embodiments, progress screen 1200 is accessed via a link from another interactive media application, such as an interactive program guide. Media viewing progress screen 1200 displays a user's current viewing progress of user-selected media content included in the user's media profile. For example, the programs included in media profile record 710 (FIG. 7B) may be included in progress screen 1200. Media content included in media content summary region 1202 may include any content capable of being displayed by, presented to, or recorded by, the user equipment 110 of FIG. 1. Typically content included in media content summary region 1202 has a pre-defined viewing order, as with a traditional broadcast series and sporting event series, so that the interactive media monitoring application may track a user's progress through the series of related programs.

[0127] Media content summary region 1202 may include content column 1204, progress column 1206, and last action column 1208. The name or title of the monitored media content may be displayed in content column 1204. Next to each content name, the user's current viewing

progress may be listed in progress column 1206. In some embodiments, the season and episode number are tracked. In other embodiments, only the episode number is tracked. For example, in the illustrative display screen of FIG. 12, the current user has watched through season 3, episode 3 of the series "24" on the FOX® network. In some embodiments, this indicates that the user has watched episodes 1 through 3 of season 3 only. In other embodiments, this viewing progress indicates that the user has watched episodes 1 through 3 of season 3 and all the episodes in any previous season or seasons (e.g., seasons 1 and 2). The user may setup the user's media profile to track a user's viewing progress through the series as a whole or through the series on a season basis. The current progress in progress column 1206 indicates that the user's last completed program in the series is season 3, episode 3. In an alternate embodiment, progress column 1206 may display the next episode for the user to watch. A user may highlight any entry in progress column 1206 to automatically present the next unwatched episode in the series on the user equipment. In some embodiments, if a user's current viewing progress is consistent with the progress being broadcast or otherwise made available to the user equipment (e.g., released as a VOD, PPV, or on-demand content selection), then progress column 1206 may display the date and/or time the next program will be broadcast or otherwise made available to the user equipment.

[0128] The interactive media monitoring application may use information stored in the user's media profile to remove or replace any media content that is inconsistent with the user's current viewing progress.

For example, an advertisement promoting season 3, episode 7 of the series "24" may be replaced with an advertisement promoting season 3, episode 4, which may be the user's next unwatched episode as indicated by the user's media profile. The user may change the current viewing progress in the user's media profile by selecting any progress indicator in progress column 1206. For example, a user may wish to advance or reset his or her viewing progress so that Game 3 of the MLB, World Series is reflected as watched. The user may wish to change the user's viewing progress if the user watched an episode in the series at a location not monitored by the interactive media monitoring application. The user may highlight the appropriate indicator in progress column 1206 and press an appropriate command (e.g., the left or right arrows on remote control 400 of FIG. 4) to change the progress indictor associated with the series.

[0129] The user's last viewing action associated with each entry in media content summary region 1202 is displayed in last action column 1208. For example, actions in last action column 1208 may include "Skipped Ahead," "Watched," "Viewed Summary," "In Progress," "Scheduled," or any other supported media action. In some embodiments, last action column 1208 may also display the user's most recent viewing status. For example, if the user attempted to view the program, but stopped the program before the program completed, the "Interrupted" status may be displayed in last action column 1208 along with the time or position within the program where the was interrupted or stopped viewing the program. A link to start the program where the

user left off may also be displayed in last action column 1208.

[0130] To add new media content to a user's media profile, a user may select add content button 1210. The interactive media monitoring application may then link to program guide data (perhaps associated with an interactive television program guide) to present a listing of available media content that may be included in the user's media profile. A user may add content to the user's media profile in several other ways as well. For example, the user may highlight or select a program from any interactive media application display screen and select the appropriate "Add to Media Profile" option to add the series associated with the program to the user's media profile. In some embodiments, content may be added to a user's media profile automatically. For example, the interactive media monitoring application may monitor a user's viewing habits, including, for example, what programs are watched and how often programs are watched. The interactive media monitoring application may then automatically add certain content to the user's media profile. For example, the interactive media monitoring application may add a broadcast series to a user's media profile after more than one episode within the series has been watched by the user. As another example, when a user schedules a series recording via an interactive program guide or other interactive media application, the interactive media monitoring application may automatically add the program series to the user's media profile. Other criteria for automatically adding a program series to a user's media profile may also be used.

[0131] Some content may be ineligible for inclusion in the user's media profile. For example, the interactive media monitoring application may be unable to process broadcast programming without a temporal or series component (such as some feature movies and most websites). In some embodiments, the user may be unable to select this content in a media listing presented to the user. In other embodiments, the "Add to Media Profile" option is not associated with media content without a temporal component. To change settings of the interactive media monitoring application, the user may select setup button 1212. Upon selecting setup button 1212, the user may be linked to settings screen 1300 (FIG. 13) described below. To exit the user's media profile progress screen, the user may select cancel button 1214.

[0132] FIG. 13 shows an illustrative setup screen for customizing the media monitoring application in accordance with one embodiment of the invention. The settings and categories of settings described in connection with FIG. 13 are merely for illustration and are not meant to limit the settings that may be provided in the present invention. The settings in global settings screen 1300 may be divided into profile settings and filter settings. Profile settings may include the profile type, user mode, reminder frequency, summary type, and any other profile setting. The user may select to use local, roaming, or no media profiles via profile type choice 1304. If a roaming profile is selected, the user's media profile is made available to other user equipment within the user's media system. For example, a profile could be converted to a roaming profile by caching or copying

the user's media profile on distribution server 104, server 130, server 140, or any other suitable location within system 100 (FIG. 1). Alternatively or additionally, roaming profiles may be accessible via a communications network connected to the user equipment. For example user media profiles may be stored on a file server and made accessible to authorized users via the Internet. Once a user is successfully authenticated (or a device associated with the user is successfully authenticated), the user's roaming profile may be downloaded or accessed from a location remote from the user equipment and applied to the user equipment that the user is currently using to access the interactive media monitoring application. In this way, a user's media profile may be portable throughout media system 100 (FIG. 1) and other similar media systems.

[0133] If the user selects a local media profile from profile type choice 1304, the media profile may not be available by other user equipment in the user's media system. The use of local media profiles may reduce network traffic since local media profiles may be stored at the local user equipment. Local media profiles may be converted to roaming (and vice versa) at any time. If the user wishes not to use media profiles, the user may select to disable media profiles by selecting "None" from profile type choice 1304.

[0134] The user may select a user mode via user mode selection 1306. In some embodiments, every user that accesses a piece of user equipment shares the same media profile. In these embodiments, called single-user mode, log-in screen 1000 (FIG. 10) may be automatically bypassed. The user may select multi-user mode by selecting the "Multi" setting in user mode

selection 1306. When multi-user mode is enabled, each user accessing the user equipment is required to log-in via log-in screen 1000 so that the interactive media monitoring application can determine which media profile to use. In some embodiments, multiple users may be logged in at the same time. This may be desirable in the present invention if, for example, multiple users are watching a television program at the same time. With multiple users logged in at the same time, the interactive media monitoring application may update more than one media profile upon the presentation of a single program.

[0135] Using reminder frequency choice 1308, the user may select to receive daily, weekly, or custom viewing reminders relating to media in the user's media profile. For example, if the user is behind in watching a certain series (with respect to what has been broadcast or otherwise made available to the user equipment), the interactive media monitoring application may remind the user to take appropriate action (e.g., watch the missed episode(s) before the next episode is aired, view a summary of the missed episode or episodes, and/or schedule the missed episode or episodes to be automatically viewed at a later time). Reminders may be scheduled to be displayed on any convenient schedule. If the desired schedule is not displayed in reminder frequency choice 1308, the "Custom" option may be selected to setup a tailored schedule.

[0136] The user may select the default content summary type in summary type choice 1310. Several content summaries may be available, including text-only content summaries, text and graphics content summaries,

and text, graphics, and video content summaries. Content summaries may be stored on the user equipment or at a remote location in media system 100 of FIG. 1 (e.g., distribution facility 104 and/or data source 120). Summary type choice 1310 allows a user to define the type of content summaries displayed on the user equipment. This setting may be useful in low bandwidth or high network latency environments to restrict what type of content summaries are presented on the user equipment.

[0137] Settings display screen 1300 may also include filter settings. Filter content choice 1312 lists the available types of media to be filtered. Filter content choice 1312 may include, for example, broadcast, VOD, and web content. For each of the content types selected in filter content choice 1312, the interactive media monitoring application may take some action when the media monitoring application encounters content that is inconsistent with the user's media profile. For example, advertising and news segments within a live broadcast may contain content related to one or more unwatched episodes in the user's media profile. The interactive media monitoring application may dynamically filter this inconsistent content and remove or replace the content with content related to one or more already watched episodes (or, in some embodiments, the next episode to be watched). As another example, a VOD program about to be presented on the user equipment may include advertising relating to an unwatched episode of "24." The interactive media monitoring application may analyze episode data contained in media profile flags associated with the advertising content and remove the advertising relating

to the unwatched episode and/or replace the advertising with advertisements or other content relating to an already watched episode of "24." The interactive media monitoring application may also compare the user's media profile data with profile flags associated with the inconsistent content to be replaced and/or the content replacing the inconsistent media content. The user may also select the default "All Media" option in filter content choice 1312 to instruct the media monitoring application to filter all supported media types (e.g., web, broadcast, and VOD content). To disable filtering of media content, the user may select "None" in filter content choice 1312.

[0138] Several filter actions may be defined in action choice 1314 in accordance with one embodiment of the invention. The default filter action is "Follow Me." This action substitutes inconsistent media with media content relevant to the user's current viewing progress (as defined in the user's media profile). For example, if a user has watched through season 3, episode 4 of "Nip/Tuck" on the FX network, the interactive media monitoring application may substitute advertisements, news segments, and other media content associated with the series with media content directed toward the next unwatched episode in the series (i.e., season 3, episode 5). Specifically, the advertisements, news segments, and other media content that may be replaced may relate to any unwatched episode beyond or after the user's next unwatched episode (i.e., season 3, episode 6 and beyond).

[0139] In other embodiments, the interactive media monitoring application simply blanks, or removes, inconsistent media content when it is encountered. The

interactive media monitoring application may compare profile flags associated with media content about to be presented on the user equipment with the user's media profile data. If inconsistent media is located, the interactive media monitoring application may remove this content and/or prevent the content from being resented on the user equipment. This prevents the user from watching spoilers or other content, which may reveal content from episodes that the user has not yet viewed. Another option in action choice 1314 is to replace inconsistent media content with a fixed graphic or video. For example, upon selecting "Replace" in action choice 1314, the user may be presented with an overlay or display to specify a local graphic, video, or other media content. The interactive media monitoring application may replace inconsistent content about to be displayed on the user equipment with this local content whenever inconsistent content is encountered.

[0140] If the user wishes the filter to take no action, then the user may select "None" in action choice 1314. To save the settings as displayed in global settings screen 1300, the user may select save button 1316. To discard global settings screen 1300 without saving, the user may select cancel button 1318.

[0141] FIG. 14 shows an illustrative user reminder display screen 1400 in accordance with one embodiment of the invention. The interactive media monitoring application may remind a user of upcoming or missed episodes in a user's media profile at various times. For example, reminder screen 1400 may be presented to a user after log-in via log-in screen 1000 (FIG. 10) as an overlay on log-in screen 1000, after a new episode

of a series included in the user's media profile has been broadcast, or after a system (or custom) reminder frequency has elapsed. In one embodiment, the interactive media monitoring application presents reminder screen on a custom reminder schedule, as defined via the "Custom" option of frequency choice 1308 of settings screen 1300 (FIG. 13).

[0142] Reminder screen 1400 may include information box 1402, which alerts the user to some media profile reminder. In the example of FIG. 14, information box 1402 informs the user that another episode in the series "Nip/Tuck" is going to be aired on Monday. The interactive media monitoring application may use schedule information derived from interactive program guide data to determine when the next program in a series is to be broadcast. Information box 1402 informs the user that he or she may wish to watch any missed episodes before the next episode is to be broadcast. For example, if the user has not watched episodes 2 or 3 of the series "Nip/Tuck," reminder screen 1400 may remind the user to watch both episodes before episode 4 is broadcast.

[0143] Media profile reminders may be displayed in several different forms depending on the particular platform involved. For example, if the interactive media monitoring application is running on a computer platform or Internet media terminal, media profile reminders may be presented as Internet pop-up windows or system dialog boxes. Other suitable forms of media profile reminders include, for example, email messages, SMS/EMS/MMS messages, television overlays. Reminders may also be delivered to remote user devices, such as

pagers and telephones that are not running the interactive media monitoring application.

[0144] In addition, the user may take several pre-defined actions in response to a reminder. For example, the user may watch the missed episode by selecting watch button 1404. Upon selecting watch button 1404, the user equipment may contact distribution facility 104 (FIG. 1) to present the user with any unwatched episodes in the series using VOD services. If the user watches one or more unwatched episodes, the user's media profile is automatically updated accordingly. The user may also schedule the missed episode for automatic presentation on the user equipment at a later date and time by selecting schedule button 1406. For example, the user may schedule the missed episode for automatic presentation 30 minutes after display of the reminder. To advance the user's media profile without watching the missed episode, the user may select skip button 1408. To view a summary or synopsis of the missed episode, the user may select summary button 1410. Upon selecting summary button 1410, the user may be presented with a text, graphic, or video summary of the missed episode. The type of summary presented to the user may depend on the summary type option selected in type choice 1310 of settings screen 1300 (FIG. 13). To bump or delay a user's viewing schedule by one or more episodes without watching the episode, the user may select bump button 1412. If a user's schedule is bumped, profile reminders may be delayed by one or more program periods. For example, if a user bumps a missed episode that is broadcast weekly, profile reminders may be scheduled for display on a schedule delayed by one

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week. The user may then watch the series of programs one week behind the program's broadcast schedule. If a user is behind by more than one episode, the user may be provided with a list of unwatched episodes. The user may then select to watch one or more of the episodes, schedule one or more of the episodes for viewing at a later time, or view a content summary of one or more of the episodes. Actions 1404, 1406, 1408, 1410, and 1412 are merely exemplary, and other actions may be provided. For example, reminder screen 1400 may include selections for any other action capable of being carried out by the media monitoring application or another interactive media application running on the user equipment. To configure media profile reminders, the user may select setup button 1414. In some embodiments, selecting setup button 1414 presents the user with settings screen 1300 (FIG. 13). To discard reminder screen 1400 without taking any action, the user may select cancel selection 1416.

[0145] In some embodiments, the interactive media monitoring application allows a user to prioritize content within a user's media profile. The shows listed in reminder display screen 1400 may be displayed in order of priority determined by interactive media monitoring application based on a user's media profile. For example, a user may prefer being more current with the series "24" than the series "Nip/Tuck." In this example, a user may configure the series "24" to have a higher priority than the series "Nip/Tuck" in the user's media profile. In some embodiments, the interactive media monitoring application may remind the user to watch higher priority programs more often than lower priority programs. This may be desirable for a

particular user because this user's co-workers and/or friends may watch "24" and not "Nip/Tuck" and may discuss the content of "24" in front of the user on a regular basis.

[0146] In some embodiments, a user may create a personalized schedule of programming for different series of programs. For example, using bump button 1412 a user may create a viewing schedule such that the viewing schedule is in order, but one week (or some other predetermined amount of time) behind the schedule for when the episode of the program is broadcast or otherwise made available to the user equipment. For example, a user may wish to watch the series "24" one day (or one week) after the scheduled broadcast each week. The interactive media monitoring application may delay viewing reminders based on this custom viewing schedule (e.g., reminders may be presented at the time the program is broadcast or released one week behind schedule or at any other desired time).

[0147] FIG. 15 shows illustrative filtered web content screen 1500 in accordance with one embodiment of the invention. The interactive media monitoring application may replace or remove any media content that is inconsistent with a user's media profile. For example, in some embodiments the interactive media monitoring application replaces advertising provided in a web page, which is typically received from one content or data source, with substitute advertising received from another content or data source. The substitute advertising data may be correlated with the user's viewing progress (as defined by the user's media profile) so that irrelevant or inconsistent advertising is replaced with the substitute advertising. For

example, profile flags (such as profile flags 800 and 810 of FIGS. 8A and 8B) may be associated with web content objects. The interactive media monitoring application may receive these profile flags before the web page is presented on the user equipment and compare the profile flag data to data associated with the user's media profile. If any inconsistent content is encountered, the interactive media monitoring application may remove or replace the inconsistent content with content consistent with the user's media profile.

[0148] A user's media profile may also be made available to external sources, such as content distributors, search engines, and discussion forms. In some embodiments, the interactive media monitoring application may deliver data associated with a user's media profile to authorized, requesting external sources. In other embodiments, external sources may access media profiles stored on a shared network location (e.g., an Internet server). The external sources may then provide content to the user that is consistent with the user's media profile.

[0149] For example, a user, who is searching for webpages using an external search engine, may be presented with custom search results. The custom search results may be tailored to the user's current progress in one or more programs being monitored by the interactive media monitoring application. For example, search results that link to content containing spoilers or other undesirable content relating to unwatched episodes may be removed from the user's search results display page. As another example, a user visiting an external discussion forum may only be presented with

postings relating to media content that the user has already watched. The discussion forum may access data stored in the user's media profile to determine the user's current progress in one or more programs being monitored by the interactive media monitoring application and present content to the user accordingly. In some embodiments, the user may be given the opportunity to choose whether to be presented with content relating to unwatched episodes in the user's media profile.

[0150] Others types of media may also be filtered by the interactive media monitoring application. Filtered web content page 1500 includes filtered web content object 1502, which, in the example of FIG. 15, is a web page object, but could include any network resource or Internet object. Upon accessing supported websites, the interactive media monitoring application may send a token to the web server in advance of retrieving a web content object. The web server may parse the token and, based on parsed data in the token, return custom or filtered data to the requesting client, including tailored text (including article headlines), advertising, graphics, images, video, etc. Complete custom webpages may also be delivered to the requesting user, if desired. In the example of FIG. 15, filtered web content object 1502 is a web page relating to the user's next unwatched episode of "Desperate Housewives" (e.g., season 2, episode 2). Token data, which in some embodiments is cookie data, may be used to determine the user's current viewing progress on the user equipment. The token data may include data representative of the user's actual viewing progress (e.g., the season number and/or episode number or any

other unique episode identifier of a program series) or may include data representative of the user accessing the website or network resource. If the token data includes information relating to the user accessing the website or network resource, the web server may access media profile information from a network or third-party location and then use this information to deliver custom content to the user equipment.

[0151] If the user wishes to view the current, generic version of the webpage or network resource, the user may select show current button 1504. Upon selecting show current button 1504, the public version of filtered web content object 1502 is presented to the user. To discard web content page 1500, the user may select cancel button 1506.

[0152] The user may access filtered web content (as well as any other media content) on any form of suitable user equipment. In some embodiments, the user equipment may be outside media system 100. For example, a user, who is accessing media content from a PDA, cellular telephone, or office computer or television, may also be provided with filtered content. These devices may access publicly accessible media profile data stored on a network storage device and use this profile data to request filtered content. In some embodiments, a client version of the media monitoring application may be installed on the devices outside media system 100. The client media monitoring application may access the media profile data and provide substantially the same monitoring and filtering capabilities as the interactive media monitoring application resident within media system 100. In this way, a user, who is accessing the Internet at work

using his work computer, may still access the user's media profile and receive filtered web content objects as if the user was at his home user equipment.

[0153] FIG. 16 shows illustrative interactive program guide listing screen 1600 in accordance with one embodiment of the invention. Interactive program guide listing screen 1600 may include listing data area 1602, advertisement/preview panel 1604, and advertisement/preview panel 1606. In one embodiment, the media content presented in preview panels 1604 and 1606 is accessed from an advertising content or data source, such as data source 120 or programming sources 102 (FIG. 1). Additionally or alternatively, the content in preview panels 1604 and 1606 may be connected to any user selections in listing data area 1602. For example, as a user scrolls through listings in listing data area 1602, the media presented in preview panels 1604 and 1606 may change. The interactive media monitoring application may replace or filter advertising and/or video previews presented in preview panels 1604 and 1606 in a number of ways. In one embodiment, advertising or previews inconsistent with a user's media profile are removed. In other embodiments, the interactive media monitoring application obtains media content for preview panels 1604 and 1606 from a substitute content or data source (e.g., substitute content/data source 902 of FIG. 9). The interactive media monitoring application may similarly replace full screen advertisements and previews, such as television broadcast advertisements, that are presented on the user equipment. As described above, full screen advertisements and previews that are inconsistent with a user's media profile may be removed

or replaced with media content from a substitute data source or fixed content.

[0154] This substitute content or data source may be filtered so as to be consistent with a user's current viewing progress. For example, advertisements for the next unwatched episode of "Desperate Housewives" may be included in the substitute content or data source. The interactive media monitoring application may compare the user's current viewing progress in media profile record 710 (FIG. 7) with profile flags associated with the suitable substitute content (e.g., profile flags 800 and/or 810 of FIGS. 8A and 8B). Content relating to the next unwatched episode (or watched episodes) in the program series may be added to the substitute content or data source. Content in the substitute content or data source may then be presented in preview panels 1604 or 1606. Alternatively or additionally, when a user selects the program listing in listing data area 1602 corresponding to a series in the user's media profile, media content may be accessed and displayed in preview panels 1604 or 1606 based on the user's viewing progress in that series. For example, if a user selects the program listing for "Nip/Tuck" from listing data area 1602, an advertisement for the user's next unwatched episode of "Nip/Tuck" may be presented to the user in preview panels 1604 or 1606.

[0155] FIG. 17 shows illustrative user network communities display screen 1700 in accordance with one embodiment of the invention. A user may be automatically connected to event communities associated with content recently watched by the user. These event communities may be available on the public Internet or

the communities may be accessed via a private media network, such as communication network 126 (FIG. 1). User network communities screen 1700 presents the user with media content in the user's media profile in program column 1702. Along with the media content name, the user's current season and episode number (if applicable) may also be displayed in program column 1702. A user may select any content listed in program column 1702 and be connected to any community type listed in community type choice 1704. For example, communities may include any network-based forum capable of exchanging messages between a number of users, such as web logs (blogs), chat rooms, newsgroups, and discussion forums. Some of these forums may be real-time forums, such as chat rooms and instant messaging forums. For example, a user, who has just watched Game 2 of the World Series, may be connected to a chat room with other users, who have also just watched Game 2 of the World Series or a blog with information relating to Game 2 of the World Series. The interactive media monitoring application may compare progress data stored in media profile record 710 with data associated with available forums and control the membership of the forum or community as new users request access to the forum or community. The users in the forum may converse in real-time about the content they have just watched or any other topic. In one embodiment, the user's instant messaging service is automatically invoked after selecting "Instant Message" from community type choice 1704. An associated messaging service is then launched with a "buddy list" of other users connected to the instant message community for the associated content in program column

1702. In this way, the user's buddy list may reflect only users that have recently watched a particular program, such as Game 2 of the World Series.

[0156] FIG. 18 is a flowchart of illustrative process 1800 for accessing and initializing the interactive media monitoring application in accordance with one embodiment of the invention. Upon attempting to access the interactive media monitoring application (e.g., via pressing a key on a user input device or being presented with log-in screen 1000 (FIG. 10)), the user may arrive at start step 1802. The interactive media monitoring application may determine at decision 1804 whether the application is configured for single-user or multi-user mode. The mode option may be derived from user mode selection 1306 of settings screen 1300 (FIG. 13). If the interactive media monitoring application determines at decision 1804 that the application is running in multi-user mode, the user may be authenticated at step 1806. Step 1806 may correspond to the submission of a log-in or authentication screen (such as log-in screen 1000 of FIG. 10). At decision 1808, the interactive media monitoring application may determine if the user is valid. If the user is valid, the interactive media monitoring application may then decide if the user's media profile needs to be updated at decision 1810. If the user is not validated at decision 1808, the interactive media monitoring application may try to authenticate the user again at step 1806.

[0157] If the application is running in single-user mode, or if a valid user has been detected at decision 1808, the interactive media monitoring application may determine if the current user's media

profile needs to be updated at decision 1810. At this point, the interactive media monitoring application may determine if the user has missed any episodes of programs contained in the user's media profile. If a positive determination is made at decision 1810, the interactive media monitoring application may display the user's current viewing progress based on the user's media profile at display 1812. Based on any received user input, the application may then update the user's media profile at step 1814. Updating a user's profile may require network access in some embodiments, particularly if the profile is a roaming profile. After the user's profile is updated, or if a negative determination is made at decision 1810, the illustrative process may stop at step 1816.

[0158] In practice, one or more steps shown in process 1800 may be combined with other steps, performed in any suitable order, performed in parallel -- e.g., simultaneously or substantially simultaneously -- or deleted.

[0159] FIG. 19 is a flow chart of illustrative process 1900 for filtering media content in accordance with one embodiment of the invention. The process starts at step 1902. This step may correspond to enabling media profiles via settings screen 1300 (FIG. 13). At decision 1904, the interactive media monitoring application may determine if the current user has a local or roaming profile. This determination may be made from profile type choice 1304 (FIG. 13). If the interactive media monitoring application determines that the user is associated with a roaming profile, the user's profile may be accessed at step 1906. In some embodiments, the interactive

media monitoring application may read the user's roaming profile into memory. In other embodiments, the interactive media monitoring application may download the profile from a remote location. Version controls and concurrency measures may be implemented by the interactive media monitoring application if the profile is to be accessed at the same time by more than one interactive media application.

[0160] If the interactive media monitoring application determines at decision 1904 that the user is associated with a local profile, the user's local profile may be accessed at step 1908. After the appropriate profile has been accessed, the interactive media monitoring application may track the user's viewing progress of content included in the profile at step 1910. For example, as a user completes an episode of a season of "24," the user's media profile may be automatically updated to reflect this event. Interrupted or incomplete viewings of an episode may be treated as unwatched episodes in some embodiments. In other embodiments, an incomplete or interrupted viewing may cause the interactive media monitoring application to save state data about the user's viewing progress to the user's media profile (e.g., the interactive media monitoring application may save the user's time position within the episode). The user may then access the user's media profile and start the episode at the point the user was interrupted. In some embodiments, the interactive media monitoring application may also consider the user's time position within a program when substituting content inconsistent with a user's media profile. For example, if the user has not yet watched a player in Game 2 of the World Series hit a grand slam

homerun, the interactive media monitoring application may filter content that refers to, or is associated with, this event. The interactive media monitoring application may analyze position and progress data in media profile record 710 to determine the user's position within an episode. The application may then compare this data to media profile flag data, such as the data contained in tags 804 and 814 of profile flags 800 (FIG. 8A) and 810 (FIG. 8B), respectively, to determine what content is consistent with the user's current viewing progress.

[0161] At decision 1912, the interactive media monitoring application may determine if filters are enabled. This setting may correspond to filter choice 1312 of FIG. 13. If filters are enabled, the interactive media monitoring application may associate substitute content or data source 902 (FIG. 9) with the user's viewing environment. The interactive media monitoring application may compare profile flags associated with media content to be displayed on the user equipment with the user's media profile at step 1914. For example, media flags 800 and 810 Of FIGS. 8A and 8B may be compared with media profile record 710 of FIG. 7B. The interactive media monitoring application may then remove or replace media content associated with profile flags that are inconsistent with the user's media profile at step 1916. The interactive media monitoring application may also create a substitute content or data source containing replacement media content associated with profile flags that are consistent with the user's media profile. In other embodiments, a dynamic filter may screen media content profile flags before content is

presented on the user equipment. Any content that is associated with future or unwatched programs in the user's media profile (except in some embodiments the next unwatched program) may be automatically removed or replaced, depending on the user's preferences. In some embodiments, the interactive media monitoring application presents a display screen, overlay, or dialog warning the user of inconsistent media content about to be displayed on the user equipment. The user may then select to view the inconsistent content, skip or fast-forward through the inconsistent content, freeze the presentation of the media content, or any other suitable action. At step 1918, the illustrative process may stop.

[0162] In practice, one or more steps shown in process 1900 may be combined with other steps, performed in any suitable order, performed in parallel -- e.g., simultaneously or substantially simultaneously -- or deleted. For example, step 1910 of tracking a user's viewing progress may be performed while filtering media content at step 1914. In another embodiment, decision 1912 and step 1914 are removed completely (e.g., when filters are globally disabled via settings screen 1300).

[0163] FIG. 20 is a flow chart of illustrative process 2000 for tracking media viewing progress and accessing network communities in accordance with one embodiment of the invention. The process begins at step 2002. This step may correspond to accessing the interactive media monitoring application or enabling a user's media profile. At step 2004, the user may be presented with some media content on the user equipment. The interactive media monitoring

application may determine at decision 2006 if the media content recently or currently being presented to the user is in the user's media profile. If the content is in the user's media profile, the user's viewing progress is updated at step 2008. The user's progress within a season or progress within an episode may be updated. The user may then be given the opportunity to access a program community. At decision 2010, the interactive media monitoring application may determine if a request has been made to join a program community. If the interactive media monitoring application determines that a request has been made to join a program community, the interactive media monitoring application may locate or create a community forum associated with the user's media profile at step 2012. For example, in one embodiment the Internet is accessed to locate a suitable chat room. At step 2014, the interactive media monitoring application may access the forum located or created at step 2012. If the user is the first member of the community forum, a new community forum may be created. Otherwise, the current user is added to the forum membership list. If the user does not wish to join a program community or after the interactive media monitoring application has accessed the community forum at step 2014, the illustrative process stops at step 2014.

[0164] In practice, one or more steps shown in process 2000 may be combined with other steps, performed in any suitable order, performed in parallel -- e.g., simultaneously or substantially simultaneously -- or deleted. For example, if the user equipment is not Internet or network-enabled, decision 2010 and step

2012 of accessing a program community may be eliminated.

[0165] One skilled in the art will appreciate that the invention can be practiced by other than the prescribed embodiments, which are presented for purposes of illustration and not of limitation, and the invention is limited only by the claims which follow.

What is Claimed is:

1. A method for presenting media content to a user at user equipment, the method comprising:

receiving a request for viewing media content;

determining if the requested media content is serial programming; and

in response to determining that the requested media content is serial programming, presenting at least one viewing option to the user, wherein the at least one viewing option includes at least one option for allowing the user to interact with the requested media content.

2. The method of claim 1 further comprising:

in response to determining that the requested media content is not serial programming, presenting the requested media content.

3. The method of claim 1 wherein determining if the requested media content is serial programming comprises analyzing metadata associated with the requested media content.

4. The method of claim 3 wherein the metadata associated with the requested media content indicates other media content that should be presented to the user before or after the requested media content.

5. The method of claim 1 wherein determining if the requested media content is serial

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programming comprises analyzing the type of requested media content.

6. The method of claim 5 wherein the type of requested media content is selected from the group consisting of broadcast media, on-demand media, pay-per-view media, recorded media, and Internet media.

7. The method of claim 1 wherein the request for viewing media content is made on behalf of the user after some user event.

8. The method of claim 7 wherein the user event is an event selected from the group consisting of powering on a device associated with the user equipment, creating a media profile reminder, logging onto an application running on the user equipment, logging off of an application running on the user equipment, a program selection, and a user equipment tuning event.

9. The method of claim 1 wherein presenting at least one viewing option to the user comprises presenting a display screen to the user including the at least one viewing option.

10. The method of claim 1 wherein presenting at least one viewing option to the user comprises presenting an overlay to the user including the at least one viewing option.

11. The method of claim 1 wherein the at least one viewing option is selected from the group consisting of viewing the requested media content, viewing a summary of the requested media content,

scheduling the requested media content for viewing at a later time, and skipping the requested media content and advancing to subsequent media content of the requested media content.

12. The method of claim 11 further comprising:

scheduling the requested media content for viewing at the later time; and

automatically presenting the scheduled requested media content at the later time.

13. The method of claim 11 further comprising:

presenting the summary of the requested media content to the user.

14. The method of claim 13 wherein the summary is derived from a data source.

15. The method of claim 13 wherein the summary is created from closed captioning data associated with the requested media content.

16. The method of claim 13 further comprising:

presenting the requested media content to the user after presenting the summary to the user.

17. The method of claim 13 further comprising:

skipping the requested media content and advancing to subsequent media content of the requested media content after presenting the summary to the user.

18. The method of claim 11 wherein skipping the requested media content and advancing to subsequent media content of the requested media content comprises viewing the subsequent media content.

19. The method of claim 11 wherein skipping the requested media content and advancing to subsequent media content of the requested media content comprises viewing a summary of the subsequent media content.

20. A system for presenting media content to a user at user equipment, the system comprising:

a memory for storing media content; and

control circuitry for presenting at least one viewing option to the user, wherein the control circuitry is configured to:

receive a request for viewing media content;

determine if the requested media content is serial programming;

in response to determining that the requested media content is serial programming, present the at least one viewing option to the user, wherein the at least one viewing option includes at least one option for allowing the user to interact with the requested media content.

21. The system of claim 20 wherein the control circuitry is further configured to:

in response to determining that the requested media content is not serial programming, present the requested media content.

22. The system of claim 20 wherein the control circuitry is configured to analyze metadata associated with the requested media content to determine if the requested media content is serial programming.

23. The system of claim 22 wherein the metadata associated with the requested media content indicates other media content that should be presented to the user before or after the requested media content.

24. The system of claim 20 wherein the control circuitry is configured to analyze the type of requested media content to determine if the requested media content is serial programming.

25. The system of claim 24 wherein the type of requested media content is selected from the group consisting of broadcast media, on-demand media, pay-per-view media, recorded media, and Internet media.

26. The system of claim 20 wherein the request for viewing media content is made on behalf of the user after some user event.

27. The system of claim 26 wherein the user event is an event selected from the group consisting of powering on a device associated with the user equipment, creating a media profile reminder, logging onto an application running on the user equipment, logging off of an application running on the user equipment, a program selection, and a user equipment tuning event.

28. The system of claim 20 wherein the control circuitry is further configured to present a display screen to the user including the at least one viewing option.

29. The system of claim 20 wherein the control circuitry is further configured to present an overlay to the user including the at least one viewing option.

30. The system of claim 20 wherein the at least one viewing option is selected from the group consisting of viewing the requested media content, viewing a summary of the requested media content, scheduling the requested media content for viewing at a later time, and skipping the requested media content and advancing to subsequent media content of the requested media content.

31. The system of claim 30 wherein the control circuitry is further configured to:

schedule the requested media content for viewing at the later time; and

automatically present the scheduled requested media content at the later time.

32. The system of claim 30 wherein the control circuitry is further configured to:

present the summary of the requested media content to the user.

33. The system of claim 32 wherein the summary is derived from a data source.

34. The system of claim 32 wherein the summary is created from closed captioning data associated with the requested media content.

35. The system of claim 32 wherein the control circuitry is further configured to:

present the requested media content to the user after presenting the summary to the user.

36. The system of claim 32 wherein the control circuitry is further configured to:

skip the requested media content and advance to subsequent media content of the requested media content after presenting the summary to the user.

37. The system of claim 30 wherein skipping the requested media content and advancing to subsequent media content of the requested media content comprises viewing the subsequent media content.

38. The system of claim 30 wherein skipping the requested media content and advancing to subsequent media content of the requested media content comprises viewing a summary of the subsequent media content.

39. An interactive program guide for presenting media content to a user at user equipment, the interactive program guide configured to:

receive a request for viewing media content;

determine if the requested media content is serial programming; and

present at least one viewing option to the user in response to the determination that the

requested media content is serial programming, wherein the at least one viewing option includes at least one option for allowing the user to interact with the requested media content.

40. The interactive program guide of claim 39 further configured to present the requested media content in response to the determination that the requested media content is not serial programming.

41. The interactive program guide of claim 39 further configured to analyze metadata associated with the requested media content.

42. The interactive program guide of claim 41 wherein the metadata associated with the requested media content indicates other media content that should be presented to the user before or after the requested media content.

43. The interactive program guide of claim 39 further configured to analyze the type of requested media content.

44. The interactive program guide of claim 43 wherein the type of requested media content is selected from the group consisting of broadcast media, on-demand media, pay-per-view media, recorded media, and Internet media.

45. The interactive program guide of claim 39 wherein the request for viewing media content is made on behalf of the user after some user event.

46. The interactive program guide of claim 45 wherein the user event is an event selected from the

group consisting of powering on a device associated with the user equipment, creating a media profile reminder, logging onto an application running on the user equipment, logging off of an application running on the user equipment, a program selection, and a user equipment tuning event.

47. The interactive program guide of claim 39 further configured to present a display screen to the user including the at least one viewing option.

48. The interactive program guide of claim 39 further configured to present an overlay to the user including the at least one viewing option.

49. The interactive program guide of claim 39 wherein the at least one viewing option is selected from the group consisting of viewing the requested media content, viewing a summary of the requested media content, scheduling the requested media content for viewing at a later time, and skipping the requested media content and advancing to subsequent media content of the requested media content.

50. The interactive program guide of claim 49 further configured to:

schedule the requested media content for viewing at the later time; and

automatically present the scheduled requested media content at the later time.

51. The interactive program guide of claim 49 further configured to:

present the summary of the requested media content to the user.

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52. The interactive program guide of claim 51 wherein the summary is derived from a data source.

53. The interactive program guide of claim 51 wherein the summary is created from closed captioning data associated with the requested media content.

54. The interactive program guide of claim 51 further configured to:

present the requested media content to the user after presenting the summary to the user.

55. The interactive program guide of claim 51 further configured to:

skip the requested media content and advance to subsequent media content of the requested media content after presenting the summary to the user.

56. The interactive program guide of claim 49 further configured to view the subsequent media content.

57. The interactive program guide of claim 49 further configured to view a summary of the subsequent media content.

Abstract of the Disclosure

[0166] Systems and methods for monitoring a user's viewing progress of media in a series are provided. The user may setup a media profile containing a list of program series to be monitored. The interactive media monitoring application may track the user's viewing progress of programs in the program series on the user equipment and update the user's media profile. The user may request and watch programs in the series at the user's leisure while peripheral media content may be filtered to be consistent with the user's viewing progress in the series.

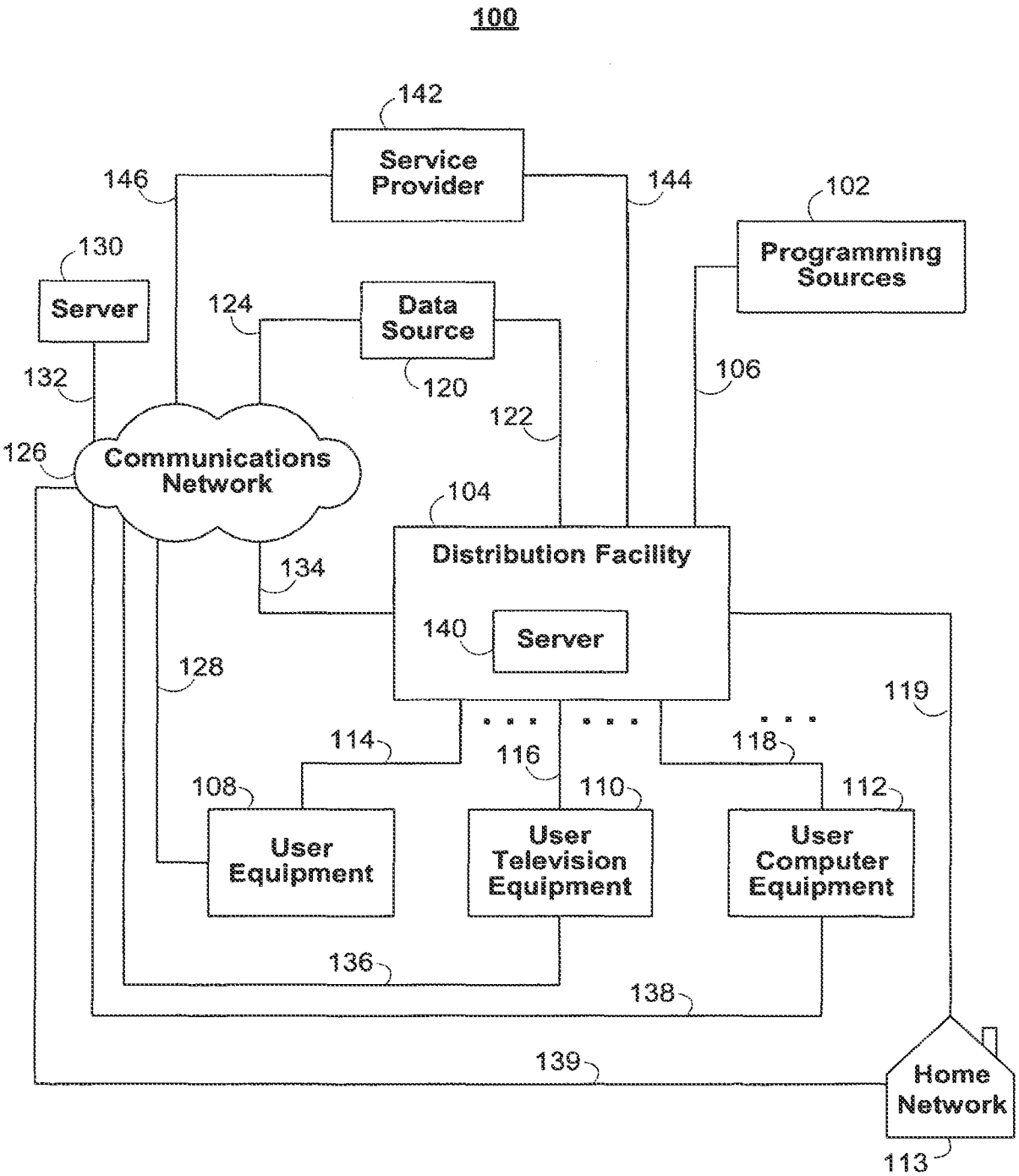

100
142
Service Provider
146
144
102
Programming Sources
130
Server
124
Data Source
120
106
132
122
126
Communications Network
104
Distribution Facility
134
140
Server
128
119
114
116
118
108
110
112
User Equipment
User Television Equipment
User Computer Equipment
136
138
139
Home Network
113

FIG. 1

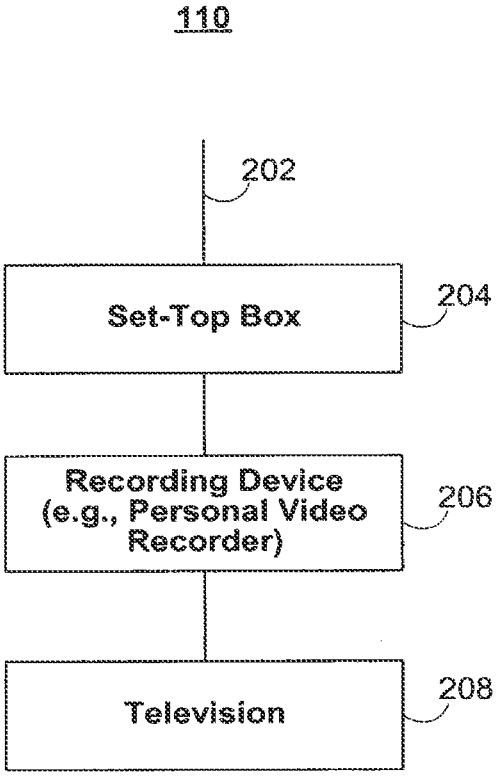

110
202
Set-Top Box
204
Recording Device (e.g., Personal Video Recorder)
206
Television
208

FIG. 2

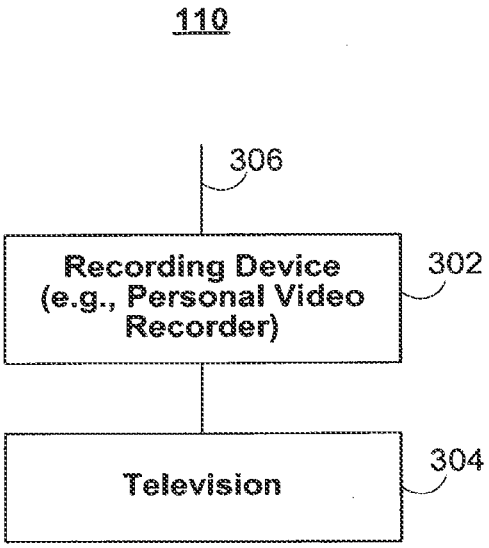

110
306
Recording Device (e.g., Personal Video Recorder)
302
Television
304

FIG. 3

400

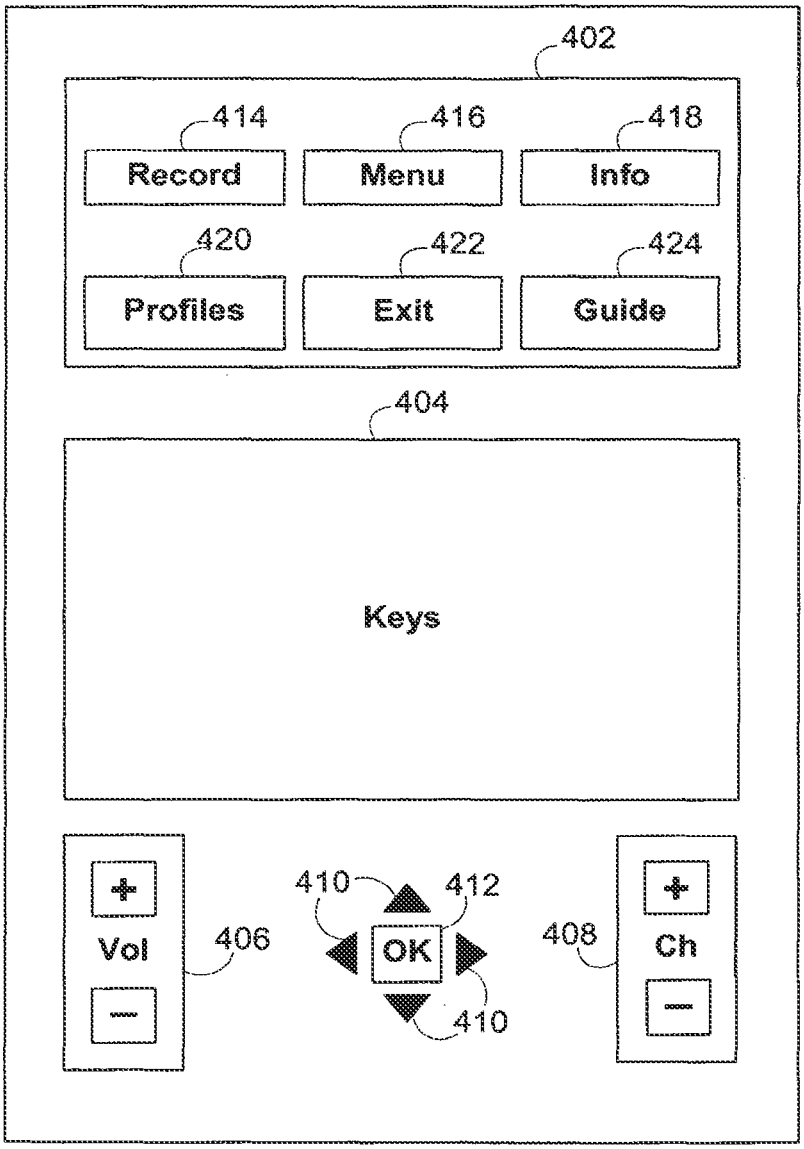

402
414
Record
416
Menu
418
Info
420
Profiles
422
Exit
424
Guide
404
Keys
+
Vol
−
406
410
412
OK
410
408
+
Ch
−

FIG. 4

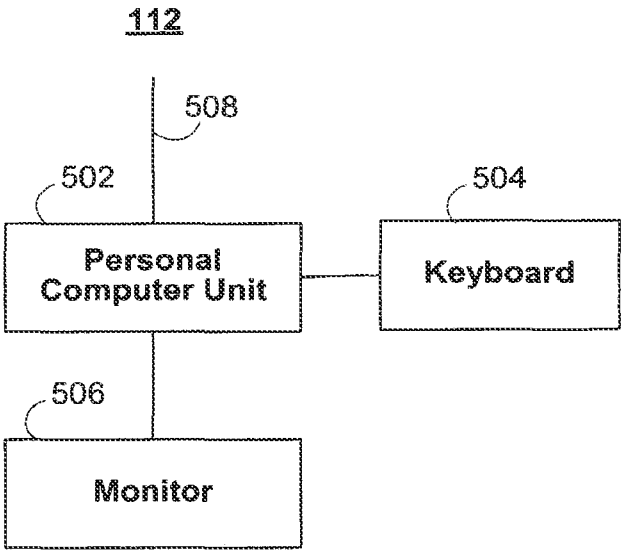

112
508
502
504
Personal Computer Unit
Keyboard
506
Monitor

FIG. 5

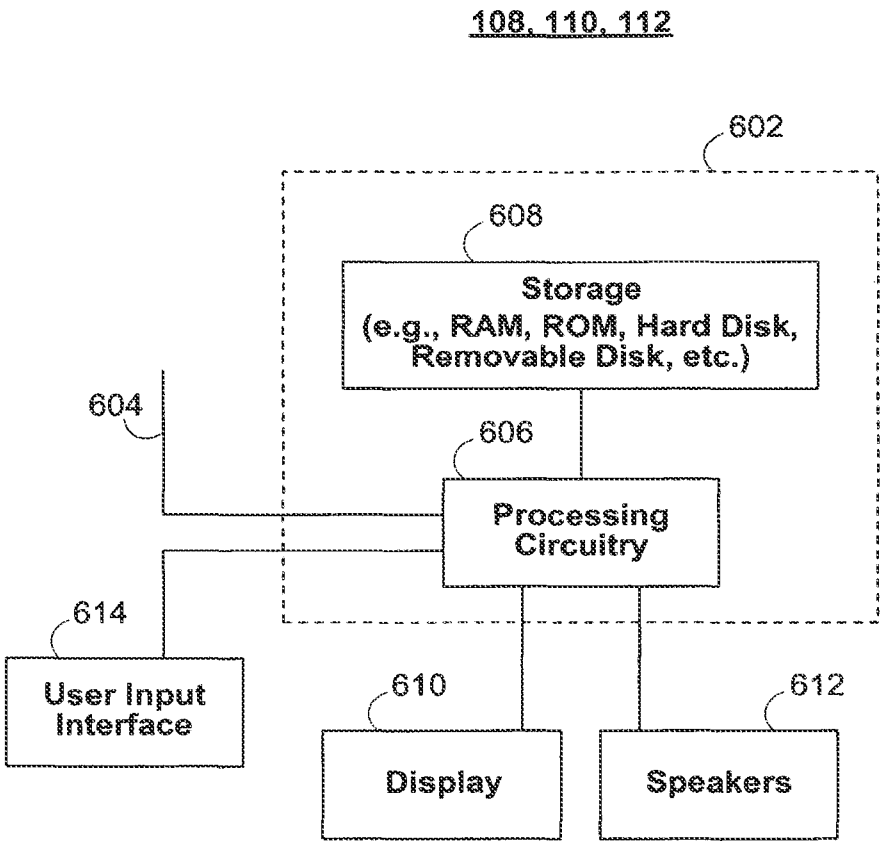

108, 110, 112
602
608
Storage
(e.g., RAM, ROM, Hard Disk, Removable Disk, etc.)
604
606
Processing Circuitry
614
User Input Interface
610
Display
612
Speakers

FIG. 6

700

702 USER	704 PROFILE
John Doe	*john_home_profile
Jane Doe	*jane_home_profile, *jane_roaming_profile
Suzie Doe	*suzie_movie_profile, *suzie_tv_profile
Guest	*guest_profile
Administrator	*admin_profile

FIG. 7A

710

712 PROGRAM_ID	714 PROGRESS	716 POSITION	718 LAST ACTION
prog_id0001	1,3	null	SK
prog_id0002	2,4	36:09	WA
prog_id0003	2,1	12:18	SC
prog_id0004	1,6	null	SK
prog_id0005	3,2	17:49	BP

FIG. 7B

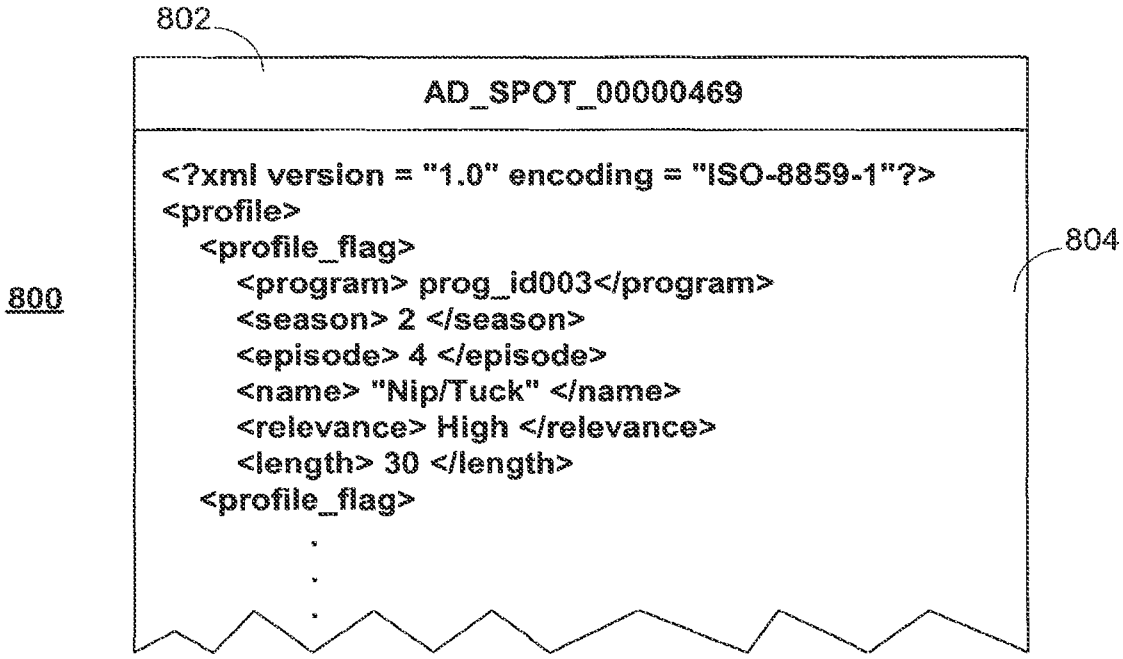

802
AD_SPOT_00000469
<?xml version = "1.0" encoding = "ISO-8859-1"?>
<profile>
<profile_flag>
<program> prog_id003</program>
<season> 2 </season>
<episode> 4 </episode>
<name> "Nip/Tuck" </name>
<relevance> High </relevance>
<length> 30 </length>
<profile_flag>
804
800

FIG. 8A

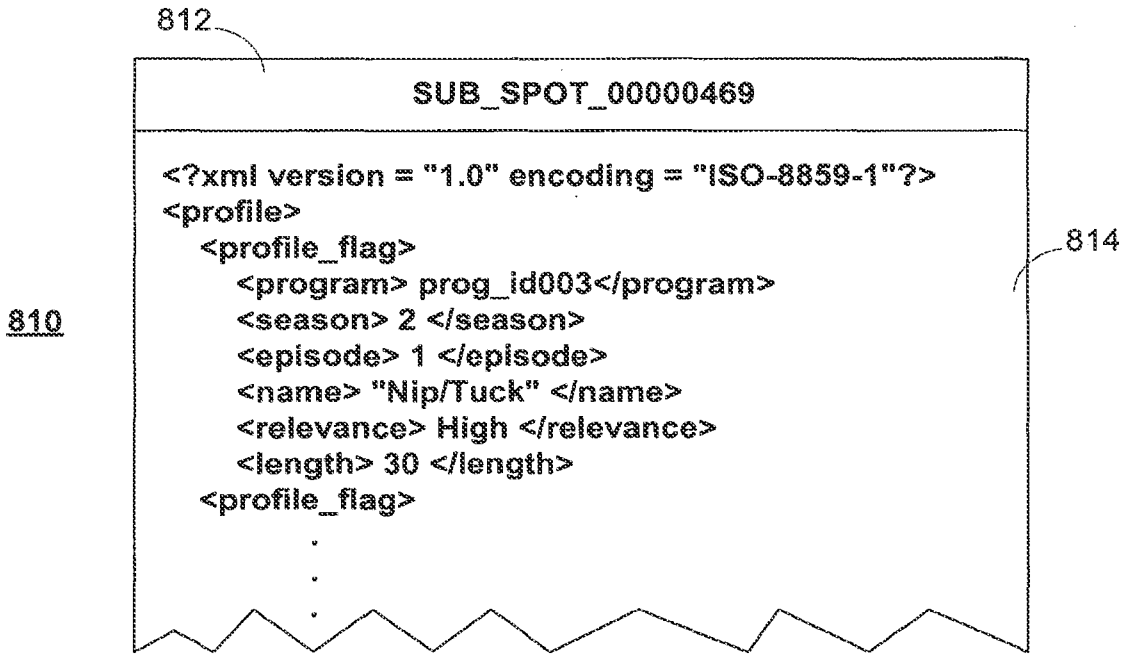

812
SUB_SPOT_00000469
<?xml version = "1.0" encoding = "ISO-8859-1"?>
<profile>
<profile_flag>
<program> prog_id003</program>
<season> 2 </season>
<episode> 1 </episode>
<name> "Nip/Tuck" </name>
<relevance> High </relevance>
<length> 30 </length>
<profile_flag>
814
810

FIG. 8B

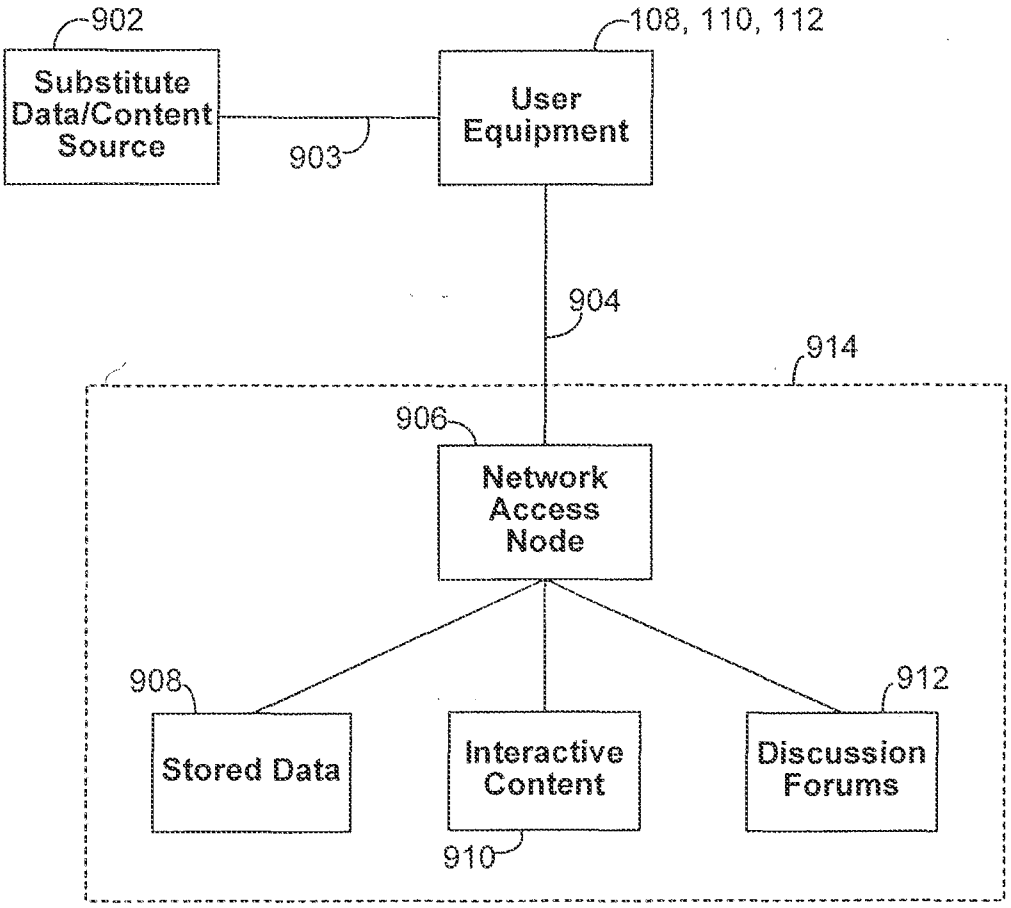

902
Substitute Data/Content Source
903
108, 110, 112
User Equipment
904
914
906
Network Access Node
908
Stored Data
910
Interactive Content
912
Discussion Forums

FIG. 9

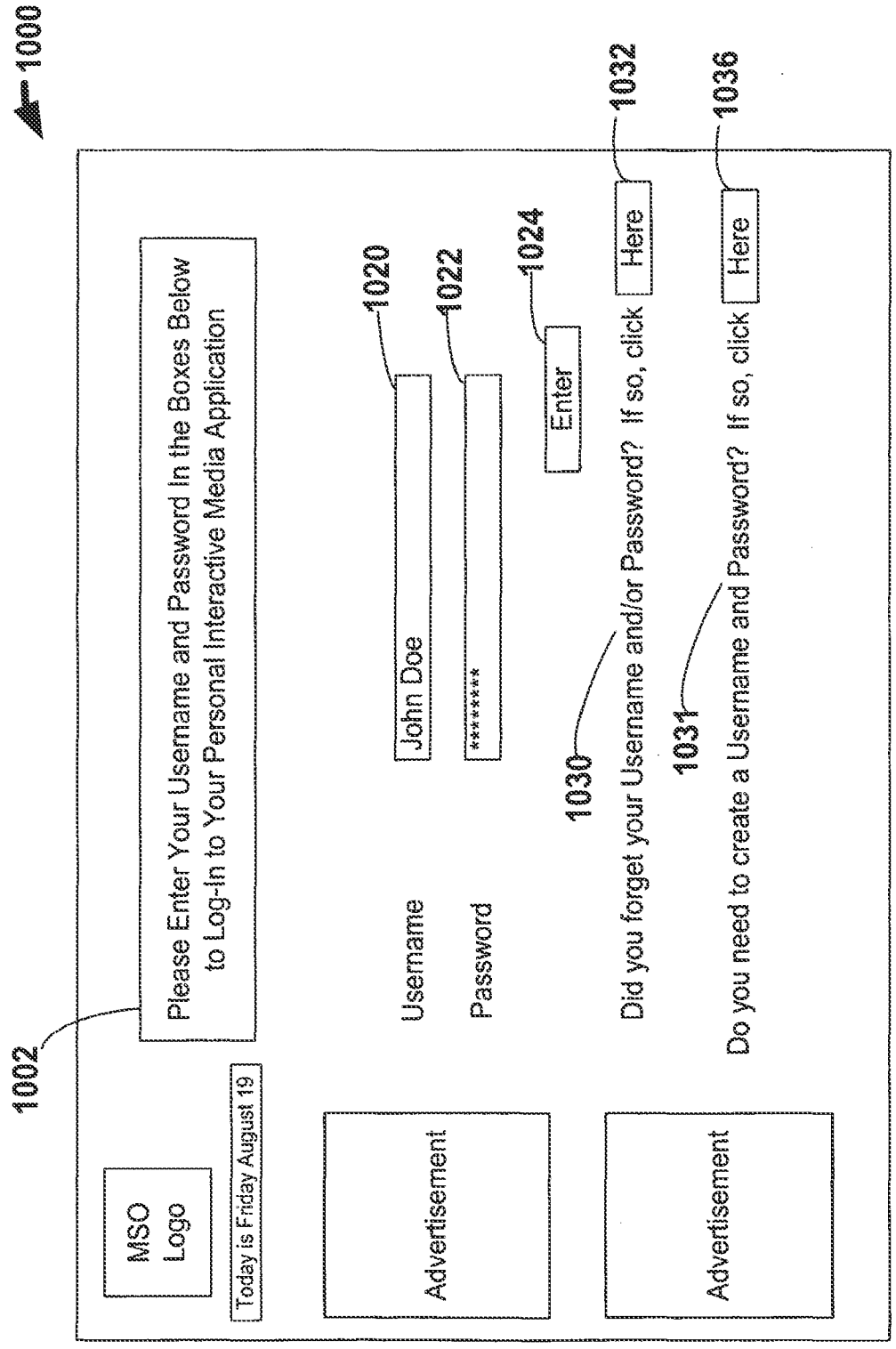

1000
1002
MSO Logo
Today is Friday August 19
Please Enter Your Username and Password In the Boxes Below to Log-In to Your Personal Interactive Media Application
Advertisement
Advertisement
1020
1022
1024
Username
John Doe
Password
****
Enter
1030
Did you forget your Username and/or Password? If so, click
1032
Here
1031
Do you need to create a Username and Password? If so, click
1036
Here

FIG. 10

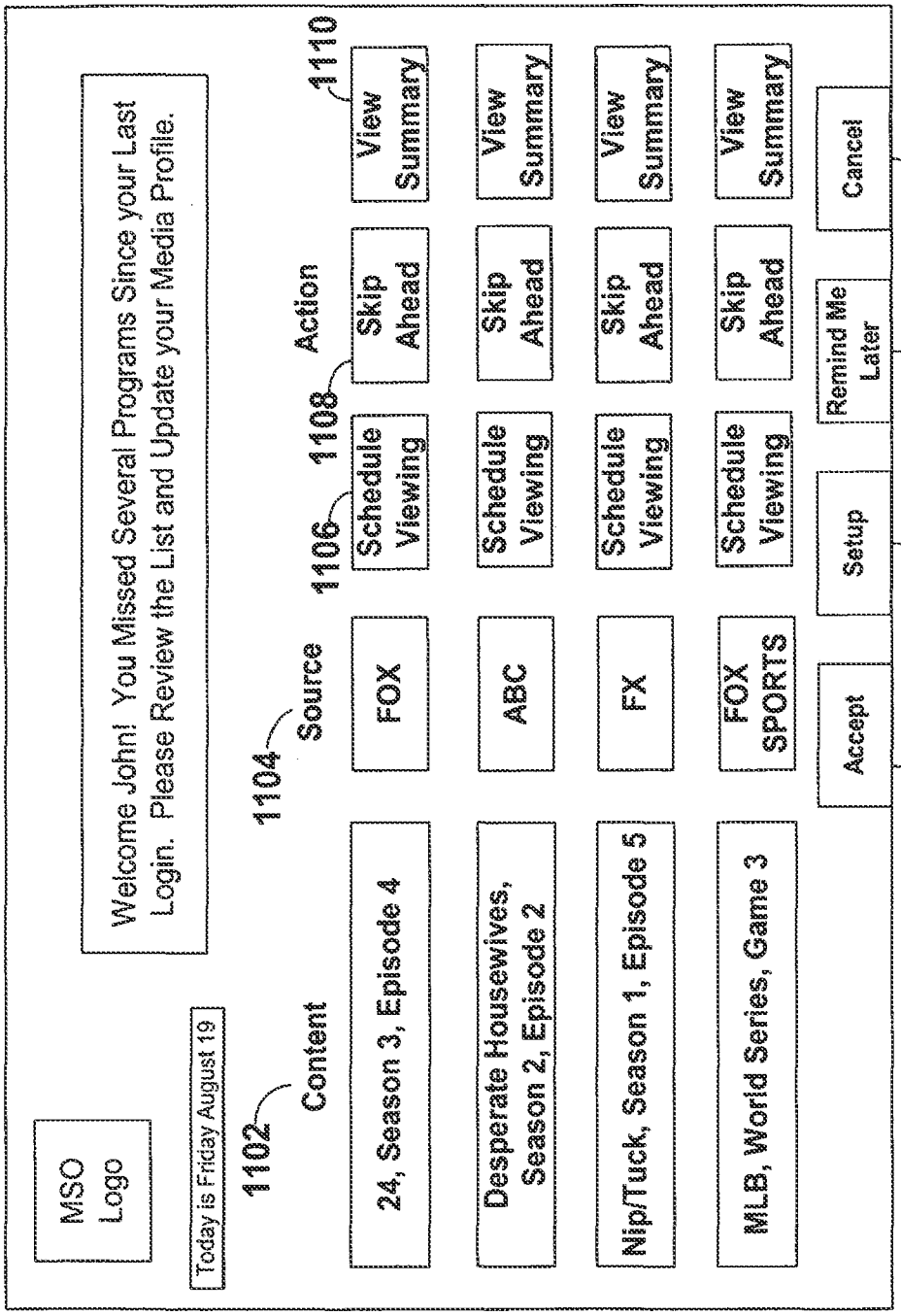

1100
MSO Logo
Welcome John! You Missed Several Programs Since your Last Login. Please Review the List and Update your Media Profile.
Today is Friday August 19
1102
Content
1104
Source
1106
1108
Action
1110
24, Season 3, Episode 4
FOX
Schedule Viewing
Skip Ahead
View Summary
Desperate Housewives, Season 2, Episode 2
ABC
Schedule Viewing
Skip Ahead
View Summary
Nip/Tuck, Season 1, Episode 5
FX
Schedule Viewing
Skip Ahead
View Summary
MLB, World Series, Game 3
FOX SPORTS
Schedule Viewing
Skip Ahead
View Summary
Accept
Setup
Remind Me Later
Cancel
1112
1114
1116
1118

FIG. 11

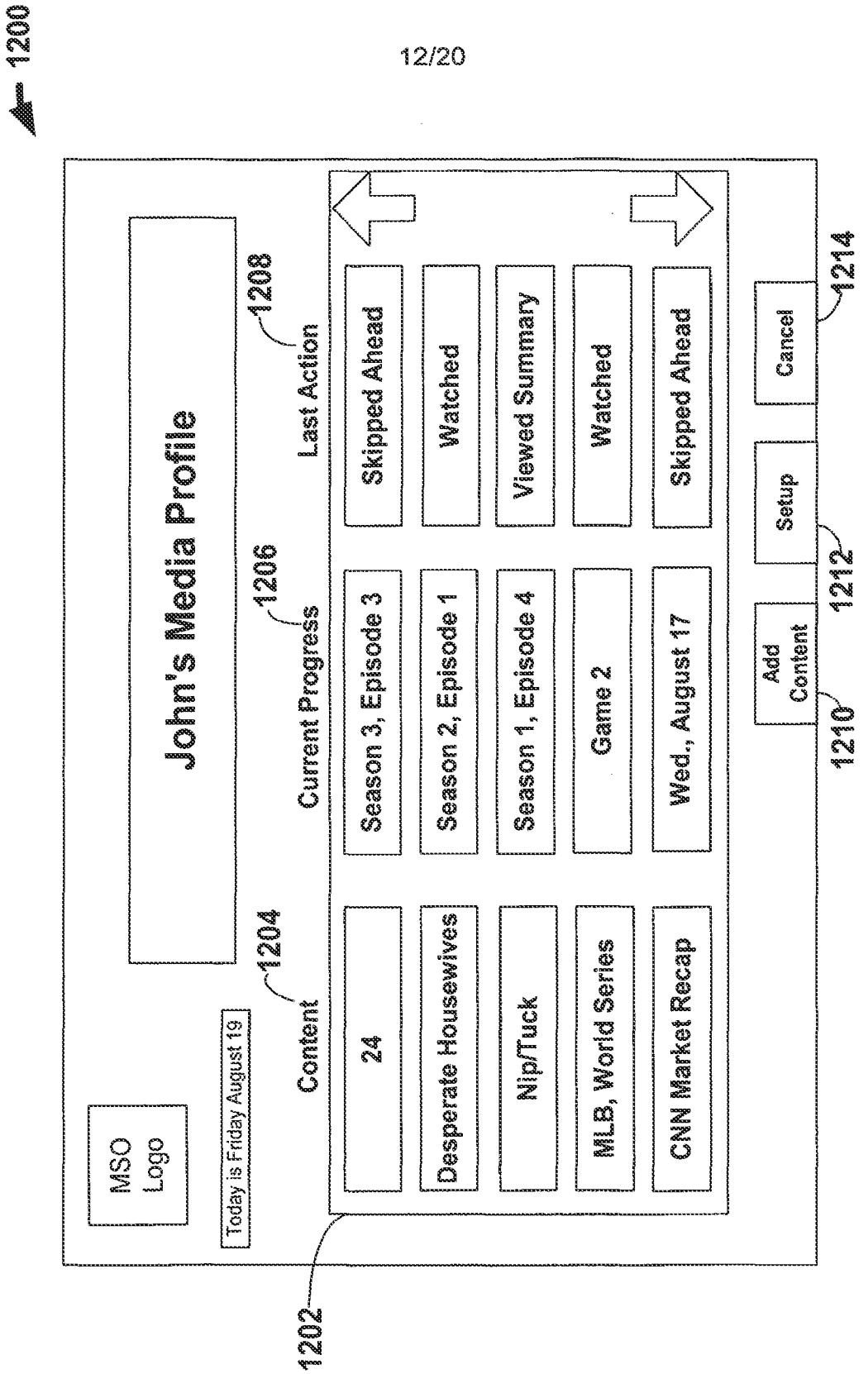

1200
John's Media Profile
MSO Logo
Today is Friday August 19
Content
1204
Current Progress
1206
Last Action
1208
24
Desperate Housewives
Nip/Tuck
MLB, World Series
CNN Market Recap
Season 3, Episode 3
Season 2, Episode 1
Season 1, Episode 4
Game 2
Wed., August 17
Skipped Ahead
Watched
Viewed Summary
Watched
Skipped Ahead
Add Content
Setup
Cancel
1210
1212
1214
1202

FIG. 12

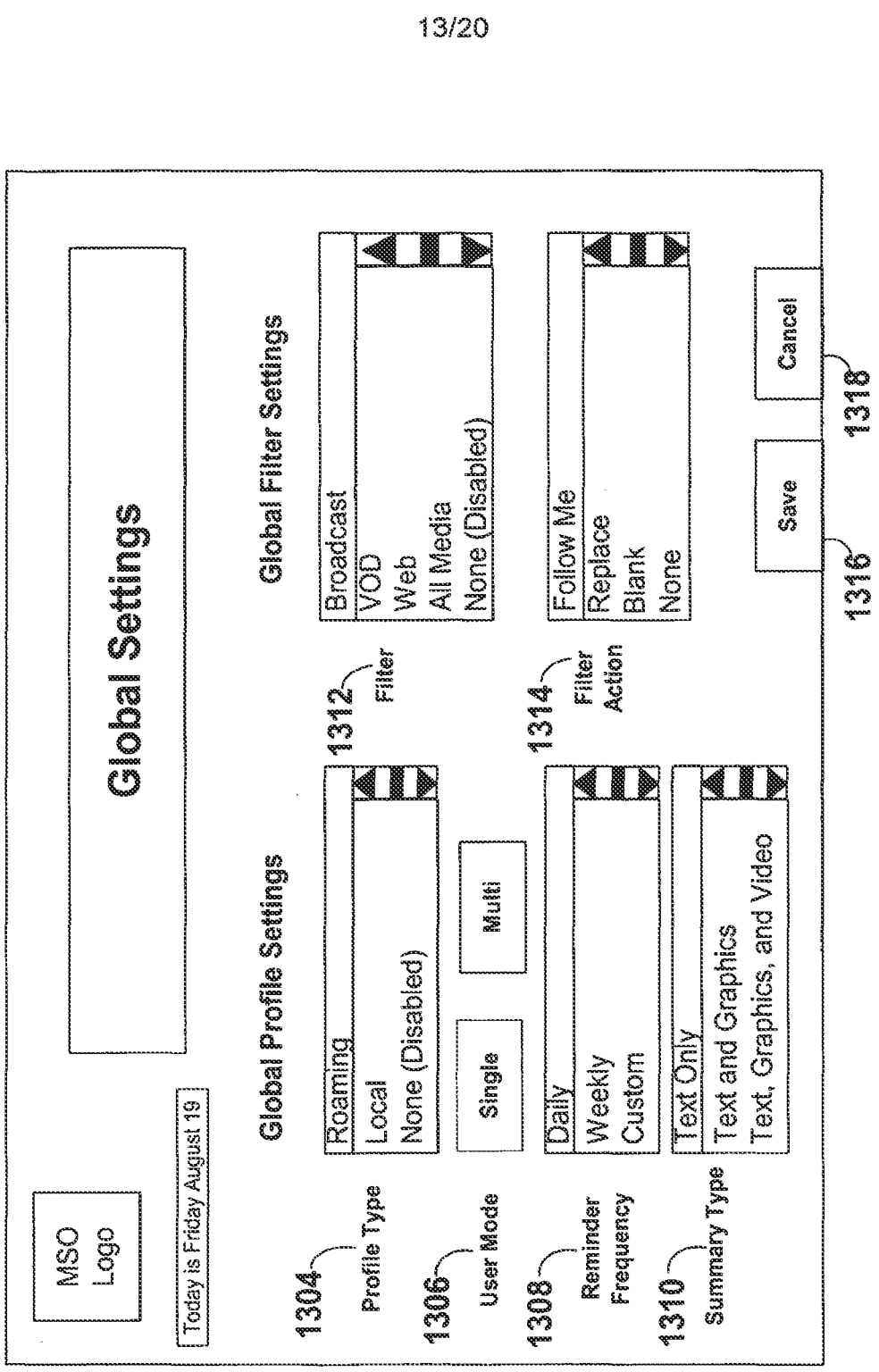

1300
Global Settings
MSO Logo
Today is Friday August 19
Global Profile Settings
Global Filter Settings
1304
Profile Type
Roaming
Local
None (Disabled)
1306
User Mode
Single
Multi
1308
Reminder Frequency
Daily
Weekly
Custom
1310
Summary Type
Text Only
Text and Graphics
Text, Graphics, and Video
1312
Filter
Broadcast
VOD
Web
All Media
None (Disabled)
1314
Filter Action
Follow Me
Replace
Blank
None
1316
Save
1318
Cancel

FIG. 13

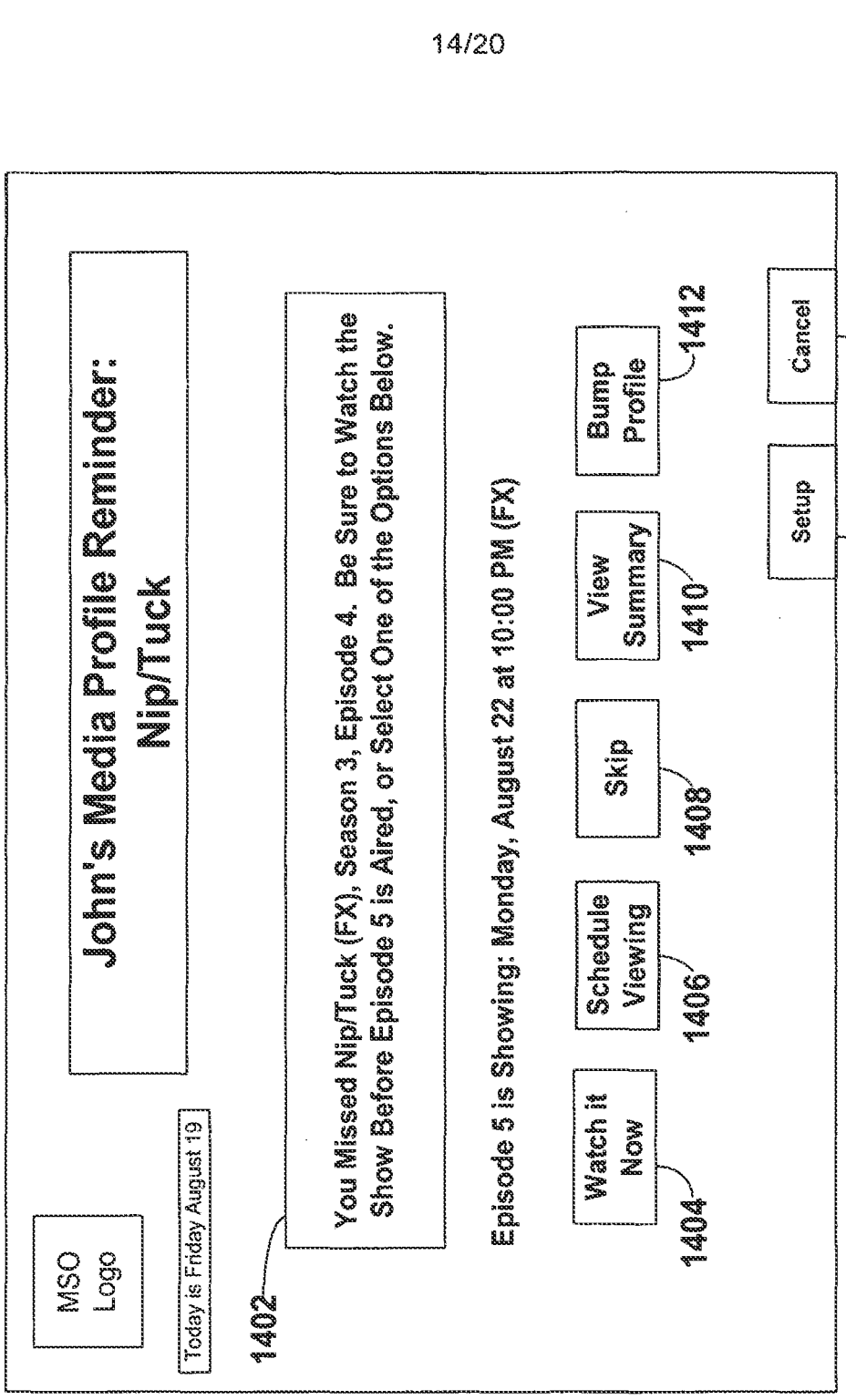

1400
MSO Logo
Today is Friday August 19
John's Media Profile Reminder: Nip/Tuck
1402
You Missed Nip/Tuck (FX), Season 3, Episode 4. Be Sure to Watch the Show Before Episode 5 is Aired, or Select One of the Options Below.
Episode 5 is Showing: Monday, August 22 at 10:00 PM (FX)
Watch it Now
1404
Schedule Viewing
1406
Skip
1408
View Summary
1410
Bump Profile
1412
Setup
1414
Cancel
1416

FIG. 14

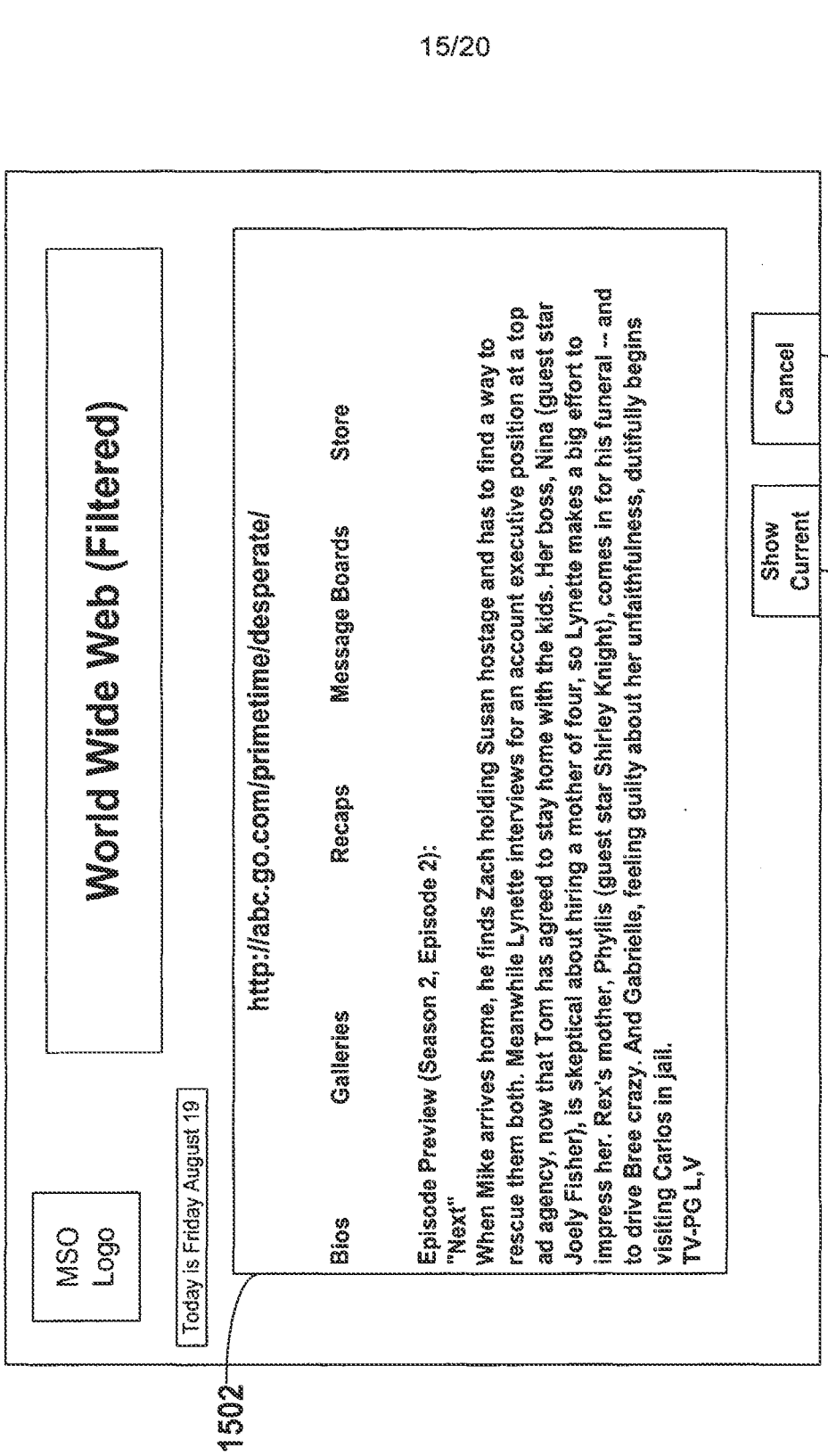

1500
World Wide Web (Filtered)
MSO Logo
Today is Friday August 19
http://abc.go.com/primetime/desperate/
Bios
Galleries
Recaps
Message Boards
Store
Episode Preview (Season 2, Episode 2):
"Next"
When Mike arrives home, he finds Zach holding Susan hostage and has to find a way to rescue them both. Meanwhile Lynette interviews for an account executive position at a top ad agency, now that Tom has agreed to stay home with the kids. Her boss, Nina (guest star Joely Fisher), is skeptical about hiring a mother of four, so Lynette makes a big effort to impress her. Rex's mother, Phyllis (guest star Shirley Knight), comes in for his funeral -- and to drive Bree crazy. And Gabrielle, feeling guilty about her unfaithfulness, dutifully begins visiting Carlos in jail.
TV-PG L,V
Show Current
Cancel
1502
1504
1506

FIG. 15

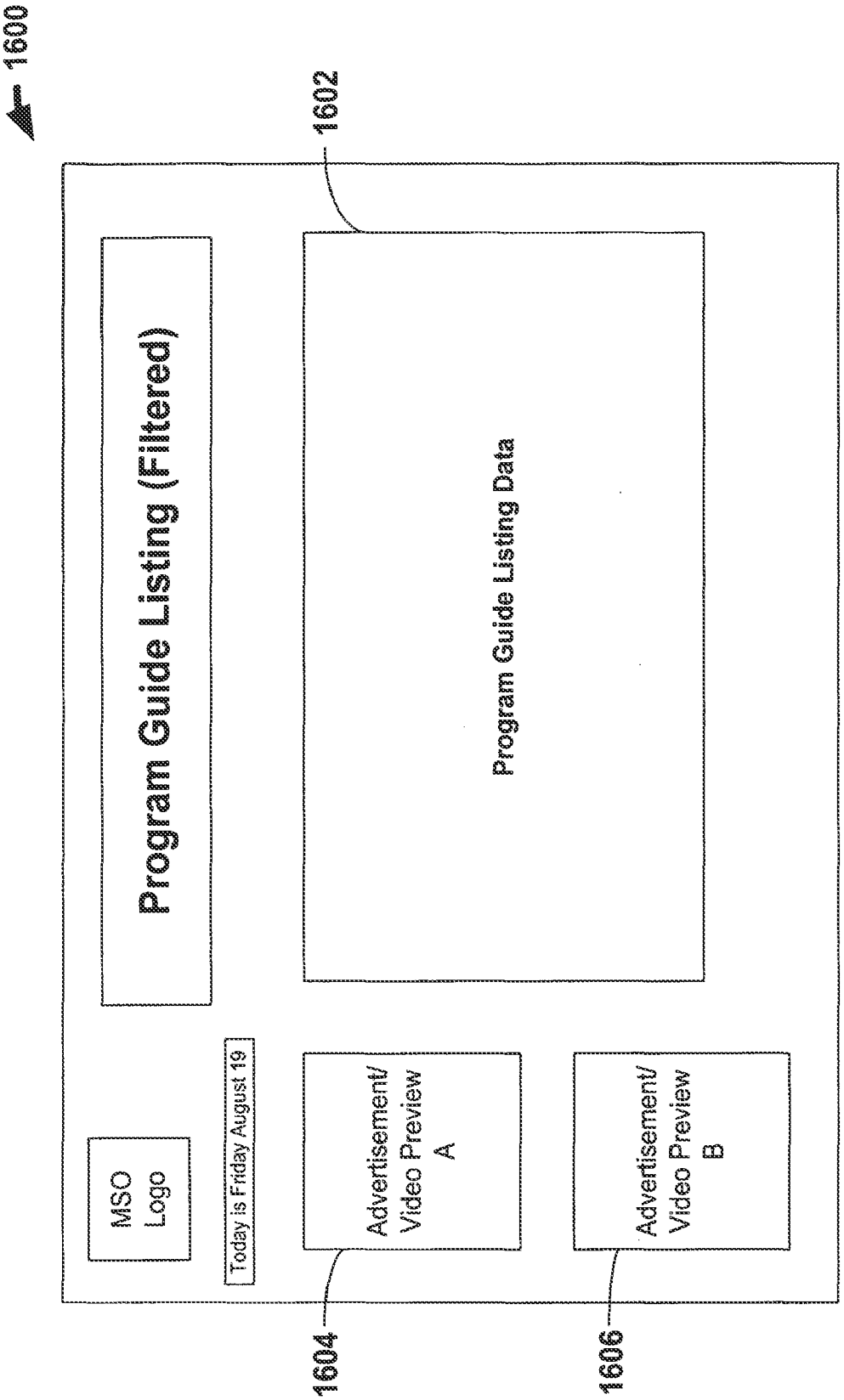

1600
1602
Program Guide Listing (Filtered)
Program Guide Listing Data
MSO Logo
Today is Friday August 19
Advertisement/ Video Preview A
Advertisement/ Video Preview B
1604
1606

FIG. 16

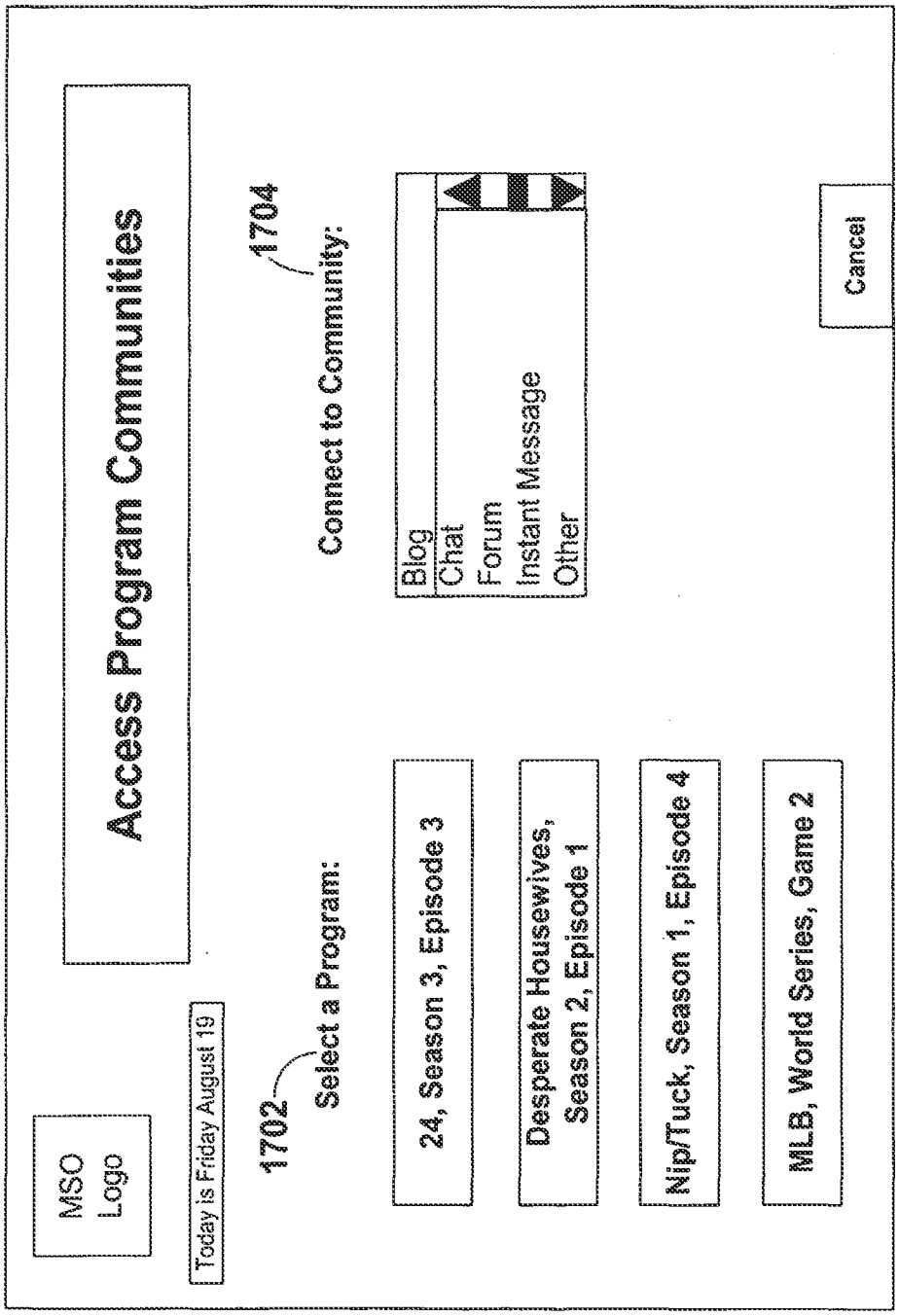

1700
Access Program Communities
MSO Logo
Today is Friday August 19
1702
Select a Program:
24, Season 3, Episode 3
Desperate Housewives, Season 2, Episode 1
Nip/Tuck, Season 1, Episode 4
MLB, World Series, Game 2
1704
Connect to Community:
Blog
Chat
Forum
Instant Message
Other
Cancel

FIG. 17

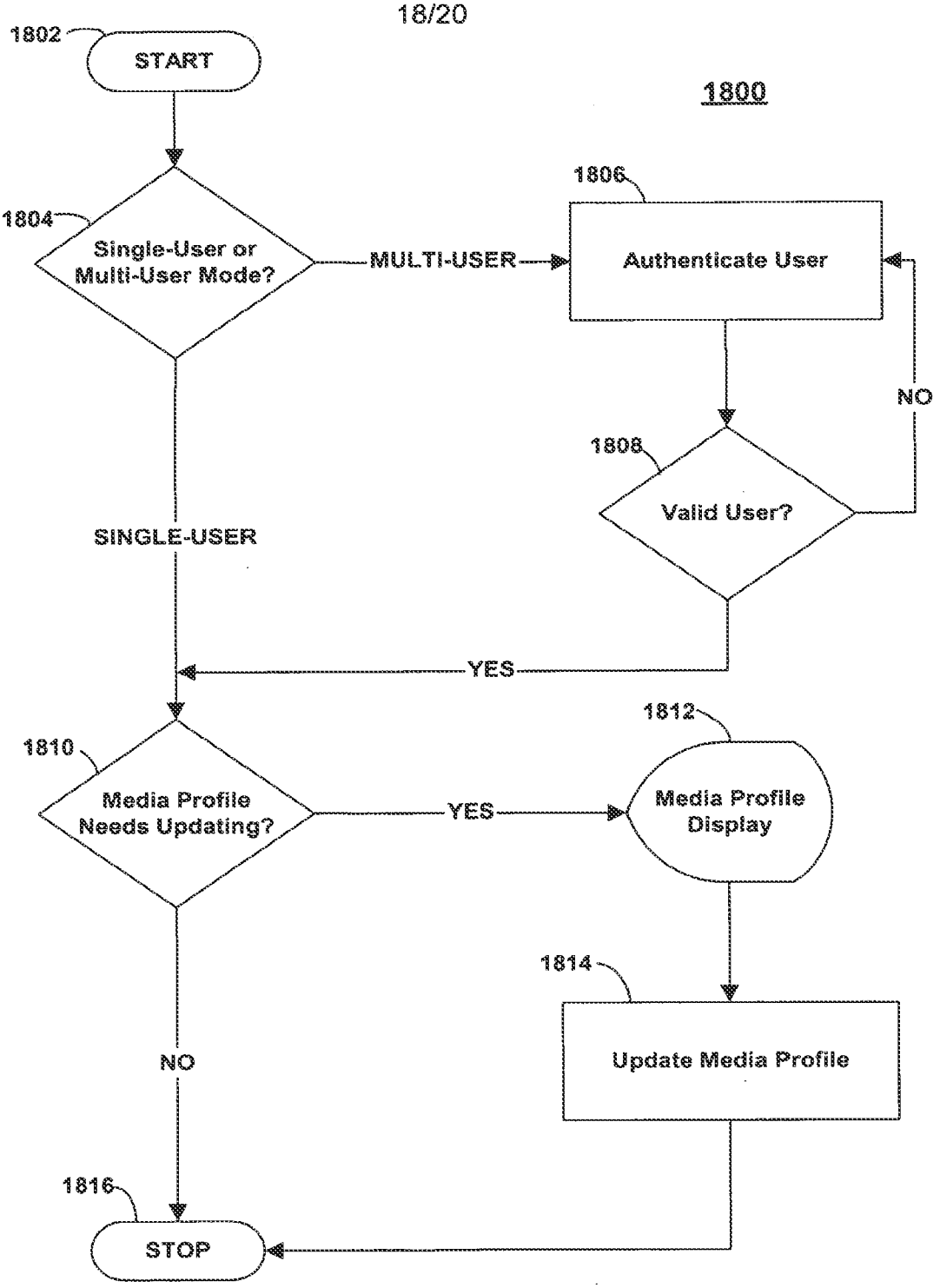

1802
START
1800
1804
Single-User or Multi-User Mode?
MULTI-USER
1806
Authenticate User
NO
1808
Valid User?
SINGLE-USER
YES
1810
Media Profile Needs Updating?
YES
1812
Media Profile Display
1814
Update Media Profile
NO
1816
STOP

FIG. 18

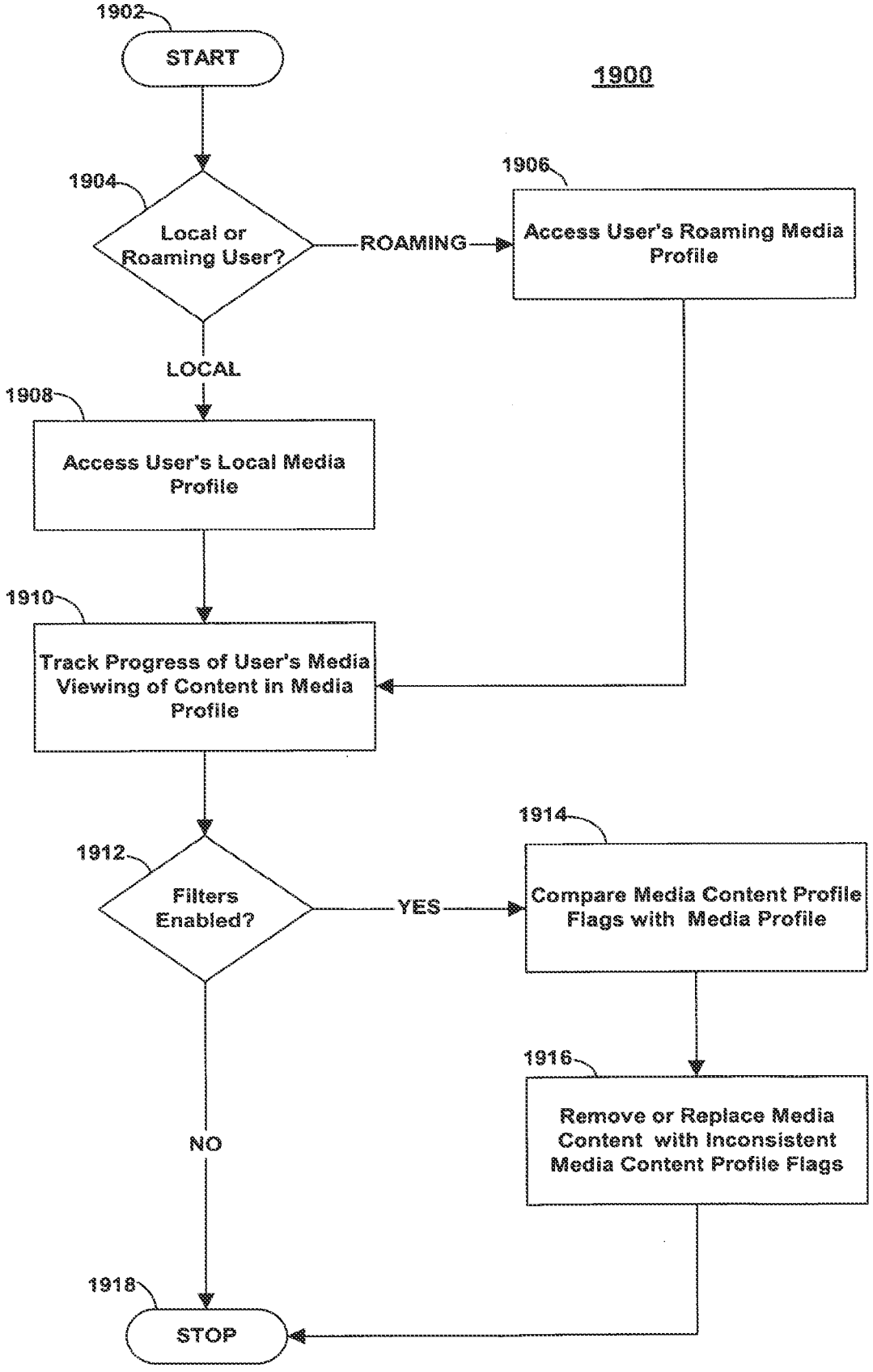

1902
START
1900
1904
Local or Roaming User?
ROAMING
1906
Access User's Roaming Media Profile
LOCAL
1908
Access User's Local Media Profile
1910
Track Progress of User's Media Viewing of Content in Media Profile
1912
Filters Enabled?
YES
1914
Compare Media Content Profile Flags with Media Profile
1916
Remove or Replace Media Content with Inconsistent Media Content Profile Flags
NO
1918
STOP

FIG. 19

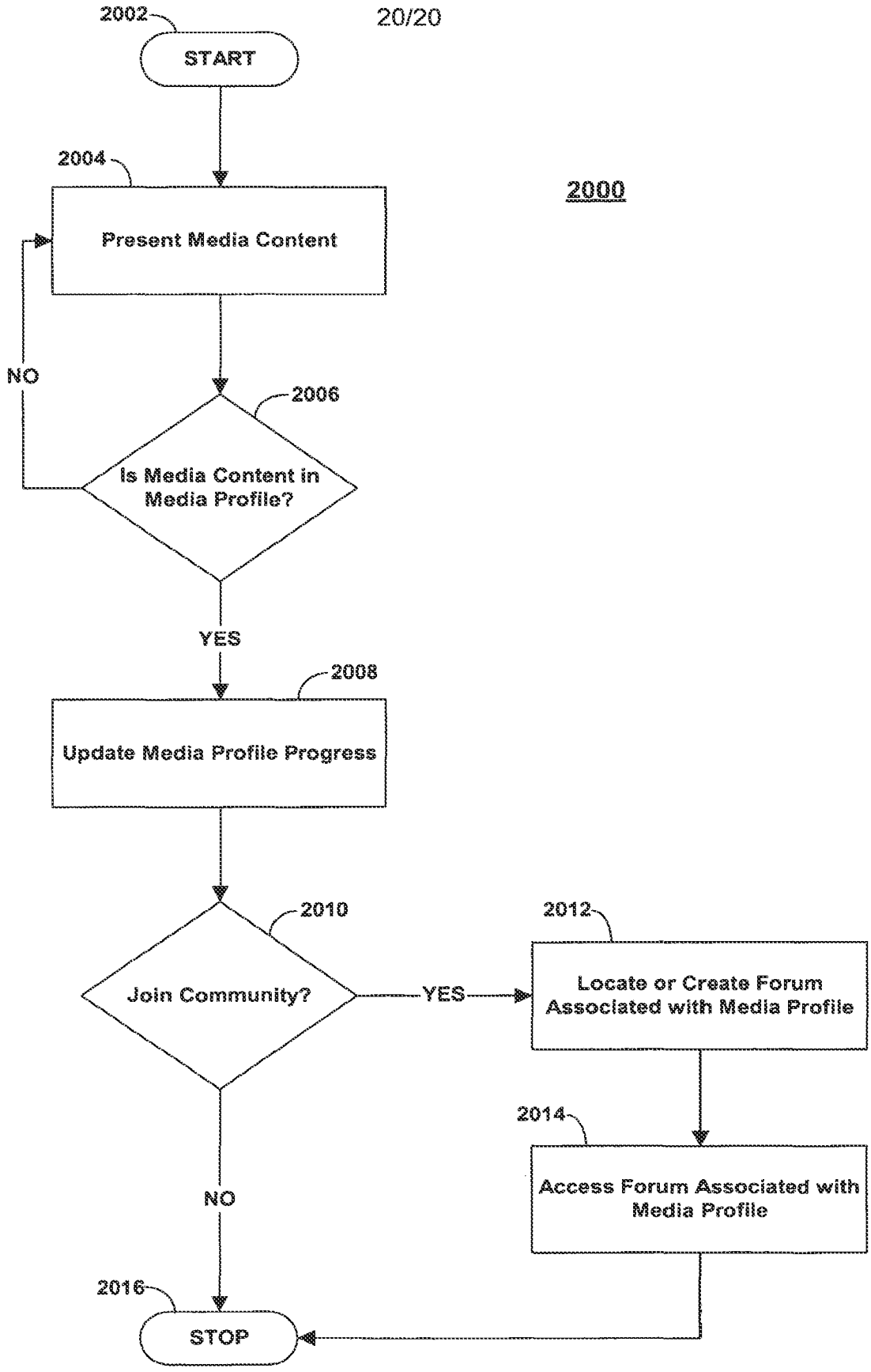

2002
START
2004
Present Media Content
2000
NO
2006
Is Media Content in Media Profile?
YES
2008
Update Media Profile Progress
2010
Join Community?
YES
2012
Locate or Create Forum Associated with Media Profile
2014
Access Forum Associated with Media Profile
NO
2016
STOP

FIG. 20

Docket No.: 003597-0375-103
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Charles Cordray et al.

Application No.: To Be Assigned | Confirmation No.: To Be Assigned

Filed: Herewith | Art Unit: To Be Assigned

For: SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT | Examiner: To Be Assigned

FIRST PRELIMINARY AMENDMENT UNDER 37 C.F.R. 1.115

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

Dear Madam:

INTRODUCTORY COMMENTS

Prior to examination on the merits, please amend the above-identified U.S. patent application as follows:

Amendments of the Specification begin on page 2 of this paper.

Amendments of the Claims begin on page 3 of this paper.

Remarks/Arguments begin on page 4 of this paper.

Petitioner Disney Ex-1004, 0122

AMENDMENTS OF THE SPECIFICATION

Please amend the Specification, starting at page 1, before line 3, to add the following paragraph:

Cross-Reference to Related Application

[0.001] This patent application is a continuation of prior U.S. Patent Application No. 11/323,464, filed December 29, 2005, currently pending, the disclosure of which is hereby incorporated by reference herein in its entirety.

Petitioner Disney Ex-1004, 0123

AMENDMENTS OF THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the above-identified patent application.

Listing of Claims:

1. (Original) A method for presenting media content to a user at user equipment, the method comprising:

receiving a request for viewing media content;

determining if the requested media content is serial programming; and

in response to determining that the requested media content is serial programming, presenting at least one viewing option to the user, wherein the at least one viewing option includes at least one option for allowing the user to interact with the requested media content.

2-57. (Canceled)

Petitioner Disney Ex-1004, 0124

REMARKS

Applicant has amended the specification to add a priority claim and the serial number of a patent application incorporated by reference. No new matter has been added.

Claim 1 is pending. Claims 2-57 have been canceled without prejudice.

Dated: March 17, 2015

Respectfully submitted,

By /Drew J. Schulte/
Drew J. Schulte
Registration No.: 63,216
ROPES & GRAY LLP
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1211 Avenue of the Americas
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Attorney For Applicant

Petitioner Disney Ex-1004, 0125

Electronic Acknowledgement Receipt

EFS ID:	21796214
Application Number:	14660596
International Application Number:	
Confirmation Number:	1084
Title of Invention:	SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT
First Named Inventor/Applicant Name:	Charles Cordray
Customer Number:	75563
Filer:	Drew Joseph Schulte/Crena Pacheco
Filer Authorized By:	Drew Joseph Schulte
Attorney Docket Number:	003597-0375-103
Receipt Date:	17-MAR-2015
Filing Date:	
Time Stamp:	17:52:29
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	Transmittal of New Application	003597_0375_103_TRN.pdf	106058 1307b4b978b5246854b6cf0dce702f9b1131d199	no	1

Warnings:	
Information:	

2	Application Data Sheet	003597_0375_103_ADS.pdf	1561089 6b36386807cf9b72d4a46458d1709374a9ea5364	no	7
Warnings:					
Information:					
3		003597_0375_103_Specification.pdf	3738468 9cacd537c28234459f8a33ae63151f624d15abdc	yes	93

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Specification	1	82
	Claims	83	92
	Abstract	93	93

Warnings:					
Information:					
4	Drawings-only black and white line drawings	003597_0375_103_Figures.pdf	9553903 3d573dabbfacecfe0a13a6aac94bf36eb3059a70	no	20
Warnings:					
Information:					
5		003597_0375_103_PAMN.pdf	75646 1c37653fe2e303ebc4efc31670d047d825656922	yes	4

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Preliminary Amendment	1	1
	Specification	2	2
	Claims	3	3
	Applicant Arguments/Remarks Made in an Amendment	4	4

Warnings:	
Information:	
Total Files Size (in bytes):	15035164

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.

Docket No.: 003597-0375-103
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Charles Cordray et al.

Application No.: 14/660,596 | Confirmation No.: 1084

Filed: March 17, 2015 | Art Unit: 2447

For: SYSTEMS AND METHOD FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT | Examiner: Not Yet Assigned

SECOND PRELIMINARY AMENDMENT UNDER 37 C.F.R. 1.115

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

Dear Madam:

Prior to examination on the merits, please amend the above-identified U.S. patent application as follows:

Amendments of the Specification begin on page 2 of this paper.

Amendments of the Claims are reflected in the listing of claims which begins on page 3 of this paper.

Remarks begin on page 5 of this paper.

Petitioner Disney Ex-1004, 0129

AMENDMENTS OF THE SPECIFICATION

Please amend the Specification, at page 55, paragraph [0124] with the following:

[0124] The content summary may be at least partially derived from one or more data sources, such as tvguide.com and/or TV Guide Spot. TV Guide Spot, which is available online and via an interactive channel accessible by the user equipment, features original entertainment programming designed to help viewers decide what to watch. TV Guide Spot also provides showcase segments on upcoming programming and events, "catch-up" segments that update viewers on plot developments of popular shows, and many other interactive features. In some embodiments, closed captioning data is analyzed and used to create content summaries, as described in more detail in patent application Serial No. 11/324,187, filed Dec 29, 2005 (Attorney Docket No. UV-349~~/UV-383~~), which is hereby incorporated by reference herein in its entirety. After being presented with the content summary, the user may watch the full program, schedule the program for presentation on the user equipment at a later date and time, or skip the program and advance the user's media profile.

Petitioner Disney Ex-1004, 0130

AMENDMENTS OF THE CLAIMS

This following listing of the claims will replace all prior versions and listings of claims in the above-identified application:

Listing of Claims:

1-57. (Canceled)

58. (New) A method for presenting media content based on a user's viewing progress within serial programs on user equipment, the method comprising:

creating a media profile comprising a first viewing progress within a first serial program and a second viewing progress within a second serial program;

storing the media profile in a storage device;

determining a first progress point in the first serial program based on the first viewing progress and a second progress point in the second serial program based on the second viewing progress; and

generating for display a first link corresponding to the first progress point in the first serial program adjacent to a second link corresponding to the second progress point in the second serial program.

59. (New) The method of claim 58, wherein the first link and the second link are associated with a first cell and a second cell, respectively.

60. (New) The method of claim 59, wherein the first cell and the second cell are included in a plurality of cells, wherein the plurality of cells are arranged in rows and columns.

61. (New) The method of claim 58, further comprising automatically presenting an unwatched episode in the first serial program in response to a user selecting the first link.

62. (New) The method of claim 58, further comprising presenting a summary region associated with the first serial program.

Petitioner Disney Ex-1004, 0131

63. (New) The method of claim 58, wherein the summary region indicates a predefined viewing order for the first serial program.

64. (New) A system for presenting media content based on a user's viewing progress within serial programs on user equipment, the system comprising control circuitry configured to:

create a media profile comprising a first viewing progress within a first serial program and a second viewing progress within a second serial program;

store the media profile in a storage device;

determine a first progress point in the first serial program based on the first viewing progress and a second progress point in the second serial program based on the second viewing progress; and

generate for display a first link corresponding to the first progress point in the first serial program adjacent to a second link corresponding to the second progress point in the second serial program.

65. (New) The system of claim 64, wherein the first link and the second link are associated with a first cell and a second cell, respectively.

66. (New) The system of claim 65, wherein the first cell and the second cell are included in a plurality of cells arranged in rows and columns.

67. (New) The system of claim 64, wherein the control circuitry is further configured to present an episode in the first serial program in response to a user selecting the first link.

68. (New) The system of claim 64, wherein the control circuitry is further configured to present a summary region associated with the first serial program.

69. (New) The system of claim 64, wherein the summary region indicates a predefined viewing order for the first serial program.

Petitioner Disney Ex-1004, 0132

REMARKS

Applicant has amended the Specification to provide the serial number of an application incorporated by reference. Claims 58-69 are new. Claim 1 has been canceled. The new claims are fully supported by applicant's originally-filed application. No new matter is added. Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 06-1075, under Order No. 003597-0375-103 from which the undersigned is authorized to draw.

Dated: March 18, 2015

Respectfully submitted,

By /Drew J. Schulte/

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Customer No. 75563
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(617) 235-9492 (Fax)
Attorney For Applicant

Petitioner Disney Ex-1004, 0133

Electronic Acknowledgement Receipt

EFS ID:	21807419
Application Number:	14660596
International Application Number:	
Confirmation Number:	1084
Title of Invention:	SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT
First Named Inventor/Applicant Name:	Charles Cordray
Customer Number:	75563
Filer:	Drew Joseph Schulte/Crena Pacheco
Filer Authorized By:	Drew Joseph Schulte
Attorney Docket Number:	003597-0375-103
Receipt Date:	18-MAR-2015
Filing Date:	
Time Stamp:	16:01:47
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		003597_0375_103_PAMN.pdf	79826 102cfb12e272b0640dd99c7089139196adf4665c	yes	5

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Preliminary Amendment	1	1
	Specification	2	2
	Claims	3	4
	Applicant Arguments/Remarks Made in an Amendment	5	5
Warnings:			
Information:			
	Total Files Size (in bytes):	79826	

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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.

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 NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
14/660,596	03/17/2015	2447	0.00	003597-0375-103	12	2

CONFIRMATION NO. 1084

75563
ROPES & GRAY LLP
PATENT DOCKETING 39/361
1211 AVENUE OF THE AMERICAS
NEW YORK, NY 10036-8704

FILING RECEIPT

OC00000074257163

Date Mailed: 03/27/2015

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**

Inventor(s)

Charles Cordray, New York, NY;
Todd A. Walker, Bixby, OK;
Samir B. Armaly, La Canada Flintridge, CA;

Applicant(s)

Rovi Guides, Inc., Santa Clara, CA

Power of Attorney: None

Domestic Priority data as claimed by applicant

This application is a CON of 11/323,464 12/29/2005

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.) - None.
Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

If Required, Foreign Filing License Granted: 03/26/2015

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 14/660,596**

Projected Publication Date: To Be Determined - pending completion of Missing Parts

Non-Publication Request: No

Early Publication Request: No

Petitioner Disney Ex-1004, 0136

Title

SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT

Preliminary Class

709

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

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 (1-866-999-4258).

Petitioner Disney Ex-1004, 0137

LICENSE FOR FOREIGN FILING UNDER

Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

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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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PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number: 14/660,596

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	280
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	600
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	720
TOTAL CLAIMS (37 CFR 1.16(i))	12 minus 20 =	*			OR	x 80 =	0.00
INDEPENDENT CLAIMS (37 CFR 1.16(h))	2 minus 3 =	*				x 420 =	0.00
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						0.00
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							0.00
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	1600

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))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

		(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 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))							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 found in the appropriate box in column 1.

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
14/660,596	03/17/2015	Charles Cordray	003597-0375-103

CONFIRMATION NO. 1084

75563
ROPES & GRAY LLP
PATENT DOCKETING 39/361
1211 AVENUE OF THE AMERICAS
NEW YORK, NY 10036-8704

FORMALITIES LETTER

OC00000074257164

Date Mailed: 03/27/2015

NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

Filing Date Granted

Items Required To Avoid Abandonment:

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given **TWO MONTHS** from the date of this Notice within which to file all required items below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The statutory basic filing fee is missing.
- The application search fee must be submitted.
- The application examination fee must be submitted.
- Surcharge as set forth in 37 CFR 1.16(f) must be submitted.
  The surcharge is due for any one of:
  - late submission of the basic filing fee, search fee, or examination fee,
  - late submission of inventor's oath or declaration,
  - filing an application that does not contain at least one claim on filing, or
  - submission of an application filed by reference to a previously filed application.

SUMMARY OF FEES DUE:

The fee(s) required within **TWO MONTHS** from the date of this Notice to avoid abandonment is/are itemized below. No entity status discount is in effect. If applicant is qualified for small entity status, a written assertion of small entity status must be submitted to establish small entity status. (See 37 CFR 1.27). If applicant is qualified for micro entity status, an acceptable Certification of Micro Entity Status must be submitted to establish micro entity status. (See 37 CFR 1.29 and forms PTO/SB/15A and 15B.)

- $ **280** basic filing fee.
- $ **140** surcharge.
- $ **600** search fee.
- $ **720** examination fee.
- $(**0**) previous unapplied payment amount.
- $ **1740** TOTAL FEE BALANCE DUE.

Items Required To Avoid Processing Delays:

Petitioner Disney Ex-1004, 0140

Applicant is notified that the above-identified application contains the deficiencies noted below. No period for reply is set forth in this notice for correction of these deficiencies. However, if a deficiency relates to the inventor's oath or declaration, the applicant must file an oath or declaration in compliance with 37 CFR 1.63, or a substitute statement in compliance with 37 CFR 1.64, executed by or with respect to each actual inventor no later than the expiration of the time period set in the "Notice of Allowability" to avoid abandonment. See 37 CFR 1.53(f).

- A properly executed inventor's oath or declaration has not been received for the following inventor(s):
  Charles Cordray
  Todd A. Walker
  Samir B. Armaly

Replies must be received in the USPTO within the set time period or must include a proper Certificate of Mailing or Transmission under 37 CFR 1.8 with a mailing or transmission date within the set time period. For more information and a suggested format, see Form PTO/SB/92 and MPEP 512.

Replies should be mailed to:

Mail Stop Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web, including a copy of this Notice and selecting the document description "Applicant response to Pre-Exam Formalities Notice". https://sportal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html

For more information about EFS-Web please call the USPTO Electronic Business Center at **1-866-217-9197** or visit our website at http://www.uspto.gov/ebc.

If you are not using EFS-Web to submit your reply, you must include a copy of this notice.

/dnguyen/

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

Petitioner Disney Ex-1004, 0141

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Cordray et al.

Application No.: 14/660,596 | Confirmation No.: 1084

Filed: March 17, 2015 | Art Unit: 2447

For: SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT | Examiner: Not Yet Assigned

RESPONSE TO NOTICE TO FILE MISSING PARTS OF APPLICATION

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

Dear Madam:

In response to the Notice to File Missing Parts of Application – Filing Date Granted mailed March 27, 2015, Applicant respectfully submits the Filing Fee, an Information Disclosure Statement, and an Information Disclosure Citation (PTO SB/08).

Petitioner Disney Ex-1004, 0142

Please charge our Credit Card in the amount of $1,740.00 covering the fees set forth in 37 C.F.R. § 1.16(f), 1.16(a), 1.16(k), and 1.16(o). The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 06-1075, under Order No. 003597-0375-103.

Dated: May 1, 2015

Respectfully submitted,

By /Drew J. Schulte/
Drew J. Schulte
Registration No.: 63,216
Customer No.: 75563
ROPES & GRAY LLP
1211 Avenue of the Americas
New York, New York 10036
(212) 596-9000
(617) 235-9492 (Fax)
Attorney For Applicant

Petitioner Disney Ex-1004, 0143

Docket No.: 003597-0375-103
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Cordray et al.

Application No.: 14/660,596 | Confirmation No.: 1084

Filed: March 17, 2015 | Art Unit: 2447

For: SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT | Examiner: Not Yet Assigned

INFORMATION DISCLOSURE STATEMENT (IDS)

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

Dear Madam:

Pursuant to 37 C.F.R. § 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed before the mailing date of a first Office Action on the merits as far as is known to the undersigned (37 C.F.R. § 1.97(b)(3)).

In accordance with 37 C.F.R. § 1.98(a)(2)(ii), Applicant has not submitted copies of U.S. patents and U.S. patent applications. Applicant submits herewith copies of foreign patents in accordance with 37 C.F.R. § 1.98(a)(2).

Petitioner Disney Ex-1004, 0144

References indicated with ** are not supplied because they were previously cited by or submitted to the Office in prior application numbers 11/323,464 filed December 29, 2005 and relied upon in this application for an earlier filing date under 35 U.S.C. § 120.

In accordance with 37 C.F.R. § 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 C.F.R. § 1.56(a) exists. In accordance with 37 C.F.R. § 1.97(h), the filing of this Information Disclosure Statement shall not be construed to be an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

It is submitted that the Information Disclosure Statement is in compliance with 37 C.F.R. § 1.98 and the Examiner is respectfully requested to consider the listed references.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 06-1075, under Order No. 003597-0375-103.

Dated: May 1, 2015

Respectfully submitted,

By /Drew J. Schulte/
Drew J. Schulte
Registration No.: 63,216
Customer No.: 75563
ROPES & GRAY LLP
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Attorney For Applicant

Petitioner Disney Ex-1004, 0145

PTO/SB/08a (07-09)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 16

Complete if Known	
Application Number	14/660,596
Filing Date	March 17, 2015
First Named Inventor	Charles Cordray
Art Unit	2447
Examiner Name	Not Yet Assigned
Attorney Docket Number	003597-0375-103

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US-6,766,100	07-20-2004	Komar et al.	
		US-2010/0325679-A1	12-23-2010	Ryal	
		US-2007/0118848-A1	05-24-2007	Schwesinger et al.	
		US-2001/0042128	11-15-2001	Hirayama	
		US-20050050578	03-03-2005	Ryal	
		US-20070127696	06-07-2007	White	
		US-20070154163	07-05-2007	Cordray	
		US-20070157247	07-05-2007	Cordray et al.	
		US-6,564,383	05-13-2003	Combs et al.	
		US-4,264,924	04-28-1981	Freeman	
		US-4,264,925	04-28-1981	Freeman et al.	
		US-4,355,415	10-19-1982	George et al.	
		US-4,573,072	02-25-1986	Freeman	
		US-4,602,279	07-22-1986	Freeman	
		US-4,605,964	08-12-1986	Chard	
		US-4,694,490	09-15-1987	Harvey et al.	
		US-4,706,121	11-10-1987	Young	
		US-4,718,107	01-05-1988	Hayes	
		US-4,847,698	07-11-1989	Freeman	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3] Number[4] Kind Code[5] *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T[6]
	**	CN-1386368	12-18-2002	Koninkijke Philips Electronics NV		
	**	CN-1440193-A	09-03-2003	Matsushidta Electric Ind. Co., Ltd		
	**	CN-1501711	06-02-2004	Beijing DTVIA Digital System		
	**	DE-4440419-A1	05-09-1996	Issing Tilman et al.		
	**	EP-0 572 090	12-01-1993	Koninkl Philips Electronics NV		
	**	EP-0 682 452-A2	11-15-1995	Microsoft Corp		

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. * CITE NO.: Those application(s) which are marked with an single asterisk (*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(iii)) because that application was filed after June 30, 2003 or is available in the IFW. [1] Applicant's unique citation designation number (optional). [2] See Kinds Codes of USPTO Patent Documents at **www.uspto.gov** or MPEP 901.04. [3] Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5]Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [6] Applicant is to place a check mark here if English language Translation is attached.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 2 of 16

Complete if Known	
Application Number	14/660,596
Filing Date	March 17, 2015
First Named Inventor	Charles Cordray
Art Unit	2447
Examiner Name	Not Yet Assigned
Attorney Docket Number	003597-0375-103

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US-4,847,700	07-11-1989	Freeman	
		US-4,857,999	08-15-1989	Welsh	
		US-4,908,707	03-13-1990	Kinghorn	
		US-4,930,158	05-29-1990	Vogel	
		US-4,945,563	07-31-1990	Horton et al.	
		US-4,959,720	09-25-1990	Duffield et al.	
		US-4,977,455	12-11-1990	Young	
		US-5,038,211	08-06-1991	Hallenbeck	
		US-5,047,867	09-10-1991	Strubbe et al.	
		US-5,068,733	11-26-1991	Bennett	
		US-5,109,279	04-28-1992	Ando	
		US-5,151,789	09-29-1992	Young	
		US-5,172,413	12-15-1992	Bradley et al.	
		US-5,187,589	02-16-1993	Kono et al.	
		US-5,195,134	03-16-1993	Inoue et al.	
		US-5,200,822	04-06-1993	Bronfin et al.	
		US-5,210,611	05-11-1993	Yee et al.	
		US-5,223,924	06-29-1993	Strubbe	
		US-5,241,428	08-31-1993	Goldwasser et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3] Number[4] Kind Code[5] *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T[6]
	**	EP-0753964-A1	01-15-1997	Thomson Multimedia Sa		
	**	EP-0 789 488	08-13-1997	Matsushita Electric Ind. Co., Ltd.		
	**	EP-0 836 320	04-15-1998	Matsushita Electric Ind. Co. Ltd.		
	**	EP-0 854645	07-22-1998	Texas Instruments Inc.		
	**	EP-0 856 847	11-21-2001	Sony Corporation		
	**	EP-0 921 682-A2	06-09-1999	Matsushita Electric Ind Co Ltd		

Examiner Signature		Date Considered	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 3 of 16

Complete if Known	
Application Number	14/660,596
Filing Date	March 17, 2015
First Named Inventor	Charles Cordray
Art Unit	2447
Examiner Name	Not Yet Assigned
Attorney Docket Number	003597-0375-103

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US-5,253,066	10-12-1993	Vogel	
		US-5,285,284	02-08-1994	Takashima et al.	
		US-5,296,931	03-22-1994	Na	
		US-5,323,234	06-21-1994	Kawasaki	
		US-5,335,277	08-02-1994	Harvey et al.	
		US-5,345,430	09-06-1994	Moe	
		US-5,353,121	10-04-1994	Young et al.	
		US-5,371,551	12-06-1994	Logan et al.	
		US-5,410,344	04-25-1995	Graves et al.	
		US-5,412,720	05-02-1995	Hoarty	
		US-5,416,508	05-16-1995	Sakuma et al.	
		US-5,442,389	08-15-1995	Blahut et al.	
		US-5,459,522	10-17-1995	Pint	
		US-5,479,266	12-26-1995	Young et al.	
		US-5,479,268	12-26-1995	Young et al.	
		US-5,483,278	01-09-1996	Strubbe et al.	
		US-5,485,197	01-16-1996	Hoarty	
		US-5,485,219	01-16-1996	Woo	
		US-5,517,257	05-14-1996	Dunn et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3] Number[4] Kind Code[5] *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T[6]
	**	EP-0 940 983	09-08-1999	Matsushita Electric Ind. Co. Ltd.		
	**	EP-1014715-A2	06-28-2000	Nec Corp		√
	**	EP-1 059 749	12-13-2000	Command Audio Corporation		
	**	EP-1 534 014	05-25-2005	Ensequence, Inc.		
	**	GB-2 227 622	08-01-1990	Samsung Electronics Co. Ltd.		
	**	GB-2 229 595	09-26-1990	Tindall Anthony Peter		

Examiner Signature		Date Considered	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 4 of 16

Complete if Known	
Application Number	14/660,596
Filing Date	March 17, 2015
First Named Inventor	Charles Cordray
Art Unit	2447
Examiner Name	Not Yet Assigned
Attorney Docket Number	003597-0375-103

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US-5,524,195	06-04-1996	Clanton, III et al.	
		US-5,532,754	07-02-1996	Young et al.	
		US-5,534,911	07-09-1996	Levitan	
		US-5,537,141	07-16-1996	Harper et al.	
		US-5,539,449	07-23-1996	Blahut et al.	
		US-5,539,822	07-23-1996	Lett	
		US-5,550,576	08-27-1996	Klosterman	
		US-5,559,548	09-24-1996	Davis et al.	
		US-5,559,549	09-24-1996	Hendricks et al.	
		US-5,568,272	10-22-1996	Levine	
		US-5,583,561	12-10-1996	Baker et al.	
		US-5,583,563	12-10-1996	Wanderscheid et al.	
		US-5,583,653	12-10-1996	Timmermans et al.	
		US-5,585,838	12-17-1996	Lawler et al.	
		US-5,585,858	12-17-1996	Harper et al.	
		US-5,589,892	12-31-1996	Knee et al.	
		US-5,592,551	01-07-1997	Lett et al.	
		US-5,600,364	02-04-1997	Hendricks et al.	
		US-5,602,582	02-11-1997	Wanderscheid et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3] Number[4] Kind Code[5] *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T[6]
	**	GB-2 346 251	08-02-2000	IBM		
	**	JP-2005-34815	12-15-2005	Sony Corp		
	**	JP-10257400-A	09-25-1998	Sony Corp		
	**	JP-11261917-A	09-24-1999	Sony Corp		√
	**	JP-11308561-A	11-05-1999	Kanamaru, Koji		√
	**	JP-2000-013708	01-14-2000	Hitachi Ltd.		√

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. * CITE NO.: Those application(s) which are marked with an single asterisk (*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(iii)) because that application was filed after June 30, 2003 or is available in the IFW. [1] Applicant's unique citation designation number (optional). [2] See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. [3] Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5]Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [6] Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08a (07-09)
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 5 of 16

Complete if Known	
Application Number	14/660,596
Filing Date	March 17, 2015
First Named Inventor	Charles Cordray
Art Unit	2447
Examiner Name	Not Yet Assigned
Attorney Docket Number	003597-0375-103

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US-5,619,274	04-08-1997	Roop et al.	
		US-5,629,733	05-13-1997	Youman et al.	
		US-5,630,119	05-13-1997	Aristides et al.	
		US-5,631,995	05-20-1997	Weissensteiner et al.	
		US-5,632,007	05-20-1997	Freeman	
		US-5,648,824	07-15-1997	Dunn et al.	
		US-5,654,748	08-05-1997	Matthews, III	
		US-5,654,886	08-05-1997	Zereski, Jr. et al.	
		US-5,657,072	08-12-1997	Aristides et al.	
		US-5,657,414	08-12-1997	Lett et al.	
		US-5,659,367	08-19-1997	Yuen	
		US-5,666,645	09-09-1997	Thomas et al.	
		US-5,684,525	11-04-1997	Klosterman	
		US-5,694,163	12-02-1997	Harrison	
		US-5,694,381	12-02-1997	Sako	
		US-5,699,107	12-16-1997	Lawler et al.	
		US-5,717,452	02-10-1998	Janin et al.	
		US-5,724,091	03-03-1998	Freeman et al.	
		US-5,727,060	03-10-1998	Young	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3] Number[4] Kind Code[5] *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T[6]
	**	JP-2000-138886	05-16-2000	Nippon Electric Co.		√
	**	JP-2000-224533	08-11-2000	IBM		√
	**	JP-2000-235546	08-29-2000	Tokyo Shibaura Electric Co.		√
	**	JP-2000-306314	11-02-2000	Sharp KK		√
	**	JP-2001-165669	06-22-2001	Pioneer Electronic Corp.		√
	**	JP-2001-167522	06-22-2001	NEC IC Microcomput Syst. Ltd.		√

Examiner Signature		Date Considered	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 6 of 16

Complete if Known	
Application Number	14/660,596
Filing Date	March 17, 2015
First Named Inventor	Charles Cordray
Art Unit	2447
Examiner Name	Not Yet Assigned
Attorney Docket Number	003597-0375-103

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US-5,732,216	03-24-1998	Logan et al.	
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	**	JP-2001-257950	09-21-2001	Matsushita Electric Ind. Co. Ltd.		√
	**	JP-2001-88372	04-03-2001	Ricoh Co. Ltd.		
	**	JP-2003-216531	07-31-2003	NTT Communications		
	**	JP-2003-319308	11-07-2003	Matsushita Electric Industrial Co., Ltd.		
	**	JP-2004-118483	04-15-2004	Toshiba Corp		
	**	JP-2004-343520-A	12-02-2004	Sharp Kk		√

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Sheet 7 of 16

Complete if Known	
Application Number	14/660,596
Filing Date	March 17, 2015
First Named Inventor	Charles Cordray
Art Unit	2447
Examiner Name	Not Yet Assigned
Attorney Docket Number	003597-0375-103

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	**	JP-2005/159579	06-16-2005	Matsushita Electric Industrial Co., Ltd.		
	**	JP-2005/302117	10-27-2005	Sony Corp.		
	**	JP-08130517-A	05-21-1996	Toshiba Corp et al.		√
	**	WO-1988004507-A1	06-16-1988	British Broadcasting Corp		
	**	WO-1993023957-A1	11-25-1993	Mankovitz, Roy		
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Sheet 8 of 16

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Application Number	14/660,596
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First Named Inventor	Charles Cordray
Art Unit	2447
Examiner Name	Not Yet Assigned
Attorney Docket Number	003597-0375-103

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	**	WO-1996026605-A1	08-29-1996	Smart Vcr Ltd		
	**	WO-1996034491-A1	10-31-1996	Tv Guide On Screen		
	**	WO-1996036172-A2	11-14-1996	Gemstar Dev Corp		
	**	WO-1996037075-A1	11-21-1996	Actv, Inc		
	**	WO-1996041470-A1	12-19-1996	Tv Guide On Screen		

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Sheet 9 of 16

Complete if Known	
Application Number	14/660,596
Filing Date	March 17, 2015
First Named Inventor	Charles Cordray
Art Unit	2447
Examiner Name	Not Yet Assigned
Attorney Docket Number	003597-0375-103

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	**	WO-1996041478-A1	12-19-1996	Tv Guide On Screen		
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	**	WO-1997047124-A1	12-11-1997	Webtv Networks Inc		
	**	WO-1997048230-A1	12-18-1997	Starsight Telecast Inc		
	**	WO-1997049237-A1	12-24-1997	Starsight Telecast Inc		

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Sheet 10 of 16

Complete if Known	
Application Number	14/660,596
Filing Date	March 17, 2015
First Named Inventor	Charles Cordray
Art Unit	2447
Examiner Name	Not Yet Assigned
Attorney Docket Number	003597-0375-103

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	**	WO-1998006219-A1	02-12-1998	Starsight Telecast Inc		
	**	WO-1998017064-A1	04-23-1998	Gemstar Dev Corp et al.		
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Sheet 11 of 16

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Application Number	14/660,596
Filing Date	March 17, 2015
First Named Inventor	Charles Cordray
Art Unit	2447
Examiner Name	Not Yet Assigned
Attorney Docket Number	003597-0375-103

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		US-20030093329	05-15-2003	Gutta	
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	**	WO-1999037045-A1	07-22-1999	Gen Instrument Corp		
	**	WO-1999045700-A1	09-10-1999	Prevue International Inc		
	**	WO-1999052279-A1	10-14-1999	Tivo, Inc		
	**	WO-1999060493-A1	11-25-1999	Audible, Inc		
	**	WO-1999065237-A1	12-16-1999	Metabyte, Inc		
	**	WO-1999066725-A1	12-23-1999	United Video Properties Inc		

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 13 of 16

Complete if Known	
Application Number	14/660,596
Filing Date	March 17, 2015
First Named Inventor	Charles Cordray
Art Unit	2447
Examiner Name	Not Yet Assigned
Attorney Docket Number	003597-0375-103

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Examiner Initials*	Cite No.[1]	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[2]
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Art Unit	2447
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WO 02/07433 A1

(54) Title: EPG DISPLAY OF RECOMMENDED SHOWS WITH PREVIOUSLY VIEWED SHOWS IDENTIFIED

(57) Abstract: An electronic program guide flags episodes already watched in addition to making recommendations as to shows to watch in the future.

Petitioner Disney Ex-1004, 0162

EPG display of recommended shows with previously viewed shows identified

I. BACKGROUND OF THE INVENTION

A. Field of the Invention

The invention relates to an Electronic Program Guide ("EPG") that also recommends programming to a user.

B. Related Art

EP 774866 shows an example of an EPG, in which a record is made of what programs have been viewed in order to help in making recommendations of similar programs with respect to future viewing.

II. SUMMARY OF THE INVENTION

It is an object of the invention to further improve upon electronic program guides.

This object is achieved by providing an indication that a piece of content has already been viewed. This indication is provided as an alert to the viewer, rather than as a tool in choosing future programs to recommend. Advantageously, an episode I.D. is used to assist in the flagging process.

Further objects and advantages will become apparent below.

III. BRIEF DESCRIPTION OF THE DRAWING

The invention will now be described by way of non-limiting example with reference to the following drawings.

Fig. 1 shows a system on which an EPG in accordance with the invention could operate.

Fig. 2 is a flowchart relating to update of a profile.

Fig. 3 is a flowchart relating to operation of a recommender.

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IV. DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The term "program" as used herein may relate to a single contiguous group of content of any type such as video, audio, or multimedia content, no matter what the vehicle of communication or distribution, such as TV or internet. The term "program" as used herein would include an episode or part of an episode and is to be distinguished from a series of programs, such as "Star Trek" or "Seinfeld" or "The Late Movie". The term "show" will be used synonymously with "program" herein. Thus, the marking of a program as watched as used herein is not the same as recording the fact that a viewer likes some series in general. The marking of a program as watched will not apply to the whole series, only to a particular piece of content. The term "EPG" will refer to an electronic guide to any type of "program" as that term is used herein.

In general terms like "view" or "viewer" when used herein are intended to include the possibility that the user is reading, listening to, or otherwise experiencing content of a program, even if there is no viewable content.

Fig. 1 shows a system on which an EPG in accordance with the invention may operate. The system includes a display 101, a processor 102, a memory 103, a keyboard 104, a remote 105, and a network connection 106. The display may be any conventional display, such as a TV or computer monitor, and may be constructed from flat panel, CRT, or any other technology. The processor 102 may be disposed within a same housing as the display 101, or external, and may be a general purpose processor such as would be found in a PC, or any other processor. Optionally, the processor 102 may be coupled to the display 101 via a network connection. The processor 102 may cause the display 101 to exhibit a graphical user interface ("GUI") or any other type of interface. The memory 103 may be of any type, such as magnetic, electronic, or optical, and may be disposed within the same housing as the display 101 and/or the processor 102. Optionally, the memory may be coupled to the processor 102 via a network connection. There may be additional user input devices such as a mouse, joystick, or trackball. There may be additional user output devices, such as a printer 108 or loudspeaker 107, which may alternatively be connected via the display unit. Any of the connections shown may be wired or wireless. The user input devices, including 104 and 105 may alternatively be connected directly to the processor 102. The system of Fig. 1 may be a television set, with or without facilities for connection to the internet. The system of Fig. 1 may be a PC.

Fig. 2 shows a flowchart of a procedure for updating a user profile. This flowchart shows certain steps relevant to the invention. However, one of ordinary skill in the

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art may devise many other steps involved in updating a profile, not relevant to the invention, which are not shown here for brevity. This history retains data about programs a user has watched. At 201, a show enters the view history. This could happen either because the viewer has browsed though the show, or because the viewer has watched the show, or because the show has been recommended by the recommender, or because a user is entering data manually into the recommender. At 203, it is tested whether the show was actually viewed. This might involve applying some sort of threshold as to length of time the show was viewed -- if the recommender is monitoring the viewer's use automatically -- or inquiring of the user directly whether the user viewed the show. If the show was watched, an episode ID and a date for that show will be stored in the user profile. Episode I.D.'s are readily available, for instance in the EPG data provided by Tribune Media Services. The user profile is distinct from the view history in that the history is raw data, while the profile will have undergone some processing. For instance, the profile may have cumulative data. At 204, features relating to the show are added to the profile with a positive indication. If the show has not been viewed, features relating to the show will be added to the profile with a negative indication.

Building of a profile with features and negative and positive indications are shown in U.S. Patent Application Serial No. 09/498,271 filed 2/4/00 (US000018). However, the concept of marking a particular show as watched extends to other techniques of maintenance of a program guide or program recommender.

Fig. 3 shows a flowchart relating to operation of a recommender. The recommender operates on all shows during a given period. At 301 it is tested whether any further shows need a recommendation. If so, at 302 a recommendation relating to that show is computed. At 303, it is tested whether the episode ID of this show matches any in the profile. If so, the show is flagged as previously viewed at 304, then another show is retrieved for recommendation.

At 305, the show is added to the EPG. Typically the shows will be displayed in a grid or table like format with time of day along one axis and channel number along another axis, and each show will occupy a rectangle in the grid or table. Nevertheless, those of ordinary skill in the art may devise any number of other ways of displaying the EPG. Recommendations relating to the show may be shown in color or numerical codes on a grid. The numerical codes may be in the form of percentages, with 100% being the highest possible recommendation. The indication of the fact that a show has been watched can also

be a color or numerical code. Alternatively, the recommendations might be presented as a list of shows in order of desirability, with flags next to shows that have already been viewed.

A show that has already been viewed might still be recommended if it fits well into the user's profile. Some users desire to experience the same content more than once, while other users do not. For instance, a show might be color coded as green, indicating a strong recommendation, with some shading bars or stippling overlaid to indicate that the show has already been watched. The term "color coding" as used herein shall include various types of shading, such as bars and stippling.

Alternatively, there may be an option to drop all shows that have already been viewed from the EPG output.

The recommendations may be presented on the display, printed out, broadcast on a loudspeaker, or communicated in any other suitable way.

From reading the present disclosure, other modifications will be apparent to persons skilled in the art. Such modifications may involve other features which are already known in the design, manufacture and use of EPG's and which may be used instead of or in addition to features already described herein. Although claims have been formulated in this application to particular combinations of features, it should be understood that the scope of the disclosure of the present application also includes any novel feature or novel combination of features disclosed herein either explicitly or implicitly or any generalization thereof, whether or not it mitigates any or all of the same technical problems as does the present invention. The applicants hereby give notice that new claims may be formulated to such features during the prosecution of the present application or any further application derived therefrom.

The word "comprising", "comprise", or "comprises" as used herein should not be viewed as excluding additional elements. The singular article "a" or "an" as used herein should not be viewed as excluding a plurality of elements.

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CLAIMS:

1. Apparatus for providing an EPG, comprising

- a processor (102) adapted to maintain a user profile, based on a user history, the user profile including at least one indication of a piece of content that has already been experienced by the user; and
- a user communication device (101, 108, 107) adapted to provide the EPG to the user, including the at least one indication as an alert to the user.

2. The apparatus of claim 1, further comprising a recommender (302, 304) adapted to provide recommendations relating to programs, wherein a presentation of the recommendations comprises a presentation of the at least one indication (304).

3. The apparatus of claim 2, wherein the at least one indication comprises omitting programs already viewed from the EPG.

4. The apparatus of claim 2, wherein the recommendations are provided through color coding.

5. The apparatus of claim 4, wherein the presentation of the at least one indication is in at least one color coding contrasting with the color coding relating to other aspects of recommendations.

6. The apparatus of claim 2, wherein the presentation of the recommendations comprises communication of numerical codes to the user.

7. The apparatus of claim 1, wherein the processor is adapted to use an episode I.D. to distinguish programs that have already been viewed.

8. Method of providing an EPG, comprising executing the following operations in at least one data processing device (102):

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- maintaining a user profile, based on a user history, the user profile including at least one indication of a piece of content that has already been experienced by the user; and
- communicating the EPG to the user, including the at least one indication as an alert to the user.

9. The method of claim 8, further comprising executing the following operation in the at least one data processing device: providing recommendations (302, 304) relating to programs, wherein a presentation of the recommendations comprises a presentation of the at least one indication (304).

10. The method of claim 9, wherein the at least one indication comprises omitting programs already viewed from the EPG.

11. The method of claim 9, wherein the recommendations are provided through color coding.

12. The method of claim 11, wherein the presentation of the at least one indication is in at least one color coding contrasting with the color coding relating to other aspects of recommendations.

13. The method of claim 11, wherein the presentation of the recommendations comprises communication of numerical codes to the user.

14. The method of claim 8, wherein the operations include using an episode I.D. to distinguish programs that have already been viewed.

15. A medium (103) comprising an embodiment of code for providing an EPG, the medium being readable by at least one data processing device (102) to cause the at least one data processing device (102) to perform the following operations:

- maintaining a user profile, based on a user history, the user profile including at least one indication of a piece of content that has already been experienced by the user; and
- communicating the EPG to the user, including the at least one indication as an alert to the user.

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16. The medium of claim 15, further comprising code adapted to cause execution of the following operation in the at least one data processing device: providing recommendations (302) relating to programs, wherein a presentation of the recommendations comprises a presentation of the at least one indication (304).

17. The medium of claim 16, wherein the at least one indication comprises omitting programs already viewed from the EPG.

18. The medium of claim 16, wherein the recommendations are provided through color coding.

19. The medium of claim 18, wherein the presentation of the at least one indication is in at least one color coding contrasting with the color coding relating to other aspects of recommendations.

20. The medium of claim 19, wherein the presentation of the recommendations comprises communication of numerical codes to the user.

21. The medium of claim 15, wherein the operations include using an episode I.D. to distinguish programs that have already been viewed.

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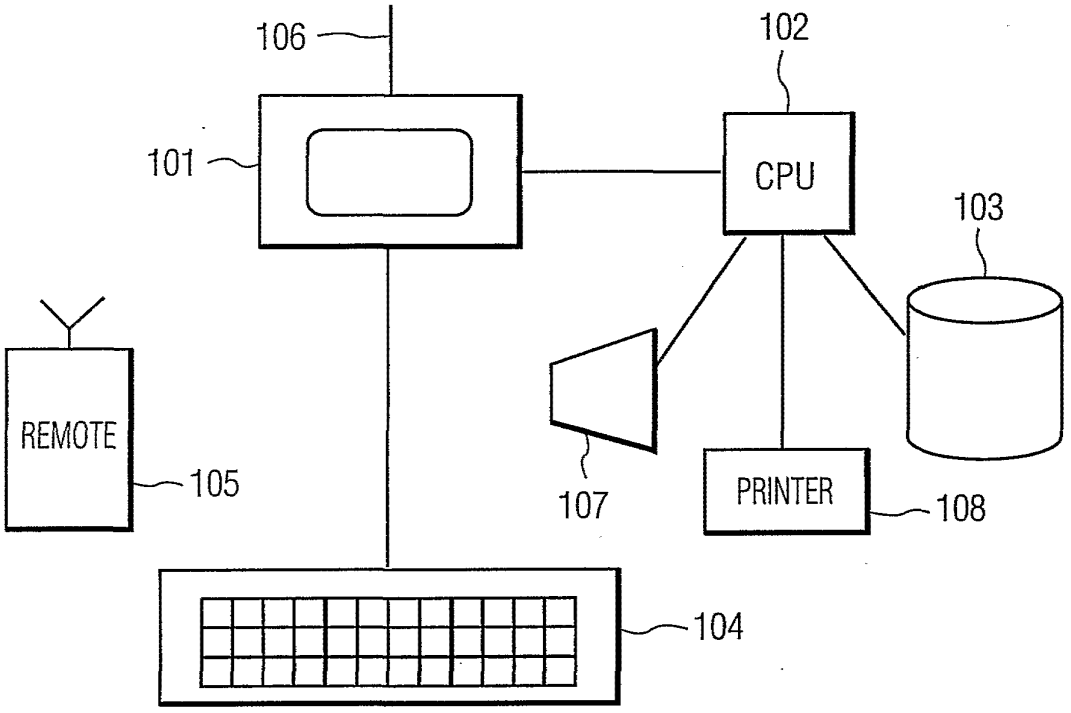

106
102
101
CPU
103
REMOTE
105
107
PRINTER
108
104

FIG. 1

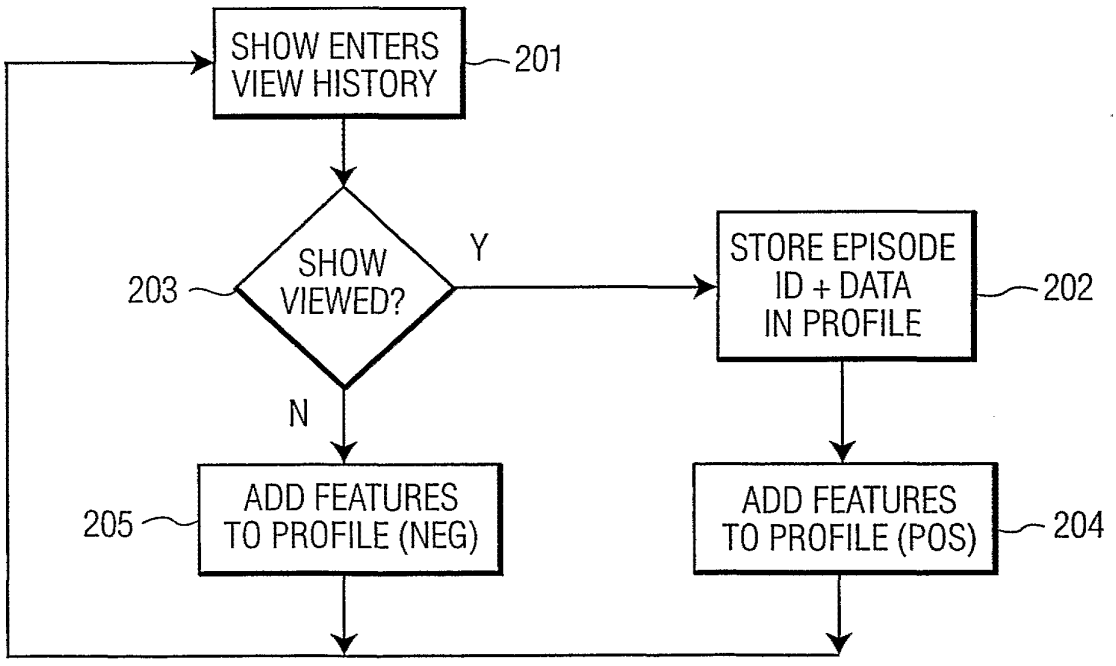

SHOW ENTERS VIEW HISTORY
201
SHOW VIEWED?
203
Y
STORE EPISODE ID + DATA IN PROFILE
202
N
ADD FEATURES TO PROFILE (NEG)
205
ADD FEATURES TO PROFILE (POS)
204

FIG. 2

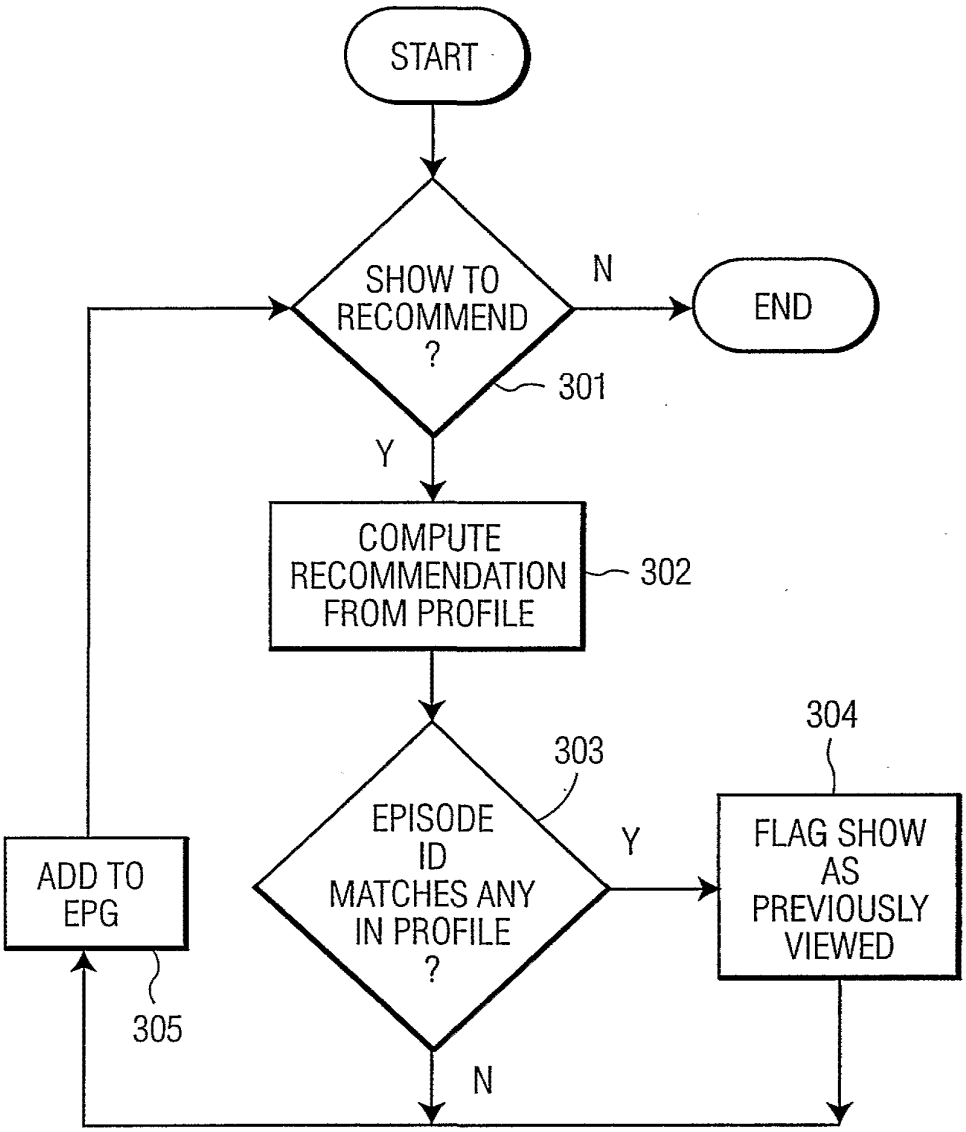


FIG. 3

Petitioner Disney Ex-1004, 0171

INTERNATIONAL SEARCH REPORT

In ɔnal Application No
PCT/EP 01/07677

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04N5/445

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H04N

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

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 00 27122 A (UNITED VIDEO PROPERTIES INC.) 11 May 2000 (2000-05-11)	1-3, 7-10, 14-17,21
Y	page 39, line 23 -page 47, line 18	4,5,11, 12,18,19
Y	WO 98 07277 A (STARSIGHT TELECAST INC.) 19 February 1998 (1998-02-19) page 5, line 6 - line 20	4,5,11, 12,18,19
X	WO 00 11869 A (UNITED VIDEO PROPERTIES INC.) 2 March 2000 (2000-03-02) page 45, line 7 -page 46, line 20 page 43, line 31 -page 44, line 16 page 42, line 23 -page 43, line 7	1,2,4, 7-9,11, 14-16, 19,21

-/--

[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
21 November 2001	23/11/2001

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax: (+31–70) 340–3016	Verschelden, J

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Form PCT/ISA/210 (second sheet) (July 1992)

Petitioner Disney Ex-1004, 0172

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication,where appropriate, of the relevant passages	Relevant to claim No.
X	GB 2 289 782 A (STEVENS G.) 29 November 1995 (1995-11-29) page 2, line 3 -page 17, line 20	1-3, 7-10, 14-17,21
Y	GB 2 343 051 A (SONY UNITED KINGDOM LIMITED) 26 April 2000 (2000-04-26) page 9, line 20 -page 11, line 7	1-3,6, 8-10,13, 15-17,20
Y	EP 0 774 866 A (THOMSON ELECTRONICS INC.) 21 May 1997 (1997-05-21) cited in the application column 1, line 55 -column 6, line 9	1-3,6, 8-10,13, 15-17,20
A	WO 00 38418 A (THOMSON CONSUMER ELECTRONICS) 29 June 2000 (2000-06-29) page 3, line 29 -page 4, line 10 page 5, line 1 -page 5, line 11 page 22, line 1 - line 4	1,2,8,9, 15,16
A	WO 00 10327 A (DANMERE LIMITED) 24 February 2000 (2000-02-24) page 6, line 12 -page 7, line 16 page 40, line 11 - line 16	1-3, 8-10, 15-17
A	US 5 675 390 A (SCHINDLER J. ET AL) 7 October 1997 (1997-10-07) column 4, line 1 - line 17 column 12, line 46 -column 13, line 27	1,7,8, 14,16,21
A	US 5 410 344 A (GRAVES G. ET AL) 25 April 1995 (1995-04-25) column 7, line 5 -column 10, line 2	1,7,8, 14,16,21
A	WO 97 48230 A (STARSIGHT TELECAST INC.) 18 December 1997 (1997-12-18) page 17, line 2 - line 38	1,7,8, 14,16,21
P,X	EP 1 069 769 A (PACE MICRO TECH PLC) 17 January 2001 (2001-01-17) the whole document	1-3, 7-10, 14-17,21

9

Petitioner Disney Ex-1004, 0173

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/EP 01/07677

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 0027122 A	11-05-2000	AU 1906700 A	22-05-2000
		EP 1138156 A1	04-10-2001
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WO 0038418 A	29-06-2000	AU 2054800 A	12-07-2000
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		WO 0038418 A1	29-06-2000
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		EP 1099338 A1	16-05-2001
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		CA 2226499 A1	06-02-1997
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		JP 10511191 T	27-10-1998
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		US 5867223 A	02-02-1999
		US 5838384 A	17-11-1998
US 5410344 A	25-04-1995	NONE	
WO 9748230 A	18-12-1997	AU 3294997 A	07-01-1998
		WO 9748230 A1	18-12-1997
		US 6133909 A	17-10-2000
EP 1069769 A	17-01-2001	EP 1069769 A2	17-01-2001

Petitioner Disney Ex-1004, 0174

Electronic Patent Application Fee Transmittal

Application Number:	14660596
Filing Date:	17-Mar-2015
Title of Invention:	SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT
First Named Inventor/Applicant Name:	Charles Cordray
Filer:	Drew Joseph Schulte/Crena Pacheco
Attorney Docket Number:	003597-0375-103

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Utility application filing	1011	1	280	280
Utility Search Fee	1111	1	600	600
Utility Examination Fee	1311	1	720	720
Pages:				
Claims:				
Miscellaneous-Filing:				
Late Filing Fee for Oath or Declaration	1051	1	140	140
Petition:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
		Total in USD ($)		**1740**

Electronic Acknowledgement Receipt

EFS ID:	22227215
Application Number:	14660596
International Application Number:	
Confirmation Number:	1084
Title of Invention:	SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT
First Named Inventor/Applicant Name:	Charles Cordray
Customer Number:	75563
Filer:	Drew Joseph Schulte/Crena Pacheco
Filer Authorized By:	Drew Joseph Schulte
Attorney Docket Number:	003597-0375-103
Receipt Date:	01-MAY-2015
Filing Date:	17-MAR-2015
Time Stamp:	12:42:55
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$1740
RAM confirmation Number	10738
Deposit Account	061075
Authorized User	SCHULTE, DREW J.

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)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Applicant Response to Pre-Exam Formalities Notice	003597_0375_103_RNTFMP.pdf	79078 6767c77195893f5746e45c89d97bc90e0fe75d1e	no	2
Warnings:					
Information:					
2	Transmittal Letter	003597_0375_103_IDS.pdf	80843 336bb836445e7bc7bccf46fb6abf306e9b4f70f9	no	2
Warnings:					
Information:					
3	Information Disclosure Statement (IDS) Form (SB08)	003597_0375_103_SB08.pdf	255452 3c7842b302a6bfcef5f40a533d0bb642db3aaab2	no	16
Warnings:					
Information:					
This is not an USPTO supplied IDS fillable form					
4	Foreign Reference	WO02007433.pdf	546741 e68241cf9bc5a7656db30b3880e630b7d46582b0	no	13
Warnings:					
Information:					
5	Fee Worksheet (SB06)	fee-info.pdf	37311 5321a18720394b28f6a483d0548d1a151fb2441b	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	999425		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

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

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

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

New International Application Filed with the USPTO as a Receiving Office

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

UNITED STATES PATENT AND TRADEMARK OFFICE

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United States Patent and Trademark Office
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P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
14/660,596	03/17/2015	Charles Cordray	003597-0375-103

CONFIRMATION NO. 1084

75563
ROPES & GRAY LLP
PATENT DOCKETING 39/361
1211 AVENUE OF THE AMERICAS
NEW YORK, NY 10036-8704

NOTICE



Date Mailed: 05/06/2015

INFORMATIONAL NOTICE TO APPLICANT

Applicant is notified that the above-identified application contains the deficiencies noted below. No period for reply is set forth in this notice for correction of these deficiencies. However, if a deficiency relates to the inventor's oath or declaration, the applicant must file an oath or declaration in compliance with 37 CFR 1.63, or a substitute statement in compliance with 37 CFR 1.64, executed by or with respect to each actual inventor no later than the expiration of the time period set in the "Notice of Allowability" to avoid abandonment. See 37 CFR 1.53(f).

The item(s) indicated below are also required and should be submitted with any reply to this notice to avoid further processing delays.

- A properly executed inventor's oath or declaration has not been received for the following inventor(s):
  Charles Cordray
  Todd A. Walker
  Samir B. Armaly

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number: 14/660,596

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	280
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	600
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	720
TOTAL CLAIMS (37 CFR 1.16(i))	12 minus 20 =	*			OR	x 80 =	0.00
INDEPENDENT CLAIMS (37 CFR 1.16(h))	2 minus 3 =	*				x 420 =	0.00
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						0.00
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							0.00
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	1600

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))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

		(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 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))							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 found in the appropriate box in column 1.

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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
14/660,596	03/17/2015	2447	1740	003597-0375-103	12	2

CONFIRMATION NO. 1084

UPDATED FILING RECEIPT

75563
ROPES & GRAY LLP
PATENT DOCKETING 39/361
1211 AVENUE OF THE AMERICAS
NEW YORK, NY 10036-8704

OC000000075013120

Date Mailed: 05/06/2015

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**

Inventor(s)

Charles Cordray, New York, NY;
Todd A. Walker, Bixby, OK;
Samir B. Armaly, La Canada Flintridge, CA;

Applicant(s)

Rovi Guides, Inc., Santa Clara, CA

Power of Attorney: None

Domestic Priority data as claimed by applicant

This application is a CON of 11/323,464 12/29/2005 PAT 9015736

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.) - None.
Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

If Required, Foreign Filing License Granted: 03/26/2015

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 14/660,596**

Projected Publication Date: 08/13/2015

Non-Publication Request: No

Early Publication Request: No

Petitioner Disney Ex-1004, 0182

Title

SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT

Preliminary Class

709

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

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 (1-866-999-4258).

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Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

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U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US-6,199,076	03-06-2001	Logan et al.	
		US-6,651,253	11-18-2003	Dudkiewicz et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3] Number[4] Kind Code[5] *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T[6]
		EP-1126712	08-22-2001	Sony Corporation		
		WO-1998021877	05-22-1998	Hyundai Electronics America		

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	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[2]

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(54) Data-providing system, transmission server, data terminal apparatus and data-providing method

(57) A data-providing system comprising a transmission/reproduction control (control 2) section 100A and a program-organizing control (control 3) section 100B. The transmission/ reproduction control (control 2) section 100A transmits a continuous stream of content data that is a combination of the multimedia contents (program data 1), auxiliary data items (data 2) and additional auxiliary data items (data 3). The section 100B automatically organizes a new program by processing the attributes (data 4) of program data items generated by dividing a program, the attributes (data 5), each paired with auxiliary data item, the attributes (data 6), each paired with one additional auxiliary data item, and the profile of an user apparatus 10C. The transmission/ reproduction control (control 2) section 100A changes the order in which the auxiliary data items to be inserted in the program data will be transmitted, in accordance with the new program organized by the program-organizing control (control 3) section 100B.

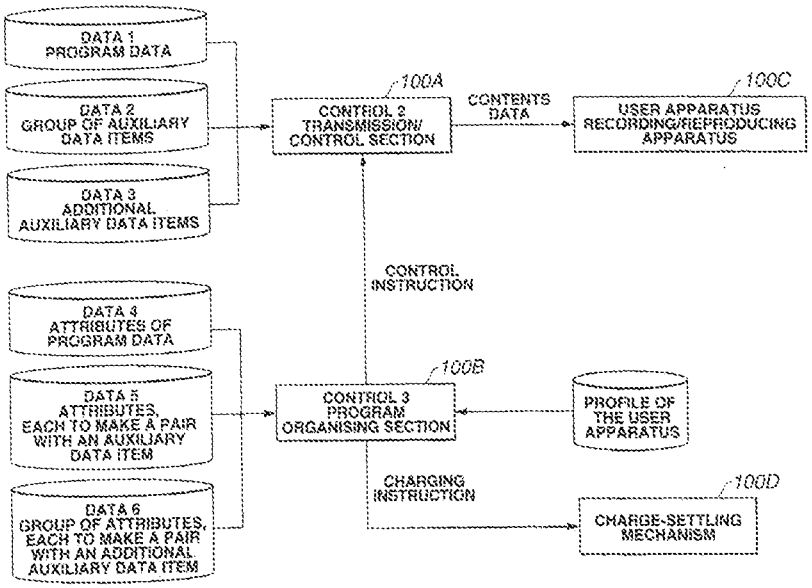


FIG.1

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Description

BACKGROUND OF THE INVENTION

[0001] The present invention relates to a data-providing system, a transmission server, a data terminal apparatus and a data-providing method, each designed to achieve streaming transmission of multimedia contents, such as dynamic-picture data, still-picture data, audio data, computer data and the like, through Internet, a cable television network, a personal-computer communication network, a large-scale LAN or a data communication network such as radio communication network or a cable broadcasting network. In particular, the invention relates to a data-providing system, a transmission server, a data terminal apparatus and a data-providing method, each designed to change the order (or rearrange) the auxiliary data items incorporated in program data, to add new auxiliary data items to the program data from external systems and to replace some of the auxiliary data items with the new auxiliary data items. The data-providing system incorporates a fee-charging function and a charge-settling function.

[0002] In a data communication network such as Internet, streaming transmission of data is performed, enabling users to select and obtain at their terminals any on-demand programs they want.

[0003] The on-demand programs are stored in the transmission center that transmits or broadcasts the on-demand programs. Among the programs the transmission center stores are:

1) Year-end movies and new-year movies, each containing commercials for Christmas sales
2) New-year movies, each containing commercials for new-year sales
3) Year-end movies and new-year movies to be broadcast in night hours, each containing commercials

[0004] Upon receipt of a demand from any user, the transmission center selects and transmits the program (e.g., a movie of any of the categories 1 to 3 described above) the user wants to enjoy. Different prices are set to the on-demand programs and costs are distributed to them.

[0005] In the existing on-demand broadcasting, the user can selects a plurality of programs at a time but cannot select one of the versions, if available, of the same program.

[0006] As the Internet technology advances, various contents prepared to meet the users' tastes are distributed in increasing numbers. People now wish to obtain data customized to their tastes, rather than the information presented by mass media. If data customized to the different tastes of the users is prepared, it will be an extremely amount of data. To store a large amount of data, the transmission center needs to have a large storage capacity. In addition, it takes much time and labor to edit programs to adapt them to the users' tastes that keep changing.

[0007] In the on-demand broadcasting practiced hitherto, one price is set to a combination of programs and a cost is distributed thereto. If the combination of programs is changed immediately before the programs are transmitted, it becomes difficult to determine what should be the price of the new combination and how the cost should be distributed thereto. Further, the storage capacity the transmission center must have for the library of programs grows considerably large. The transmission center needs to have an extremely large storage capacity, particularly if there is prepared a plurality of various parts that are to be inserted into programs. In this case, price-setting and cost-distribution are required for each of these program parts.

BRIEF SUMMARY OF THE INVENTION

[0008] Accordingly, an object of this invention is to change the order in which auxiliary data items, if any, which are combined with program data and which will be transmitted in a specific order.

[0009] Another object of the invention is to prohibit the transmission of auxiliary data items, if any, which are combined with program data and which will be transmitted in a specific order. (That is, a skip instruction can be generated.)

[0010] Still another object of this invention is to transmit auxiliary data items (addition auxiliary data items), other than auxiliary data items for replacing the auxiliary data items not to be transmitted, even if there are other auxiliary data items which are combined with program data and which will be transmitted in a specific order.

[0011] A data-providing system according to the present invention comprises: a first data-transmitting section for transmitting a continuous stream of content data that consists of multimedia content groups, each composed of program data and auxiliary data items; an edit control section for performing an operation on the attributes of each program data and auxiliary data items, thereby automatically assembling new data; and a second data-transmitting section for selecting the auxiliary data items to be inserted into the program data in accordance with the new data assembled by the edit control section, thereby to transmit a continuous stream of content data that consists of multimedia content groups, each composed of the program data and the auxiliary data items.

[0012] A data-providing system according to the invention comprises: a first data-transmitting section for transmitting a continuous stream of content data that consists of multimedia content groups, each composed of program data and

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auxiliary data items; an edit control section for performing an operation on the attributes of each program data and auxiliary data items and the profile data of a user apparatus, thereby automatically assembling new data; and a second data-transmitting section for selecting the auxiliary data items to be inserted into the program data in accordance with the new data assembled by the edit control section, thereby to transmit a continuous stream of content data that consists of multimedia content groups, each composed of the program data and the auxiliary data items.

[0013] A data server apparatus according to this invention comprises: a first data-transmitting section for transmitting a continuous stream of content data that consists of multimedia content groups, each composed of program data and auxiliary data items; an edit control section for performing an operation on the profile data items of the attributes of each program data and auxiliary data items, thereby automatically assembling new data; and a second data-transmitting section for selecting the auxiliary data items to be inserted into the program data in accordance with the new data assembled by the edit control section, thereby to transmit a continuous stream of content data that consists of multimedia content groups, each composed of the program data and the auxiliary data items.

[0014] A data server apparatus according to the invention comprises: a first data-transmitting section for transmitting a continuous stream of content data that consists of multimedia content groups, each composed of program data and auxiliary data items; an edit control section for performing an operation on the profile data items of the attributes of each program data and auxiliary data items and the profile data of a user apparatus, thereby automatically assembling new data; and a second data-transmitting section for selecting the auxiliary data items to be inserted into the program data in accordance with the new data assembled by the edit control section, thereby to transmit a continuous stream of content data that consists of multimedia content groups, each composed of the program data and the auxiliary data items.

[0015] A data terminal apparatus according to this invention comprises: a first data-transmitting section for receiving a continuous stream of content data that consists of multimedia content groups, each composed of program data and auxiliary data items; an edit control section for performing an operation on the attributes of each program data and auxiliary data items, thereby automatically assembling new data; and a second data-transmitting section for selecting the auxiliary data items to be inserted into the program data in accordance with the new data assembled by the edit control section, thereby to transmit a continuous stream of content data that consists of multimedia content groups, each composed of the program data and the auxiliary data items.

[0016] A data terminal apparatus according to the invention comprises: a first data-transmitting section for receiving a continuous stream of content data that consists of multimedia content groups, each composed of program data and auxiliary data items; an edit control section for performing an operation on the attributes of each program data and auxiliary data items and the profile data of a user apparatus, thereby automatically assembling new data; and a second data-transmitting section for selecting the auxiliary data items to be inserted into the program data in accordance with the new data assembled by the edit control section, thereby to transmit a continuous stream of content data that consists of multimedia content groups, each composed of the program data and the auxiliary data items.

[0017] A method of providing data, according to the present invention, comprises the steps of: transmitting a continuous stream of content data that consists of multimedia content groups, each composed of program data and auxiliary data items; performing an operation on the attributes of each program data and auxiliary data items, thereby automatically assembling new content data; and selecting the auxiliary data items to be inserted into the program data in accordance with the new content data, thereby to transmit a continuous stream of content data that consists of multimedia content groups, each composed of the program data and the auxiliary data items.

[0018] A method of providing data, comprising the steps of:

transmitting a continuous stream of content data that consists of multimedia content groups, each composed of program data and auxiliary data items;

performing an operation on the attributes of each program data and auxiliary data items and the profile data of a user apparatus, thereby automatically assembling new content data; and

selecting the auxiliary data items to be inserted into the program data in accordance with the new content data, thereby to transmit a continuous stream of content data that consists of multimedia content groups, each composed of the program data and the auxiliary data items.

[0019] In the present invention, a continuous stream of content data is transmitted. The content data consists of multimedia content groups, each composed of program data and auxiliary data items. An operation is performed on the attributes of each program data and auxiliary data items and the profile data of a user apparatus, thereby automatically assembling new content data. The auxiliary data items to be inserted into the program data in accordance with the new content data are selected, thereby transmitting a continuous stream of content data that consists of multimedia content groups, each composed of the program data and the auxiliary data items. Therefore, the order in which the auxiliary data items can be changed even if the auxiliary data items are arranged in a prescribed order in the program data. Further, it is possible to skip a certain auxiliary data item contained in the content data, even if the auxiliary data

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items are arranged in a prescribed order in the program data. Moreover, an additional auxiliary data item, not an auxiliary data item, may be transmitted in place of any auxiliary data item that is skipped, even if the auxiliary data items are arranged in a prescribed order in the program data.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING

[0020]

FIG. 1 is a block diagram showing the basic structure of a data-providing system according to the present invention;
FIG. 2 is a block diagram depicting a data terminal apparatus incorporated in the data-providing system;
FIG. 3 is a block diagram another type of a data terminal apparatus that may be incorporated in the data-providing system;
FIG. 4 is a diagram explaining how on-demand transmission is effected and how a data item is replaced by another in a transmitting station;
FIG. 5 is a diagram explaining how an operation is performed to achieve filtering;
FIG. 6 is a flowchart explaining how the auxiliary data items contained in a program are classified;
FIG. 7 is a flowchart showing how the auxiliary data items contained in a program are classified;
FIG. 8 is a flowchart illustrating how the auxiliary data items contained in a program are classified;
FIG. 9 is a flowchart explaining how the auxiliary data items contained in a program are classified;
FIG. 10 is a flowchart showing how the auxiliary data items contained in a program are classified;
FIG. 11 is a flowchart explaining how the data-providing system operates;
FIG. 12 is a flowchart explaining how the data-providing system operates;
FIG. 13 is a flowchart explaining how the data-providing system operates;
FIG. 14 is a flowchart explaining how the data-providing system operates;
FIG. 15 is a flowchart explaining how the data-providing system operates;
FIG. 16 is a block diagram illustrating the various sections of a data-providing system according to the present invention;
FIG. 17 is a diagram illustrating the relation between each program, on the one hand, and the price thereof and the BY-side program equivalent conditions;
FIG. 18 is a schematic representation of program cues and CM-inserting process;
FIG. 19 is a diagram depicting the CM library incorporated in the data-providing system;
FIG. 20A to 20C are diagrams illustrating a method of preparing a CM set and a CM-transmission list;
FIG. 21A to 21C are diagrams showing another method of preparing a CM set and a CM-transmission list;
FIG. 22 is a diagram depicting the data to transmit, in which no CM sets are inserted;
FIG. 23 is a diagram showing the codes of programs into which CM sets are to be inserted in the data-providing system;
FIG. 24 is a diagram explaining how to determine the advantages and disadvantages the user may have when he uses the data-providing system;
FIG. 25 is a diagram illustrating the relation between the advantages and disadvantages of each CM set and the BY-side CM equivalent condition of the CM set, observed in the data-providing system;
FIG. 26 is a diagram showing a method of calculating the data supplier's cost from the BY-side program equivalent conditions and the BY-side CM equivalent conditions, in the data-providing system; and
FIG. 27 is a flow chart explaining the operation sequence performed in the data-providing system.

DETAILED DESCRIPTION OF THE INVENTION

[0021] An embodiment of the present invention will be described, with reference to the accompanying drawings.

[0022] FIG. 1 illustrates the basic structure of the data-providing system. As shown in FIG. 1, the system 100 has a transmission/reproduction control (control 2) section 100A and a program-organizing control (control 3) section 100B. The transmission/reproduction control (control 2) section 100A transmits a continuous stream of content data that is a combination of the multimedia contents (i.e., program data, or data 1), auxiliary data items (data 2) and additional auxiliary data items (data 3). The program-organizing control (control 3) section 100B automatically organizes a new program by processing the attributes (data 4) of program data items generated by dividing a program, the attributes (data 5), each paired with auxiliary data item, the attributes (data 6), each paired with one additional auxiliary data item, and the profile of an user apparatus 100C. The transmission/reproduction control (control 2) section 100A changes the order in which the auxiliary data items to be inserted in the program data will be transmitted, in accordance with the new program organized by the program-organizing control (control 3) section 100B.

[0023] Data items 1 to 6 may be all transmitted to a terminal (i.e., a data recording/reproducing apparatus), or only

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"necessary" data items may be transmitted to the terminal. Alternatively, data items 1 to 6 may be processed while being held in a server. Moreover, necessary data (i.e., content clip = program data + auxiliary data items) may be transmitted to a terminal in the form of a package medium, compressed data, consecutive data streams, or a transmission multi-cast. In addition, a necessary additional content clip may be transmitted, as data recorded in a package medium, or by means of streaming transmission. The control sections 2 and 3 may be implemented in a terminal or a server. Furthermore, the profile of the user apparatus can be located in a terminal or a server, whichever desired.

[0024] More specifically, the data-providing system can provide data in 32 patterns that are shown in the following Tables 1 to 8:

Table 1

	1	2	3	4
Attributes of program	Terminal	Terminal	Terminal	Terminal
Attributes of auxiliary data items	Terminal	Terminal	Terminal	Terminal
Attributes of additional auxiliary data items	Terminal	Terminal	Terminal	Terminal
Profile	Terminal	Terminal	Server	Server
Operations	Terminal	Server	Terminal	Server

Table 2

	5	6	7	8
Attributes of program	Server	Server	Server	Server
Attributes of auxiliary data items	Server	Server	Server	Server
Attributes of additional auxiliary data items	Server	Server	Server	Server
Profile	Terminal	Terminal	Server	Server
Operations	Terminal	Server	Terminal	Server

Table 3

	9	10	11	12
Attributes of program	Server	Server	Server	Server
Attributes of auxiliary data items	Terminal	Terminal	Terminal	Terminal
Attributes of additional auxiliary data items	Terminal	Terminal	Terminal	Terminal
Profile	Terminal	Terminal	Server	Server
Operations	Terminal	Server	Terminal	Server

Table 4

	13	14	15	16
Attributes of program	Terminal	Terminal	Terminal	Terminal
Attributes of auxiliary data items	Server	Server	Server	Server
Attributes of additional auxiliary data items	Server	Server	Server	Server
Profile	Terminal	Terminal	Server	Server
Operations	Terminal	Server	Terminal	Server

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Table 5

	17	18	19	20
Attributes of program	Server	Server	Server	Server
Attributes of auxiliary data items	Terminal	Terminal	Terminal	Terminal
Attributes of additional auxiliary data items	Server	Server	Server	Server
Profile	Terminal	Terminal	Server	Server
Operations	Terminal	Server	Terminal	Server

Table 6

	21	22	23	24
Attributes of program	Terminal	Terminal	Terminal	Terminal
Attributes of auxiliary data items	Server	Server	Server	Server
Attributes of additional auxiliary data items	Terminal	Terminal	Terminal	Terminal
Profile	Terminal	Terminal	Server	Server
Operations	Terminal	Server	Terminal	Server

Table 7

	25	26	27	28
Attributes of program	Server	Server	Server	Server
Attributes of auxiliary data items	Server	Server	Server	Server
Attributes of additional auxiliary data items	Terminal	Terminal	Terminal	Terminal
Profile	Terminal	Terminal	Server	Server
Operations	Terminal	Server	Terminal	Server

Table 8

	28	29	30	31
Attributes of program	Terminal	Terminal	Terminal	Terminal
Attributes of auxiliary data items	Terminal	Terminal	Terminal	Terminal
Attributes of additional auxiliary data items	Server	Server	Server	Server
Profile	Terminal	Terminal	Server	Server
Operations	Terminal	Server	Terminal	Server

[0025] Of the 32 combination patterns shown above, the patterns 1 and pattern 8 are notable in that all attribute data items are stored in either the terminal or server. Thus, in the patterns 1 and 8, the attribute data items need not be transferred. In the patterns 9 to 24, the attribute data items are distributed to the terminal and the server and must be transferred to either the terminal or server so that they may be subjected to operations. Nonetheless, the patterns 9 to 24, wherein the attribute data items are so distributed, are advantageous because the terminal need not have a large storage capacity if the service the system provides does not require frequent transfer of auxiliary data items.

[0026] A data terminal apparatus 110 that works in the pattern 1 described above has the structure shown in FIG. 2.

[0027] In the data terminal apparatus 110, the contents generating apparatus 101 generates program data and auxiliary data items. The program data and the auxiliary data items constitute multimedia contents. The multimedia contents are supplied through the contents input section 111 to the storage section 113. The apparatus 102 generates attributes, each to make a pair with a program data item and an auxiliary data item. The attributes are supplied from the apparatus

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102 via the contents attribute input section 112 to the storage section 113. Further, the apparatus 114 generates additional auxiliary contents, and the apparatus 103 generates the attributes of additional auxiliary data items. The additional auxiliary contents and the attributes of additional auxiliary data items are supplied from the apparatuses 114 and 103 to the storage section 113.

[0028] In the data terminal apparatus 110, the profile generating section 115 generates profile data, which is supplied to the contents-output control section 116. The attributes read from the storage section 113 are supplied to the contents-output control section 116, too. The section 116 compares the profile data with the attributes and processes them, thereby organizing new data. The section 116 selects auxiliary data items to be inserted into the program data, in accordance with the new data. The auxiliary data items thus selected are combined with the program data, forming multimedia contents. The multimedia contents, or content data, are supplied from the content output section 117 to the content display 104.

[0029] A data server apparatus 120 that works in the pattern 8 described above has the structure shown in FIG. 3.

[0030] As FIG. 3 shows, the data server apparatus 120 comprises a contents generating apparatus 121, a contents-data attribute generating apparatus 122, a storage section 123, a contents output control section 124, and a contents transmitting apparatus 125. In the data server apparatus 120, the contents generating apparatus 121 generates content data, i.e., multimedia data items that are combination of program data and auxiliary data items. The contents-data attribute generating apparatus 122 generates attributes, each to make a pair with one auxiliary data item. The storage section 123 stores the content data generated by the apparatus 121 and the attributes generated by the section 122. An apparatus 105 for generating additional auxiliary data-item contents, an apparatus 106 for generating the attributes of additional data-item contents, and a contents display 107 are connected to the data server apparatus 120. The apparatus 105 generates additional auxiliary data-item contents. The apparatus 106 generates the attributes of the additional data-item contents. The storage section 123 stores the additional auxiliary data-item contents generated by the section 105 and the attributes of additional auxiliary data-item contents, generated by the section 106.

[0031] In the data server apparatus 120, the attributes are read from the storage section 123, and profile data is read from the storage section 123. The attributes and the profile data are supplied to the contents output control section 124. The section 124 compares the attributes and the profile data and processes them, automatically organizing new data. In accordance with the new data the section 124 selects the auxiliary data items inserted in the program data, thus generating content data that is a combination of the program data and the auxiliary data items. The content data, thus generated, is supplied to the content display 107 from the contents transmitting apparatus 125.

[0032] FIG. 4 shows a data-providing system, in which a broadcast network and a communication network connect a data terminal apparatus 110 and a data server apparatus 120. It will be described how on-demand communication is achieved, how data items are replaced in a transmitting station, and how data items are replaced in a data terminal apparatus, in the data-providing system illustrated in FIG. 4.

[0033] Assume that data server apparatus 120 incorporated in the transmitting station stores a part of the profile of each user.

[0034] Also assume that a user has designated a program and that data, including the auxiliary data items contained in the program designated, is about to be transmitted to that user.

[0035] Let us assume that the language designated in the profile stored in the server apparatus 120 is "French," and that one of the auxiliary data items (auxiliary data item D) is "German." Then, the profile and the attribute of the auxiliary data item are subjected to an operation, thereby replacing the auxiliary data item D, or "German," with another auxiliary data item

[0036] Further assume that the auxiliary data item F that will replace the auxiliary data item D is "French," and that all other conditions (replacement conditions and the like) have been cleared. Then, the auxiliary data item D is replaced by the auxiliary data item F, which will be transmitted to the user.

[0037] Assume that the program the user has designated is transmitted, starting at 12:10 and ending at 13:10, that the program contains an auxiliary data item T, e.g., an hour announcement, that the data terminal apparatus 110 stores the data showing the hour announcement made, and that the user inputs an instruction for reproducing the program again, at about 18:30.

[0038] Also assume that the attribute of the auxiliary data item T describes the data item T is an hour announcement, and can be subjected to an operation, along with the timer data that is a part of the profile data about the recording/reproducing apparatus.

[0039] The result of operation indicates that the time of the profile may not coincide with the time predicted for reproducing the attribute of the auxiliary data item T. In this case, the contents output control mechanism replaces the auxiliary data item T with an auxiliary data item T', or "hour announcement." Note that the auxiliary data item T' has been generated (synthesized) in the recording/reproducing apparatus and is controlled by the profile output from an apparatus for generating additional auxiliary data-item contents.

[0040] Assume that the auxiliary data item T' is an hour announcement that coincides with the timer data of the profile, and that all other conditions (replacement conditions and the like) have been cleared. Then, the auxiliary data

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item T is replaced by the auxiliary data item T', which will be reproduced when the program is reproduced.

[0041] Auxiliary data items are transmitted via the broadcast network. It will be described how the auxiliary data items are skipped in the recording/reproducing apparatus and how additional auxiliary data items are acquired and down-loaded to replace the auxiliary data items.

[0042] Assume the server apparatus 120 provided in the transmitting station transmits the same multimedia contents to all users via the broadcast network. The multimedia contents are a combination of a program data and auxiliary data items.

[0043] Further assume that the server apparatus 120 in the transmitting station also stores additional auxiliary data items prepared for use in customization and that the users can down-load the additional auxiliary data items via the internet.

[0044] Suppose the program data represents information about annual income reports that people need to file with the tax office.

[0045] The program data contain auxiliary data items that are inserted at appropriate positions. The auxiliary data items may include data item 1 of "If you received annuities," data item 2 of "If you gained real-estate income," data item 3 of "If your annual income surpassed 20 million yen," data item 4 of "If you got profits overseas," and the like.

[0046] A user may push the pause button, freezing the information displayed on his terminal screen. Using the GUI of the recording/reproducing apparatus, the user inputs the data representing whether he received annuities, whether gained real-estate income, whether his annual income surpassed 20 million yen, whether he got profits overseas, and similar facts." The data input is added to the profile data stored in the recording/reproducing apparatus.

[0047] While the pause button remains pushed, the program data is automatically stored in the content storage section provided in the recording/reproducing apparatus. Thus, when the pause button is released, the program keeps going, neither skipped nor disconnected. (However, the program lags in time, with respect to the real-time broadcast.)

[0048] As the program proceeds, displaying the auxiliary data items 1 to 4, an operation is performed on the profile and the attributes of data items 1 to 4. The auxiliary data items 1 and 2 are skipped if they do not agree to the events recorded in the profile.

[0049] As for the auxiliary data items 3 and 4, the contents inserted in the program data are nothing but "introduction" (as is so described in the attribute). Therefore, additional auxiliary data items are acquired if necessary.

[0050] In this embodiment additional auxiliary data items are obtained on demand through the Internet. Nonetheless, they may be acquired by any other method.

[0051] For example, an additional data item may be acquired to replace the auxiliary data item 4 by performing an operation of the attribute of the data item 4 and the profile, if the profile describes "the user got an income of 40,000 dollars in the United States." In this case, the additional auxiliary data item, "the user got an income ranging from 30,000 to 50,000 dollars in the United States," is down-loaded and reproduced in place of the auxiliary data item 4.

[0052] In the recording/reproducing apparatus, auxiliary data items negotiate with one another and the order of the auxiliary data items is changed. How the auxiliary data items negotiate and how the order of the data items is changed will be explained below.

[0053] Suppose the data server apparatus 120 transmits to all users the same program A that is multimedia contents comprised of a program data and auxiliary data items, through the broadcast network.

[0054] Let us assume that additional auxiliary data items prepared for use in customization are contained in the last part of the program data, as an ordinary auxiliary data item (i.e., auxiliary data item 5, described later). In this case, the user who view the program A in real time may feel that the program is somewhat longer, with some auxiliary data items added to the last part of the program A.

[0055] Assume that five auxiliary data items 1 to 5 are contained in the program A. The auxiliary data items 1 and 2 may be advertisements of "food A put on sale until Christmas" and "food B," respectively. The auxiliary data item 3 may be an advertisement of "restaurant C campaigning for Christmas." The auxiliary data item 4 may be an advertisement of "restaurant D." The auxiliary data item 5, which is contained in the last part of the program A, may be an advertisement of "restaurant E campaigning for new-year days."

[0056] Further assume that the first half of the program A is an introduction of restaurants and the second half thereof is cooking instructions. More precisely, the attribute of the program A describes that the auxiliary data items 1 and 2 introduce restaurants and that the auxiliary data items 3, 4 and 5 gives information about the foods served in the restaurants.

[0057] The auxiliary data items 1 and 2 are contained in the first half of the program A. The auxiliary data items 3 and 4 are contained in the second half of the program A. Recall that the auxiliary data item 5 is contained in the last part of the program A.

[0058] A user acquires the program A (before Christmas) and records it into the data terminal apparatus 110.

[0059] Assume that the attribute of the auxiliary data item 1 describes that the data item can be reproduced until December 25 and that the auxiliary data item 1 can be assigned if the program contains an auxiliary data item complying with the assignment conditions. If the program does not contain such an auxiliary data item, the right to the auxiliary

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data item 1 will be skipped.

[0060] The conditions for assigning the auxiliary data item 1 are as follows:

(1) The auxiliary data item shall be assigned for 5 yen or more if it is no longer valid.
(2) However, no negotiation shall be conducted to assign the auxiliary data item to any financial organizations.

[0061] Assume that the attribute of the auxiliary data item 3 describes the data item can be reproduced until December 25 and that the right to the auxiliary data item 1 will be skipped if the auxiliary data item 3 can no longer be reproduced.

[0062] Assume that the attribute of the auxiliary data item 5 describes that the data item can be reproduced at any time desired and that the auxiliary data item 5 can be assigned if the program contains an auxiliary data item complying with the assignment conditions. If the program does not contain such an auxiliary data item, nothing will be done to the auxiliary data item 5.

[0063] The conditions for assigning the auxiliary data item 5 are as follows:

(1) After assigned with the auxiliary data item, the assignee shall pay 10 yen to shift the auxiliary data item forwards in the time axis.
(2) No negotiation shall be conducted to assign the auxiliary data item in connection with the advertisement of any restaurant.
(3) The negotiation shall be conducted to assign that part of the program which contains advertisement of restaurants.

[0064] Let us assume that the user pushes the reproduction button on any day in January.

[0065] In this case an operation is effected on the profile and the attribute of auxiliary data item 1. It is thereby detected that the auxiliary data item 1 is no longer valid. Hence, the negotiation is started over the assignment conditions the attribute of auxiliary data item 1 describes.

[0066] More specifically, the negotiation is started over the assignment conditions described in the attribute of the auxiliary data item 5, the assignment conditions described in the attribute of the auxiliary data item 1 and the conditions for charging fees and settling the charge in connection with both data items 1 and 5.

[0067] In view of the auxiliary data item 1, the auxiliary data item 5 has nothing to do with financial matters. Since the auxiliary data item 1 may be assigned for 5 yen or more, the assignment condition for the auxiliary data item 1 is satisfied.

[0068] In view of the auxiliary data item 5, the auxiliary data item 1 is not concerned with an advertisement of restaurants. Since the auxiliary data item 5 may be assigned for 10 yen, the assignment condition for the auxiliary data item 5 is satisfied.

[0069] In view of the auxiliary data item 5 and the attribute of program A, the auxiliary data item 1 is not concerned with an advertisement of restaurants.

[0070] An operation is carried out on the profile and the attribute of each auxiliary data item, and an operation is performed on the attributes of auxiliary data items. The auxiliary data item 5 is thereby reproduced, replacing the auxiliary data item 1 and assuming a forward position in the program A.

[0071] An operation is performed on the profile and the attribute of auxiliary data item 3. It is thereby detected that the auxiliary data item 3 is no longer valid. The auxiliary data item 3 is therefore skipped at the time of reproduction.

[0072] Various types of operations (negotiations or matching) may be effectuated on the profile and the attribute of each auxiliary data item. Various possible negotiations may be conducted between the profile and the attribute. Various combinations of the operations, on the one hand, and the negotiations, on the other, are shown in the following Table 9.

[0073] Further, various negotiation will be described below.

Table 9

1) Attribute of the program	↔	Profile	Principal object of the negotiation
2) Attribute of the auxiliary data item/confirmation of the validation term	↔	Profile	Personalization/localizat ion
3) Attribute of the additional auxiliary data item/confirmation of the validation term	↔	Profile	Personalization/localizat ion
4) Attribute of the program	↔	Attribute of the auxiliary data item	Limitation of the assignment or the like

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Table 9 (continued)

5) Attribute of the auxiliary data item	↔	Attribute of the auxiliary data item	Limitation of the assignment or the like
6) Attribute of the additional auxiliary data item	↔	Attribute of the auxiliary data item	Limitation of the assignment or the like
7) Attribute of the program	↔	Attribute of the additional auxiliary data item	Limitation of the assignment or the like
8) Attribute of the auxiliary data item	↔	Attribute of the additional auxiliary data item	Limitation of the assignment or the like
9) Attribute of the additional auxiliary data item	↔	Attribute of the additional auxiliary data item	Limitation of the assignment or the like

1. Filtering for limiting audience

[0074] Various personal data items of a user are recorded in the profile. The personal data items represent the living area, age, sex, income, job, language, hobby and the like. The personal data items include a data item showing whether the other personal data items may be disclosed or not. On the other hand, the program data and the attributes of the auxiliary data items and additional auxiliary data items describe the living area, age, income, job, language, hobby and the like of audience to which the program is dedicated.

[0075] One of the operations to be performed on the profile and the attribute is the matching of conditions.

[0076] Logic sum (OR) and logic product (AND) of these conditions can be made, and the degree of matching of conditions may be presented in terms of points, thereby providing numerical value of the difference between the conditions. The means for accomplishing this filtering may be described in either the attribute or the profile. (Here, it is not described how to achieve the filtering.)

[0077] The items 1, 2 and 3 shown in Table 9 presented above are operation-negotiation combinations that may be used to accomplish the filtering. The filtering for limiting audience in accordance with the auxiliary data item, the additional auxiliary data items and the profile is known as "personalization" or "localization."

[0078] When operations are performed in order to accomplish this filtering, the attribute of any contents that can no longer be transmitted or reproduced may effects, in some case, an operation to assign the right that will be described later (see FIG. 5).

[0079] The auxiliary data items constitute a part of the program. Therefore, operations need not be performed on the attribute if the auxiliary data items or the profile if the program data is filtered as an operation is effected on the attribute of the program data and the profile.

2. Filtering according to a transmission/reproduction validation term

[0080] A recording apparatus or a reproducing apparatus usually has the function of detecting, in real time, the date and time in the area in which the apparatus is located. The date and time detected in the apparatus are applied to the profile.

[0081] The attribute of the program data, the attribute of each auxiliary data item, and the attribute of each additional auxiliary data item describe the terms during which the contents of these data items remain valid.

[0082] Another of the operations to be performed on the profile and the attribute is the matching of the date-time data and the validation term the profile and the attribute have, respectively. If the results of this operation show that the validation term of the contents has expired, the contents cannot be transmitted or reproduced. The validation term described in the attribute may be indefinite. In this case, no limitation to the transmission or reproduction of the contents exists in effect.

[0083] As the result of the operation performed to accomplish this filtering, the contents may not be transmitted or reproduced. If so, the attribute of the contents may carry out, in some case, an operation to assign the right that will be described later (see FIG. 5).

3. Negotiation over the assignment of right

[0084] Among the operations to be performed on attributes is one that is effectuated to assign a right.

[0085] The operation for assigning the right may produce four results. Result 1 allows changes in the order of auxiliary data items. Result 2 prohibits changes in the order of auxiliary data items. Result 3 allows an auxiliary data item to

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replace another. Result 4 prohibits an auxiliary data item from replacing another. Results 1 and 2 concern the change in the order of adjacent auxiliary data items. Results 3 and 4 concern the replacement of an auxiliary data item incorporated in the program data with an additional auxiliary data item introduced from outside.

[0086] There are three conditions of assigning the right. Condition A is to assign the right unconditionally. Condition B is not to assign the right at all. Condition C is to assign the right if a condition or conditions are satisfied.

[0087] The right-assignment results and the right-assignment conditions provide six combinations possible for the operation. Combination 1 is to allow the order of auxiliary data items, unconditionally. Combination 2 is to prohibit the change in the order of auxiliary items, unconditionally. Combination 3 is to allow the change in the order of auxiliary data items, if a condition or conditions are satisfied. Combination 4 is to allow the replacement of an auxiliary data item with another, unconditionally. Combination 5 is to prohibit the replacement of an auxiliary data item with another, unconditionally. Combination 6 is to allow the replacement of an auxiliary data item with another, if a condition or conditions are satisfied.

[0088] Any auxiliary data item may not be transmitted or reproduced due to either 1. the filtering for limiting audience or 2. the filtering according to a transmission/ reproduction validation term. If this is the case, the auxiliary data item is regarded as having been subjected to an operation to assign the right.

[0089] If there is found no other auxiliary data item or no additional auxiliary data item, which may be changed in order with, or replaced by, that auxiliary data item, it is impossible to assign the right at all. Thus, the auxiliary data item so considered will be skipped, not transmitted no reproduced.

[0090] The attribute of the auxiliary data item may describe a right-assignment condition of allowing the assignment of right unconditionally (either combination 1 or combination 4) and there may be an auxiliary data item or an additional auxiliary data item that can be changed in order with, or replaced by, that auxiliary data item. In this case, the auxiliary data item will be first changed in order with, or first replaced by, the other auxiliary data item or additional auxiliary data item that has the highest priority (for example, the data item that immediately follows the auxiliary data item).

[0091] The attribute of the auxiliary data item may describe a right-assignment condition of prohibiting the assignment of right unconditionally (i.e., combination 2 or combination 5). In this case, the auxiliary data item so considered will be skipped.

[0092] Combinations 3 and 6, both for allowing the assignment of right if a condition or conditions are satisfied, will be described below.

[0093] The conditions that should be satisfied to allow the assignment of right are as follows. That is, the attribute of the auxiliary data item described the following items (set forth in parentheses) as the object of operations.

A. Assignment of right to an auxiliary data item designated or an additional data item designated

[0094] The attribute of the auxiliary data item to be changed in order with, or replaced by, another auxiliary data item or an additional auxiliary data item may designate the other auxiliary data item or the additional auxiliary data item. If so, the auxiliary data item will be changed in order with, or replaced by, the other auxiliary data item designated or the additional auxiliary data item designated.

B. Assignment of right to a data item satisfying the profile condition

[0095] This takes place to change any auxiliary data item skipped, in order with, or to replace the same by, another auxiliary data item or an additional auxiliary data item. Note that the other auxiliary data item or the additional auxiliary data item has been selected in accordance with the result of an operation effected on the profile condition and the attribute of the other auxiliary data item and the additional auxiliary data item.

[0096] The operation may be similar to the operation performed in the filtering (1) for limiting audience or the filtering (2) according to a transmission/reproduction validation term, as will be exemplified below.

[0097] An example of the operation is carried out on the living area, age, income, job, language, hobby and the like of the user, the data item showing whether the other personal data items may be disclosed or not, the living area, age, income, job, language, hobby and the like of audience to which the program is dedicated. Note that these items of the audience are described in the attribute of the auxiliary data item or additional auxiliary data item.

[0098] As in the filtering (1) for limiting audience or the filtering (2) according to a transmission/reproduction validation term, logic sum (OR) and logic product (AND) of these conditions can be made, and the degree of matching of conditions may be presented in terms of points, thereby providing numerical value of the difference between the conditions. The means for accomplishing this filtering may be described in either the attribute or the profile. (Here, it is not described how to achieve the filtering.)

[0099] A group of auxiliary data items, each having priority described, or a group of additional auxiliary data items, each having priority described, will be explained below. Before achieving the assignment B of right, or any one of assignments C, D and E later descried, a group of auxiliary data items or additional auxiliary data items is prepared.

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Any one of these data items may be selected to change the order of the auxiliary data item of interest or to replace the same. Those of the data items of the group, which satisfy the conditions of assignments B, C, D and E, may be selected as auxiliary data items or additional auxiliary data items.

C. Assignment of right to a non-conflicting party

[0100] The assignment of right can be prohibited if the assignor and the assignee conflict with each other in terms of product or service they manufacture or provide.

[0101] In the case of contents composed of a music program, auxiliary data items or additional auxiliary data items, the composer, writer, singer or player of the music may not wish to have other music contained in the same contents, which is sung, written, sung or played by other persons. If this conflict exists, the assignment of right is prohibited.

[0102] If no conflict is described in at least the attribute of the auxiliary data item or additional auxiliary data item selected to change the order of the auxiliary data item of interest or to replace the same, the assignment of right will not be prohibited.

[0103] In order to check conflict, a list of conflicting parties may be stored in the attribute. Instead, the list of conflicting parties may be recorded in an external file. The external file may then be referred to in the process of an operation, thereby to determine whether the assignee is a conflicting party to the assignor.

D. Assignment of right concerning real-time synthesized data item

[0104] An hour announcement or a weather forecast may be synthesized with other data items, thus forming multi-media contents, in a transmitting apparatus or a reproducing apparatus. For example, the hour data may be read from a calendar timer and automatically synthesized with audio data or image data, thus generating an additional auxiliary data item. Weather data may be acquired from a whether forecasting company and automatically synthesized with audio data or image data, thereby generating an additional auxiliary data item.

[0105] In the filtering (2) according to a transmission/reproduction validation term, an operation is performed on the time recorded in the profile and the validation term described in the attribute of the auxiliary data item of interest. From the result of the operation, the auxiliary data item of interest may be found no longer valid. Even in this case, real-time synthesized hour-announcement data or real-time synthesized whether-forecast data can be assigned, if the attribute of the auxiliary data item describes "a real-time synthesized data item can be assigned" and if other conditions do not prohibit the assignment.

E. Assignment of right for an equivalent such as money

[0106] To skip an auxiliary data item incorporated in the program data, it is determined to which auxiliary data item or additional auxiliary data item should be assigned with the right. Which data item should be given the right is determined by performing an operation on (or by comparing) the equivalent offered by the auxiliary data item or additional auxiliary data item and the equivalent demanded by the data item to be skipped.

4. Amount of equivalent and means of payment (how much should be paid to whom and when)

[0107] Assume that the auxiliary data item of interest has been changed in order with, and replaced by, an auxiliary data item or an additional auxiliary data item, in accordance with the above-mentioned conditions 1 to 3.

[0108] The data concerning the payment of equivalent for changing the order of data item or replacement of data item is described in the attribute of the data item. In other words, the attribute describes the data about the charging and settlement of equivalent.

[0109] The settlement, i.e., an operation on this attribute and the profile, is carried out even if the data item of interest has been changed in order with, or replaced by, an auxiliary data item or an additional auxiliary data item. The settlement can be effected in, for example, the recording apparatus or the reproducing apparatus. Therefore, it suffices to transmit only the result of settlement. This helps to decrease the traffic of information on the network.

[0110] It is determined whether the auxiliary data item of interest, which is contained in the program should be 1) transmitted or reproduced, 2) skipped, 3) changed in order with another auxiliary data item or an additional auxiliary data item, or 4) replaced by another auxiliary data item or an additional auxiliary data item. How it is determined will be described with reference to FIG. 6 to 10.

[0111] First, an operation is performed on the attribute of the program selected and the profile for selecting the program, and filtering is carried out (Step S1).

[0112] Next, it is determined whether the transmission or reproduction of the program has been allowed or not (Step S2). In other words, it is determined whether the program is an appropriate one for the reproducing apparatus (user).

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Thus, adult contents, for example, can be kept away from children. The areas to which the program may be transmitted can thereby be limited. Further, the language in which the program may be presented can thereby be limited.

[0113] Step 2 corresponds to the negotiation 1 (filtering for limiting audience) and the negotiation 2 (filtering according to a transmission/reproduction validation term).

[0114] If NO in Step S2, a message is displayed (Step S3), informing the user that the program selected is not good for the profile and therefore cannot be transmitted or reproduced. The process is then terminated.

[0115] If YES in Step S2, the attributes of all auxiliary data items incorporated in the program are examined (Step S4).

[0116] Then, it is determined whether the attributes of all auxiliary data items have been operated, together with the profile (Step S5). If YES in Step S5, that is, if an operation has been effected on the attributes and the profile, the process goes to Step S6. In Step S6, the attributes will be subjected to an operation, as will be explained later with reference to FIG. 7.

[0117] If No in Step S5, that is, if the no operations have been effected on the attributes and the profile, the process goes to Step S7. In Step S7, an operation is performed on the attribute of an auxiliary data item and the profile to determine whether the auxiliary data item takes a proper position in the program. That is, the operation is carried out to determined whether each auxiliary data item incorporated in the program is appropriate or not for the reproducing apparatus (user). Whichever data item necessary, the validation term, area, language, job, age, sex or the like, is acquired from the profile and subjected to the operation.

[0118] Then, it is determined whether or not the auxiliary data item takes a proper position in the program (Step S8). If NO in Step S8, the process goes to Step S9, in which the auxiliary data item ID and the result of the operation are recorded in a storage area RM. The process then goes to Step S10. That is, if the auxiliary data item is appropriate or not, for the reproducing apparatus (user), it takes its initial position in the program.

[0119] If YES in Step S8, the process goes to Step S10, in which preparation is made to examine the next auxiliary data item in the program. Then, the process returns to Step S4. Thus, if the first auxiliary data item takes a proper position in the program, it will be skipped, changed in order with, or replaced by, another auxiliary data item. To skip, change the position or replace the first auxiliary data item, an operation (2) is effected on the attributes of the auxiliary data items, as will be explained below, with reference to FIG. 7.

[0120] In the operation (2) (FIG. 7) on the attributes of auxiliary data items, any auxiliary data item that has an ID recorded in the storage area RM is examined (Step S11) to determined if it has been skipped, changed in order, or replaced.

[0121] Then, it is determined whether all such auxiliary data items recorded in the storage area RM have been skipped, changed in order, or replaced (Step S12). If YES in Step S12, a charge-settling operation (5) shown in FIG. 10 (Step S13).

[0122] If NO in Step S12, the process goes to Step S14. In Step S14, any auxiliary data item having an ID recorded in the storage area RM is examined to determine if the attribute of the data item describes that the data item should be changed in order with, or replaced by, another auxiliary data item or an additional auxiliary data item, or should be skipped.

[0123] Next, in Step S15, it is determined whether or not the attribute of the data item describes that the data item should be so processed. If YES in Step S15, the process goes to Step S16, in which the auxiliary data item is skipped, changed in order, or replaced. Step S16 corresponds to Condition A of negotiation 3, i.e., the assigning of the right to an auxiliary data item designated or an additional data item designated.

[0124] If NO in Step S15, the process goes to Step S17. In Step S17, a designated group of data items recorded in the storage area RM to determine if the attribute of any auxiliary data item having an ID describes that the data item should be changed in order with, or replaced by, another auxiliary data item or an additional auxiliary data item of the designated group.

[0125] Then, it is determined whether or not any data item of the designated group should be changed in order or replaced with any other data item of the same group (Step S18). If YES in Step S18, the process goes to Step S19. In step S19, an operation is performed to achieve a negotiation between the auxiliary data item of interest and any other auxiliary data item or additional data item of the designated group. This operation corresponds to Operation A of the negotiation 3, i.e., the assignment of right to an auxiliary data item designated or an additional data item designated.

[0126] If NO in Step S18, the process goes to an operation (3), which will be described with reference to FIG. 8. As shown in FIG. 8, the attribute of each auxiliary data item having an ID recorded in the storage area RM is examined to determine if the attribute describes any limitation to the assignment of right (Step S20).

[0127] It is then determined whether or not the attribute describes any limitation to the assignment of right (Step S21). If NO in Step S21, the process goes to Step S22. In Step S22, any auxiliary data item having an attribute that does not describe such a limitation is changed in order with, or replaced by, another data item in accordance with the result of the operation. More specifically, the change in order and the replacement is effected in accordance with the result of the operation performed on the attributes of the data items. This operation corresponds to Condition B of the

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negotiation 3, i.e., the assignment of right to any data item that satisfies the profile condition. Here, any data items that are free of Conditions C to E of the negotiation are processed prior to the other data items.

[0128] If YES in Step S21, the process goes to Step S23. In Step S23, the attributes of the data items are examined to determine if any auxiliary data item can be changed in order with, or replaced by, an auxiliary data item or additional auxiliary data item that is a real-time synthesized one.

[0129] Then, it is determined whether or not any auxiliary data item can be changed in order with, or replaced by, such an auxiliary data item or additional auxiliary data item (Step S24). If YES in Step S24, the process goes to Step S25. In Step S25, an auxiliary data item is changed in order with, or replaced by, a real-time synthesized auxiliary data item or additional auxiliary data item, in accordance with the attribute of the auxiliary data item. Step S25 corresponds to Operation D of the negotiation 3, i.e., the assignment of right concerning real-time synthesized data item.

[0130] If NO in Step S24, the process goes to Step S26. In Step S26, the data items are checked for any conflict. More precisely, the attributes of the data items are subjected to an operation, thus finding whether the data items conflict with one another. In other words, it is determined whether the data items cannot be changed in order or replaced with one another.

[0131] Then, in Step S27, it is determined whether or not there is any conflict to prohibit the order change or replacement of the data items. If YES in Step S27, that is, if the data items cannot be changed in order or replaced with one another due to the conflict, the process goes to Step S28. In Step S28, the process returns to Step S11 (FIG. 7), i.e., the point of return, P2. That is, the process is carried out again, which corresponds to Operation C of the negotiation 3, i.e., assignment of right to a non-conflicting party.

[0132] If NO in Step S27, the process goes to operation (4) shown in FIG. 9. That is, the attributes of the data items are examined in Step S29 to see if any data item cannot be changed in order with, or replaced by, an auxiliary data item or additional auxiliary data item, due to some limitation concerning the condition for equivalent.

[0133] Then, in Step S30, it is determined whether such limitation exists, prohibiting the order change or replacement of data item. If YES in Step S30, any data item is not changed in order with, or replaced by, an auxiliary data item or additional auxiliary data item, due to some limitation concerning the condition for equivalent, though all conditions are satisfied in accordance with the result of the operation on the attributes of data items. Thus, in Step S31, the process returns to the point of return, P1 shown in FIG. 6, whereby the process is terminated.

[0134] If NO in Step S30, the process goes to Step S32. In Step S32, the data item is changed in order with, or replaced by, an auxiliary data item or additional data item. The process then returns to the point of return, P1 shown in FIG. 6. In this case, too, the process is terminated.

[0135] In the process (5) shown in FIG. 10, the data about the charge settling among all players is generated from the attributes of all data items contained in the program, in accordance with the charge-settling instruction described in the profile. In Step S40, a charge-settling mechanism 100D settles charges. Then, the process returns to the point of return, P1 shown in FIG. 6, and is terminated.

[0136] It will be described how the data-providing system 100 shown in FIG. 4 operates, with reference to FIGS. 11 to 15.

[0137] The data server apparatus 120 provided in the transmitting station performs process X, incorporating auxiliary data items into program data and generating program contents. The Attributes of the program data and attributes of the auxiliary data items are prepared and stored into the storage apparatus TM1 that is provided in the transmitting apparatus (Step S51).

[0138] Additional auxiliary data items are prepared. Attributes of the additional auxiliary items are generated. The additional auxiliary data items and the attributes thereof are stored into the storage apparatus TM2 that is provided in the transmitting apparatus, too (Step S52). (A single storage apparatus may suffice, replacing the storage apparatuses TM1 and TM2, if the additional auxiliary data items can be distinguished from the auxiliary data items.)

[0139] It is determined if the contents control mechanism has issued transmission commands (Step S53).

[0140] It is then determined whether transmission commands have been received or not (Step S54). If NO, the process returns to Step S53. In this case, Steps S53 and S54 are repeated.

[0141] If YES in Step S54, the process goes to Step S55, in which the profile is read from the storage apparatus TM3. It is determined whether or not the profile read from the apparatus TM3 includes any item that should be considered at the time of transmission (Step S55). (A single storage apparatus may suffice, replacing the storage apparatuses TM1, TM2 and TM3, if the apparatus TM3 can be distinguished from the apparatus TM1 or TM2.)

[0142] Then, it is determined whether the profile includes such a profile item or not (Step S56). If YES, the process goes to process X1 shown in FIG. 12. If NO, an operation is performed on the profile, the program data and the attributes of the auxiliary data items, all prepared, and, if necessary, an operation on the attributes of the auxiliary data items (Step S57).

[0143] The program or the auxiliary data items are then examined to see if the auxiliary data items should be skipped, changed in order, or replaced by additional auxiliary data items (Step S58).

[0144] It is determined whether or not any data item should be skipped (Step S59). If NO, the process goes to Step

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S61. In Step S61 it is determined whether any data item should be changed in order or not.

[0145] If YES in Step S59, the process goes to Step S60, in which the program is edited so that the program or the auxiliary data items may be skipped. Then, the process goes to Step S61. In Step S61 it is determined whether any data item should be changed in order or not.

[0146] If NO in Step S61, the process goes to Step S63. In Step S63 it is determined whether the data items should be replaced or not.

[0147] If YES in Step S61, the process goes to Step S62. In Step S62 the program is edited so that the auxiliary data item may be replaced by one another (or so that the transmission control may be altered). Thereafter, the process goes to Step S63, in which it is determined whether the data items should be replaced or not.

[0148] If NO in Step S63, the process goes to process X1 shown in FIG. 12. If YES in Step S63, the process goes to Step S64. In Step S64, additional auxiliary data items are generated, if possible, in real time. Further, the program is edited, thereby replacing the auxiliary data items with the additional auxiliary data items (or the transmission control is altered). Thereafter, the process goes to process X1 shown in FIG. 12.

[0149] The decision steps, i.e., Step S59, Step 61 and Step S63, may be carried out in different orders. The above description may suggest that the data items undergo a badge process, skipped, changed in order or replaced, all at once. Nonetheless, the data items can be process, in concurrence with the transmission of the program.

[0150] The contents can be transmitted in two methods. In the first method, the contents are first edited and then transmitted in units, one unit after another. In the second method, the contents are transmitted in real time, with each unit edited immediately before transmitted, in accordance with newly prepared control instructions. In the second method, the contents may be transmitted on the fly, not in real time.

[0151] In the process X1 shown in FIG. 12, the program edited in accordance with the instructions made by the contents output control section and the attributes corresponding to the program are transmitted through the network (Step S65).

[0152] At the process Y in the user's data terminal apparatus 110, the user designates a program he wants to receive (Step S71), as is illustrated in FIG. 13.

[0153] If necessary, a search is carried out for additional auxiliary data items that are available for the program designated (Step S72). Additional auxiliary data items can be acquired by means of off-line search or from the attributes of the program.

[0154] It is then determined whether additional auxiliary data items are available or not (Step S73). In YES, the process goes to Step S74. In Step S74, additional auxiliary data items are obtained via the network or from a package media such as a CD or a DVD. The data items thus obtained are stored, if necessary, into a storage apparatus RM1, (If the data items are obtained from a package media, they may be used without being processed.), and the process goes to Step S75.

[0155] If NO in Step S73, the process goes to Step S75. In Step S75, the data items are checked to see if there is a profile necessary to the program. The necessary profile can be acquired by means of an off-line/on-line search or from the attributes of the program.

[0156] Then, it is determined whether a profile necessary to the program is available or not (Step S76). If YES, the process goes to Step S77. In Step S77, the necessary profile is added and stored into the storage apparatus RM2 that is provided in the receiving apparatus. (A single storage apparatus suffices, replacing the apparatuses RM1 and RM2, if the apparatuses RM1 and RM2 can be distinguished from each other.) Then, and the process goes to process Y1 in FIG. 14.

[0157] If NO in Step S76, the process goes to the process Y1 shown in FIG. 14. First, it is determined if the program is reproduced by storing the received program signals into a storage apparatus RM3 or without storing them into the storage apparatus RM3 (Step S78).

[0158] Then it is determined whether or not it is necessary to use the storage apparatus RM3 (Step S79). If NO, the process jumps to Step S83. If YES, the process goes to Step S80. In Step S80, the program is stored into the storage apparatus RM3. (A single storage apparatus suffices, replacing the apparatuses RM1, RM2 and RM3, if the apparatus RM3 can be distinguished from the apparatuses RM1 and RM2.)

[0159] Next, it is determined whether instructions have been generated to reproduce the program (Step S81). (The instruction may describe that the program be reproduced while being recorded at the same time.)

[0160] It is determined whether or not an instruction has been generated to reproduce the data stored in the storage apparatus RM3 (Step S82). If NO, the process returns to Step S81. If YES, the process goes to Step S83. In Step S83, the profile is read from the storage apparatus RM2, and it is determined whether the profile read includes any item that should be considered in connection with the attribute of the program, in preparation for the reproduction of the program contents.

[0161] It is then determine whether such a program item is available or not (Step S84). If YES, the process goes to process Y2 shown in FIG. 15. If NO, the process goes to Step S85. In Step S85, an operation is effected on the profile and the attributes of the program data and auxiliary data items. If necessary, another operation is performed on the

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attributes of the program data.

[0162] Then, the program or the auxiliary data items are examined to see if they may be skipped and if the auxiliary data items may be changed in order or replaced by additional auxiliary data items (Step S86).

[0163] It is determined whether the program or the auxiliary data items should be been skipped or not (Step S87). If NO, it is determined whether the auxiliary data items should be changed in order or not (Step S89).

[0164] If YES in Step S87, the program is edited (or the transmission control is altered) so that the program or the auxiliary data items may be skipped (Step S88). Thereafter, it is determined whether the auxiliary data items should be changed in order or not (Step S89).

[0165] If NO in Step S89, it is determined whether or not the auxiliary data items have been replaced by additional auxiliary data items (Step S91).

[0166] If YES in Step S89, the program is edited so that the auxiliary data items are changed in order (or the transmission control is altered) (Step S90). Thereafter, it is determined whether or not the auxiliary data items have been replaced by additional auxiliary data items (Step S91).

[0167] If NO in Step S91, the process goes to the process Y2 shown in FIG. 15. If YES in Step S91, the process goes to Step S92. In Step S92, additional auxiliary data items are generated, if possible, in real time. Further, the program is edited, thereby replacing the auxiliary data items with the additional auxiliary data items (or the transmission control is altered). Thereafter, the process goes to process Y2 shown in FIG. 15.

[0168] The decision steps, i.e., Step S87, Step 89 and Step S91, may be carried out in different orders. The above description may suggest that the data items undergo a badge process, skipped, changed in order or replaced, all at once. Nevertheless, the data items can be process, in concurrence with the transmission of the program.

[0169] In the process Y2 shown in FIG. 15, the attributes corresponding to the program edited in accordance with the instructions supplied from the contents output control mechanism are reproduced (Step S93).

[0170] The present invention is applied to, for example, a data-providing system 100 shown in FIG. 16. The data-providing system 100 comprises a program-providing section 10, a CM sponsor section 20, an authoring section 30, a transmission server section 40, a charge-settling section 50, and a terminal section 60.

[0171] The program-providing section 10 incorporated in the system 100 has a communication function 10A of receiving data from, and transmitting data to, the CM sponsor section 20, authoring section 30 and charge-settling section 50. The program providing section 10 has a data-depositing function 10B that transmits programs and accompanying data to the authoring section 30. The accompanying data includes program prices for users, BY(backyard)-side program equivalent conditions, possible cue positions designated. Further, the program-providing section 10 has a program-providing function 10C that supplies program data to the CM sponsor section 20. Moreover, the program-providing section 10 has a charge-settling function 10D, which settles charges in accordance with the periodical statement sent from the charge-settling section 50 and concerning each player, i.e., a CM sponsor. designating function 30C also allocates programs codes designating the programs into which CM groups should be inserted, in accordance with the advice made by the CM sponsor section 20. The CM groups designated by the CM-group designating function 30C will be called "CM sets" hereinafter. The authoring section 30 has a first registering/storing/transmitting function 30D. This function 30D registers, stores and transmits the program prices for users, i.e., the prices the users should pay for the programs transmitted (or not transmitted) to them. The first registering/storing/transmitting function 30D also registers, stores and transmits the BY-side program equivalent conditions, i.e., the conditions in which the suppliers (players such as CM sponsors, transmission server owners, authoring function owners, charge-settling function owners, program providers and the like) transmit (or do not transmit) programs. The authoring section 30 has a second registering/storing/transmitting function 30E, which determines the order in which the CM sets prepared for a certain program should be transmitted, in accordance with the advice made by the CM sponsor section 20. The function 30E stores the order thus determined, as a CM-transmission list. The function 30E registers, stores and transmits the CM advantages and disadvantages that the users may have when CMs designated in the CM-transmission list are transmitted (or not transmitted). The authoring section 30 further has a third registering/storing/transmitting function 30F. This function 30F registers, stores and transmits the BY-side CM equivalent conditions specifying the equivalents which should be paid among the suppliers

[0172] The CM sponsor section 20 provided in the data-providing system 100 has a communication function 20A, which receives data from, and transmits data to, the program-providing section 10, authoring section 30 and charge-settling section 50. The CM sponsor section 20 has a data-transmitting function 20B that transmits accompanying data to the authoring section 30. The accompanying data includes CM clips and CM equivalent conditions. Further, the CM sponsor section 20 has a charge-settling function 20C, which settles charges in accordance with the periodical statement sent from the charge-settling section 50 and concerning each player, i.e., a CM sponsor.

[0173] The authoring section 30 provided in the data-providing system 100 has a communication function 30A. The function 30A receives data from, and transmits data to, the program-providing section 10, CM sponsor section 20, transmission server section 40 and charge-settling section 50. The authoring section 30 also has a cue-mark inserting function 30B that inserts cue marks, each designating a position in a program, where a CM should be inserted in a

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program. The data of the program and the cue mark may constitute a pair of data items that have the common program code and time code. Alternatively, the cue mark may be inserted into the data of the program, in the form of a special signal. Further, the authoring section 30 has a CM-group designating function 30C that designates at least one of CM groups included in a CM library, which should be inserted into a specified program, in accordance with the advice made by the CM sponsor section 20. The CM-group (players such as CM sponsors, transmission server owners, authoring function owners, charge-settling function owners, program providers and the like) when the CMs included in the CM-transmission list are transmitted (or not transmitted). The authoring section has a charge-settling function 30G, too. The charge-settling function 30G settles charges in accordance with the periodical statement sent from the charge-settling section 50 and concerning each player, i.e., each authoring function.

[0174] The authoring section 30 having various functions 30A to 30G can insert cue marks, each being a signal indicating where in a program a CM can be inserted. A cue mark is nothing more than a trigger. Which CM should be inserted in the program is determined from the CM-transmission list and the CM set. CM groups to be inserted later can therefore be easily interchanged. CM numbers may be allocated to the positions of cue marks, thereby to hold signals, each of which neglects or adopts a cue mark. The authoring section 30 can designate (upon receipt of an advice from a CM sponsor) a plurality of CM groups that should be inserted into a specific program from many CM libraries. The authoring section 30 can determine (upon receipt of an advice from a CM sponsor) the order in which the CM sets prepared for a program should be transmitted. The authoring section 30 can hold the data showing this order, in the form of a plurality of CM-transmission lists. Further, the authoring section 30 can register, store and transmit the CM advantages of disadvantages that the user may have when the series of CMs designated in the CM-transmission lists are transmitted (or not transmitted). Moreover, the authoring section 30 can register, store and transmit the BY-side CM equivalent conditions specifying the equivalents which should be paid among the suppliers (players such as CM sponsors, transmission server owners, authoring function owners, charge-settling function owners, program providers and the like) when the CMs included in the CM-transmission lists are transmitted (or not transmitted).

[0175] The transmission server section 40 incorporated in the data-providing system 100 has a communication function 40A that receives data from, and transmits data to, the authoring section 30, charge-settling section 50 and terminal section 60. The transmission server section 40 has an archive function 40B that achieves program data containing cue marks, CM data, CM sets, program codes to be inserted, CM-transmission lists, transmission conditions and the like. The section 40 has a process-managing function 40C that receives terminal codes transmitted from the terminal section 60, selects terminals and manages the processes in the terminals. The transmission server section 40 has an advantage/disadvantage determining function 40D. The function 40D determines advantages and disadvantages from the program prices for users and the CM advantages and disadvantages. The advantages and disadvantages determined are transmitted to the terminals. The section 40 further has a menu-transmitting function 40E that transmits the data showing a program-selecting menu and a CM menu. The section 40 has a control-process generating function 40F, too, which generates a control process of receiving a CM menu and inserting or not inserting a terminal code. The transmission server section 40 further has an assembly function 40G that effects real-time assembling of any program selected and CMs to be inserted into the program, generating a program-CM assembly. The program-CM assembly is transmitted to the terminals. The section 40 has a final result transmitting function 40H that transmits the data representing the advantages and disadvantages of the program and CMs, which have been determined, to the charge-settling section 50. The section 40 has a charge-calculating function 40I, too, that calculates the equivalents to be transferred among the players, from the BY-side program equivalent conditions and the BY-side CM equivalent conditions for the CMs of each CM set. The equivalents thus calculated are transmitted to the charge-settling section 50. The transmission server section 40 also has a transmission-record storing function 40J that stores the transmission record of CMs. The section 40 has a charge-settling function 40K that settles charges in accordance with the periodical statement sent from the charge-settling section 50 and concerning each player, i.e., each transmission server function.

[0176] The transmission server section 40 having various functions 40A to 40K can determine the advantages and disadvantages the user may have when he receives a program containing CMs or does not receive the same, from the user price of the program and the CM advantages and disadvantages of the CM sets that may be inserted into the program. The section 40 can transmit the advantages and disadvantages, thus determined, to the user designated by a terminal code, as a response to a CM menu request. Further, the section 40 can receive from a terminal a signal representing the CM set selected to be inserted into a program. The section 40 can assemble auxiliary data items in real time and transmit the same in accordance with the procedure of transmitting the auxiliary data items in the form of an auxiliary-data set inserted in the programs to be transmitted to the terminal. Moreover, the section 40 can transmits the program selected by a customer using the terminal designated by a terminal, and also the advantages and disadvantages determined from the CM set inserted in the program, to the charge-settling section 50 (serving as a subscriber management system). The section 40 can transmit the advantages and disadvantages to the terminal, too. Further, the transmission server section 40 can supply charge-settling data to the DB (Database) of each player (CM sponsor, transmission server owner, authoring function owner, charge-settling function owner, program provider or the like), so that the charge-settling data may be managed in the DB. The charge-settling data shows the payments made among

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the suppliers (i.e., players) and calculated from the BY-side program equivalent conditions and the BY-side CM equivalent conditions for the CMs shown in the CM-transmission list inserted in the program.

[0177] The charge-settling section 50 provided in the in the data-providing system 100 has a communication function 50A. The function 50A receives data from, and transmits data to, the program-providing section 10, CM sponsor section 20, authoring section 30, transmission server section 40 and terminal section 60. The section 50 has a terminal settlement function 50B, which receives the output of the final result transmitting function 40H provided in the transmission server section 40 and settles charges for each terminal by using the data base DB. The section 50 has a player-charge calculating function 50C, which receives the charge-settling data generated by the charge-calculating function 40I of the transmission server section 40 and represents the equivalents to be settled among the players. The player-charge calculating function 50C performs charge-settling for each player by using the DB. The charge-settling section 50 also has two settlement-data management DB functions 50D and 50E. The function 50D manages settlement data for each terminal. The function 50E manages settlement data for each player. Further, the section 50 has a terminal-settlement function 50F, which achieves charge-settling for each terminal, and prepares and transmits a periodical statement for each terminal. Still further, the section 50 has a player settlement function 50G, which achieves charge-settling for each player, and prepares and transmits a periodical statement for each terminal.

[0178] The charge-settling section 50 having various functions 50A to 50G can periodically tabulate the user's advantages and disadvantages stored in the DB and managed by each terminal and can transmit a statement to the user, so that the user may accomplish charge-settlement. The section 50 can also periodically tabulate the equivalents calculated to be paid among suppliers (i.e., players such as CM sponsor, transmission server owner, authoring function owner, charge-settling function owner, program provider and the like), and can transmit a statement to each player so that the player may accomplish charge-settlement.

[0179] The terminal section 60 of the data-providing system 100 is a terminal that can receive a stream of on-demand programs via the Internet or a similar network. The section 60 has buttons that are operated to select CMs to be inserted into a program. The buttons may be provided on the remote controller for the section 60. The terminal section 60 has a communication function 60A for receiving data from, and transmitting data to, the transmission server section 40 and charge-settling section 50. The section has a terminal-code storing/transmitting function 60B, too, which reads terminal codes from the terminals and transmits the terminal codes to the transmission server section 40. The section 60 has a program displaying/selecting/transmitting function 60C, which receives and displays a program menu, selects programs from the menu, and transmits the result of program selection. Further, the terminal section 60 has a CM-menu displaying function 60D, which requests the transmission server section 40 for a CM menu (showing advantages and disadvantages, too), receives a CM menu from the transmission server section 40 and displays the CM menu it has received. The section 60 has an advantage/disadvantage displaying function 60E, too, which displays advantages and disadvantages. The section 60 has a CM-menu selecting/transmitting function 60F, which selects a CM menu and transmits the same. The section 60 has a reproducing function 60G that reproduces the content data the section 60 received. Further, the section 60 has an account-data displaying function 60H, which requests the charge-settling section 50 for account data, receives the account data and display the same. The terminal section 60 has a charge-settling function 60I, which receives a periodical statement from the charge-settling section 50 and performs charge-settling based on the statement.

[0180] The terminal section 60 having various functions 60A to 60I can select a program that the user may enjoy and transmit a CM menu request signal, together with a terminal code, in order to receive the advantages and disadvantages the user may have when the program is combined with CMs and when the program is not combined with CMs. The terminal section 60 can inform the user of the advantages and disadvantages determined from the combination of the program and the CMs, before the user selects the program. Moreover, the terminal section 60 can transmit two signals, along with its own terminal code, to the transmission server section 40. The first signal indicates that the section 60 has received a CM group that the user has selected by pushing a button. The second signal indicates that a CM set selected to be inserted in the program. If the second signal is a null signal, it means that the terminal section 60 has received no CMs.

[0181] The CMs transferred within the data-providing system 100 include ordinary advertisement data items. The CMs may include other data items, for example, the answers to the questions asked in a quiz show, special offers made to selected customers, or the items of a questionnaire, to which "YES" or "NO" should be input. The data items auxiliary to the data of program are collectively called "CMs" here.

[0182] The price of a program containing CMs need not be higher than the price of a program containing no CMs. It is important to put prices to programs in accordance with the nature of CMs, if any, inserted in a program. For instance, a program containing the answers to the questions made in a quiz show is more expensive than a program not containing the answers. If a program contains a questionnaire and if the user answers the questions, the user may be paid.

[0183] In the data-providing system 100, each program has content data, i.e., the program data, and accompanying data items A1 to A4 described below:

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A1: Program price for user

[0184] The program price for user is one the user should pay for the program he receives during a prescribed period. It is determined from, for example, the following conditions:

Basic charge = 1000 yen, which the user must pay to the charge-settling section 50.
CM-insertion charge = 100 yen for each CM, to be paid to the charge-settling section 50.
Charge for inserting CM 456 = 400 pints, which the user receives from the advertiser.

[0185] It is not stipulated that charge-settling be made every time a transaction is performed. Rather, the data concerning charge-settling is collected at the charge-settling section 50, which settle all charges.

A2: BY-side program equivalent conditions

[0186] The BY-side program equivalent conditions are applied to determine which function must pay charges to which function, for any program transmitted during the prescribed period. These conditions are as follows:

[0187] The charge-settling section 50 must pay a basic charge of 300 yen to the program-providing section 10.

[0188] The charge-settling section 50 must pay 10 yen to the transmission server section 40 and 10 yen to the authoring section 30, when a CM is inserted into the program.

[0189] FIG. 17 shows the relation that the program price for user has with the BY-side program equivalent conditions.

A3: Program code

[0190] A program code is a code assigned to one program, identifying the program.

A4: Cue mark

[0191] A cue mark is a special signal contained in the time-code data or program, indicating the position at which a CM should be inserted in the program.

[0192] In the transmission server section 40, the assembly function 40G performs real-time assembling of CMs, referring to the cue mark. When the cue mark is found, the section 40 stops transmitting the program. Then, the section 40 transmits the CMs in the CM set shown in the CM-transmission list, in the order described in the CM-transmission list. Immediately after the CMs terminate, the section 40 starts transmitting the program again. As long as cue marks follow one after another, the section 40 continuously transmits CMs in the prescribed order, without transmitting the program again.

[0193] Time codes (4096, 9098, 10110 and 12959) may designate the cue positions for the data of program 1234 identified by program code 1234, as is shown in FIG. 18 or as set forth below:

Cue No. 1	4096
Cue No. 2	9098
Cue No. 3	10110
Cue No. 4	12959.

In this case, the data of program 1234 is divided into pieces 1 to 5, and cue marks are interposed among these data pieces 1 to 5. The cue marks indicate the positions A to D at which CMs will be inserted in the program.

[0194] Assume that a CM library has been prepared, which is composed of CMs 22 to 28 as illustrated in FIG. 19, and that a CM set 401 to be inserted into program code 1234 is composed of CM 22, CM 23 and CM 24 as shown at A in FIG. 20. Then, a CM-transmission list shown at B in FIG. 20 is prepared. In accordance with the CM-transmission list, CM 24, CM 22 and CM 23 are inserted in the program 1234, respectively at the CM-inserting positions A, B and D, as is illustrated at C in FIG. 20. CMs 22, 23 and 24 can thereby be transmitted.

[0195] Assume that a CM set 501 to be inserted into program code 1234 is composed of CM 25, CM 26 and CM 28 as shown at A in FIG. 21. Then, a CM-transmission list shown at B in FIG. 21 is prepared. In accordance with this CM-transmission list, CM 25, CM 26, CM 27 and CM 28 are inserted in the program 1234, respectively at the CM-inserting positions A, B, C and D, as is illustrated at C in FIG. 21. CMs 25 to 28 can thereby be transmitted.

[0196] A CM set to be inserted into a program may be null. In this case, the data of the program 1234 (i.e., pieces 1 to 5) can be transmitted in the order shown in FIG. 22.

[0197] To use the CM set 401 for not only the program 1234, but also the programs 4456and 5377, the programs in

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which CM sets are to be inserted have such codes as are illustrated in FIG. 23. It is natural that different CM-transmission lists be prepared, each for one program.

[0198] In the data-providing system 100, each CM is composed of CM content data and accompanying data (B1). This will be described later.

[0199] In the system 100, each cue marks is no more than a CM-inserting trigger. Which CM should be inserted at which position in a program is determined from the CM set and the CM-transmission list. The CM group to be inserted in the program can be easily replaced by another CM group. Alternatively, the ID numbers of CMs may be allocated to the cue mark positions, and signals may be stored, each signal neglecting or adopting one cue mark. This simplifies the process of transmitting CMs, to some degree.

B1: BY-side CM equivalent conditions

[0200] The BY-side CM equivalent conditions are applied to determine which supplier pays which supplier for the CMs transmitted during the prescribed period. These conditions are as follows:

[0201] When the CM set including the CM in question is transmitted, the CM sponsor section 20 pays 10 yen to the authoring section 30 only once, no matter how many CMs the CM sponsor section 20 has transmitted. However, the CM sponsor section 20 must pay 20 yen to the charge-settling section 50 every time it transmits a CM.

[0202] In the data-providing system 100, a CM set is composed of data C1 that is defined as follows:

C1: Name of a CM set and the CM group contained in the CM set (methods of designating means for accessing entities).

[0203] In the data-providing system 100, a CM-transmission list is composed of the following data items D1 to D3. Two or more pairs are provided, each pair consists of one or more CM sets and a CM-transmission list. A pair consisting of one CM set and a CM-transmission list will be described.

D1: Name of the CM set

D2: Order in which to transmit the CM groups included in the CM set (the CM groups may be transmitted repeatedly)

[0204] To broadcast the same CM repeatedly in a program, the data identifying the CM appears several times in the CM-transmission list.

D3: CM advantages/disadvantages

[0205] The CM advantages/disadvantages are conditions applied when the user receives a CM group during the prescribed period. The conditions are as follows.

[0206] When a CM set is selected, the incentive points of the CM sponsors are added, and +300 points are added to the account of the terminal (user) controlled by a charge-settling system. The cash-back of the CM advantages and disadvantages is -200 yen.

[0207] In the data-providing system 100, each CM set is paired with a group of program codes, each designating one program to be inserted in the CM, in order to insert the CM set into various programs.

[0208] The CM set, <CM 34, CM 56, CM 22>, may be used for program 23, program 134 and program 344. If so, the program code group is <23, 134, 344>.

[0209] CM sets of the same program code group are not always described in the same CM-transmission list. This is because CM sets may be transmitted in an order different from the order they are arranged in the program code group.

[0210] The advantages and disadvantages determined in the data-providing system 100 are those the user may have when he receive a program or a combination of program and CMs. They are determined from the program prices for users and the CM advantages and disadvantages.

[0211] Assume that a CM set 445 is inserted in the program 1234 as shown in FIG. 24. The program 1234 has the prices for users (A1), and the CM set 445 has the CM advantages/disadvantages (D3). The advantages and disadvantages the user has when he receives the combination of the program 1234 and the CM set 445 are calculated as follows:

(1) If no CMs are received (if no CMs are inserted in the program), the user pays 1000 yen and receives 20 points.
(2) If CMs are received (if any CM set is inserted in the program), the user pay 600 yen (800 - 200), and receives 300 points.

[0212] FIG. 25 illustrates the relation the CM advantage/disadvantage of each CM set has with the BY-side CM

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equivalent conditions of the CM set in the data-providing system 100.

[0213] The costs of a supplier are calculated in the data-providing system 100, as will be described below.

[0214] In the system 100, the transmission server section 40 determines:

(i) Which program has been transmitted;
(ii) Which CM has been transmitted and how many times;
(iii) In what condition the program has been transmitted; and
(iv) In what condition the CM has been transmitted.

[0215] On the basis of the facts there are determined (1) the BY-side program equivalent conditions of the program and (2) the BY-side CM equivalent conditions of the CM. From these conditions it is determined how equivalents should be paid.

[0216] For example, the charge is settled as follows when a program having the BY-side program equivalent conditions (A2) is transmitted, together with a CM having the BY-side CM equivalent conditions (B1).

[0217] The charge-settling section 50 pays 100 yen to the program-providing section 10.

[0218] The charge-settling section 50 pays 10 yen to the program-providing section 10.

[0219] The charge-settling section 50 pays 10 yen to the transmission server section 40.

[0220] The CM sponsor section 20 pays 10 yen to the authoring section 30.

[0221] The CM sponsor section 20 pays 20 yen to the charge-settling section 50.

(What the user needs to pay has not been specified here.)

[0222] If a program having the BY-side program equivalent conditions (A2) is transmitted alone, the charge-settling is carried out as will be described below:

[0223] The charge-settling section 50 pays 100 yen to the program-providing section 10.

(What the user needs to pay has not been specified here.)

[0224] FIG. 26 explains how the data supplier's costs are calculated from the BY-side program equivalent conditions of the program 1234 and the BY-side CM equivalent conditions of the CM 22, CM 24 and CM 27.

[0225] In the data-providing system 100, a CM menu is used to select a CM or CMs to be inserted into a program after the user has selected the program from the program menu. The user can select any CM from the many shown in the CM menu. The CM menu is displayed, in most cases along with the advantages and disadvantages the user may have when he selects a CM or CMs.

[0226] In the data-processing system 100, a control process is effected when a program is selected and a program-transmitting mode is selected from the four alternative modes. The four program-transmitting modes are: (1) transmitting the program along with CM set 401; (2) transmitting the program together with CM set 501; and (3) to transmitting the program along with no CMs.

[0227] In the program-transmitting mode (1), the CM set 401 is inserted in the program. Therefore, the control process is carried as follows. First, the pointer in the CM-transmission list for the CM set 401 is advanced every time a cue is detected in the program, thereby detecting the number of each CM. Then, the presence of a CM is detected from the data of the CM set 401, which is paired with the program. The name of any CM transmitted is described in a transmission record (for future inspection). These steps of the control process are repeated until the program terminates.

[0228] Steps S101 to S112 are performed in the data-providing system 100, as will be explained with reference to the flow chart of FIG. 27.

[0229] In the first Step S101, the data-depositing function 10B of the program-providing section 10 transmits programs and accompanying data to the authoring section 30 (Step S101a). The accompanying data includes the program prices for user, the BY-side program equivalent conditions, the possible cue positions designated, and the like. In the authoring section 30, the first registering/ storing/transmitting function 30D receives and stores the programs, program prices for user, BY-side program equivalent conditions and possible cue positions designated, all transmitted from the program-providing section 10 (Step S101b). The cue-mark inserting function 30B inserts cue marks into the programs (S101c), each mark being a signal indicating where in a program a CM can be inserted.

[0230] In the next Step S102, the data-transmitting function 20B of the CM sponsor section 20 transmits a CM group and the equivalent conditions of the CMs to the authoring section 30 (Step S102a). Further, the data-transmitting function 20B advises the authoring section 30 of the program codes to be inserted and the CM advantages/disadvantages, which have been proposed. In the authoring section 30, the second registering/storing/transmitting function 30E receives and stores the CM group, CM equivalent conditions, program codes to be inserted and CM advantages/ disadvantages, all supplied from the CM sponsor section 20 (Step S102b). In the authoring section 30, the CM-group

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designating function 30C composes a group of CM sets, a CM-transmission list, list of CM sets, and a group of program codes to be inserted (Step S102c).

[0231] In Step S103, the registering/ storing/transmitting functions 30D, 30E and 30F transmit all data and accompanying data to the transmission server section 40 (Step S103a). In the transmission server section 40, the archive function 40B records the data and the accompanying data (Step S103b).

[0232] In Step S104, the terminal-code storing/transmitting function 60B of the terminal section 60 reads a terminal code form a terminal and transmits the same to the transmission server section 40 (Step S104a). In the transmission server section 40, the process-managing function 40C receives the terminal code from the terminal section 60 in order to control each terminal (Step S104b). The menu-transmitting function 40E of the transmission server section 40 transmits a program menu to the terminal section 60 (Step S104c). In the terminal section 60, the program displaying/ selecting/transmitting function 60C receives and displays the program menu transmitted from the transmission server section 40 and selects a program (Step S104d). Further, the CM-menu displaying function 60D of the terminal section 60 requests for results and a CM-variation menu for the program selected (S104e). The transmission server section 40 transmits the program menu, along with the advantage/disadvantage data, to the terminal section 60 (S104f). In the terminal section 60, the advantage/disadvantage displaying function 60E displays the advantage/disadvantage data transmitted from the transmission server section 40 and various sections buttons (Step S104g). The CM-menu selecting/transmitting function 60F of the terminal section 60 selects a CM menu and transmits the same to the transmission server section 40 (Step S104h). The transmission server section 40 performs a process of controlling each terminal code that corresponds to the CM menu selected (Step S104i).

[0233] In the next Step S105, the archive function 40B of the transmission server section 40 transmits the programs recorded in the archive, one after another, to the terminal section 60 in the control process (Step S105a). Then, it is determined whether a CM cue has been inserted or not (Step S105b). If a CM cue has been inserted, the archive function 40B transmits a CM clip recorded, to the terminal section 60 in the control process (Step S105c). The transmission-record storing function 40J records the data showing which CM has been actually transmitted (Step S105d). It is then determined whether the program has terminated or not (Step S105e). If the program has not terminated yet, the archive function 40B transmits the remaining programs recorded, to the terminal function 60 in the control process.

[0234] In Step S106, the reproducing function 60G of the terminal function 60 receives and reproduces the data of each program and the auxiliary data items (Step S106a).

[0235] In Step S107, the advantage/disadvantage determining function 40D of the transmission server section 40 determines advantages and disadvantages from the program prices for user and the CM advantage/disadvantage (Step S107a). The result transmitting function 40H transmits the CM advantage/disadvantage finally determined and the terminal code, to the charge-settling section 50 and terminal function 60 (Step S107b). Thus, in the charge-settling section 50, the terminal settlement function 50B and settlement-data management DB function 50D receive the advantages and disadvantages finally determined for the terminal code, and control the same in the settlement-data management DB of the terminal (Step S107c). The terminal-settlement function 50F of the charge-settling section 50 periodically tabulates the advantages and disadvantages for each terminal and transmits a statement to the terminal, thereby settling charges (Step S107d).

[0236] In Step S108, the advantage/disadvantage displaying function 60E of the terminal section 60 receives and displays the advantages and disadvantages finally determined and sequentially transmitted from the transmission server section 40 (Step S108a)

[0237] In the next Step S109, the charge-settling function 60I of the terminal section 60 receives the periodical statement from the charge-settling section 50 and performs charge-settling (Step S109a).

[0238] In Step S110, the charge-calculating function 40I of the transmission server section 40 calculates the equivalents to be transferred between the players, from the BY-side program equivalent conditions and the BY-side equivalent conditions for each CM included in the CM set (Step S110a). The function 40I then transmits the equivalents calculated to the charge-settling section 50 (Step S110b).

[0239] In Step S111, the player-charge calculating function 50C of the charge-settling section 50 receives the equivalents supplied from the transmission server section 40, which are to be transferred between the players, controls the equivalents in the DB of each player (Step S111a). Further, the settlement-data management DB function 50E of the charge-settling section 50 periodically tabulates the charges each player must pay and transmits a statement to each player, thus accomplishing charge-settling (Step S111b).

[0240] Further, in Step S112, the charges are settled in the charge-settling section 50 in accordance with the periodical statements of the players (Step S112a). The charge-settling function 10D of the program-providing section 10 settles charges in accordance with the statements for the players, transmitted from the charge-settling section 50 (Step S112b). The charge-settling function 20C of the CM sponsor section 20 settles charges in accordance with the statements for the players, transmitted from the charge-settling section 50 (Step S112c). Next, the charge-settling function 30G of the authoring section 30 settles charges in accordance with the statements for the players, transmitted from the charge-settling section 50 (Step S112d). Then, the charge-settling function 40K of the transmission server section

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40 settles charges in accordance with the statement for the players, transmitted from the charge-settling section 50 (Step S112e).

[0241] The data-providing system 100 enables the user to select any one of CM sets available, thereby obtaining a combination of a part of packaged program data and some of auxiliary data items, by virtue of the characteristics of on-demand broadcasting.

[0242] For example, timer-calendar data may be applied to the profile of the user apparatus, thereby to replace CMs that no longer need to broadcast, with new ones. The data about the area where the user lives may be applied to the profile, in order to replace the national-version CMs with local-version CMs. Moreover, the data of the user's income may be applied to the profile, thereby broadcast more or less CMs for expensive goods. Further, the timer-calendar data may be applied to the profile, to broadcast programs about cherry-blossom viewing tours at any place where the cherry-blossom front has reached. Alternatively, the areas to which the user plans to take a trip may be applied to the profile, thereby to replace CMs with the CMs for sightseeing in those areas. Further, the annual income of the user may be applied to the profile of the user apparatus. In this case, the guide program for teaching how to prepare annual income report may be revised if the user gets a profit by selling real estate or receives a retirement bonus. Still further, the business title of the user may be applied to the profile, to transmit a program to the user apparatus, which has been so edited in part that the user may understand it better than otherwise. The information (auxiliary data item) about the stock or bond the user has bought may be applied to the profile of the user apparatus. If so, the user can receive a stock-market report centering on the very stock he or she has bought. The information (auxiliary data item) about the user's favorite baseball team may be applied to the profile, so that the user may enjoy a sport program centering on that baseball team. The children's birthdays may be applied to the profile of the user apparatus, so that an educational program edited may be revised for the children and then broadcast. Further, the user's tastes for music may be applied to the profile, thereby to transmit a BGM program full of the user's favorite music to the user apparatus. Moreover, the operating schedule of the airline the user often uses may be automatically analyzed and the results of analysis may be applied to the profile of the user apparatus. In this case, the user can enjoy a program in which the flight timetable of that airline is scroll-displayed.

[0243] With the data-providing system 100 it is possible to automatically update and analyze the profile of the user, whereby programs can be revised for the user.

Claims

1. A data-providing system comprising:

   a first data-transmitting section for transmitting a continuous stream of content data that consists of multimedia content groups, each composed of program data and auxiliary data items;
   an edit control section for performing an operation on the attributes of each program data and auxiliary data items, thereby automatically assembling new data; and
   a second data-transmitting section for selecting the auxiliary data items to be inserted into the program data in accordance with the new data assembled by the edit control section, thereby to transmit a continuous stream of content data that consists of multimedia content groups, each composed of the program data and the auxiliary data items.

2. The system according to claim 1, further comprising a data server apparatus for changing the order of the items of the content data which has been assembled by the edit control section and which consists of multimedia content groups, each consisting of the program data and the auxiliary data items, and for outputting the items of content data in the order changed, thereby to transmit the content data.

3. The system according to claim 1, further comprising a data server apparatus for skipping a certain auxiliary data items contained in the content data which has been assembled by the edit control section and which consists of multimedia content groups, each consisting of the program data and the auxiliary data items, thereby to transmit the content data.

4. The system according to claim 1, further comprising a data server apparatus for transmitting additional auxiliary data items, together with the content data which has been assembled by the edit control section and which consists of multimedia content groups, each consisting of the program data and the auxiliary data items.

5. The system according to claim 4, wherein the data server apparatus acquires the additional auxiliary data items from an external system, by the use of the edit control section.

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6. The system according to claim 4, wherein the data server apparatus incorporates means for generating the additional auxiliary data items.

7. The system according to claim 1, further comprising a data terminal apparatus for changing the order of the items of the content data which has been assembled by the edit control section and which consists of multimedia content groups, each consisting of the program data and the auxiliary data items, and for transmitting the items of content data in the order changed.

8. The system according to claim 1, further comprising a data terminal apparatus for skipping a certain auxiliary data items contained in the content data which has been assembled by the edit control section and which consists of multimedia content groups, each consisting of the program data and the auxiliary data items, thereby to transmit the content data.

9. The system according to claim 1, further comprising a data terminal apparatus for transmitting additional auxiliary data items, together with the content data which has been assembled by the edit control section and which consists of multimedia content groups, each consisting of the program data and the auxiliary data items.

10. The system according to claim 9, wherein the data terminal apparatus acquires the additional auxiliary data items from an external system, by the use of the edit control section.

11. The system according to claim 9, wherein the data terminal apparatus incorporates means for generating the additional auxiliary data items.

12. The system according to claim 1, wherein the program data and the auxiliary data items have an attribute each, which can be transferred to a position remote from the program data and the auxiliary data items.

13. The system according to claim 1, further comprising a data server apparatus for describing attribute data representing means for transferring money and settling charge between players concerning the program data and the auxiliary data items before the program data and auxiliary data items are transmitted in a prescribed order.

14. The system according to claim 13, wherein the data server apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items which have been generated by the edit control section.

15. The system according to claim 14, wherein the data server apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items the edit control section have generated by changing the order in which the items of the content data are to be transmitted.

16. The system according to claim 14, wherein the data server apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items the edit control section have generated by skipping a certain auxiliary data item.

17. The system according to claim 14, wherein the data server apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items the edit control section have generated by transmitting additional auxiliary data items.

18. The system according to claim 17, wherein the data server apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items which are generated from the additional auxiliary data items.

19. The system according to claim 1, further comprising a data terminal apparatus for describing attribute data representing means for transferring money and settling charge between players concerning the program data and the auxiliary data items before the program data and auxiliary data items are transmitted in a prescribed order.

20. The system according to claim 19, wherein the data terminal apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items which have been generated by the edit control section.

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21. The system according to claim 19, wherein the data terminal apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items the edit control section have generated by changing the order in which the items of the content data are to be transmitted.

22. The system according to claim 19, wherein the data terminal apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items the edit control section have generated by skipping a certain auxiliary data item.

23. The system according to claim 19, wherein the data terminal apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items the edit control section have generated by transmitting additional auxiliary data items.

24. The system according to claim 23, wherein the data server apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items which are generated from the additional auxiliary data items.

25. The system according to claim 1, further comprising a data server apparatus for describing attribute data representing conditions of limiting the transmission of new program data and auxiliary data items which have been generated by the edit control apparatus.

26. The system according to claim 25, wherein the data server apparatus describes attribute data representing conditions of changing the order in which the program data and auxiliary data items are to be transmitted, in accordance with the relation between the program data and the auxiliary data items.

27. The system according to claim 25, wherein the data server apparatus describes attribute data representing conditions of stopping the transmission of the program data and auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

28. The system according to claim 25, wherein the data server apparatus describes attribute data representing conditions of transmitting the program data and auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

29. The system according to claim 25, wherein the data server apparatus describes attribute data representing conditions of acquiring additional auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

30. The system according to claim 1, further comprising a data terminal apparatus for describing attribute data representing conditions of limiting the transmission of new program data and auxiliary data items which have been generated by the edit control apparatus.

31. The system according to claim 30, wherein the data terminal apparatus describes attribute data representing conditions of changing the order in which the program data and auxiliary data items are to be transmitted, in accordance with the relation between the program data and the auxiliary data items.

32. The system according to claim 30, wherein the data terminal apparatus describes attribute data representing conditions of stopping the transmission of the program data and auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

33. The system according to claim 30, wherein the data terminal apparatus describes attribute data representing conditions of transmitting the program data and auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

34. The system according to claim 30, wherein the data terminal apparatus describes attribute data representing conditions of acquiring additional auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

35. A data server apparatus comprising:

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a first data-transmitting section for transmitting a continuous stream of content data that consists of multimedia content groups, each composed of program data and auxiliary data items;
an edit control section for performing an operation on the profile data items of the attributes of each program data and auxiliary data items, thereby automatically assembling new data; and
a second data-transmitting section for selecting the auxiliary data items to be inserted into the program data in accordance with the new data assembled by the edit control section, thereby to transmit a continuous stream of content data that consists of multimedia content groups, each composed of the program data and the auxiliary data items.

36. The data server apparatus according to claim 35, wherein the edit control section changes the order of the items of the content data that consists of multimedia content groups, each composed of the program data and the auxiliary data items, thereby to transmit the items of the content data in the order changed.

37. The data server apparatus according to claim 35, wherein the edit control section skips a certain auxiliary data item contained in the content data that consists of multimedia content groups, each composed of the program data and the auxiliary data items, thereby to transmit the content data.

38. The data server apparatus according to claim 35, wherein the edit control section transmits additional auxiliary data items, together with the content data that consists of multimedia content groups, each composed of the programdata and the auxiliary data items.

39. The data server apparatus according to claim 38, wherein the edit control section acquires the additional auxiliary data items from an external system.

40. The data server apparatus according to claim 38, further comprising means for generating the additional auxiliary data items.

41. The data server apparatus according to claim 35, wherein attribute data can be described, representing means for transferring money and settling charge between players concerning the program data and auxiliary data items, thereby to transmit the program data and transmit the auxiliary data items in a prescribed order.

42. The data server apparatus according to claim 41, wherein attribute data can be described, representing means for transferring money and settling charge between players concerning new program data and auxiliary data items the edit control apparatus has generated.

43. The data server apparatus according to claim 41, wherein attribute data is described, representing means for transferring money and settling charge between players concerning new program data and auxiliary data items the edit control apparatus has generated by changing the order in which the items of the content data are to be transmitted.

44. The data server apparatus according to claim 41, wherein attribute data is described, representing means for transferring money and settling charge between players concerning new program data and auxiliary data items the edit control apparatus has generated by skipping a certain auxiliary data item.

45. The data server apparatus according to claim 41, wherein attribute data is described, representing means for transferring money and settling charge between players concerning new program data and auxiliary data items the edit control apparatus has generated by transmitting additional auxiliary data items.

46. The data server apparatus according to claim 45, wherein attribute data is described, representing means for transferring money and settling charge between players concerning new program data and auxiliary data items, which have been generated from the additional auxiliary data items.

47. The data server apparatus according to claim 35, wherein attribute data is described, representing conditions of limiting the transmission of new program data and auxiliary data items which have been generated by the edit control apparatus.

48. The data server apparatus according to claim 47, wherein attribute data is described, representing conditions of changing the order in which the program data and auxiliary data items are to be transmitted, in accordance with

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the relation between the program data and the auxiliary data items.

49. The data server apparatus according to claim 47, wherein attribute data is described, attribute data is described, representing conditions of stopping the transmission of the program data and auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

50. The data server apparatus according to claim 47, wherein attribute data is described, representing conditions of limiting the transmission of additional auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

51. The data server apparatus according to claim 47, wherein the data attribute data is described, representing conditions of acquiring additional auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

52. A data terminal apparatus comprising:

a first data-transmitting section for receiving a continuous stream of content data that consists of multimedia content groups, each composed of program data and auxiliary data items;
an edit control section for performing an operation on the attributes of each program data and auxiliary data items, thereby automatically assembling new data; and
a second data-transmitting section for selecting the auxiliary data items to be inserted into the program data in accordance with the new data assembled by the edit control section, thereby to transmit a continuous stream of content data that consists of multimedia content groups, each composed of the program data and the auxiliary data items.

53. The data terminal apparatus according to claim 52, wherein the edit control section changes the order of the items of the content data that consists of multimedia content groups, each composed of the program data and the auxiliary data items, thereby to transmit the items of the content data in the order changed.

54. The data terminal apparatus according to claim 52, wherein the edit control section skips a certain auxiliary data item contained in the content data that consists of multimedia content groups, each composed of the program data and the auxiliary data items, thereby to transmit the content data.

55. The data terminal apparatus according to claim 52, wherein the edit control section transmits additional auxiliary data items, together with the content data that consists of multimedia content groups, each composed of the program data and the auxiliary data items.

56. The data terminal apparatus according to claim 55, wherein the edit control section acquires the additional auxiliary data items from an external system.

57. The data terminal apparatus according to claim 55, further comprising means for generating additional auxiliary data items.

58. The data terminal apparatus according to claim 52, wherein attribute data can be described, representing means for transferring money and settling charge between players concerning the program data and auxiliary data items, thereby to transmit the program data and transmit the auxiliary data items in a prescribed order.

59. The data terminal apparatus according to claim 58, wherein attribute data can be described, representing means for transferring money and settling charge between players concerning new program data and auxiliary data items the edit control apparatus has generated.

60. The data terminal apparatus according to claim 58, wherein attribute data is described, representing means for transferring money and settling charge between players concerning new program data and auxiliary data items the edit control apparatus has generated by changing the order in which the items of the content data are to be transmitted.

61. The data terminal apparatus according to claim 58, wherein attribute data is described, representing means for transferring money and settling charge between players concerning new program data and auxiliary data items

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the edit control apparatus has generated by skipping a certain auxiliary data item.

62. The data terminal apparatus according to claim 58, wherein attribute data is described, representing means for transferring money and settling charge between players concerning new program data and auxiliary data items the edit control apparatus has generated by transmitting additional auxiliary data items.

63. The data terminal apparatus according to claim 52, wherein attribute data is described, representing means for transferring money and settling charge between players concerning new program data and auxiliary data items which have been generated by the edit control apparatus.

64. The data terminal apparatus according to claim 52, wherein attribute data is described, representing conditions of limiting the transmission of new program data and auxiliary data items which have been generated by the edit control apparatus.

65. The data terminal apparatus according to claim 64, wherein attribute data is described, representing conditions of changing the order in which the program data and auxiliary data items are to be transmitted, in accordance with the relation between the program data and the auxiliary data items.

66. The data terminal apparatus according to claim 64, wherein attribute data is described, representing conditions of stopping the transmission of the program data and auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

67. The data terminal apparatus according to claim 64, wherein attribute data is described, representing conditions of limiting the transmission of additional auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

68. The data terminal apparatus according to claim 64, wherein the data attribute data is described, representing conditions of acquiring additional auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

69. A method of providing data, comprising the steps of:

transmitting a continuous stream of content data that consists of multimedia content groups, each composed of program data and auxiliary data items;
performing an operation on the attributes of each program data and auxiliary data items, thereby automatically assembling new content data; and
selecting the auxiliary data items to be inserted into the program data in accordance with the new content data, thereby to transmit a continuous stream of content data that consists of multimedia content groups, each composed of the program data and the auxiliary data items.

70. The method according to claim 69, wherein a data server apparatus changes the order of the items of the new content data which consists of multimedia content groups, each consisting of the program data and the auxiliary data items, and for outputting the items of the new content data in the order changed, thereby to transmit the items of the new content data in the order changed.

71. The method according to claim 69, wherein a data server apparatus skips a certain auxiliary data items contained in the new content data which consists of multimedia content groups, each consisting of the program data and the auxiliary data items, thereby to transmit the new content data.

72. The method according to claim 69, wherein a data server apparatus transmits additional auxiliary data items, together with the new content data which consists of multimedia content groups, each consisting of the program data and the auxiliary data items.

73. The method according to claim 69, wherein a data terminal apparatus changes the order of the items of the new content data which consists of multimedia content groups, each consisting of the program data and the auxiliary data items, and for outputting the items of the new content data in the order changed, thereby to transmit the items of the new content data in the order changed.

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74. The method according to claim 69, wherein a data terminal apparatus skips a certain auxiliary data items contained in the new content data which consists of multimedia content groups, each consisting of the program data and the auxiliary data items, thereby to transmit the new content data.

75. The method according to claim 69, wherein a data terminal apparatus transmits additional auxiliary data items, together with the new content data which consists of multimedia content groups, each consisting of the program data and the auxiliary data items.

76. The method according to claim 69, wherein attribute data can be described, representing means for transferring money and settling charge between players concerning the program data and auxiliary data items, thereby to transmit the program data and transmit the auxiliary data items in a prescribed order, from a data server apparatus.

77. The method according to claim 76, wherein the data server apparatus can describe attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items which have been generated.

78. The method according to claim 77, wherein the data server apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items which have been generated by changing the order in which the items of the content data are to be transmitted.

79. The method according to claim 77, wherein the data server apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items which have been generated by skipping a certain auxiliary data item.

80. The method according to claim 77, wherein the data server apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items which have been generated by transmitting additional auxiliary data items.

81. The method according to claim 80, wherein the data server apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items which have been generated from the additional auxiliary data items.

82. The method according to claim 69, wherein a data terminal apparatus can describe attribute data representing means for transferring money and settling charge between players concerning the program data and auxiliary data items, thereby to transmit the program data and transmit the auxiliary data items in a prescribed order, from a data terminal apparatus.

83. The method according to claim 82, wherein the data terminal apparatus can describe attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items which have been generated.

84. The method according to claim 82, wherein the data terminal apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items which have been generated by changing the order in which the items of the content data are to be transmitted.

85. The method according to claim 82, wherein the data terminal apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items which have been generated by skipping a certain auxiliary data item.

86. The method according to claim 82, wherein the data terminal apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items which have been generated by transmitting additional auxiliary data items.

87. The method according to claim 86, wherein the data terminal apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items which have been generated from the additional auxiliary data items.

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88. The method according to claim 69, wherein a data server apparatus describes attribute data representing conditions of limiting the transmission of new program data and auxiliary data items which have been generated.

89. The method according to claim 88, wherein the data server apparatus describes attribute data representing conditions of changing the order in which the program data and auxiliary data items are to be transmitted, in accordance with the relation between the program data and the auxiliary data items.

90. The method according to claim 88, wherein the data server apparatus describes attribute data representing conditions of stopping the transmission of the program data and auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

91. The method according to claim 88, wherein the data server apparatus describes attribute data representing conditions of limiting the transmission of additional auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

92. The method according to claim 88, wherein the data server apparatus describes attribute data representing conditions of acquiring additional auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

93. The method according to claim 69, wherein a data terminal apparatus describes attribute data representing conditions of limiting the transmission of the program data and auxiliary data items.

94. The method according to claim 93, wherein the data terminal apparatus describes attribute data representing conditions of changing the order in which the program data and auxiliary data items are to be transmitted, in accordance with the relation between the program data and the auxiliary data items.

95. The method according to claim 93, wherein the data terminal apparatus describes attribute data representing conditions of stopping the transmission of the program data and auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

96. The method according to claim 93, wherein the data terminal apparatus describes attribute data representing conditions of limiting the transmission of additional auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

97. The method according to claim 93, wherein the data terminal apparatus describes attribute data representing conditions of acquiring additional auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

98. A data-providing system comprising:

a first data-transmitting section for transmitting a continuous stream of content data that consists of multimedia content groups, each composed of program data and auxiliary data items;
an edit control section for performing an operation on the attributes of each program data and auxiliary data items and the profile data of a user apparatus, thereby automatically assembling new data; and
a second data-transmitting section for selecting the auxiliary data items to be inserted into the program data in accordance with the new data assembled by the edit control section, thereby to transmit a continuous stream of content data that consists of multimedia content groups, each composed of the program data and the auxiliary data items.

99. The system according to claim 98, further comprising a data server apparatus for changing the order of the items of the content data which has been assembled by the edit control section and which consists of multimedia content groups, each consisting of the program data and the auxiliary data items, and for outputting the items of content data in the order changed, thereby to transmit the content data.

100. The system according to claim 98, further comprising a data server apparatus for skipping a certain auxiliary data items contained in the content data which has been assembled by the edit control section and which consists of multimedia content groups, each consisting of the program data and the auxiliary data items, thereby to transmit the content data.

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101. The system according to claim 98, further comprising a data server apparatus for transmitting additional auxiliary data items, together with the content data which has been assembled by the edit control section and which consists of multimedia content groups, each consisting of the program data and the auxiliary data items.

102. The system according to claim 101, wherein the data server apparatus acquires the additional auxiliary data items from an external system, by the use of the edit control section.

103. The system according to claim 101, wherein the data server apparatus incorporates means for generating the additional auxiliary data items.

104. The system according to claim 98, further comprising a data terminal apparatus for changing the order of the items of the content data which has been assembled by the edit control section and which consists of multimedia content groups, each consisting of the program data and the auxiliary data items, and for transmitting the items of content data in the order changed.

105. The system according to claim 98, further comprising a data terminal apparatus for skipping a certain auxiliary data items contained in the content data which has been assembled by the edit control section and which consists of multimedia content groups, each consisting of the program data and the auxiliary data items, thereby to transmit the content data.

106. The system according to claim 98, further comprising a data terminal apparatus for transmitting additional auxiliary data items, together with the content data which has been assembled by the edit control section and which consists of multimedia content groups, each consisting of the program data and the auxiliary data items.

107. The system according to claim 106, wherein the data terminal apparatus acquires the additional auxiliary data items from an external system, by the use of the edit control section.

108. The system according to claim 106, wherein the data terminal apparatus incorporates means for generating the additional auxiliary data items.

109. The system according to claim 98, wherein the program data and the auxiliary data items have an attribute each, which can be transferred to a position remote from the program data and the auxiliary data items.

110. The system according to claim 98, further comprising a data server apparatus for describing attribute data representing means for transferring money and settling charge between players concerning the program data and the auxiliary data items before the program data and auxiliary data items are transmitted in a prescribed order.

111. The system according to claim 110, wherein the data server apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items which have been generated by the edit control section.

112. The system according to claim 111, wherein the data server apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items the edit control section have generated by changing the order in which the items of the content data are to be transmitted.

113. The system according to claim 111, wherein the data server apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items the edit control section have generated by skipping a certain auxiliary data item.

114. The system according to claim 111, wherein the data server apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items the edit control section have generated by transmitting additional auxiliary data items.

115. The system according to claim 114, wherein the data server apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items which are generated from the additional auxiliary data items.

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116. The system according to claim 98, further comprising a data terminal apparatus for describing attribute data representing means for transferring money and settling charge between players concerning the program data and the auxiliary data items before the program data and auxiliary data items are transmitted in a prescribed order.

117. The system according to claim 116, wherein the data terminal apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items which have been generated by the edit control section.

118. The system according to claim 116, wherein the data terminal apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items the edit control section have generated by changing the order in which the items of the content data are to be transmitted.

119. The system according to claim 116, wherein the data terminal apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items the edit control section have generated by skipping a certain auxiliary data item.

120. The system according to claim 116, wherein the data terminal apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items the edit control section have generated by transmitting additional auxiliary data items.

121. The system according to claim 120, wherein the data server apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items which are generated from the additional auxiliary data items.

122. The system according to claim 98, further comprising a data server apparatus for describing attribute data representing conditions of limiting the transmission of new program data and auxiliary data items which have been generated by the edit control apparatus.

123. The system according to claim 122, wherein the data server apparatus describes attribute data representing conditions of changing the order in which the program data and auxiliary data items are to be transmitted, in accordance with the relation between the program data and the auxiliary data items.

124. The system according to claim 122, wherein the data server apparatus describes attribute data representing conditions of stopping the transmission of the program data and auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

125. The system according to claim 122, wherein the data server apparatus describes attribute data representing conditions of transmitting the program data and auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

126. The system according to claim 122, wherein the data server apparatus describes attribute data representing conditions of acquiring additional auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

127. The system according to claim 98, further comprising a data terminal apparatus for describing attribute data representing conditions of limiting the transmission of new program data and auxiliary data items which have been generated by the edit control apparatus.

128. The system according to claim 127, wherein the data terminal apparatus describes attribute data representing conditions of changing the order in which the program data and auxiliary data items are to be transmitted, in accordance with the relation between the program data and the auxiliary data items.

129. The system according to claim 127, wherein the data terminal apparatus describes attribute data representing conditions of stopping the transmission of the program data and auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

130. The system according to claim 127, wherein the data terminal apparatus describes attribute data representing

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conditions of transmitting the program data and auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

131. The system according to claim 127, wherein the data terminal apparatus describes attribute data representing conditions of acquiring additional auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

132. A data server apparatus comprising:

a first data-transmitting section for transmitting a continuous stream of content data that consists of multimedia content groups, each composed of program data and auxiliary data items;
an edit control section for performing an operation on the profile data items of the attributes of each program data and auxiliary data items and the profile data of a user apparatus, thereby automatically assembling new data; and
a second data-transmitting section for selecting the auxiliary data items to be inserted into the program data in accordance with the new data assembled by the edit control section, thereby to transmit a continuous stream of content data that consists of multimedia content groups, each composed of the program data and the auxiliary data items.

133. The data server apparatus according to claim 132, wherein the edit control section changes the order of the items of the content data that consists of multimedia content groups, each composed of the program data and the auxiliary data items, thereby to transmit the items of the content data in the order changed.

134. The data server apparatus according to claim 132, wherein the edit control section skips a certain auxiliary data item contained in the content data that consists of multimedia content groups, each composed of the program data and the auxiliary data items, thereby to transmit the content data.

135. The data server apparatus according to claim 132, wherein the edit control section transmits additional auxiliary data items, together with the content data that consists of multimedia content groups, each composed of the program data and the auxiliary data items.

136. The data server apparatus according to claim 135, wherein the edit control section acquires the additional auxiliary data items from an external system.

137. The data server apparatus according to claim 135, further comprising means for generating the additional auxiliary data items.

138. The data server apparatus according to claim 132, wherein attribute data can be described, representing means for transferring money and settling charge between players concerning the program data and auxiliary data items, thereby to transmit the program data and transmit the auxiliary data items in a prescribed order.

139. The data server apparatus according to claim 138, wherein attribute data can be described, representing means for transferring money and settling charge between players concerning new program data and auxiliary data items the edit control apparatus has generated.

140. The data server apparatus according to claim 138, wherein attribute data is described, representing means for transferring money and settling charge between players concerning new program data and auxiliary data items the edit control apparatus has generated by changing the order in which the items of the content data are to be transmitted.

141. The data server apparatus according to claim 138, wherein attribute data is described, representing means for transferring money and settling charge between players concerning new program data and auxiliary data items the edit control apparatus has generated by skipping a certain auxiliary data item.

142. The data server apparatus according to claim 138, wherein attribute data is described, representing means for transferring money and settling charge between players concerning new program data and auxiliary data items the edit control apparatus has generated by transmitting additional auxiliary data items.

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143. The data server apparatus according to claim 142, wherein attribute data is described, representing means for transferring money and settling charge between players concerning new program data and auxiliary data items that have been generated from the additional auxiliary data items.

144. The data server apparatus according to claim 132, wherein attribute data is described, representing conditions of limiting the transmission of new program data and auxiliary data items which have been generated by the edit control apparatus.

145. The data server apparatus according to claim 144, wherein attribute data is described, representing conditions of changing the order in which the program data and auxiliary data items are to be transmitted, in accordance with the relation between the program data and the auxiliary data items.

146. The data server apparatus according to claim 144, wherein attribute data is described, attribute data is described, representing conditions of stopping the transmission of the program data and auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

147. The data server apparatus according to claim 144, wherein attribute data is described, representing conditions of limiting the transmission of additional auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

148. The data server apparatus according to claim 144, wherein the data attribute data is described, representing conditions of acquiring additional auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

149. A data terminal apparatus comprising:

a first data-transmitting section for receiving a continuous stream of content data that consists of multimedia content groups, each composed of program data and auxiliary data items;
an edit control section for performing an operation on the attributes of each program data and auxiliary data items and the profile data of a user apparatus, thereby automatically assembling new data; and
a second data-transmitting section for selecting the auxiliary data items to be inserted into the program data in accordance with the new data assembled by the edit control section, thereby to transmit a continuous stream of content data that consists of multimedia content groups, each composed of the program data and the auxiliary data items.

150. The data terminal apparatus according to claim 149, wherein the edit control section changes the order of the items of the content data that consists of multimedia content groups, each composed of the program data and the auxiliary data items, thereby to transmit the items of the content data in the order changed.

151. The data terminal apparatus according to claim 149, wherein the edit control section skips a certain auxiliary data item contained in the content data that consists of multimedia content groups, each composed of the program data and the auxiliary data items, thereby to transmit the content data.

152. The data terminal apparatus according to claim 149, wherein the edit control section transmits additional auxiliary data items, together with the content data that consists of multimedia content groups, each composed of the program data and the auxiliary data items.

153. The data terminal apparatus according to claim 152, wherein the edit control section acquires the additional auxiliary data items from an external system.

154. The data terminal apparatus according to claim 152, further comprising means for generating additional auxiliary data items.

155. The data terminal apparatus according to claim 149, wherein attribute data can be described, representing means for transferring money and settling charge between players concerning the program data and auxiliary data items, thereby to transmit the program data and transmit the auxiliary data items in a prescribed order.

156. The data terminal apparatus according to claim 155, wherein attribute data can be described, representing means

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for transferring money and settling charge between players concerning new program data and auxiliary data items the edit control apparatus has generated.

157. The data terminal apparatus according to claim 155, wherein attribute data is described, representing means for transferring money and settling charge between players concerning new program data and auxiliary data items the edit control apparatus has generated by changing the order in which the items of the content data are to be transmitted.

158. The data terminal apparatus according to claim 155, wherein attribute data is described, representing means for transferring money and settling charge between players concerning new program data and auxiliary data items the edit control apparatus has generated by skipping a certain auxiliary data item.

159. The data terminal apparatus according to claim 155, wherein attribute data is described, representing means for transferring money and settling charge between players concerning new program data and auxiliary data items the edit control apparatus has generated by transmitting additional auxiliary data items.

160. The data terminal apparatus according to claim 159, wherein attribute data is described, representing means for transferring money and settling charge between players concerning new program data and auxiliary data items which have been generated by the edit control apparatus.

161. The data terminal apparatus according to claim 149, wherein attribute data is described, representing conditions of limiting the transmission of new program data and auxiliary data items which have been generated by the edit control apparatus.

162. The data terminal apparatus according to claim 161, wherein attribute data is described, representing conditions of changing the order in which the program data and auxiliary data items are to be transmitted, in accordance with the relation between the program data and the auxiliary data items.

163. The data terminal apparatus according to claim 161, wherein attribute data is described, representing conditions of stopping the transmission of the program data and auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

164. The data terminal apparatus according to claim 161, wherein attribute data is described, representing conditions of limiting the transmission of additional auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

165. The data terminal apparatus according to claim 161, wherein the data attribute data is described, representing conditions of acquiring additional auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

166. A method of providing data, comprising the steps of:

transmitting a continuous stream of content data that consists of multimedia content groups, each composed of program data and auxiliary data items;
performing an operation on the attributes of each program data and auxiliary data items and the profile data of a user apparatus, thereby automatically assembling new content data; and
selecting the auxiliary data items to be inserted into the program data in accordance with the new content data, thereby to transmit a continuous stream of content data that consists of multimedia content groups, each composed of the program data and the auxiliary data items.

167. The method according to claim 166, wherein a data server apparatus changes the order of the items of the new content data which consists of multimedia content groups, each consisting of the program data and the auxiliary data items, and for outputting the items of the new content data in the order changed, thereby to transmit the items of the new content data in the order changed.

168. The method according to claim 166, wherein a data server apparatus skips a certain auxiliary data items contained in the new content data which consists of multimedia content groups, each consisting of the program data and the auxiliary data items, thereby to transmit the new content data.

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169. The method according to claim 166, wherein a data server apparatus transmits additional auxiliary data items, together with the new content data which consists of multimedia content groups, each consisting of the program data and the auxiliary data items.

170. The method according to claim 166, wherein a data terminal apparatus changes the order of the items of the new content data which consists of multimedia content groups, each consisting of the program data and the auxiliary data items, and for outputting the items of the new content data in the order changed, thereby to transmit the items of the new content data in the order changed.

171. The method according to claim 166, wherein a data terminal apparatus skips a certain auxiliary data items contained in the new content data which consists of multimedia content groups, each consisting of the program data and the auxiliary data items, thereby to transmit the new content data.

172. The method according to claim 166, wherein a data terminal apparatus transmits additional auxiliary data items, together with the new content data which consists of multimedia content groups, each consisting of the program data and the auxiliary data items.

173. The method according to claim 166, wherein attribute data can be described, representing means for transferring money and settling charge between players concerning the program data and auxiliary data items, thereby to transmit the program data and transmit the auxiliary data items in a prescribed order, from a data server apparatus.

174. The method according to claim 173, wherein the data server apparatus can describe attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items which have been generated.

175. The method according to claim 174, wherein the data server apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items which have been generated by changing the order in which the items of the content data are to be transmitted.

176. The method according to claim 174, wherein the data server apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items which have been generated by skipping a certain auxiliary data item.

177. The method according to claim 174, wherein the data server apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items which have been generated by transmitting additional auxiliary data items.

178. The method according to claim 177, wherein the data server apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items which have been generated from the additional auxiliary data items.

179. The method according to claim 166, wherein a data terminal apparatus can describe attribute data representing means for transferring money and settling charge between players concerning the program data and auxiliary data items, thereby to transmit the program data and transmit the auxiliary data items in a prescribed order, from a data terminal apparatus.

180. The method according to claim 179, wherein the data terminal apparatus can describe attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items which have been generated.

181. The method according to claim 179, wherein the data terminal apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items which have been generated by changing the order in which the items of the content data are to be transmitted.

182. The method according to claim 179, wherein the data terminal apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items which have been generated by skipping a certain auxiliary data item.

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183. The method according to claim 179, wherein the data terminal apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items which have been generated by transmitting additional auxiliary data items.

184. The method according to claim 183, wherein the data terminal apparatus describes attribute data representing means for transferring money and settling charge between players concerning new program data and auxiliary data items which have been generated from the additional auxiliary data items.

185. The method according to claim 166, wherein a data server apparatus describes attribute data representing conditions of limiting the transmission of new program data and auxiliary data items which have been generated.

186. The method according to claim 185, wherein the data server apparatus describes attribute data representing conditions of changing the order in which the program data and auxiliary data items are to be transmitted, in accordance with the relation between the program data and the auxiliary data items.

187. The method according to claim 185, wherein the data server apparatus describes attribute data representing conditions of stopping the transmission of the program data and auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

188. The method according to claim 185, wherein the data server apparatus describes attribute data representing conditions of limiting the transmission of additional auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

189. The method according to claim 185, wherein the data server apparatus describes attribute data representing conditions of acquiring additional auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

190. The method according to claim 166, wherein a data terminal apparatus describes attribute data representing conditions of limiting the transmission of the program data and auxiliary data items.

191. The method according to claim 190, wherein the data terminal apparatus describes attribute data representing conditions of changing the order in which the program data and auxiliary data items are to be transmitted, in accordance with the relation between the program data and the auxiliary data items.

192. The method according to claim 190, wherein the data terminal apparatus describes attribute data representing conditions of stopping the transmission of the program data and auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

193. The method according to claim 190, wherein the data terminal apparatus describes attribute data representing conditions of limiting the transmission of additional auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

194. The method according to claim 190, wherein the data terminal apparatus describes attribute data representing conditions of acquiring additional auxiliary data items, in accordance with the relation between the program data and the auxiliary data items.

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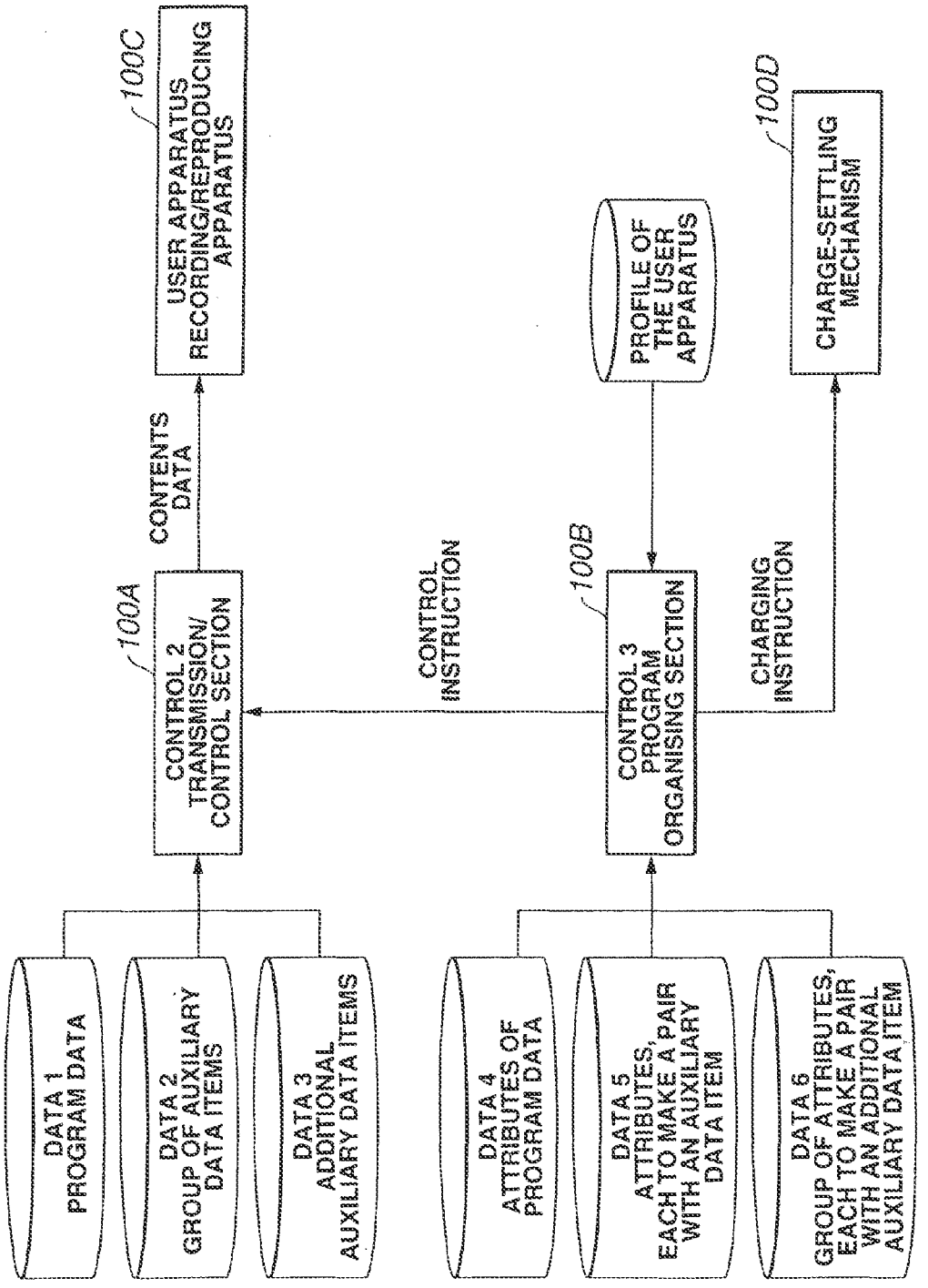


FIG.1

Petitioner Disney Ex-1004, 0223

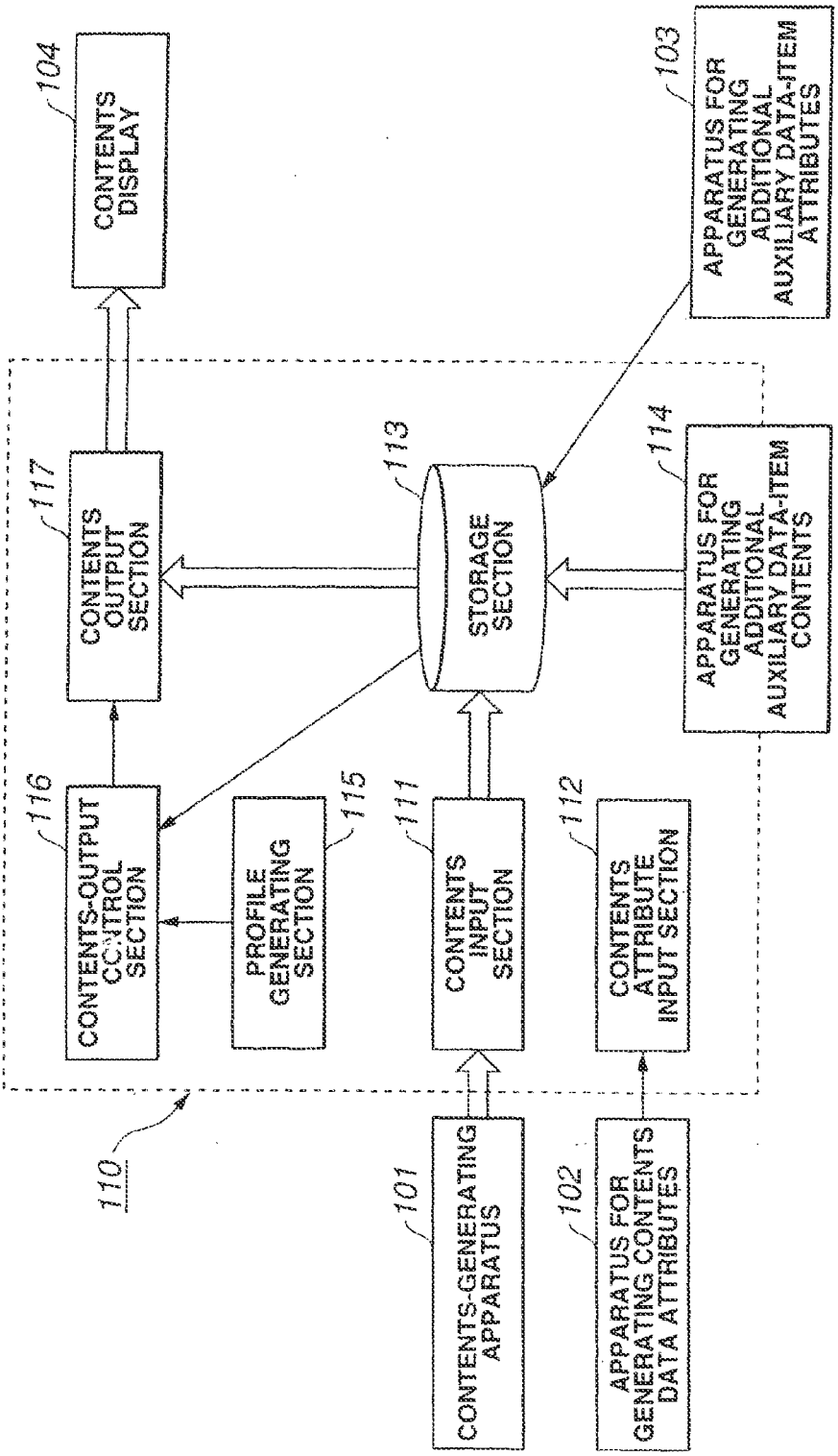


FIG.2

Petitioner Disney Ex-1004, 0224

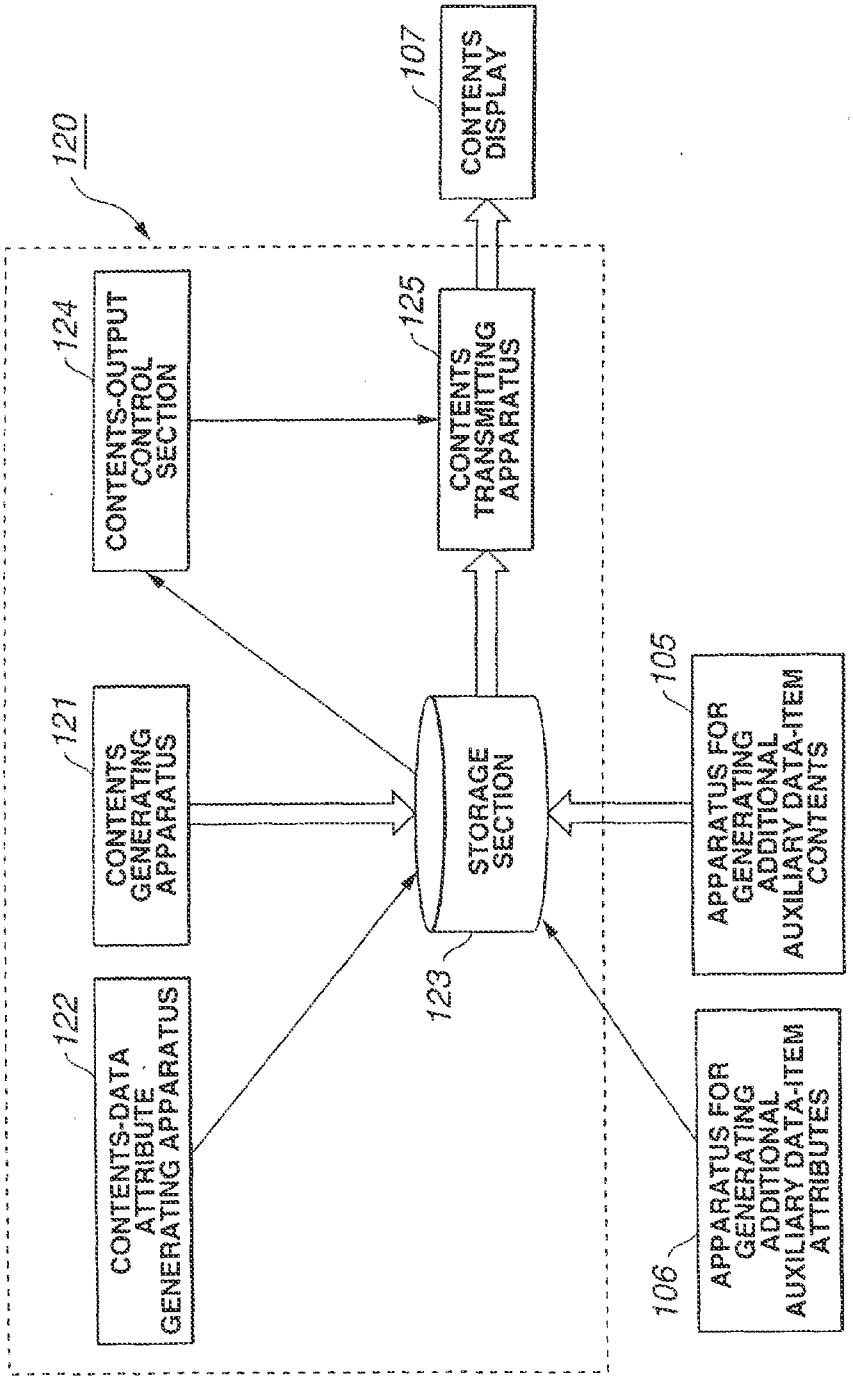


FIG.3

Petitioner Disney Ex-1004, 0225

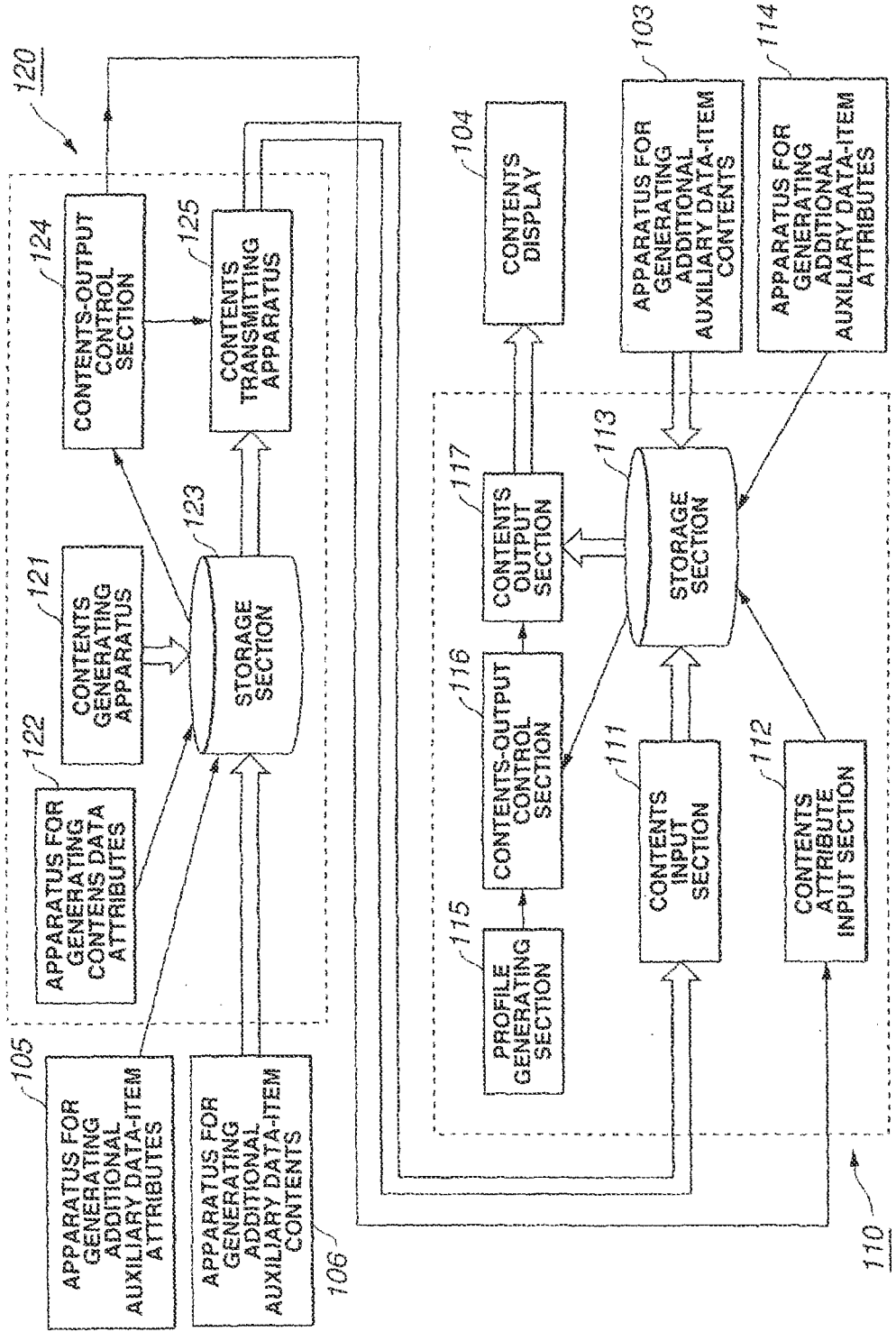


FIG.4

Petitioner Disney Ex-1004, 0226

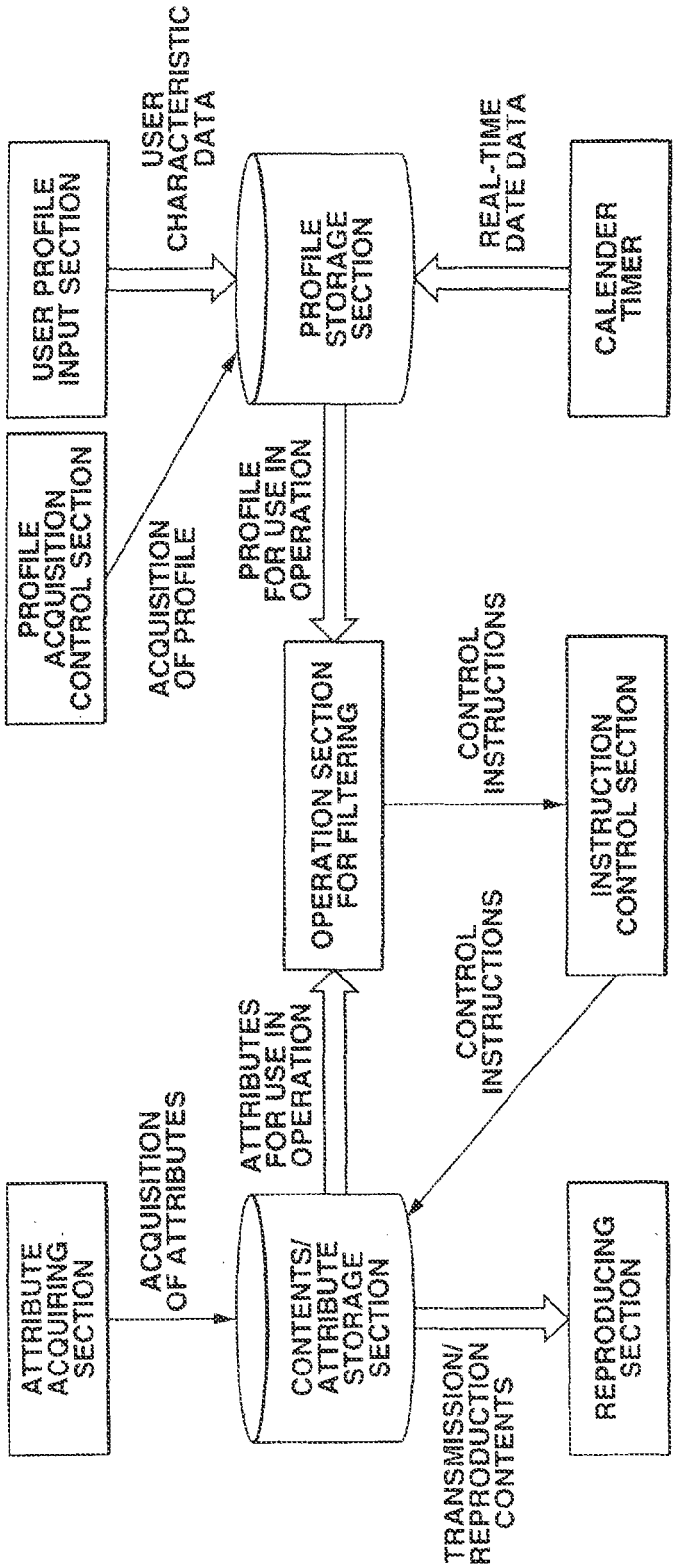


FIG.5

Petitioner Disney Ex-1004, 0227

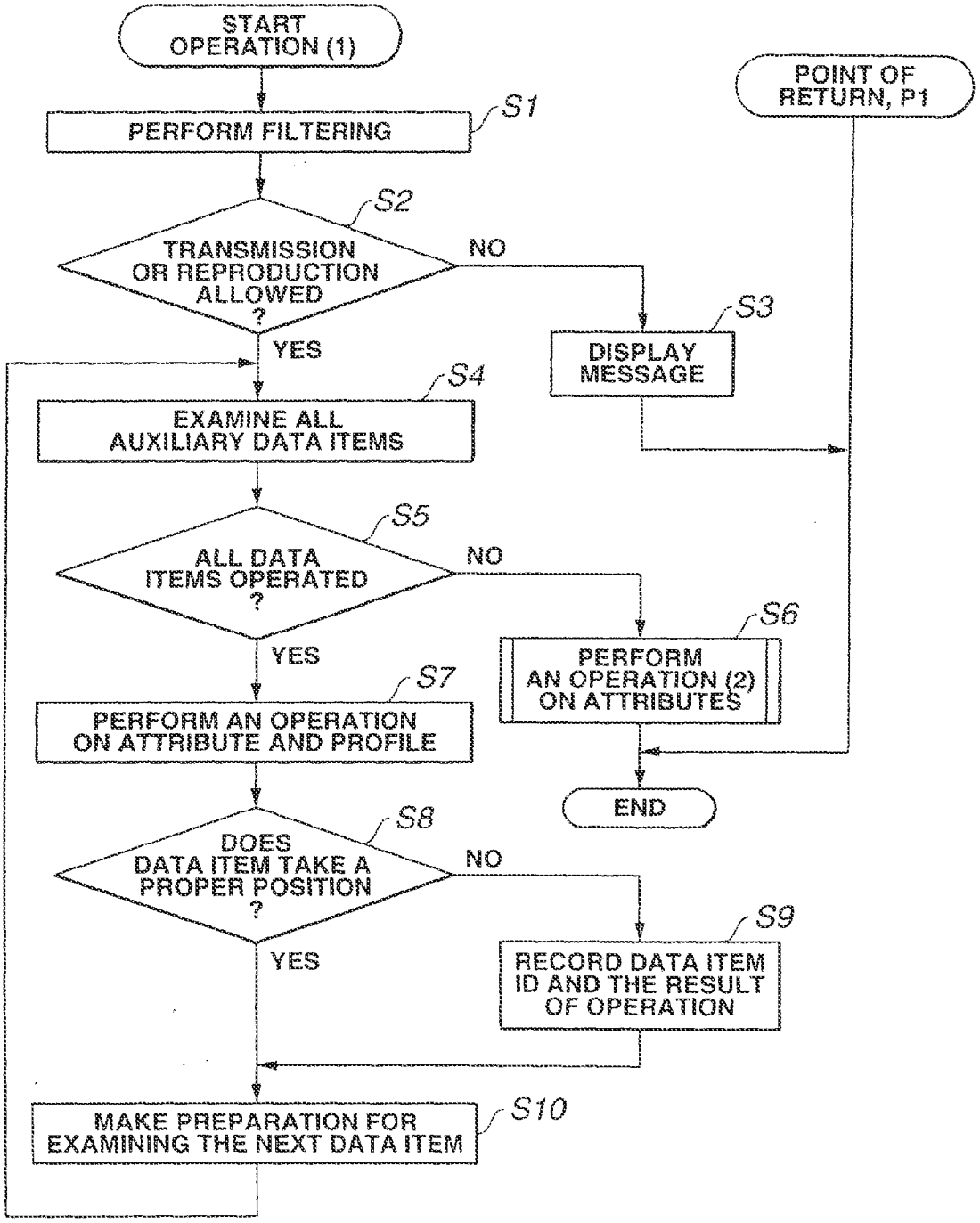


FIG.6

Petitioner Disney Ex-1004, 0228

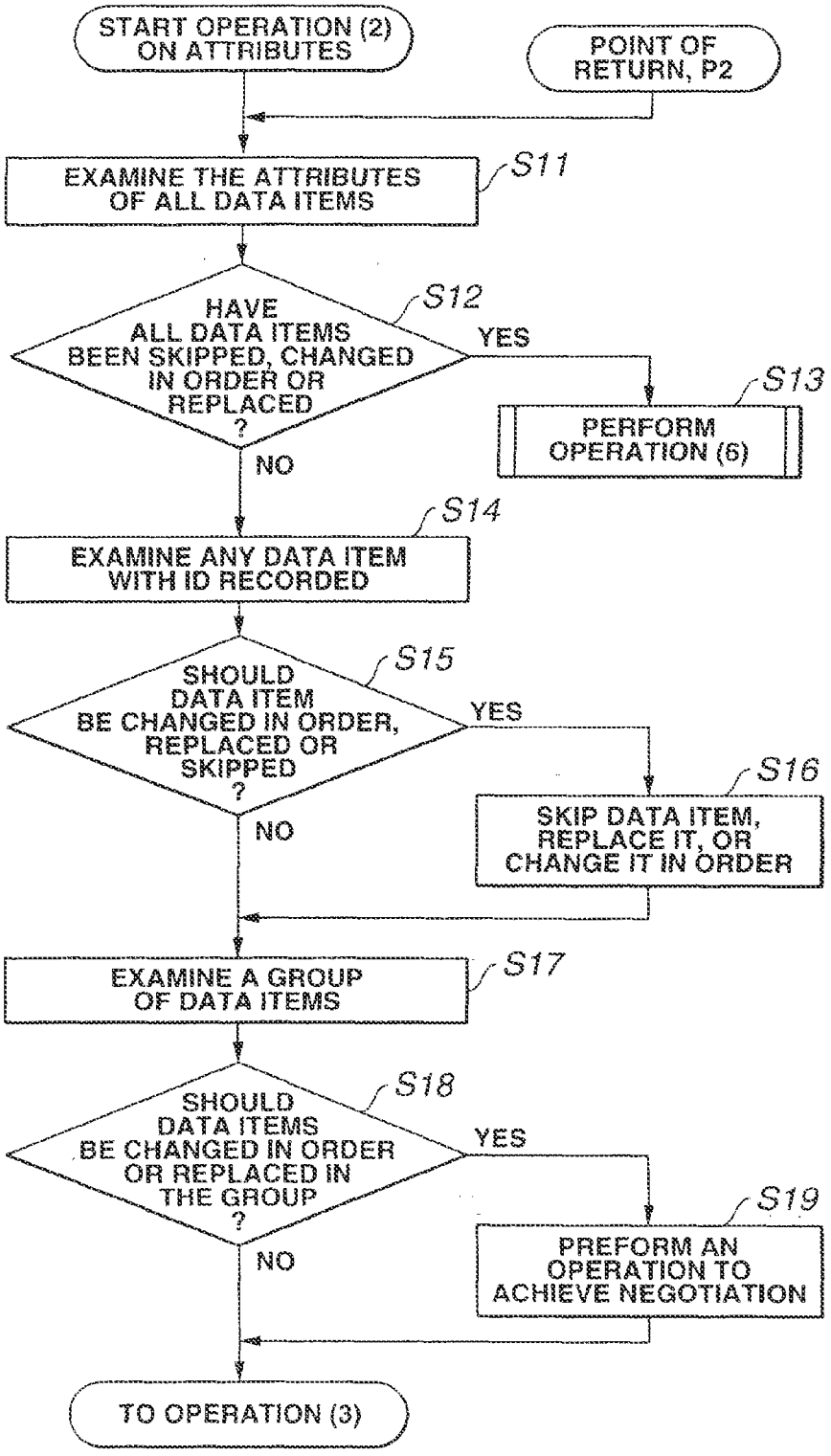


FIG.7

Petitioner Disney Ex-1004, 0229

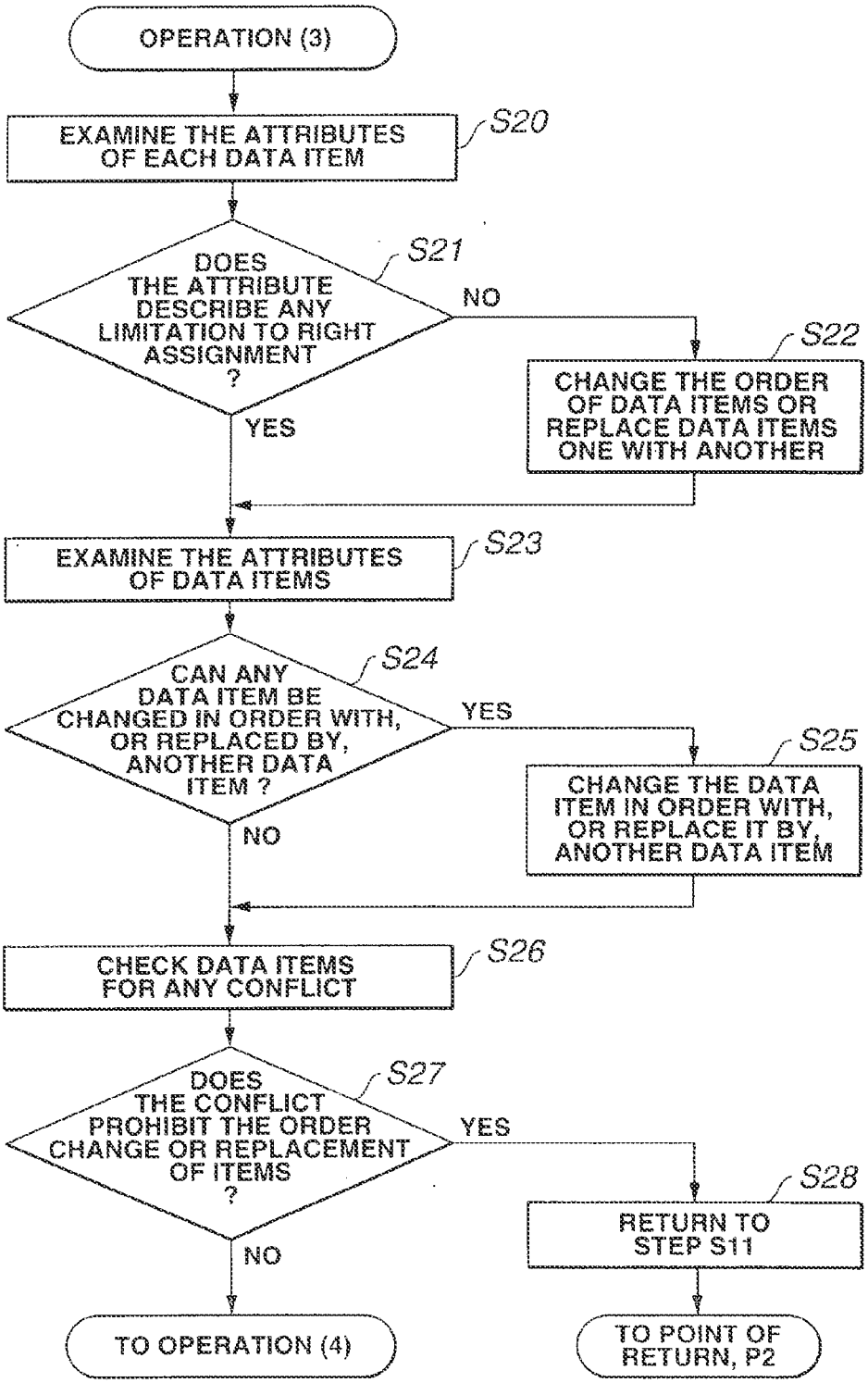


FIG.8

Petitioner Disney Ex-1004, 0230

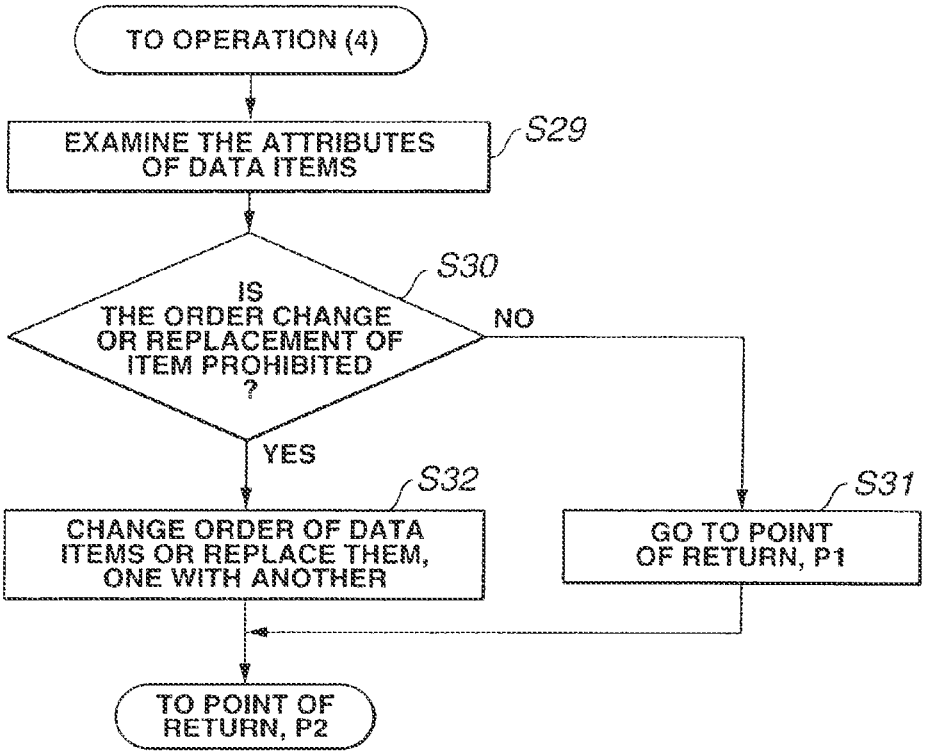


FIG.9

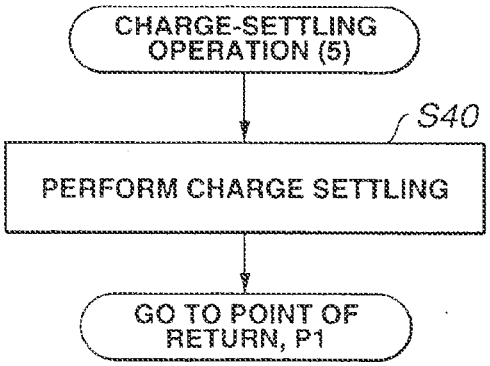


FIG.10

Petitioner Disney Ex-1004, 0231

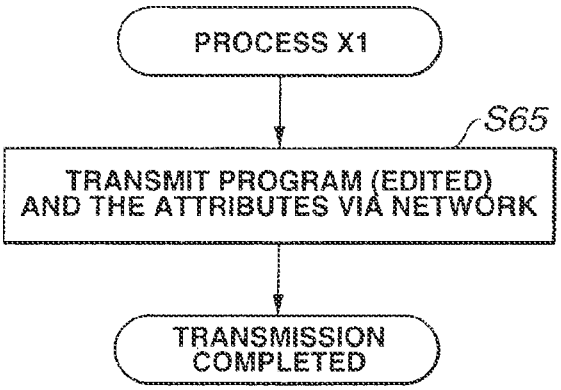


FIG.12

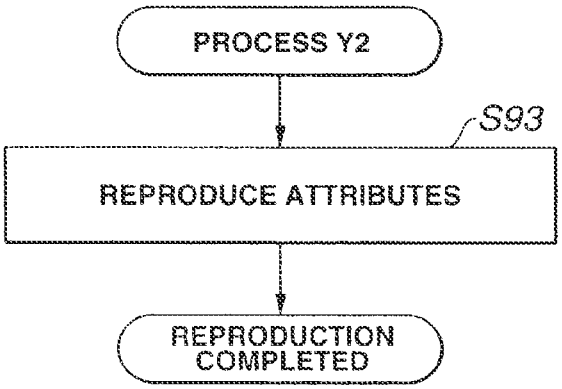


FIG.15

Petitioner Disney Ex-1004, 0232

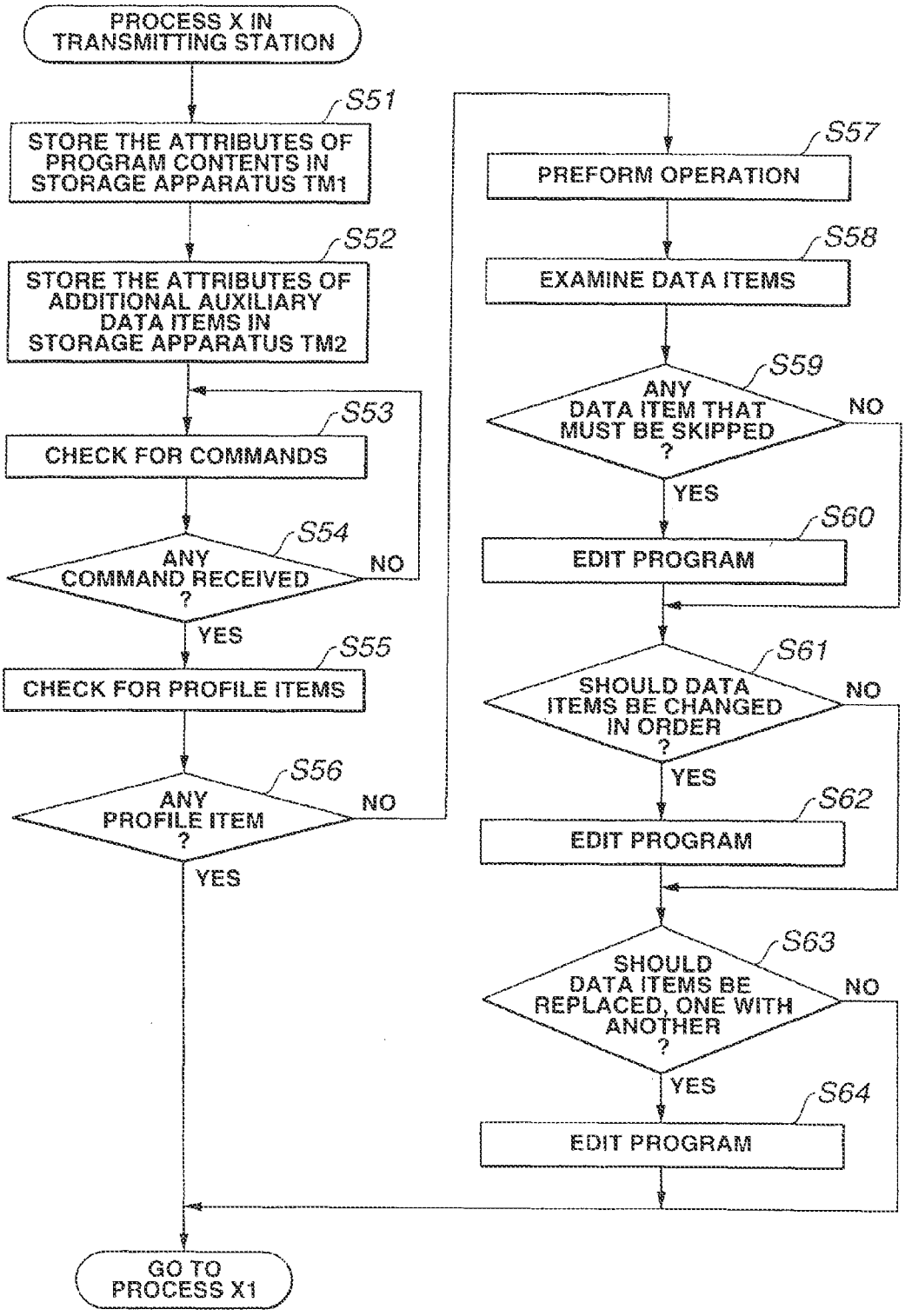


FIG.11

Petitioner Disney Ex-1004, 0233

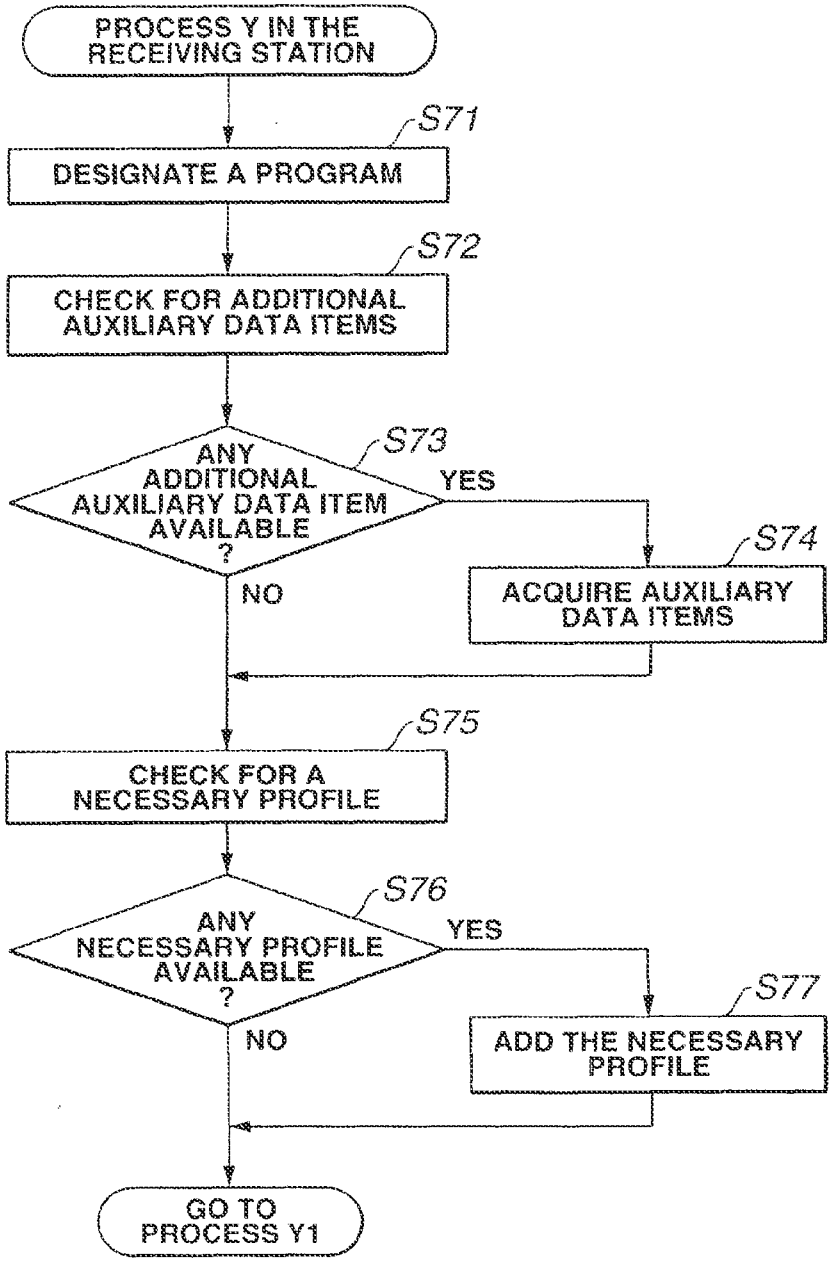


FIG.13

Petitioner Disney Ex-1004, 0234

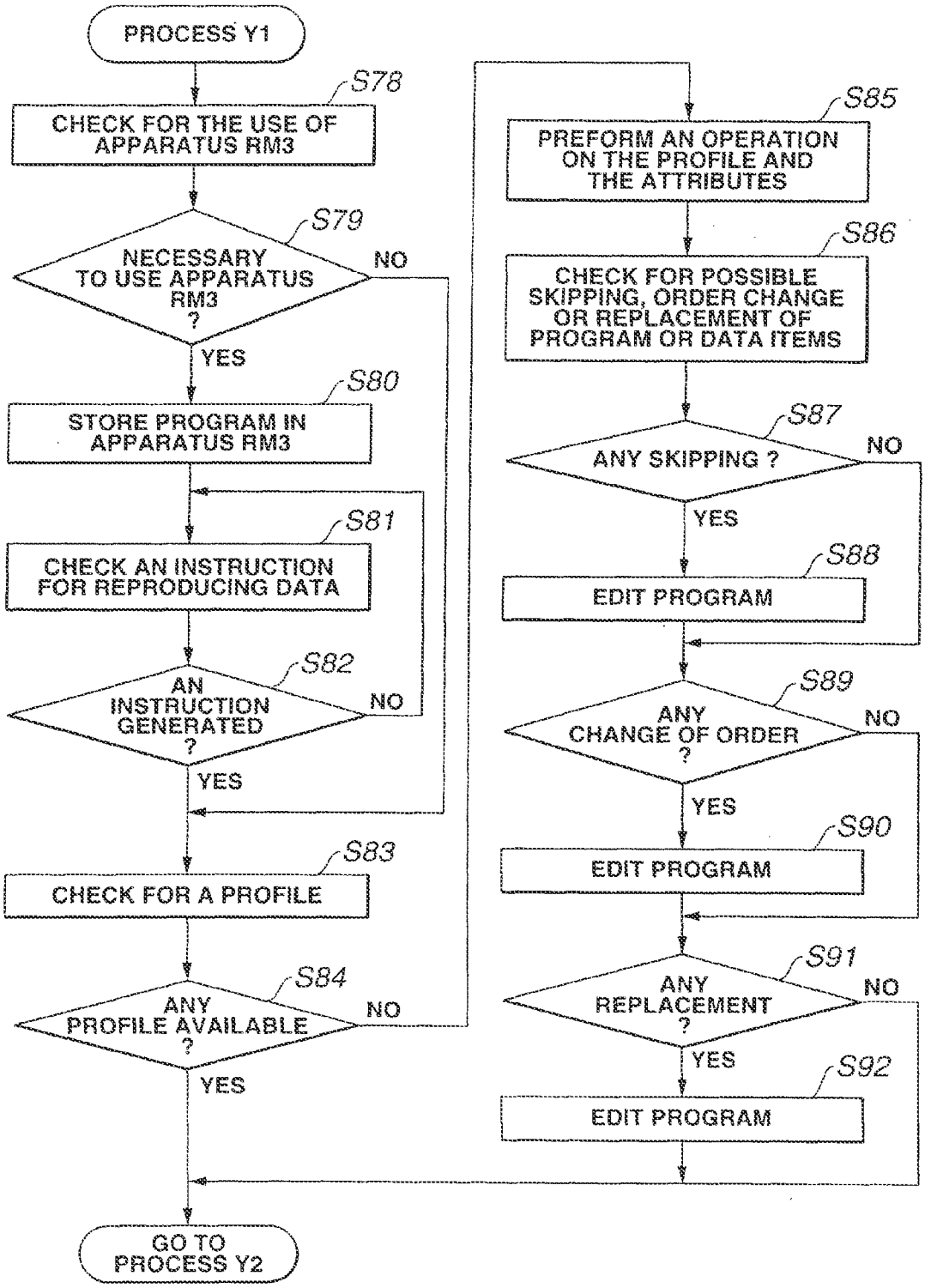


FIG.14

Petitioner Disney Ex-1004, 0235

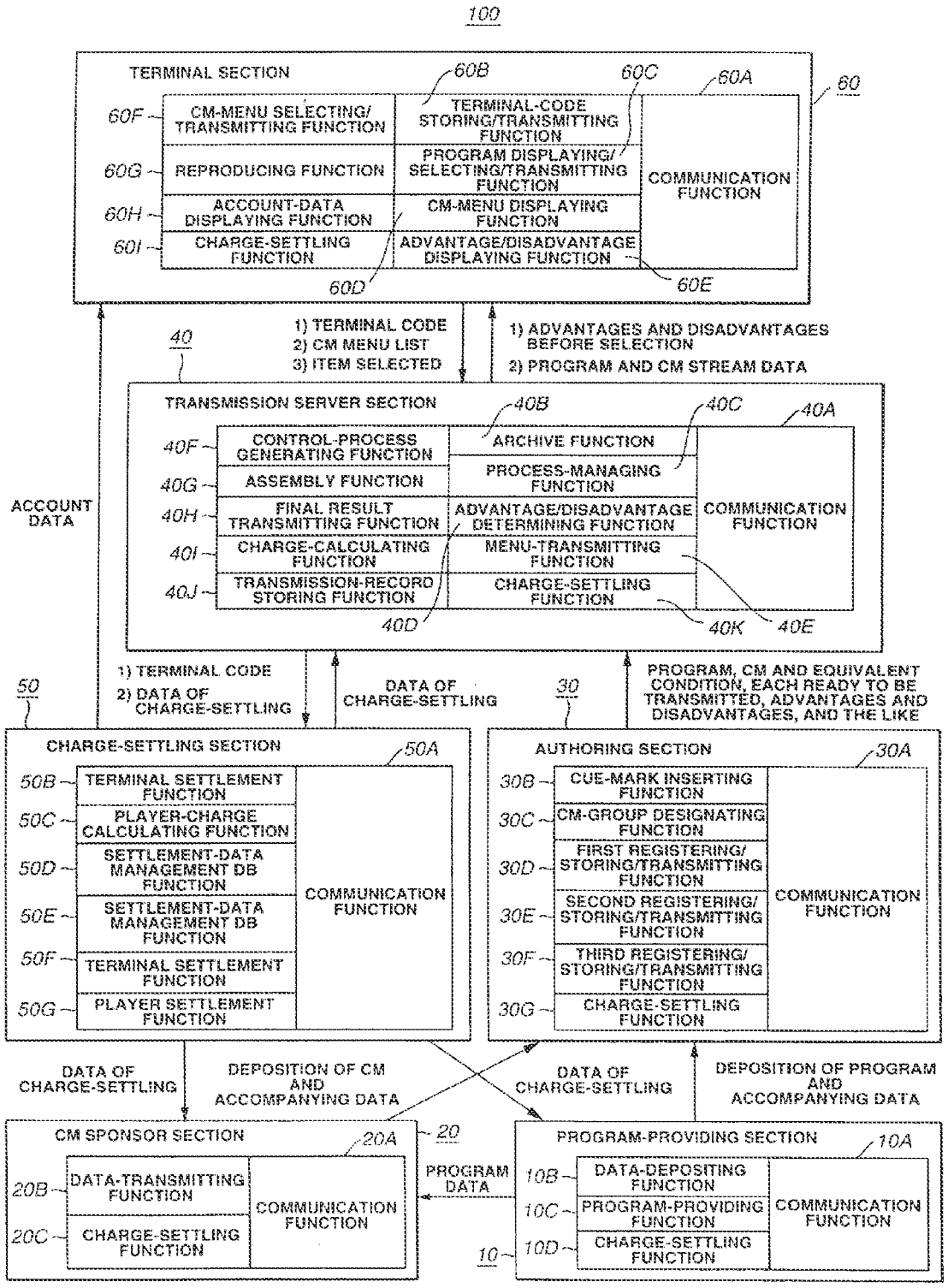


FIG.16

Petitioner Disney Ex-1004, 0236

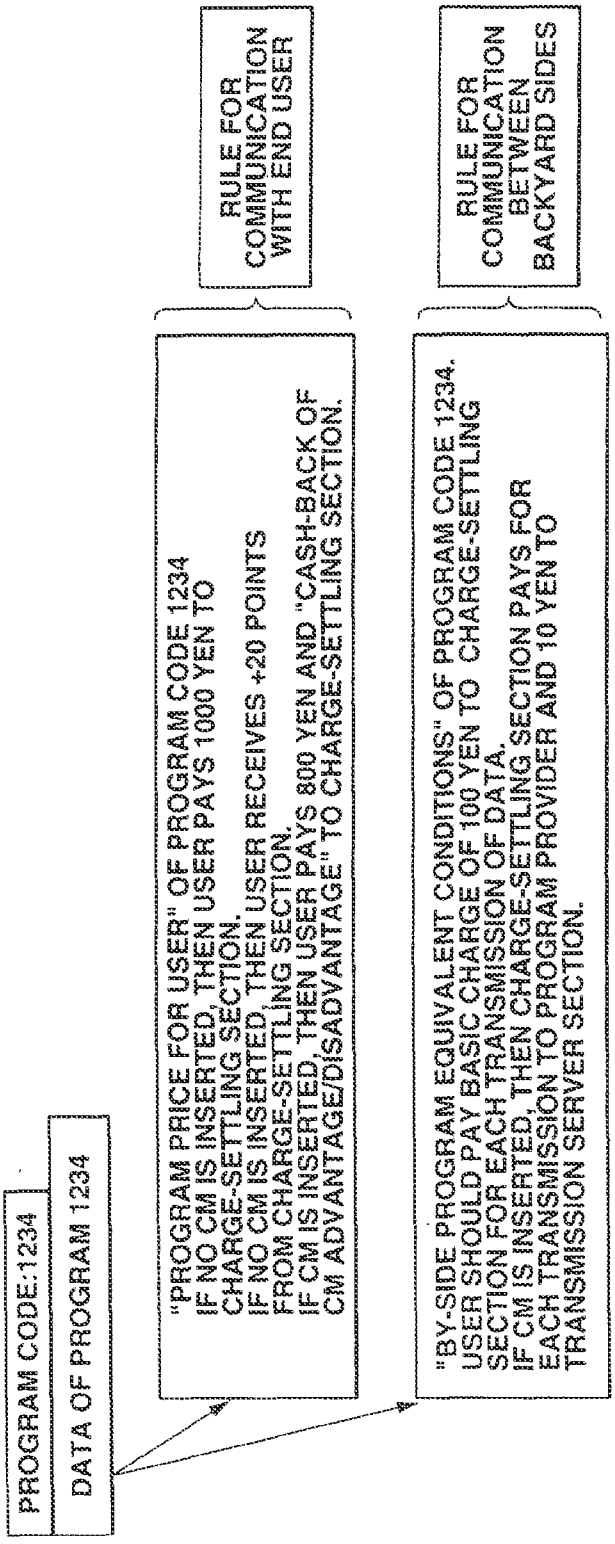


FIG.17

Petitioner Disney Ex-1004, 0237

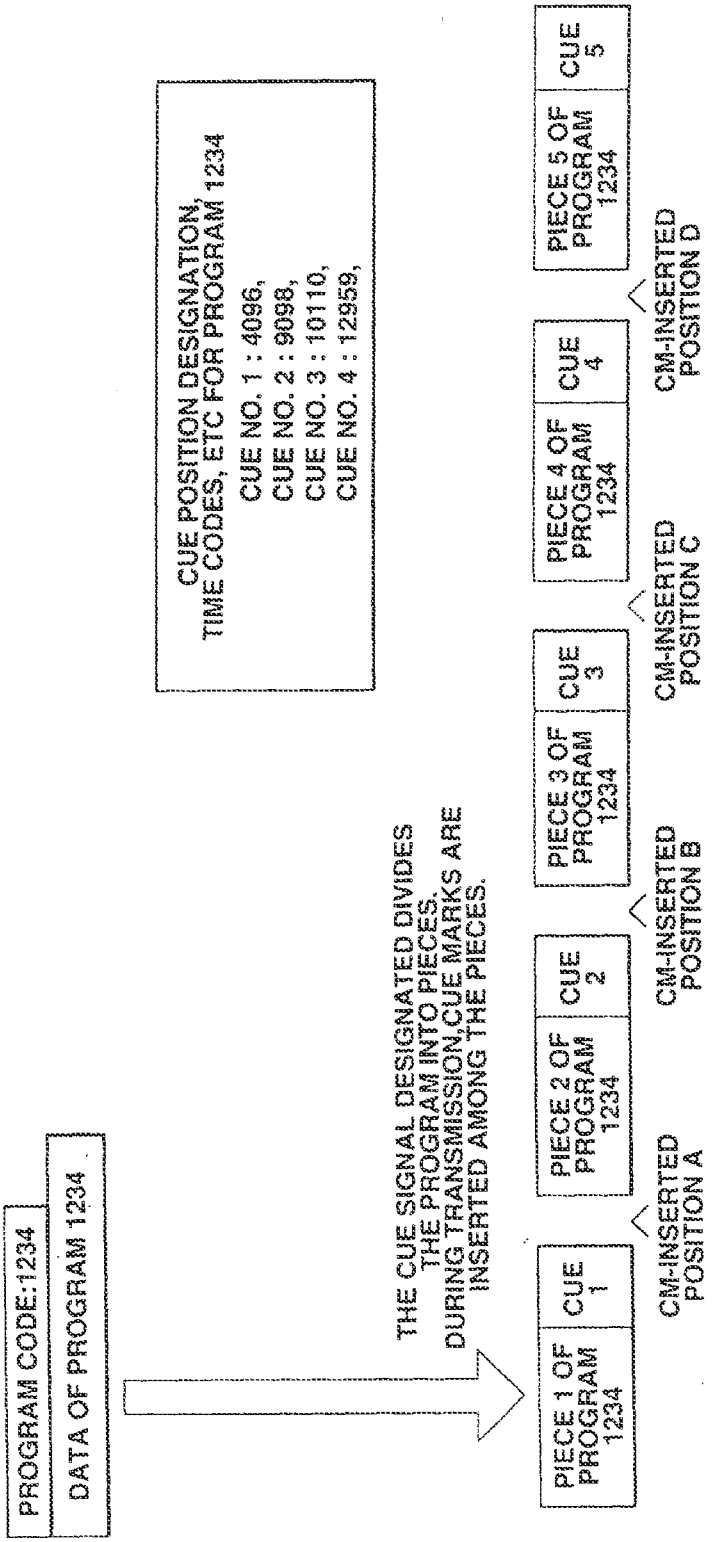


FIG.18

Petitioner Disney Ex-1004, 0238

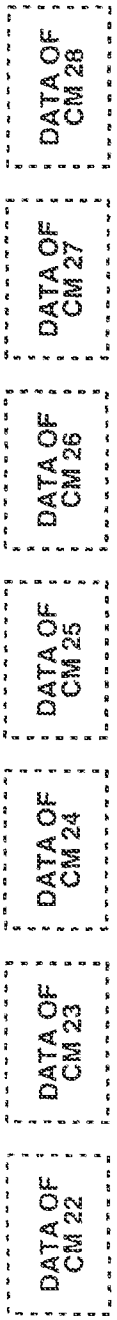


FIG. 19

Petitioner Disney Ex-1004, 0239

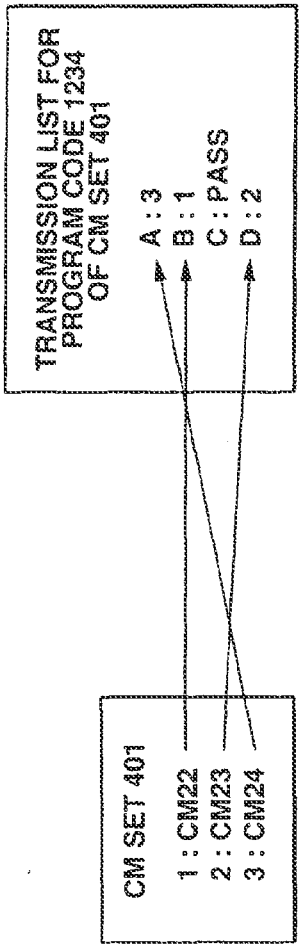


FIG.20A

FIG.20B

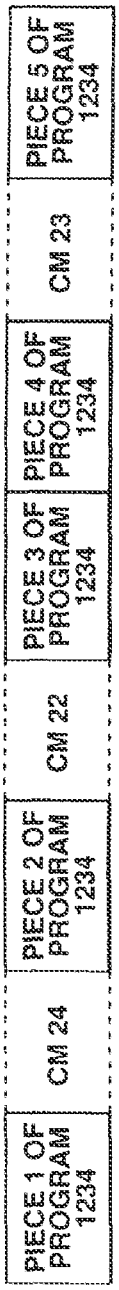


FIG.20C

Petitioner Disney Ex-1004, 0240

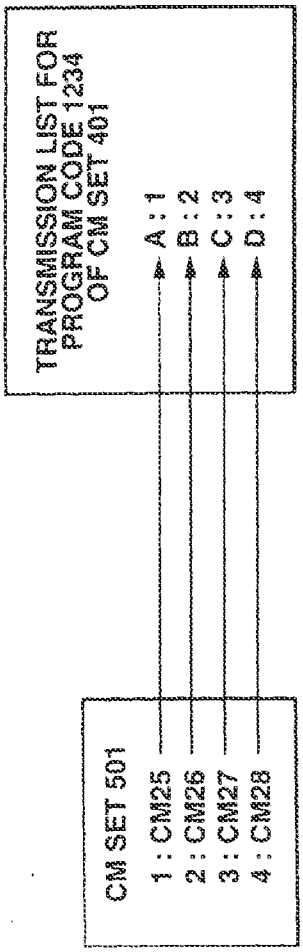


FIG.21A

FIG.21B



FIG.21C

Petitioner Disney Ex-1004, 0241

PIECE 1 OF PROGRAM 1234	PIECE 2 OF PROGRAM 1234	PIECE 3 OF PROGRAM 1234	PIECE 4 OF PROGRAM 1234	PIECE 5 OF PROGRAM 1234

FIG.22

PROGRAM CODE TO BE INSERTED
FOR CM SET 445
PROGRAM CODE 1234,
PROGRAM CODE 4456,
PROGRAM CODE 5377

FIG.23

Petitioner Disney Ex-1004, 0242

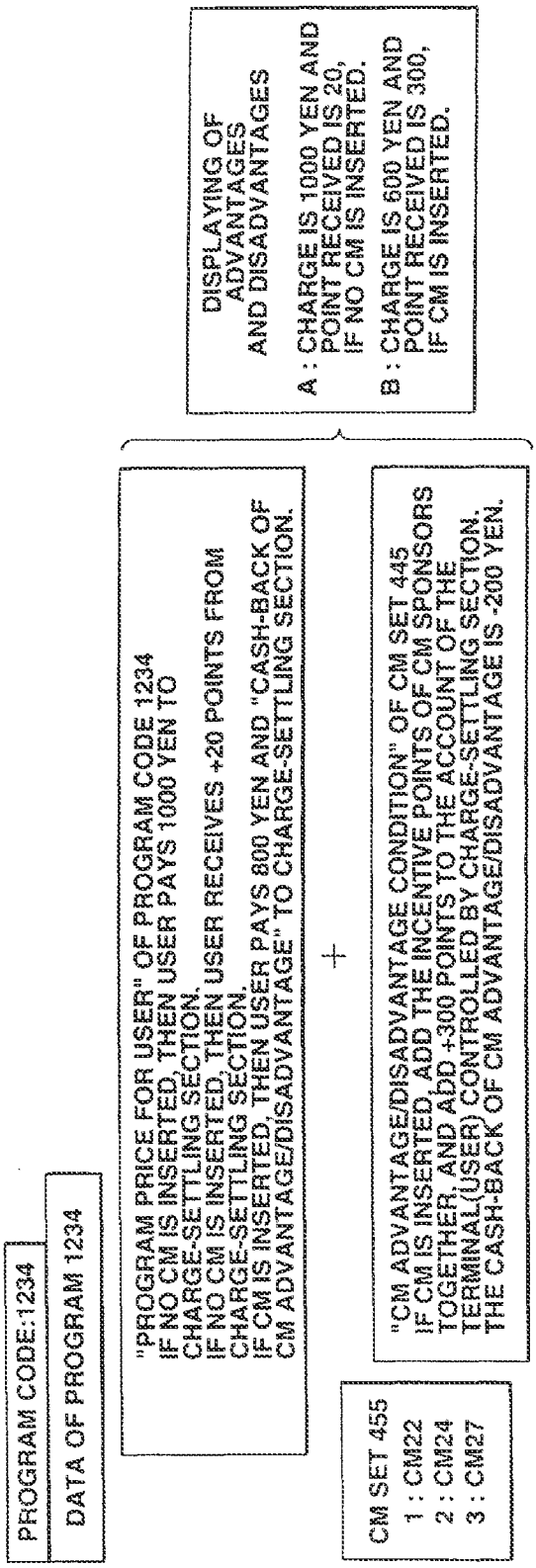


FIG.24

Petitioner Disney Ex-1004, 0243

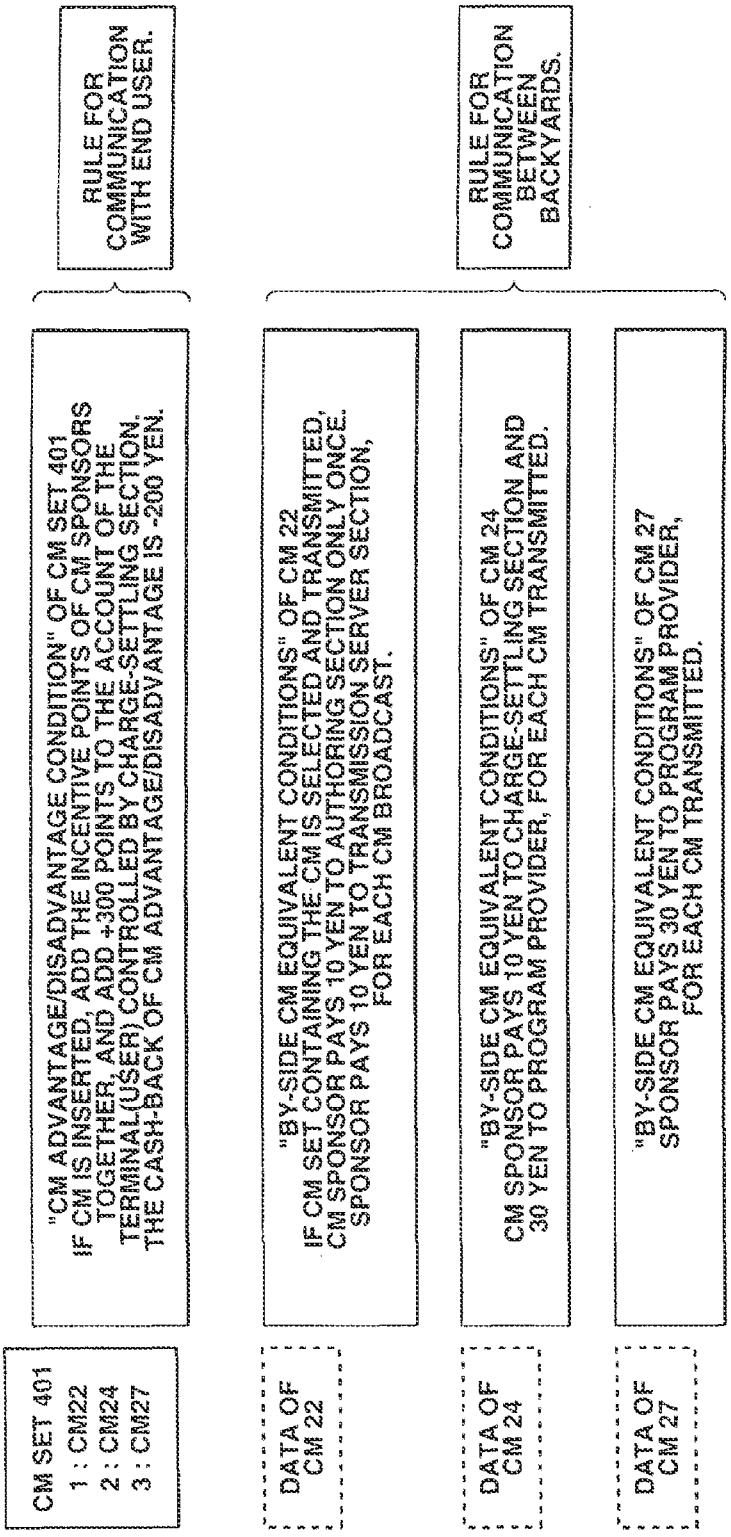


FIG.25

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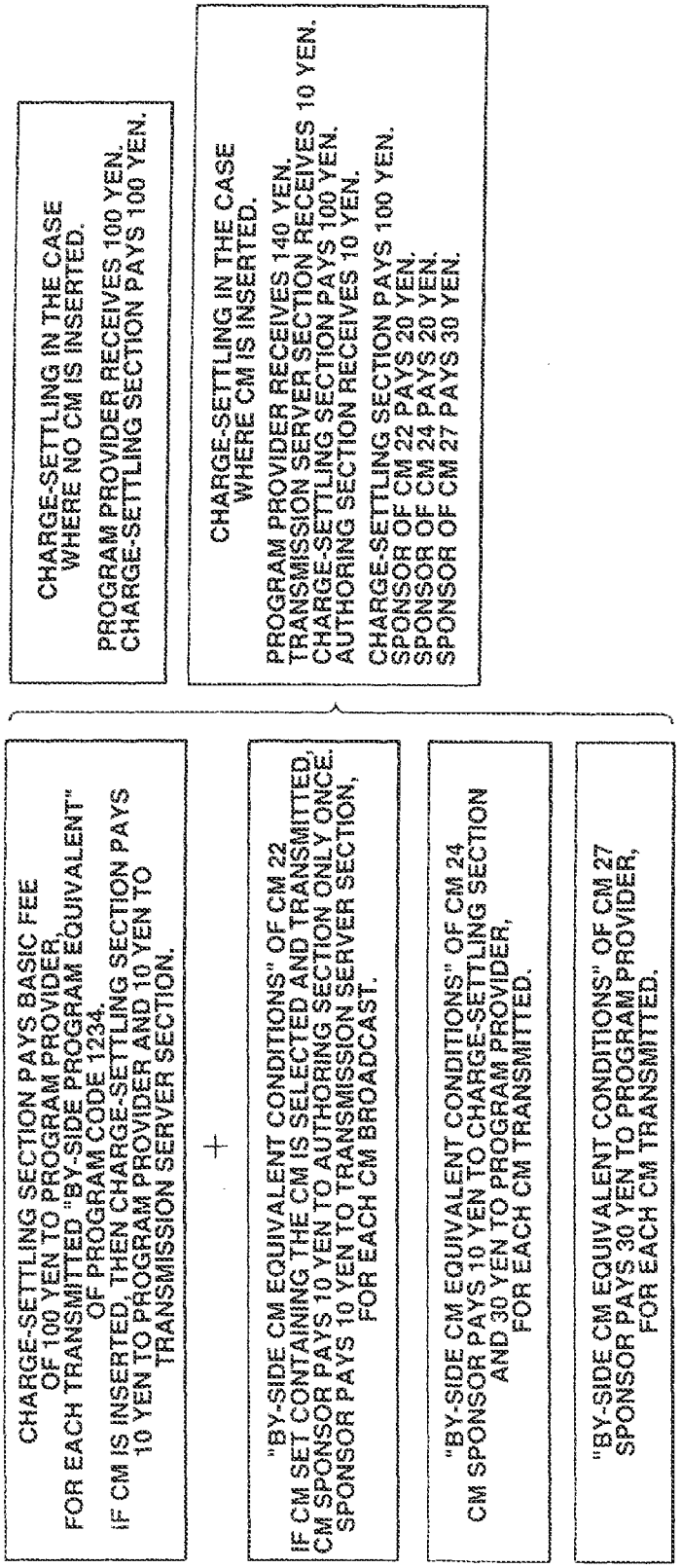


FIG.26

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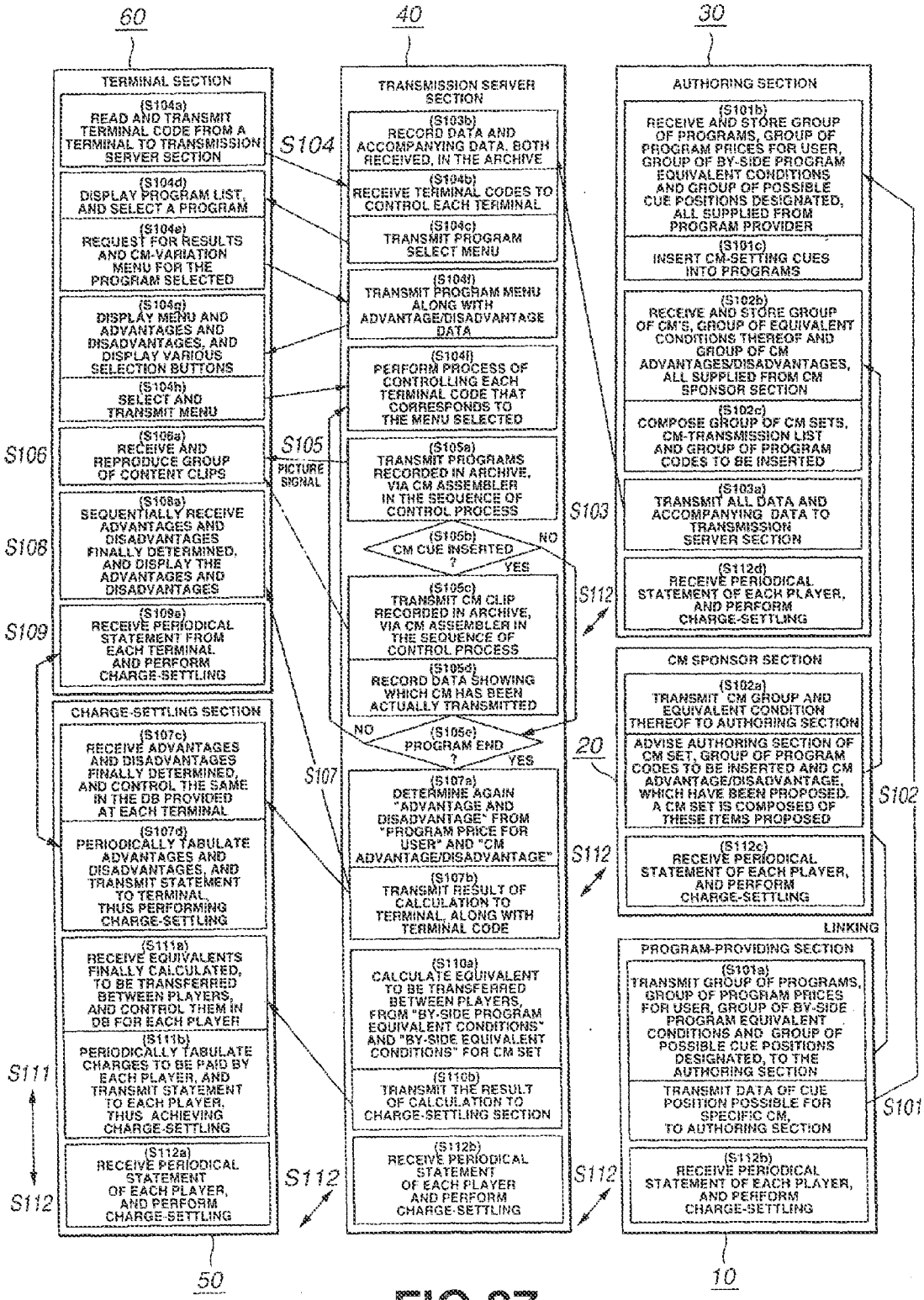


FIG.27

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CORRECTED VERSION*
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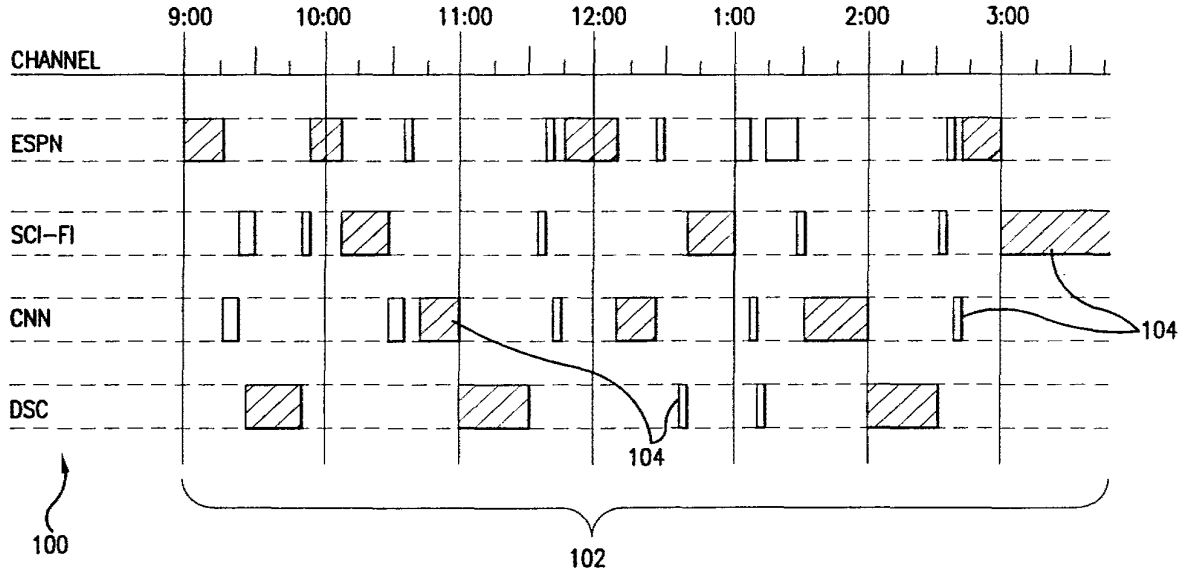
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(57) Abstract

A method and apparatus are disclosed for monitoring television viewing activity to determine preferred categories of programming and preferred channels of a viewer. To facilitate viewer access to preferred programming, the display of an electronic program guide may be configured in accordance with the monitored viewing activity to provide fast access to the preferred programming. The monitored viewing activity may also be used to provide a lock-out feature to prevent or limit the viewing of specified channels or categories of programming, or to identify and provide information of interest from the internet. In yet another embodiment of the invention, a viewer may automatically circulate through his or her preferred programming, as determined by monitoring the viewing activity of that viewer.

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METHOD AND APPARATUS FOR CREATING A TELEVISION VIEWER PROFILE

BACKGROUND OF THE INVENTION

Technical Field

The present invention relates to the presentation of television programs and television program guide information to a television viewer. More particularly, the present invention relates to a method and apparatus for tailoring on-screen program listings and program selections based upon a viewer's past viewing behavior.

Discussion of the Related Art

Television viewing is a popular activity, and the number of available television channels has grown substantially since the early days of broadcast television, thereby providing viewers with greatly increased choices in programming. Programming guides have become important viewer tools, and indeed, are essential for efficiently locating desired programs.

Paper guides, such as those provided with newspapers, are plentiful but suffer from many drawbacks. These drawbacks include possible preemption after printing and the sheer amount of information placed before the reader with little, if any, visual distinction between programs. A reader interested in only a subset of the available programming is forced to search the entire listing to locate the desired program or programs.

More recent alternatives to paper guides, known as Electronic Program Guides ("EPG"), have been developed. EPGs provide television program listings directly on the viewer's television screen, and generally eliminate the possibility of relying on an obsolete guide because the program listings can be updated in real-time by the EPG provider. U.S. Patent No. 5,353,121 issued Oct. 4, 1994 to Young discloses just such an EPG, wherein information is displayed on the viewer's television screen.

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These known EPGs not only provide on-screen program listings, but also allow a viewer to tune to a desired program, if such program is listed in the program guide, by interacting with the EPG via a remote control instead of manually changing channels. EPGs typically present the television listings in a grid format and give the viewer control over a cursor or pointer with which to make selections. The grid may be organized in such a manner that one axis represents time and the other represents programming channels. Such grids typically present the program channels in a sequential manner such as numeric order by channel number or alphabetic order by programming source or other identifier.

Although known EPGs grant viewers the convenience of identifying available television programs without resorting to other sources of information, shortcomings still exist. For example, a viewer who greatly prefers sports programs over other programming will still have to search the entire grid of available programs to find those involving sporting events of interest. Further, although some televisions and television scheduling systems allow viewers to pre-specify certain channels as "favorite" channels, not every viewer of a given television receiver will prefer the same favorite channels, and any one viewer's favorites may change over time, thereby reducing the effectiveness of that feature. In addition, known EPGs do not provide means for limiting the amount of time that a particular channel or particular category of television programming may be viewed, such as a parental lock-out feature based not only on the type of programming, but on viewing time as well. Known EPGs also do not provide a means for identifying and providing information of interest from the internet based upon a viewer's past television viewing behavior.

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SUMMARY OF THE INVENTION

In view of the above disadvantages of the related art, it is an object of the present invention to provide a method and apparatus for monitoring a viewer's viewing activities, determining not only the viewer's favorite channels, but also the viewer's preferred categories of programming, and configuring the display of an Electronic Program Guide ("EPG") or other suitable guide system in accordance with the viewer's viewing preferences.

In accordance with the present invention, a novel method and apparatus is provided for monitoring television viewing behavior and determining viewer preferences. This novel method and apparatus may illustratively be used to configure and display electronic program guide information on the screen of a television in accordance with viewer preferences, regulate the amount of time certain television programming is viewed, automatically switch through preferred programming options for ease of viewer selection, or identify and provide information of interest from the internet.

In one exemplary embodiment of the invention, an apparatus for monitoring viewing behavior is provided which includes a means for establishing of a viewer profile for storing preferred viewing statuses. The apparatus further includes a means for calculating a time duration of a viewing status, determining whether the viewing status is included in the viewer profile listing, and adding the time duration of the viewing status to a total viewing time counter for that status if it is included in the viewer profile listing. If the viewing status is not included in the viewer profile listing, this novel apparatus will add the viewing status and the time duration of the viewing status to the same.

If the viewer profile listing is full, the apparatus will remove a least preferred viewing status from the listing to make room for the new viewing status. However, only viewing statuses greater than a predetermined length will be considered for inclusion into the viewer profile listing.

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In another aspect of the invention, a viewer's preferred categories of programming may be determined. In this aspect of the invention, the time duration of each viewing status is divided into a predetermined number of categories of television programming, and added to category time viewing counters corresponding to each such category.

BRIEF DESCRIPTION OF THE DRAWINGS

The features and advantages of the present invention will be better understood by reference to the following detailed description, which should be read in conjunction with the accompanying drawings in which:

FIG. 1 portrays a hypothetical viewer's viewing behavior for a short period of time;

FIG. 2 depicts a viewer profile array showing the information that could be stored by the viewer profile for an extended period of viewing;

FIG. 3 is a flowchart demonstrating a preferred algorithm for managing the viewer profile array;

FIG. 4 is a television program listing displayed by an Electronic Program Guide; and

FIG. 5 is an Electronic Program Mini-Guide with primary television programming displayed in the background.

DETAILED DESCRIPTION OF THE INVENTION

The following embodiments of the present invention will be described in the context of Electronic Program Guides ("EPG") and general television viewing, although those skilled in the art will recognize that the disclosed methods and structures are readily adaptable for broader application.

A television viewing environment typically incorporates a television, a viewer interface, a viewer interface remote control, and one or more viewers. Viewer interfaces are known in the art, and are generally found in the form of a television set-top unit. The viewer interface is often connected to, and between, the television and television program/broadcast sources such as cable and satellite. The

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viewer interface receives input in the form of television programs and television program guide information from the various broadcast sources. The viewer interface may also perform additional functions such as decoding and encoding of the television programming.

For the purpose of describing the present invention, the viewer interface additionally includes an EPG. However, one skilled in the art will understand that an EPG could be implemented in a variety of ways, including within the television or as part of an interactive television network coupled to the viewer interface. An example of a suitable EPG is disclosed in U.S. Application No. 08/556,624, entitled "Electronic Program Guide with Enhanced Presentation" and filed November 13, 1995, which is incorporated herein by reference.

The viewer interface also includes a means for accepting viewer commands, such as to change television channels, from the remote control. However, the remote control is merely one means by which a viewer may input commands to the viewer interface and/or the EPG. For example, viewers may input commands directly into the viewer interface.

In accordance with the present invention, a viewer profile is provided for use in the above-described television viewing environment that will monitor a viewer's viewing behavior to determine the viewer's preferred channels and the types or categories of television programming that the viewer prefers on those channels. The viewer profile of the present invention possesses several advantages over the prior art. Drawing upon its stored information, the viewer profile will operate in conjunction with a remotely controllable EPG and can be instructed to surf through the viewer's preferred channels automatically or through those channels currently showing the viewer's favorite category or categories of programming. Additionally, the information captured by the viewer profile can be used to tailor the EPG's presentation of television program guide information so as to provide faster access to information concerning the viewer's

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preferred channels and/or programming categories. Further, because the viewer profile can store profiles of numerous viewers, the tailored programming lists can be viewer-specific. In addition, the viewer profile can be used to lock out specified channels or categories of programming, or to limit the amount of time such channels or categories may be viewed. The viewer profile can also be used to identify and provide information of interest from the internet.

The viewer profile may be implemented in software and, like the EPG, downloaded into the viewer interface via an interactive television network or other means for loading software. In another exemplary embodiment, the viewer profile may be implemented as resident software in the viewer interface.

While monitoring viewing behavior, the viewer profile will consider short durations of viewing any one channel to be insignificant. Such short viewing durations could result, for example, from a viewer surfing through numerous channels without stopping on any one channel for a significant period of viewing time. By ignoring insignificant viewing periods, the viewer profile is able to focus upon a viewer's true interests and prevent numerous short unrepresentative viewing durations from skewing the data concerning the viewer's true preferences. The viewer profile will thus only consider significant those viewing periods longer than one viewing unit. One skilled in the art will understand that the time duration represented by one viewing unit can be varied (e.g., 1 minute, 5 minutes, 10 minutes, etc.), but illustratively, and for the purpose of describing the present invention, one viewing unit will be defined as fifteen minutes in duration. Therefore, only viewing durations longer than one viewing unit, or fifteen minutes, will be considered in determining the viewer's preferred categories of television programming and preferred channels.

In accordance with the foregoing, FIG. 1 discloses a hypothetical viewer's actual viewing behavior before being filtered and stored by the viewer profile. Channels 100 are

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the television channels viewed by the viewer during depicted time period 102. Each viewing duration 104 reflects the channel viewed and the elapsed time. Although discussed in conjunction with a single hypothetical viewer's viewing behavior, one skilled in the art will recognize that the present invention is not limited to use with one viewer. The viewer profile, as disclosed herein, can monitor and store preference information on multiple viewers, either alone or in conjunction with an Electronic Program Guide.

FIG. 2 discloses a viewer profile array 200 stored by the viewer profile in a storage means as a result of a hypothetical viewer's extended viewing history. It will be appreciated that viewer profile array 200 could be embodied as one of a number of types of data storage devices, such as a two-dimensional array or a linked list. Viewer profile array 200 contains entries 202 representing television channels viewed for at least one viewing unit. More specifically, entries 202 in viewer profile array 200 at any given time represent the determination by the viewer profile of the viewer's preferences at that time.

The time period over which the viewer profile monitors a viewer's viewing behavior and collects data may be termed the viewer profile collection period. A viewer profile collection period will always commence when a new viewer profile is created. The viewer profile collection period may be illustratively reinitialized in response to a viewer's command, for example, if a viewer substantially and rapidly changes viewing preferences, or may be automatically reinitialized at appropriate time intervals (e.g., one month or one year). However, the viewer profile collection period will only terminate upon reinitialization.

Each entry 202 has an associated total viewing unit counter 204 and one or more individual category or subcategory viewing unit counters 206. For a viewer's viewer profile collection period, total viewing counter 204 of entry 202 represents the total number of viewing units the viewer viewed the corresponding channel represented by entry 202.

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Subcategory viewing unit counters 206 represent the number of viewing units during the viewer profile collection period the viewer viewed the associated category 208 programming on the corresponding channel of an entry 202. Categories 208 represent various possible types of television programming. Within each category 208 there may be one or more subcategories. For example, under the category of movies there may be subcategories for adventure, comedy, science fiction, etc. By monitoring subcategories in addition to categories 208, the viewer profile can provide even more accurate information on viewer behavior.

The number of possible entries 202 in array 200 may be limited. In one embodiment of the invention, the limit is set to a percentage of the available television channels, illustratively 10%. In yet another embodiment of the invention, the number of entries 202 may have a set numeric limit, such as eight. However, one skilled in the art will understand that any suitable means for limiting the number of entries 202 in array 200 may be used.

When a channel of channels 100 is eligible to become a viewer profile entry 202 (i.e., more than one viewing unit during the viewer profile collection period) and viewer profile array 200 is already full, a novel method, described below in conjunction with FIG. 3, is provided for resolving the conflict. In practice though, viewers tend to concentrate on a limited number (less than the limit on the number of viewer profile entries 202) of favorite channels.

Viewer Profile Array Management

Viewer profile array 200 is automatically populated with entries 202 as a viewer views, for more than one viewing unit, a new television channel that is not already included in viewer profile array 200. However, because the viewer profile monitors viewers' current favorite channels, when viewer profile array 200 is fully populated, there must be some method to replace old entries with new favorite channels. FIG. 3 depicts an advantageous method by which the

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viewer profile manages viewer profile array 200. The method depicted in FIG. 3 utilizes a weighted least recently used algorithm to retire viewer profile entries 202 and make room for a new channel. While the least recently used algorithm depicted in FIG. 3 is described herein as an exemplary embodiment of the present invention, one skilled in the art will recognize that other similar algorithms may be used to monitor viewing behavior and determine viewer preferences and still fall within the scope of the present invention.

Referring now to FIG. 3, a viewer profile timer is initiated at step 300 when a television viewer commences viewing a channel. When the viewer tunes (step 302) to a different channel, the viewer profile examines the timer to determine how much time has elapsed (step 304). If the timer indicates that less than one viewing unit has elapsed, no further action is taken and the viewer profile simply restarts the timer (step 300). If, however, the timer indicates that one or more viewing units has elapsed, then the viewer profile determines at step 306 whether the viewed channel is already in the viewer profile array 200. If the viewed channel is already an entry 202 in array 200, viewing unit counters 204 and 206 of entry 202 are incremented (step 308) by one or more viewing units, and the viewer profile then restarts (step 300) the timer for the new channel.

If the viewed channel is not already an entry 202 in viewer profile array 200, the viewer profile searches (step 310) for room in the viewer profile array 200 for a new entry 202. If there is room in array 200, the viewer profile will move (step 312) all existing entries 202 down one position in array 200, insert the new entry 202 at the top of array 200, and restart (step 300) the timer for the new channel. By placing the new entry 202 at the top of viewer profile array 200, it should be evident that the most recently viewed entries will be located at the top of array 200.

If there is no room in viewer profile array 200 for new entry 202, then new entry 202 must replace an existing entry. The viewer profile will start (step 314) at the bottom entry

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in array 200 and decrement (step 316) total viewing units counter 204 for that entry 202 by one, and then examine (step 318) whether counter 204 for that entry has reached zero (subcategory viewing unit counters 206 are not decremented). If counter 204 has reached zero, the viewer profile will move (step 320) all entries 202 down one position and insert the new entry 202 at the top of array 200. Again, this demonstrates how this novel method is weighted as far as viewer preference toward the most recently viewed entries 202. If, however, decrementing total viewing units counter 204 at step 316 for bottom entry 202 does not reduce counter 204 to zero, the viewer profile must continue to search for an entry 202 that is old enough to be removed from viewer profile array 200.

Therefore, the viewer profile will (steps 322 and 324) move up to the next higher entry 202 in viewer profile array 200, so long as the viewer profile is not already at the top of array 200. The viewer profile will then decrement (step 316) and examine (step 318) total viewing counter 204 for the next higher entry 202. The viewer profile will continue in this manner (steps 322, 324, 316, and 318) until it has either visited every entry 202 in viewer profile 200 or decremented a total viewing units counter for a particular entry to zero. If the viewer profile traverses the entire viewer profile array 200 without having decremented the total viewing unit counter 204 to zero for any entry 202, the viewer profile will abandon (step 326) its attempt to add new entry 202 to viewer profile array 200.

In this manner, a viewer profile array 200 is created wherein the order of entries 202 indicates which channels have been most recently viewed, while the corresponding counters 204 and 206 indicate the length and frequency of visits to the various channels in array 200.

In yet another alternative exemplary embodiment of the present invention, instead of performing only one cycle (i.e., one visit to each entry 202 in viewer profile array 200 in an attempt to add a new entry 202 to array 200), the

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viewer profile may make multiple cycles through array 200, where, for example, the number of cycles may be dependent upon the number of viewing units that the channel represented by new entry 202 has been viewed. This alternative embodiment allows the relevance of potential new entry 202 to be weighed against the relevance of existing entries 202 on the basis of the amount of time the corresponding channels have been viewed during the viewer profile collection period. This may be helpful, for example, in the event that potential new entry 202 is viewed for a substantial period of time (i.e., several viewing units) while the total viewing unit counters 204 of the current entries 202 are much lower, for example, two viewing units. Thus, this alternative embodiment ensures that a heavily-viewed new entry 202 is not arbitrarily dismissed as insignificant.

In this alternative embodiment, when new entry 202 is identified at step 304, a new entry viewing units counter (not shown) is initialized and set equal to the number of viewing units that the channel represented by new entry 202 had been viewed. Then, each time the viewer profile cycles through viewer profile array 200 (steps 314 to 324), the new entry viewing units counter would be decremented by one. If the new entry viewing units counter was decremented to zero before the total viewing units counter 204 for any entry 202 in array 200 was decremented to zero, then the attempt to add new entry 202 to array 200 would be abandoned at step 326. If, however, total viewing units counter 204 for an entry 202 in array 200 was decremented to zero at steps 316, 318 before new entry viewing units counter was decremented to zero, then the viewer profile would continue at step 320 an add new entry 202 to array 200.

In yet another exemplary embodiment of the present invention, after one unsuccessful cycle (steps 314 to 326, except step 320) through viewer profile array 200, the viewer profile will simply remove the oldest entry 202 that has a viewing units counter lower than that of the entry to be added, if one exists, in order to make room for a new entry

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202 that has a new entry viewing units counter greater than one. This alternative embodiment avoids decrementing the counters, over multiple cycles, for all the other existing entries and thus de-emphasizing the importance of these entries as compared with future entries to be added.

Use of the Viewer Profile Array

FIG. 4 demonstrates how a typical Electronic Program Guide display 400 may appear without using the novel viewer profile of the present invention. Display 400 consists of a table 402 containing rows 404 representing available television channels and columns 406 representing time periods. The order in which the available channels appear in rows 404 is alphabetical by channel name. It can be seen in FIG. 4 that a viewer who prefers viewing, for example, the SCI-FI channel or VH-1, will have to scroll through the entire table 402 to learn what is offered on the viewer's preferred channels.

In accordance with the present invention, the information captured by the viewer profile can be used by an EPG to tailor display 400 so as to provide faster access to information concerning the viewer's preferred channels and/or programming categories. Thus, rows 404 may be configured by an EPG in accordance with the viewer profile such that preferred channels or preferred categories of programming are displayed at the top of table 402, and may be easily selected by a viewer.

FIG. 5 illustrates an alternative embodiment of a display 500 of an electronic program guide. As shown in FIG. 5, channels may be aligned in a row 502, overlayed upon primary television display 504, with one channel 506 selected, through a cursor, at a time. Like the EPG of FIG. 4, the channels are listed alphabetically by channel name. The currently selected television program on channel 506 is identified in an information box 508 below channel 506. Using the viewer interface remote control, a viewer can

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examine each channel 506 while viewing primary television display 504.

The EPG of FIG. 5 can operate in conjunction with the viewer profile of the present invention to organize the individual channels in row 502 by viewer preference. The viewer profile of the present invention may also be used by the EPG to automatically surf through the viewer's preferred channels or through those channels presently showing the viewer's favorite category or categories of programming. Thus, the viewer profile of the present invention, in conjunction with the EPG of FIG. 5, can receive and execute a viewer-initiated command to surf automatically, without further viewer intervention, through the television channels represented by current entries 202 in viewer profile array 200. This allows a viewer to glimpse the programs currently playing on the viewer's favorite channels or the programs in the viewer's favorite categories with only one keypress of the remote control and stop surfing on one of these favorite channels with one more keypress. One skilled in the art will understand that views of the preferred channels being surfed through need not occupy the entire display of the television. Thus, for example, as shown in FIG. 5, a cursor may automatically step through the viewer's preferred channels while the viewer is still watching primary television display 504. However, the viewer profile of the present invention may also be used to step through preferred channels in primary display 504 with no EPG displayed on the television screen.

The novel method and apparatus of the present invention may also be used to lock out specified channels or categories of programming, or to limit the amount of time such programming is viewed. An improvement upon parental lock-out features already known in the art, the present invention allows the locking out of certain channels based on time parameters, thereby allowing the viewing of certain channels and/or categories of viewing to be limited to a set amount of viewing units per time period.

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Thus, for example, a viewer can be limited to only four hours of sporting events per week. Once the viewing unit counters of array 200 indicate that four hours of sporting events have been accumulated, the viewer will be prohibited from watching any further sporting events for that particular week. This novel lock-out feature is particularly advantageous to parents of small children, who may want to limit the categories of programs that may be viewed and the viewing time of such categories.

In yet another exemplary embodiment of the present invention, the information stored in viewer profile array 200 is made available to interested broadcasters. The broadcasters in turn use the information to more appropriately target certain types of programming and commercials to certain individuals or communities.

Viewer profile array 200 can also be used to identify channels that a viewer has not been watching, but that contain content the viewer might find interesting. Thus, for example, if from the viewer profile it is determined that a particular viewer enjoys watching movies, the viewer will be notified when movies are showing on channels not commonly watched by that viewer. These channels may be identified automatically on a periodic basis, or could be provided upon a viewer request.

Similarly, viewer profile array 200 can be used to identify and provide information from the internet, including the world wide web, to the viewer. This application of the viewer profile is highly advantageous as the delivery models of a personal computer and a television are on opposite ends of the interactive spectrum. More particularly, the personal computer is a "pull" model medium, in that the personal computer does nothing until the user boots up the computer and enters appropriate commands. Each user command may produce lengthy interactions, but regardless of length, the user controls the navigation and presentation of information. Simply put, the user "pulls" the information from the personal computer or the internet.

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Unlike the personal computer, the television is a "push" model medium, in that television broadcasts are pushed at the consumer. Except for the ability to change channels or purchase on demand videos, the viewer does not control the information stream from the broadcaster. This "push" model is desirable in the entertainment industry where surprise is the key to engaging the audience.

Accordingly, keeping track of viewing habits through viewer profile array 200 is instrumental in combining the features of the television and the internet without relying on the personal computer "push" model of interaction. As explained herein, the viewer profile is a compilation of the most recently viewed and most often viewed channels, programming categories, and programming subcategories for each viewer. This viewer profile information can be used, in conjunction with for example a known internet search engine, to search for and "pull" information from the internet that might be interesting to a particular viewer. The located information may then be "pushed" at the viewer in accordance with the television model of interaction.

The information pulled from the internet may be presented to the viewer in a variety of formats. For example, a small icon on the television screen can appear discreetly whenever something of interest is available. Alternatively, a running banner across the screen can appear giving small pieces of information about additional information available on the internet.

Various embodiments of the invention have been described. The descriptions are offered by way of illustration, not limitation. Thus, it will be apparent to those skilled in the art that modifications may be made to the invention as described without departing from the scope of the claims set out below.

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What is claimed is:

1. A method of monitoring television viewing behavior to determine viewer preferences, comprising the steps of:

establishing a viewer profile listing for storing a predetermined number of preferred viewing statuses;

calculating a time duration of a first viewing status;

determining whether said first viewing status is included in said viewer profile listing;

adding the time duration of said first viewing status to a total viewing time counter for said first viewing status in said viewer profile listing if said first viewing status is included in said viewer profile listing; and

adding said first viewing status and said time duration of said first viewing status to said viewer profile listing if said first viewing status is not included in said viewer profile listing.

2. The method of claim 1, further comprising the step of:

removing a least preferred viewing status from said viewer profile listing if said viewer profile listing is full when said first viewing status is to be added to said viewer profile listing.

3. The method of claim 1, further comprising the steps of:

comparing the time duration of said first viewing status to a predetermined time unit; and

adding the time duration of said first viewing status to said viewer profile listing only if said time duration exceeds said predetermined time unit.

4. The method of claim 1, further comprising the steps of:

dividing the time duration of said first viewing status into a predetermined number of category time durations corresponding to a predetermined number of categories of television programming;

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Petitioner Disney Ex-1004, 0264

adding the category time durations of said first viewing status to a predetermined number of corresponding category viewing time counters in said viewer profile listing if said first viewing status is in said viewer profile listing; and

adding said first viewing status and the category time durations of said first viewing status to the corresponding category viewing time counters in said viewer profile listing if said first viewing status is not in said viewer profile listing.

5. The method of claim 1, wherein said step of determining the time duration of a first viewing status comprises the steps of:

storing a starting time for a first viewing status;

storing a starting time for a second viewing status; and

determining the time duration of said first viewing status by subtracting the starting time for said first viewing status from the starting time for said second viewing status.

6. The method of claim 1, wherein said step of determining the time duration of a first viewing status comprises the steps of:

initiating a timer at a starting time for said first viewing status; and

determining the time duration of said first viewing status in accordance with said timer.

7. An apparatus for monitoring viewing behavior, comprising:

means for establishing a viewer profile listing for storing a predetermined number of preferred viewing statuses;

means for calculating a time duration of a first viewing status;

means for determining whether said first viewing status is included in said viewer profile listing;

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Petitioner Disney Ex-1004, 0265

means for adding the time duration of said first viewing status to a total viewing time counter for said first viewing status in said viewer profile listing if said first viewing status is included in said viewer profile listing; and

means for adding said first viewing status and said time duration of said first viewing status to said viewer profile listing if said first viewing status is not included in said viewer profile listing.

8. The apparatus of claim 7, further comprising:

means for removing a least preferred viewing status from said viewer profile listing if said viewer profile listing is full when said first viewing status is to be added to said viewer profile listing.

9. The apparatus of claim 7, further comprising:

means for comparing the time duration of said first viewing status to a predetermined time unit; and

means for adding the time duration of said first viewing status to said viewer profile listing only if said time duration exceeds said predetermined time unit.

10. The apparatus of claim 7, further comprising:

means for dividing the time duration of said first viewing status into a predetermined number of category time durations corresponding to a predetermined number of categories of television programming;

means for adding the category time durations of said first viewing status to a predetermined number of corresponding category viewing time counters in said viewer profile listing if said first viewing status is in said viewer profile listing; and

means for adding said first viewing status and the category time durations of said first viewing status to the corresponding category viewing time counters in said viewer profile listing if said first viewing status is not in said viewer profile listing.

SUBSTITUTE SHEET (RULE 26)

Petitioner Disney Ex-1004, 0266

11. A computer-readable medium which can be used to direct a computer to monitor viewing behavior, comprising:

means for directing the computer to establish a viewer profile listing for storing a predetermined number of preferred viewing statuses;

means for directing the computer to calculate a time duration of a first viewing status;

means for directing the computer to determine whether said first viewing status is included in said viewer profile listing;

means for directing the computer to add the time duration of said first viewing status to a total viewing time counter for said first viewing status in said viewer profile listing if said first viewing status is included in said viewer profile listing; and

means for directing the computer to add said first viewing status and said time duration of said first viewing status to said viewer profile listing if said first viewing status is not included in said viewer profile listing.

12. The computer-readable medium of claim 11, further comprising:

means for directing the computer to remove a least preferred viewing status from said viewer profile listing if said viewer profile listing is full when said first viewing status is to be added to said viewer profile listing.

13. The computer-readable medium of claim 11, further comprising:

means for directing the computer to compare the time duration of said first viewing status to a predetermined time unit; and

means for directing the computer to add the time duration of said first viewing status to said viewer profile listing only if said time duration exceeds said predetermined time unit.

SUBSTITUTE SHEET (RULE 26)

Petitioner Disney Ex-1004, 0267

14. The computer-readable medium of claim 11, further comprising:

means for directing the computer to divide the time duration of said first viewing status into a predetermined number of category time durations corresponding to a predetermined number of categories of television programming;

means for directing the computer to add the category time durations of said first viewing status to a predetermined number of corresponding category viewing time counters in said viewer profile listing if said first viewing status is in said viewer profile listing; and

means for directing the computer to add said first viewing status and the category time durations of said first viewing status to the corresponding category viewing time counters in said viewer profile listing if said first viewing status is not in said viewer profile listing.

15. A method for displaying program guide information on the screen of a television, comprising the steps of:

monitoring the viewing behavior of a viewer;

determining at least one preferred viewing status of the viewer in accordance with the viewing behavior of the viewer;

configuring the program guide information in accordance with said at least one preferred viewing status of the viewer; and

displaying the configured program guide information on the screen of the television.

16. The method of claim 15, wherein said step of monitoring comprises the steps of:

establishing a viewer profile listing for storing a predetermined number of viewing statuses;

calculating a time duration of a first viewing status;

determining whether said first viewing status is included in said viewer profile listing;

adding the time duration of said first viewing status to a total viewing time counter for said first viewing status in

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said viewer profile listing if said first viewing status is included in said viewer profile listing; and

adding said first viewing status and said time duration of said first viewing status to said viewer profile listing if said first viewing status is not included in said viewer profile listing.

17. An apparatus for regulating the viewing time of television programming, comprising:

means for identifying television programming for which viewing time is to be regulated;

means for specifying the amount of time said identified television programming may be viewed;

means for monitoring the viewing behavior of a viewer for which said viewing time is to be regulated; and

means for preventing viewing of said identified television programming beyond said specified amount of time in accordance with said monitored viewing behavior.

18. A method for displaying information from the internet on the screen of a television, comprising the steps of:

monitoring the viewing behavior of a viewer;

determining at least one preferred viewing state of the viewer in accordance with the viewing behavior of the viewer;

obtaining information from the internet in accordance with said at least one preferred viewing state of the viewer; and

displaying the obtained information from the internet on the screen of the television.

19. The method of claim 18, wherein said step of monitoring comprises the steps of:

establishing a viewer profile listing for storing a predetermined number of viewing states;

calculating a time duration of a first viewing state;

determining whether said first viewing state is included in said viewer profile listing;

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adding the time duration of said first viewing state to a viewing time counter for said first viewing state in said viewer profile listing if said first viewing state is included in said viewer profile listing; and

adding said first viewing state and said time duration of said first viewing state to said viewer profile listing if said first viewing state is not included in said viewer profile listing.

20. In a set-top unit adapted for coupling to a television, an apparatus for displaying program guide information on a screen of a television, said apparatus comprising:

means for monitoring television viewing behavior in order to determine viewer channel preferences, said monitoring means comprising,

means for establishing a viewer profile listing for storing a predetermined number of preferred channels;

means for calculating a time duration for which a first channel is viewed;

means for determining whether said first channel is included in said viewer profile listing;

means for adding the time duration said first channel is viewed to a total viewing time counter for said first channel in said viewer profile listing if said first channel is included in said viewer profile listing; and

means for adding said first channel and said time duration said first channel is viewed to said viewer profile listing if said first channel is not included in said viewer profile listing;

means for determining the preferred channels of the viewer in accordance with the viewing behavior of the viewer;

means for configuring the program guide information in accordance with the preferred channels of the viewer; and

means for displaying the configured program guide information on the screen of the television.

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Petitioner Disney Ex-1004, 0270

21. The apparatus of claim 20, wherein said monitoring means further comprises:

means for dividing the time duration for which said first channel is viewed into a predetermined number of category time durations corresponding to a predetermined number of categories of television programming;

means for adding the category time durations of said first channel to a predetermined number of corresponding category viewing time counters in said viewer profile listing if said first channel is in said viewer profile listing; and

means for adding said first channel and the category time durations of said first channel to the corresponding category viewing time counters in said viewer profile listing if said first channel is not in said viewer profile listing.

SUBSTITUTE SHEET (RULE 26)

Petitioner Disney Ex-1004, 0271

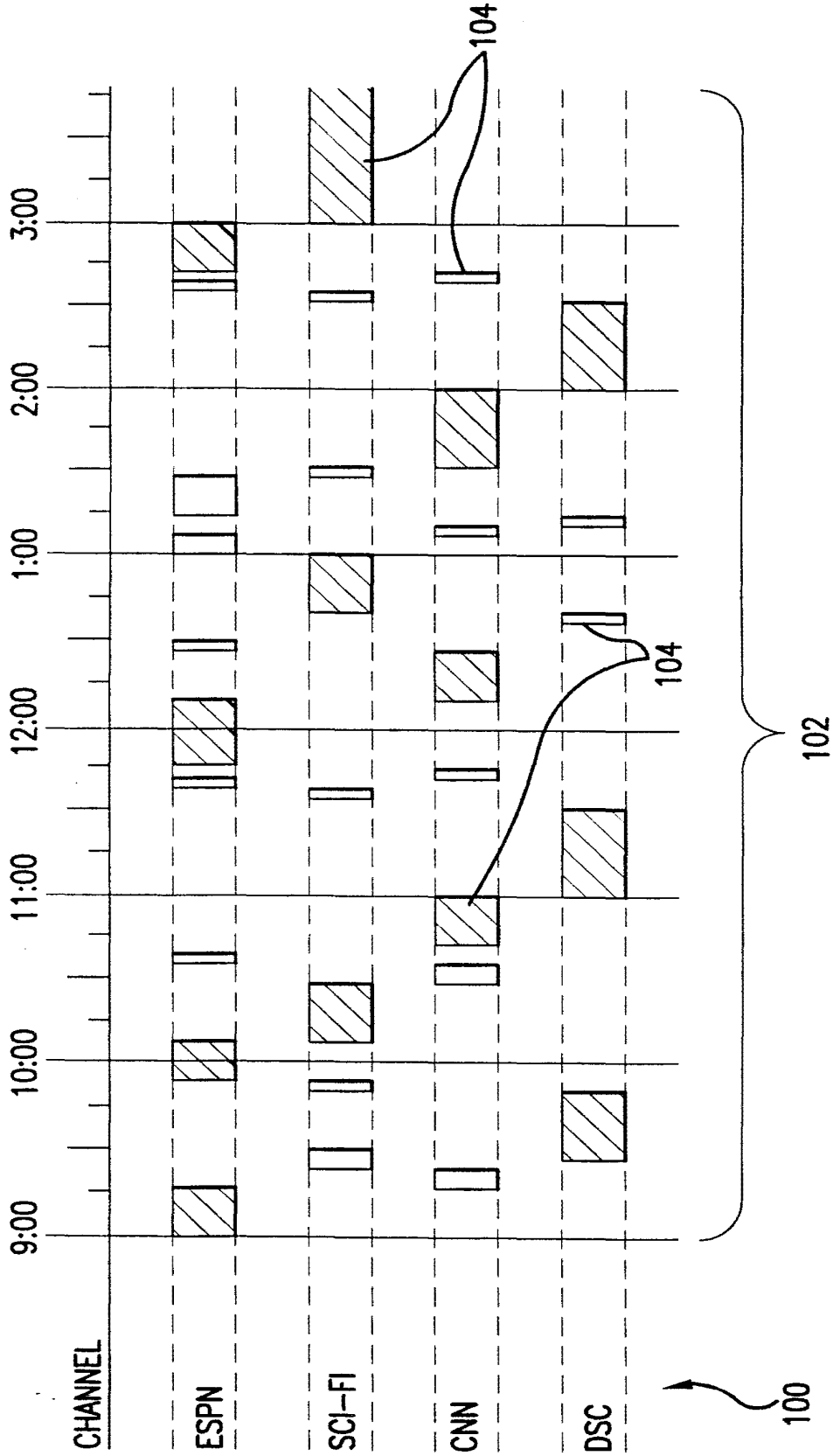
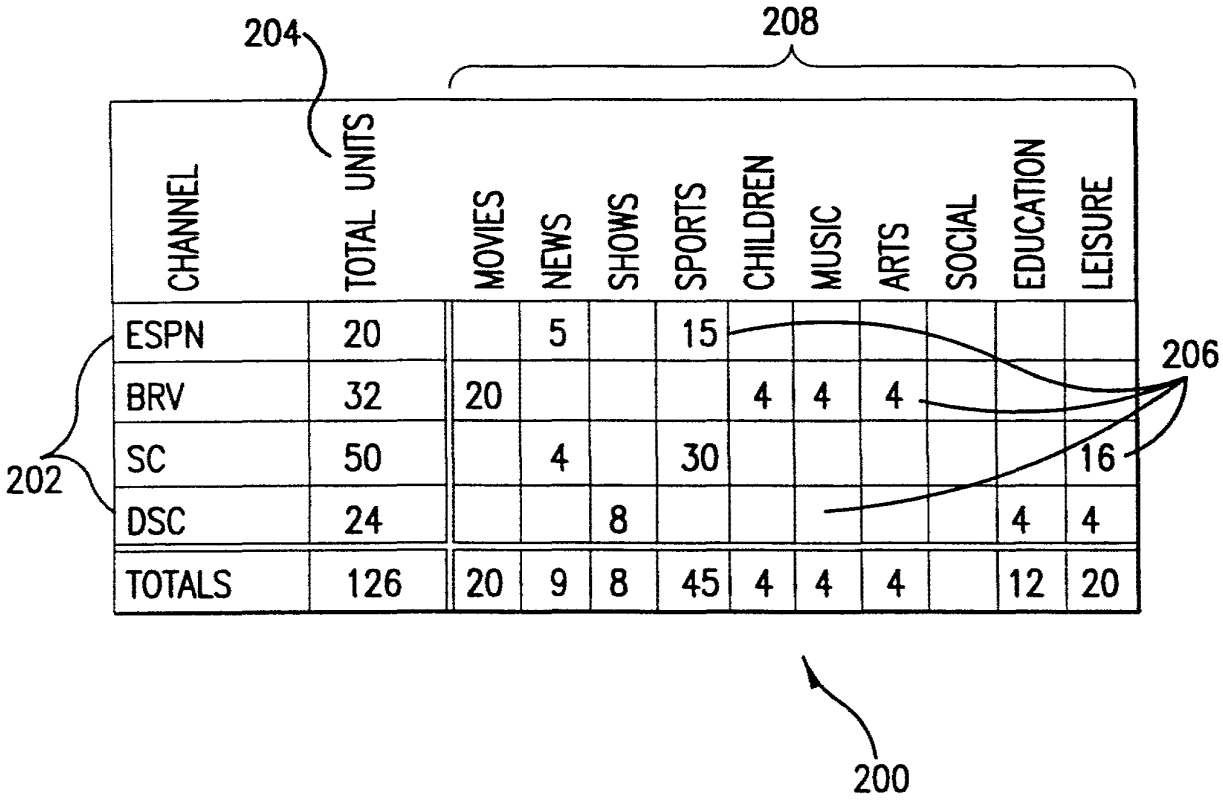


FIG.1

Petitioner Disney Ex-1004, 0272



CHANNEL	TOTAL UNITS	MOVIES	NEWS	SHOWS	SPORTS	CHILDREN	MUSIC	ARTS	SOCIAL	EDUCATION	LEISURE
ESPN	20		5		15						
BRV	32	20				4	4	4			
SC	50		4		30						16
DSC	24			8						4	4
TOTALS	126	20	9	8	45	4	4	4		12	20

FIG.2

Petitioner Disney Ex-1004, 0273

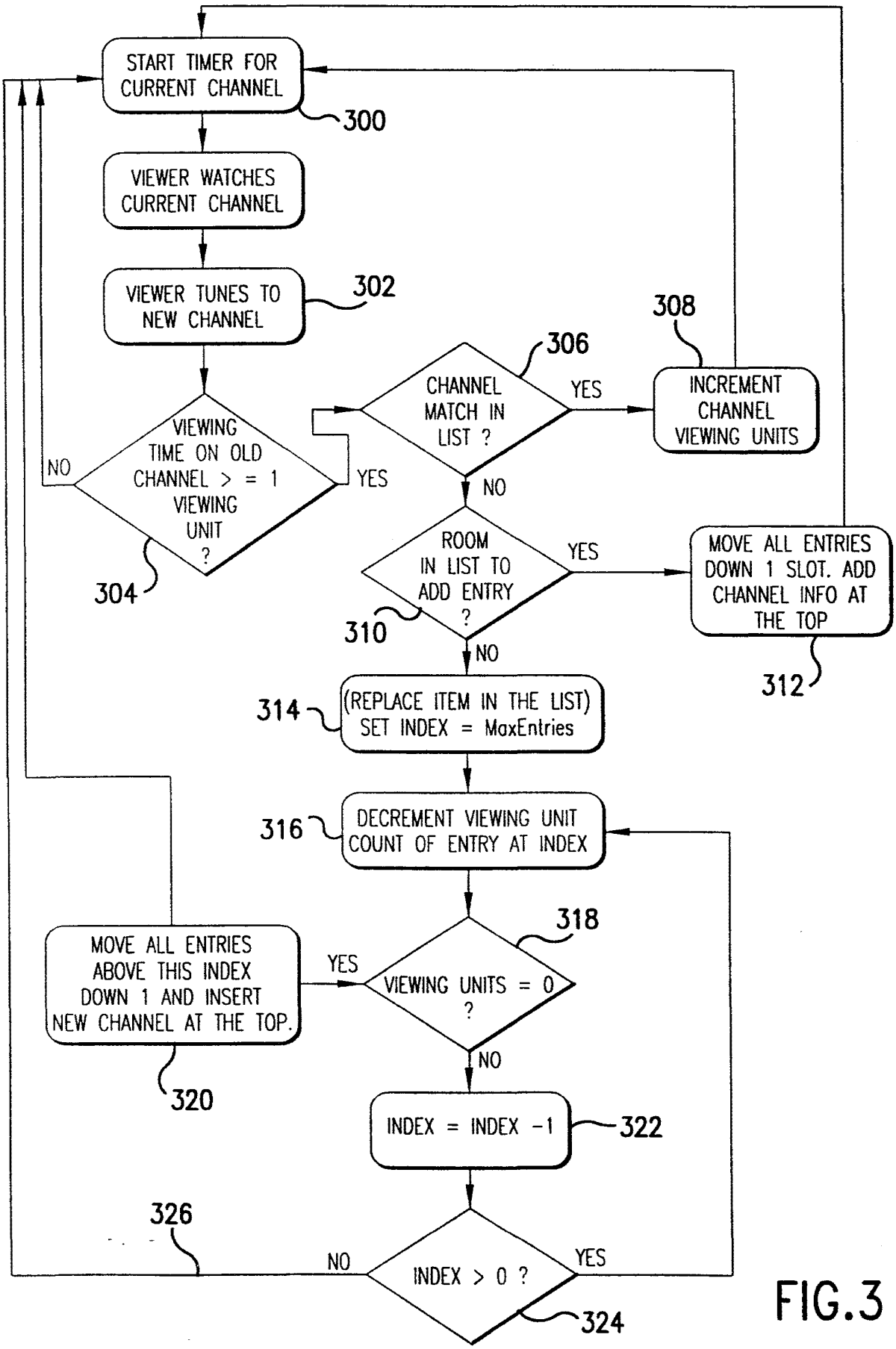


FIG.3

Petitioner Disney Ex-1004, 0274

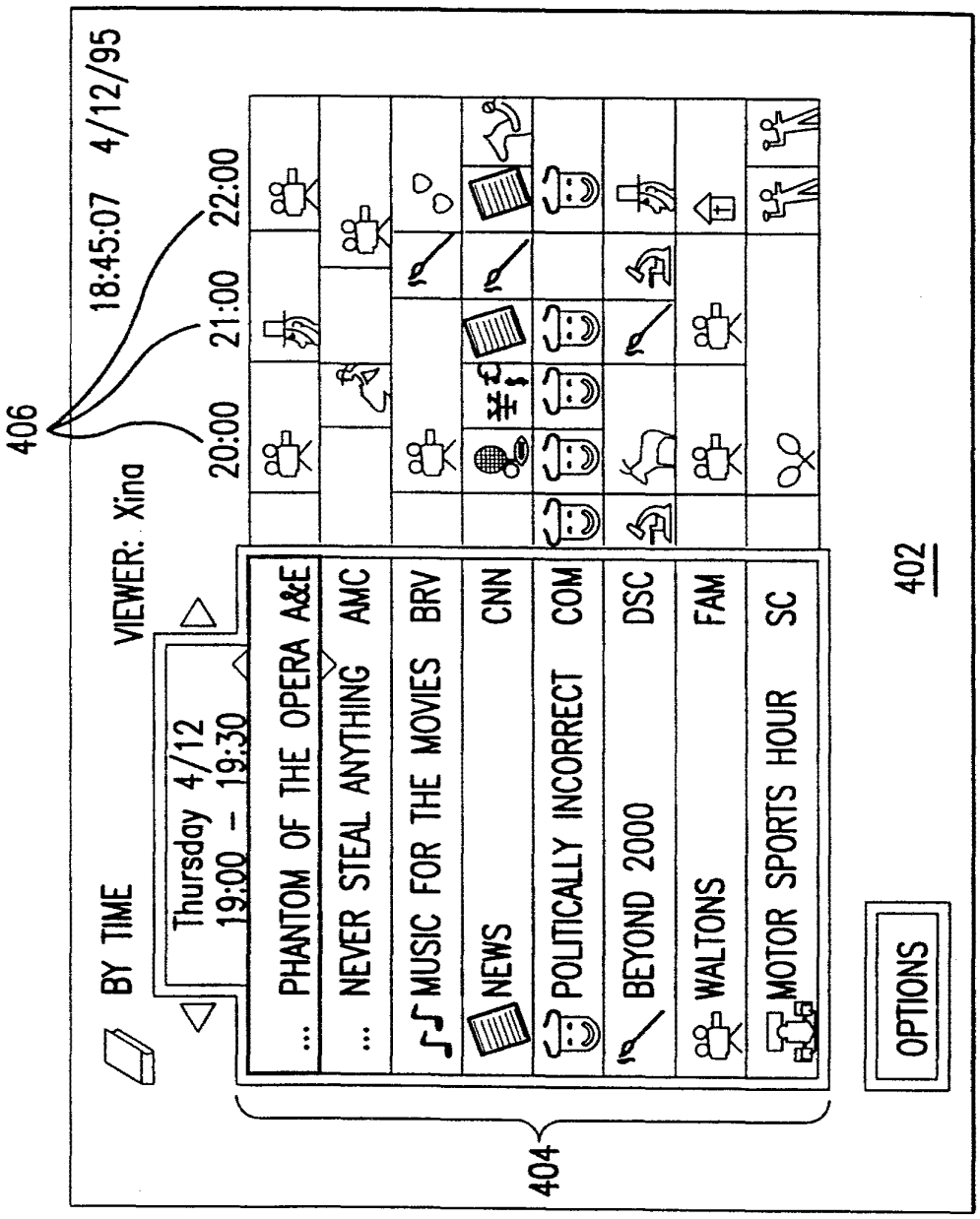


FIG.4

Petitioner Disney Ex-1004, 0275



FIG.5

Petitioner Disney Ex-1004, 0276

Electronic Acknowledgement Receipt

EFS ID:	22306835
Application Number:	14660596
International Application Number:	
Confirmation Number:	1084
Title of Invention:	SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT
First Named Inventor/Applicant Name:	Charles Cordray
Customer Number:	75563
Filer:	Drew Joseph Schulte/Crena Pacheco
Filer Authorized By:	Drew Joseph Schulte
Attorney Docket Number:	003597-0375-103
Receipt Date:	11-MAY-2015
Filing Date:	17-MAR-2015
Time Stamp:	15:08:10
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	Transmittal Letter	003597_0375_103_SIDS.pdf	80227 7f652da72a8eed7446015beee32516e2335e1b2e	no	2

Warnings:	
Information:	

2	Information Disclosure Statement (IDS) Form (SB08)	003597_0375_103_SB08.pdf	111181 b8ac513728ef32399e70b03a24c756bd3e5f1688	no	1
Warnings:					
Information:					
This is not an USPTO supplied IDS fillable form					
3	Foreign Reference	EP1126712.pdf	13491318 0254424a543de79be488d61141b601f50b3f5d42	no	61
Warnings:					
Information:					
4	Foreign Reference	WO1998021877.pdf	1368935 fb55c3dd61052972dc9983dabdbb953304358a53	no	30
Warnings:					
Information:					
		Total Files Size (in bytes):	15051661		

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.

Docket No.: 003597-0375-103
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Cordray et al.

Application No.: 14/660,596 | Confirmation No.: 1084

Filed: March 17, 2015 | Art Unit: 2447

For: SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT | Examiner: Not Yet Assigned

INFORMATION DISCLOSURE STATEMENT (IDS)

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

Dear Madam:

Pursuant to 37 C.F.R. § 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed before the mailing date of a first Office Action on the merits as far as is known to the undersigned (37 C.F.R. § 1.97(b)(3)).

In accordance with 37 C.F.R. § 1.98(a)(2)(ii), Applicant has not submitted copies of U.S. patents and U.S. patent applications. Applicant submits herewith copies of foreign patents in accordance with 37 C.F.R. § 1.98(a)(2).

Petitioner Disney Ex-1004, 0279

In accordance with 37 C.F.R. § 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 C.F.R. § 1.56(a) exists. In accordance with 37 C.F.R. § 1.97(h), the filing of this Information Disclosure Statement shall not be construed to be an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

It is submitted that the Information Disclosure Statement is in compliance with 37 C.F.R. § 1.98 and the Examiner is respectfully requested to consider the listed references.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 06-1075, under Order No. 003597-0375-103.

Dated: May 11, 2015

Respectfully submitted,

By /Drew J. Schulte/
Drew J. Schulte
Registration No.: 63,216
Customer No.: 75563
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Petitioner Disney Ex-1004, 0280

Doc Code: PA..
Document Description: Power of Attorney

PTO/AIA/82B (07-13)
Approved for use through 11/30/2014. OMB 0651-0051
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TRANSMITTAL FOR POWER OF ATTORNEY TO ONE OR MORE REGISTERED PRACTITIONERS

NOTE: This form is to be submitted with the Power of Attorney by Applicant form (PTO/AIA/82B) to identify the application to which the Power of Attorney is directed, in accordance with 37 CFR 1.5, unless the application number and filing date are identified in the Power of Attorney by Applicant form. If neither form PTO/AIA/82A nor form PTO/AIA82B identifies the application to which the Power of Attorney is directed, the Power of Attorney will not be recognized in the application.

Application Number	14/660,596
Filing Date	March 17, 2015
First Named Inventor	Charles Cordray
Title	SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT
Art Unit	2424
Examiner Name	F. S. Andramuno
Attorney Docket Number	003597-0375-103

SIGNATURE of Applicant or Patent Practitioner

Signature	/Drew J. Schulte/	Date (Optional)	July 14, 2015
Name	Drew J. Schulte	Registration Number	63,216
Title (if Applicant is a juristic entity)			
Applicant Name (if Applicant is a juristic entity)			

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. If more than one applicant, use multiple forms.

☐ *Total of 1 forms are submitted.

51799372_1

PTO/AIA/82B (07-12)
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POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO

I hereby revoke all previous powers of attorney given in the above-identified patent application.

[x] I hereby appoint Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s) and to transact all business in the United States Patent and Trademark Office connected therewith for the application referenced in the attached transmittal letter (form PTO/AIA/82A or equivalent): 75563

OR

[ ] I hereby appoint Practitioner(s) named below as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the application referenced in the attached transmittal letter (form PTO/AIA/82A or equivalent):

Name Registration	Number	Name Registration	Number

Please recognize or change the correspondence address for the above-identified patent to:

[x] The address associated with the above-mentioned Customer Number:

OR

[ ] The address associated with Customer Number:

OR

[ ] Firm or Individual Name					
Address					
City		State		Zip	
Country					
Telephone		Email			

SIGNATURE of Applicant for Patent

Signature		Date	12/9/12
Name	Pamela Sergeeff	Telephone	408-562-8400
Title and Company	Secretary, Rovi Guides, Inc.		

NOTE: This form must be signed by the applicant or applicant's representative in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below*.

[x] *Total of 1 forms are submitted.

PTO/AIA/96 (08-12)
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STATEMENT UNDER 37 CFR 3.73(c)

Applicant/Patent Owner: Rovi Guides, Inc.

Application No./Patent No.: 14/660,596 Filed/Issue Date: March 17, 2015

Titled: SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT

Rovi Guides, Inc. , a corporation
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that, for the patent application/patent identified above, it is (choose **one** of options 1, 2, 3 or 4 below):

1. [x] The assignee of the entire right, title, and interest.

2. [ ] An assignee of less than the entire right, title, and interest (check applicable box):

   [ ] The extent (by percentage) of its ownership interest is _____ %). Additional Statement(s) by the owners holding the balance of the interest must be submitted to account for 100% of the ownership interest.

   [ ] There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right, title and interest are:

   Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

3. [ ] The assignee of an undivided interest in the entirety (a complete assignment from one of the joint inventors was made). The other parties, including inventors, who together own the entire right, title, and interest are:

   Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

4. [ ] The recipient, via a court proceeding or the like (*e.g.*, bankruptcy, probate), of an undivided interest in the entirety (a complete transfer of ownership interest was made). The certified document(s) showing the transfer is attached.

The interest identified in option 1, 2 or 3 above (not option 4) is evidenced by either (choose **one** of options A or B below):

A. [ ] An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel _____ , Frame _____ , or for which a copy thereof is attached.

B. [x] A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

   1. From: Cordray et al. To: United Video Properties, Inc.
      The document was recorded in the United States Patent and Trademark Office at Reel 035954 , Frame 0676 , or for which a copy thereof is attached.

   2. From: United Video Properties, Inc. To: UV Corp.
      The document was recorded in the United States Patent and Trademark Office at Reel 035956 , Frame 0789 , or for which a copy thereof is attached.

51799458_1

PTO/AIA/96 (08-12)
Approved for use through 01/31/2013. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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STATEMENT UNDER 37 CFR 3.73(c)

3. From: UV Corp. To: TV Guide, Inc.
   The document was recorded in the United States Patent and Trademark Office at
   Reel 035949 , Frame 0156 , or for which a copy thereof is attached.
4. From: TV Guide, Inc. To: Rovi Guides, Inc.
   The document was recorded in the United States Patent and Trademark Office at
   Reel 035949 , Frame 0180 , or for which a copy thereof is attached.
5. From: _____ To: _____
   The document was recorded in the United States Patent and Trademark Office at
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6. From: _____ To: _____
   The document was recorded in the United States Patent and Trademark Office at
   Reel _____ , Frame _____ , or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet(s).

☒ As required by 37 CFR 3.73(c)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

/Drew J. Schulte/	July 14, 2015
Signature	Date
Drew J. Schulte	Attorney for Assignee
Printed or Typed Name	Title or Registration Number

51799458_1

Electronic Acknowledgement Receipt

EFS ID:	22908489
Application Number:	14660596
International Application Number:	
Confirmation Number:	1084
Title of Invention:	SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT
First Named Inventor/Applicant Name:	Charles Cordray
Customer Number:	75563
Filer:	Drew Joseph Schulte/Crena Pacheco
Filer Authorized By:	Drew Joseph Schulte
Attorney Docket Number:	003597-0375-103
Receipt Date:	14-JUL-2015
Filing Date:	17-MAR-2015
Time Stamp:	12:36:37
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	Power of Attorney	003597_0375_103_POA.pdf	171743 a42dbb4e380accfd7283ad6e094615406ef4068a	no	2

Warnings:	
Information:	

2	Assignee showing of ownership per 37 CFR 3.73	003597_0375_103_373.pdf	84457 202a867151660125ac456f1ac0ca8813f3317009	no	2

Warnings:	
Information:	
Total Files Size (in bytes):	256200

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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.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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Address: COMMISSIONER FOR PATENTS
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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
14/660,596	03/17/2015	Charles Cordray	003597-0375-103

CONFIRMATION NO. 1084

POA ACCEPTANCE LETTER

75563
ROPES & GRAY LLP
PATENT DOCKETING 39/361
1211 AVENUE OF THE AMERICAS
NEW YORK, NY 10036-8704

OC000000076439563

Date Mailed: 07/23/2015

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 07/14/2015.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at **(571) 272-4000** or **(571) 272-4200** or **1-888-786-0101**.

/ngfissha/

Petitioner Disney Ex-1004, 0287

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 NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
14/660,596	03/17/2015	Charles Cordray	003597-0375-103

CONFIRMATION NO. 1084

75563
ROPES & GRAY LLP
PATENT DOCKETING 39/361
1211 AVENUE OF THE AMERICAS
NEW YORK, NY 10036-8704

PUBLICATION NOTICE

OC000000076852409

Title:SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT

Publication No.US-2015-0229991-A1
Publication Date:08/13/2015

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

Petitioner Disney Ex-1004, 0288

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United States Patent and Trademark Office
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/660,596	03/17/2015	Charles Cordray	003597-0375-103	1084

75563 7590 01/20/2016

ROPES & GRAY LLP
PATENT DOCKETING 39/361
1211 AVENUE OF THE AMERICAS
NEW YORK, NY 10036-8704

EXAMINER
ANDRAMUNO, FRANKLIN S

ART UNIT	PAPER NUMBER
2424	

NOTIFICATION DATE	DELIVERY MODE
01/20/2016	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):

USPatentMail@ropesgray.com
USPatentMail2@ropesgray.com

Petitioner Disney Ex-1004, 0289

Office Action Summary	Application No. 14/660,596	Applicant(s) CORDRAY ET AL.	
	Examiner FRANKLIN ANDRAMUNO	Art Unit 2424	AIA (First Inventor to File) Status No

-- 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 MONTHS 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 *03/18/2015*.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

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) *58-69* 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) *58-69* 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 _____ 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).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

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/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

Petitioner Disney Ex-1004, 0290

The present application is being examined under the pre-AIA first to invent provisions.

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 58-69 include abstract components that a human can perform in his/her mind. For example, a human can track media progress by writing/recording user watched up to advertisement A. Furthermore, a person can write the time linking the advertisement to the viewing program. Moreover, humans can present, select, indicate predefined order, and automatically present unwatched episodes by writing on a piece of paper. In addition, these claim limitations are insufficient to ensure the claims amount to significantly more than the judicial exception. As a result, these claims are rejected under 101 for claiming an abstract idea.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRANKLIN ANDRAMUNO whose telephone number is (571)270-3004. The examiner can normally be reached on Mon-Fri 9:00am - 5:00pm.

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.

/PANKAJ KUMAR/
Supervisory Patent Examiner, Art Unit 2424

PTO/SB/08b (07-09)
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 1

Complete if Known	
Application Number	14/660,596
Filing Date	March 17, 2015
First Named Inventor	Charles Cordray
Art Unit	2447
Examiner Name	Not Yet Assigned
Attorney Docket Number	003597-0375-103

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
/F.S.A/		US-6,199,076	03-06-2001	Logan et al.	
/F.S.A/		US-6,651,253	11-18-2003	Dudkiewicz et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3] Number[4] Kind Code[5] *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T[6]
/F.S.A/		EP-1126712	08-22-2001	Sony Corporation		
/F.S.A/		WO-1998021877	05-22-1998	Hyundai Electronics America		

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	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[2]

Examiner Signature	/FRANKLIN S ANDRAMUNO/	Date Considered	01/08/2016

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 4 of 16

Complete if Known	
Application Number	14/660,596
Filing Date	March 17, 2015
First Named Inventor	Charles Cordray
Art Unit	2447
Examiner Name	Not Yet Assigned
Attorney Docket Number	003597-0375-103

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		US-6,766,100	07-20-2004	Komar et al.	
		US-2010/0325679-A1	12-23-2010	Ryal	
		US-2007/0118848-A1	05-24-2007	Schwesinger et al.	
		US-2001/0042128	11-15-2001	Hirayama	
		US-20050050578	03-03-2005	Ryal	
		US-20070127696	06-07-2007	White	
		US-20070154163	07-05-2007	Cordray	
		US-20070157247	07-05-2007	Cordray et al.	
		US-6,564,383	05-13-2003	Combs et al.	
		US-4,264,924	04-28-1981	Freeman	
		US-4,264,925	04-28-1981	Freeman et al.	
		US-4,355,415	10-19-1982	George et al.	
		US-4,573,072	02-25-1986	Freeman	
		US-4,602,279	07-22-1986	Freeman	
		US-4,605,964	08-12-1986	Chard	
		US-4,694,490	09-15-1987	Harvey et al.	
		US-4,706,121	11-10-1987	Young	
		US-4,718,107	01-05-1988	Hayes	
		US-4,847,698	07-11-1989	Freeman	

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	**	CN-1386368	12-18-2002	Koninkijke Philips Electronics NV		
	**	CN-1440193-A	09-03-2003	Matsushidta Electric Ind. Co., Ltd		
	**	CN-1501711	06-02-2004	Beijing DTVIA Digital System		
	**	DE-4440419-A1	05-09-1996	Issing Tilman et al.		
	**	EP-0 572 090	12-01-1993	Koninkl Philips Electronics NV		
	**	EP-0 682 452-A2	11-15-1995	Microsoft Corp		

Examiner Signature	/Franklin Andramuno/	Date Considered	01/08/2016

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Sheet 2 of 16

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		US-4,847,700	07-11-1989	Freeman	
		US-4,857,999	08-15-1989	Welsh	
		US-4,908,707	03-13-1990	Kinghorn	
		US-4,930,158	05-29-1990	Vogel	
		US-4,945,563	07-31-1990	Horton et al.	
		US-4,959,720	09-25-1990	Duffield et al.	
		US-4,977,455	12-11-1990	Young	
		US-5,038,211	08-06-1991	Hallenbeck	
		US-5,047,867	09-10-1991	Strubbe et al.	
		US-5,068,733	11-26-1991	Bennett	
		US-5,109,279	04-28-1992	Ando	
		US-5,151,789	09-29-1992	Young	
		US-5,172,413	12-15-1992	Bradley et al.	
		US-5,187,589	02-16-1993	Kono et al.	
		US-5,195,134	03-16-1993	Inoue et al.	
		US-5,200,822	04-06-1993	Bronfin et al.	
		US-5,210,611	05-11-1993	Yee et al.	
		US-5,223,924	06-29-1993	Strubbe	
		US-5,241,428	08-31-1993	Goldwasser et al.	

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	**	EP-0753964-A1	01-15-1997	Thomson Multimedia Sa		
	**	EP-0 789 488	08-13-1997	Matsushita Electric Ind. Co., Ltd.		
	**	EP-0 836 320	04-15-1998	Matsushita Electric Ind. Co. Ltd.		
	**	EP-0 854645	07-22-1998	Texas Instruments Inc.		
	**	EP-0 856 847	11-21-2001	Sony Corporation		
	**	EP-0 921 682-A2	06-09-1999	Matsushita Electric Ind Co Ltd		

Examiner Signature	/Franklin Andramuno/	Date Considered	01/08/2016

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Sheet 3 of 16

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		US-5,253,066	10-12-1993	Vogel	
		US-5,285,284	02-08-1994	Takashima et al.	
		US-5,296,931	03-22-1994	Na	
		US-5,323,234	06-21-1994	Kawasaki	
		US-5,335,277	08-02-1994	Harvey et al.	
		US-5,345,430	09-06-1994	Moe	
		US-5,353,121	10-04-1994	Young et al.	
		US-5,371,551	12-06-1994	Logan et al.	
		US-5,410,344	04-25-1995	Graves et al.	
		US-5,412,720	05-02-1995	Hoarty	
		US-5,416,508	05-16-1995	Sakuma et al.	
		US-5,442,389	08-15-1995	Blahut et al.	
		US-5,459,522	10-17-1995	Pint	
		US-5,479,266	12-26-1995	Young et al.	
		US-5,479,268	12-26-1995	Young et al.	
		US-5,483,278	01-09-1996	Strubbe et al.	
		US-5,485,197	01-16-1996	Hoarty	
		US-5,485,219	01-16-1996	Woo	
		US-5,517,257	05-14-1996	Dunn et al.	

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	**	EP-0 940 983	09-08-1999	Matsushita Electric Ind. Co. Ltd.		
	**	EP-1014715-A2	06-28-2000	Nec Corp		√
	**	EP-1 059 749	12-13-2000	Command Audio Corporation		
	**	EP-1 536 014	05-25-2005	Ensequence, Inc.		
	**	GB-2 227 622	08-01-1990	Samsung Electronics Co. Ltd.		
	**	GB-2 229 595	09-26-1990	Tindall Anthony Peter		

Examiner Signature	/Franklin Andramuno/	Date Considered	01/08/2016

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		US-5,524,195	06-04-1996	Clanton, III et al.	
		US-5,532,754	07-02-1996	Young et al.	
		US-5,534,911	07-09-1996	Levitan	
		US-5,537,141	07-16-1996	Harper et al.	
		US-5,539,449	07-23-1996	Blahut et al.	
		US-5,539,822	07-23-1996	Lett	
		US-5,550,576	08-27-1996	Klosterman	
		US-5,559,548	09-24-1996	Davis et al.	
		US-5,559,549	09-24-1996	Hendricks et al.	
		US-5,568,272	10-22-1996	Levine	
		US-5,583,561	12-10-1996	Baker et al.	
		US-5,583,563	12-10-1996	Wanderscheid et al.	
		US-5,583,653	12-10-1996	Timmermans et al.	
		US-5,585,838	12-17-1996	Lawler et al.	
		US-5,585,858	12-17-1996	Harper et al.	
		US-5,589,892	12-31-1996	Knee et al.	
		US-5,592,551	01-07-1997	Lett et al.	
		US-5,600,364	02-04-1997	Hendricks et al.	
		US-5,602,582	02-11-1997	Wanderscheid et al.	

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	**	GB-2 346 251	08-02-2000	IBM		
	**	JP-2005-348157	12-15-2005	Sony Corp		
	**	JP-10257400-A	09-25-1998	Sony Corp		
	**	JP-11261917-A	09-24-1999	Sony Corp		√
	**	JP-11308561-A	11-05-1999	Kanamaru, Koji		√
	**	JP-2000-013708	01-14-2000	Hitachi Ltd.		√

Examiner Signature	/Franklin Andramuno/	Date Considered	01/08/2016

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 5 of 16

Complete if Known	
Application Number	14/660,596
Filing Date	March 17, 2015
First Named Inventor	Charles Cordray
Art Unit	2447
Examiner Name	Not Yet Assigned
Attorney Docket Number	003597-0375-103

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US-5,619,274	04-08-1997	Roop et al.	
		US-5,629,733	05-13-1997	Youman et al.	
		US-5,630,119	05-13-1997	Aristides et al.	
		US-5,631,995	05-20-1997	Weissensteiner et al.	
		US-5,632,007	05-20-1997	Freeman	
		US-5,648,824	07-15-1997	Dunn et al.	
		US-5,654,748	08-05-1997	Matthews, III	
		US-5,654,886	08-05-1997	Zereski, Jr. et al.	
		US-5,657,072	08-12-1997	Aristides et al.	
		US-5,657,414	08-12-1997	Lett et al.	
		US-5,659,367	08-19-1997	Yuen	
		US-5,666,645	09-09-1997	Thomas et al.	
		US-5,684,525	11-04-1997	Klosterman	
		US-5,694,163	12-02-1997	Harrison	
		US-5,694,381	12-02-1997	Sako	
		US-5,699,107	12-16-1997	Lawler et al.	
		US-5,717,452	02-10-1998	Janin et al.	
		US-5,724,091	03-03-1998	Freeman et al.	
		US-5,727,060	03-10-1998	Young	

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Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3] Number[4] Kind Code[5] *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T[6]
	**	JP-2000-138886	05-16-2000	Nippon Electric Co.		√
	**	JP-2000-224536	08-11-2000	IBM		√
	**	JP-2000-235046	08-29-2000	Tokyo Shibaura Electric Co.		√
	**	JP-2000-306314	11-02-2000	Sharp KK		√
	**	JP-2001-165669	06-22-2001	Pioneer Electronic Corp.		√
	**	JP-2001-167522	06-22-2001	NEC IC Microcomput Syst. Ltd.		√

Examiner Signature	/Franklin Andramuno/	Date Considered	01/08/2016

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Sheet 6 of 16

Complete if Known	
Application Number	14/660,596
Filing Date	March 17, 2015
First Named Inventor	Charles Cordray
Art Unit	2447
Examiner Name	Not Yet Assigned
Attorney Docket Number	003597-0375-103

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		US-5,732,216	03-24-1998	Logan et al.	
		US-5,745,710	04-28-1998	Clanton, III et al.	
		US-5,751,282	05-12-1998	Girard et al.	
		US-5,752,159	05-12-1998	Faust et al.	
		US-5,754,771	05-19-1998	Epperson et al.	
		US-5,758,257	05-26-1998	Herz et al.	
		US-5,760,821	06-02-1998	Ellis et al.	
		US-5,768,528	06-16-1998	Stumm	
		US-5,778,182	07-07-1998	Cathey et al.	
		US-5,781,226	07-14-1998	Sheehan	
		US-5,781,246	07-14-1998	Alten et al.	
		US-5,790,198	08-04-1998	Roop et al.	
		US-5,790,202	08-04-1998	Kummer et al.	
		US-5,796,952	08-18-1998	Davis et al.	
		US-5,801,787	09-01-1998	Schein et al.	
		US-5,802,284	09-01-1998	Karlton et al.	
		US-5,805,155	09-08-1998	Allibhoy et al.	
		US-5,805,763	09-08-1998	Lawler et al.	
		US-5,805,804	09-08-1998	Laursen et al.	

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	**	JP-2001-257950	09-21-2001	Matsushita Electric Ind. Co. Ltd.		√
	**	JP-2001-88372	04-03-2001	Ricoh Co. Ltd.		
	**	JP-2003-216531	07-31-2003	NTT Communications		
	**	JP-2003-319308	11-07-2003	Matsushita Electric Industrial Co., Ltd.		
	**	JP-2004-118483	04-15-2004	Toshiba Corp		
	**	JP-2004-343520-A	12-02-2004	Sharp Kk		√

Examiner Signature	/Franklin Andramuno/	Date Considered	01/05/2016

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Sheet 7 of 16

Complete if Known	
Application Number	14/660,596
Filing Date	March 17, 2015
First Named Inventor	Charles Cordray
Art Unit	2447
Examiner Name	Not Yet Assigned
Attorney Docket Number	003597-0375-103

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		US-5,808,608	09-15-1998	Young et al.	
		US-5,809,204	09-15-1998	Young et al.	
		US-5,812,123	09-22-1998	Rowe et al.	
		US-5,812,205	09-22-1998	Milnes et al.	
		US-5,812,937	09-22-1998	Takahisa et al.	
		US-5,818,438	10-06-1998	Howe et al.	
		US-5,819,019	10-06-1998	Nelson	
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		US-5,850,218	12-15-1998	LaJoie et al.	
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		US-5,963,264	10-05-1999	Jackson	
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		US-5,970,486	10-19-1999	Yoshida et al.	

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	**	JP-2005/159579	06-16-2005	Matsushita Electric Industrial Co., Ltd.		
	**	JP-2005/302117	10-27-2005	Sony Corp.		
	**	JP-08130517-A	05-21-1996	Toshiba Corp et al.		√
	**	WO-1988004507-A1	06-16-1988	British Broadcasting Corp		
	**	WO-1993023957-A1	11-25-1993	Mankovitz, Roy		
	**	WO-1994014284-A1	06-23-1994	Discovery Communicat Inc		

Examiner Signature	/Franklin Andramuno/	Date Considered	01/08/2016

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Sheet 8 of 16

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Application Number	14/660,596
Filing Date	March 17, 2015
First Named Inventor	Charles Cordray
Art Unit	2447
Examiner Name	Not Yet Assigned
Attorney Docket Number	003597-0375-103

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		US-5,973,683	10-26-1999	Cragun et al.	
		US-5,977,964	11-02-1999	Williams et al.	
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		US-6,075,526	06-13-2000	Rothmuller	
		US-6,091,884	07-18-2000	Yuen et al.	
		US-6,130,726	10-10-2000	Darbee et al.	

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	**	WO--1995032587-A1	11-30-1995	Prevue International Inc		
	**	WO-1996026605-A1	08-29-1996	Smart Vcr Ltd		
	**	WO-1996034491-A1	10-31-1996	Tv Guide On Screen		
	**	WO-1996036172-A2	11-14-1996	Gemstar Dev Corp		
	**	WO-1996037075-A1	11-21-1996	Actv, Inc		
	**	WO-1996041470-A1	12-19-1996	Tv Guide On Screen		

Examiner Signature	/Franklin Andramuno/	Date Considered	01/08/2016

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Sheet 9 of 16

Complete if Known	
Application Number	14/660,596
Filing Date	March 17, 2015
First Named Inventor	Charles Cordray
Art Unit	2447
Examiner Name	Not Yet Assigned
Attorney Docket Number	003597-0375-103

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		US-6,133,910	10-17-2000	Stinebruner	
		US-6,141,488	10-31-2000	Knudson et al.	
		US-6,157,413	12-05-2000	Hanafee et al.	
		US-6,163,316	12-19-2000	Killian	
		US-6,172,674	01-09-2001	Etheredge	
		US-6,177,931	01-23-2001	Alexander et al.	
		US-6,208,335	03-27-2001	Gordon et al.	
		US-6,208,799	03-27-2001	Marsh et al.	
		US-6,233,389	05-15-2001	Barton et al.	
		US-6,275,648	08-14-2001	Knudson et al.	
		US-6,317,882	11-13-2001	Robbins	
		US-6,324,338	11-27-2001	Wood et al.	
		US-6,326,982	12-04-2001	Wu et al.	
		US-6,327,418	12-04-2001	Barton	
		US-6,442,332	08-27-2002	Knudson et al.	
		US-6,473,559	10-29-2002	Knudson et al.	
		US-6,486,892	11-26-2002	Stern	
		US-6,505,348	01-07-2003	Knowles et al.	
		US-6,564,005	05-13-2003	Berstis	

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	**	WO-1996041478-A1	12-19-1996	Tv Guide On Screen		
	**	WO-1997013368-A1	04-10-1997	Starsight Telecast Inc et al.		
	**	WO-1997046943-A1	12-11-1997	Webtv Networks Inc		
	**	WO-1997047124-A1	12-11-1997	Webtv Networks Inc		
	**	WO-1997048230-A1	12-18-1997	Starsight Telecast Inc		
	**	WO-1997049237-A1	12-24-1997	Starsight Telecast Inc		

Examiner Signature	/Franklin Andramuno/	Date Considered	01/08/2016

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Sheet 10 of 16

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Application Number	14/660,596
Filing Date	March 17, 2015
First Named Inventor	Charles Cordray
Art Unit	2447
Examiner Name	Not Yet Assigned
Attorney Docket Number	003597-0375-103

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		US-6,601,074	07-29-2003	Liebenow	
		US-6,611,842	08-26-2003	Brown	
		US-6,670,971	12-30-2003	Oral et al.	
		US-6,721,954	04-13-2004	Nickum	
		US-6,727,914	04-27-2004	Gutta	
		US-6,744,967	06-01-2004	Kaminski et al.	
		US-6,760,537	07-06-2004	Mankovitz	
		US-6,837,789	01-04-2005	Garahi et al.	
		US-6,865,746	03-08-2005	Herrington et al.	
		US-6,934,964	08-23-2005	Schaffer et al.	
		US-6,950,624	09-27-2005	Kim et al.	
		US-6,973,621	12-06-2005	Sie et al.	
		US-6,987,945	01-17-2006	Born et al.	
		US-7,088,910	08-08-2006	Potrebic et al.	
		US-7,096,486	08-22-2006	Ukai et al.	
		US-7,185,355	02-27-2007	Ellis et al.	
		US-7,353,270	04-01-2008	Kumar et al.	
		US-7,412,714	08-12-2008	Kitayama	
		US-7,519,268	04-14-2009	Juen et al.	

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	**	WO-1998006219-A1	02-12-1998	Starsight Telecast Inc		
	**	WO-1998017064-A1	04-23-1998	Gemstar Dev Corp et al.		
	**	WO-1998043183-A1	10-01-1998	Sony Electronics Inc		
	**	WO-1999003267-A1	01-21-1999	Thomson Consumer Electronics		
	**	WO-1999004561-A1	01-28-1999	Guide E Inc et al.		
	**	WO-1999035827-A1	07-15-1999	Verna, Tony		

Examiner Signature	/Franklin Andramuno/	Date Considered	01/08/2016

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 11 of 16

Complete if Known	
Application Number	14/660,596
Filing Date	March 17, 2015
First Named Inventor	Charles Cordray
Art Unit	2447
Examiner Name	Not Yet Assigned
Attorney Docket Number	003597-0375-103

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US-7,617,127	11-10-2009	Hunt et al.	
		US-RE34340	08-10-1993	Freeman	
		US-RE36801	08-01-2000	Logan et al.	
		US-20050265169	12-01-2005	Yoshimaru et al.	
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		US-2003/0061610-A1	03-27-2003	Errico	
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	**	WO-1999037045-A1	07-22-1999	Gen Instrument Corp		
	**	WO-1999045700-A1	09-10-1999	Prevue International Inc		
	**	WO-1999052279-A1	10-14-1999	Tivo, Inc		
	**	WO-1999060493-A1	11-25-1999	Audible, Inc		
	**	WO-1999065237-A1	12-16-1999	Metabyte, Inc		
	**	WO-1999066725-A1	12-23-1999	United Video Properties Inc		

Examiner Signature	/Franklin Andramuno/	Date Considered	01/08/2016

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	**	WO-2000004706-A2	01-27-2000	United Video Properties, Inc		
	**	WO-2000004709-A1	01-27-2000	United Video Properties Inc		
	**	WO-2000007368-A1	02-10-2000	Tivo, Inc		
	**	WO-2000008850-A1	02-17-2000	Wood, Anthony et al.		
	**	WO-2000008851-A1	02-17-2000	Wood, Anthony et al.		
	**	WO-2000008852-A1	02-17-2000	Wood, Anthony et al.		

Examiner Signature	/Franklin Andramuno/	Date Considered	01/08/2016

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Sheet 13 of 16

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Filing Date	March 17, 2015
First Named Inventor	Charles Cordray
Art Unit	2447
Examiner Name	Not Yet Assigned
Attorney Docket Number	003597-0375-103

U. S. PATENT DOCUMENTS

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	**	WO-2000013426-A1	03-09-2000	United Video Properties, Inc		
	**	WO-2000016336-A1	03-23-2000	Dstd Consultants Limited		
	**	WO-2000016548-A1	03-23-2000	United Video Properties Inc		
	**	WO-2000028739-A1	05-18-2000	Open Tv, Inc		
	**	WO-2000058833	10-05-2000	TiVo Inc.		

Examiner Signature	/Franklin Andramuno/	Date Considered	01/08/2016

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Sheet 14 of 16

Complete if Known	
Application Number	14/660,596
Filing Date	March 17, 2015
First Named Inventor	Charles Cordray
Art Unit	2447
Examiner Name	Not Yet Assigned
Attorney Docket Number	003597-0375-103

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	**	WO-2000058967-A1	10-05-2000	Tivo, Inc		
	**	WO-2000059214-A1	10-05-2000	Tivo, Inc		
	**	WO-2000059223-A1	10-05-2000	Tivo, Inc		
	**	WO-2000062298-A1	10-19-2000	Tivo, Inc		
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	**	WO-2000067475-A1	11-09-2000	Tivo, Inc		
	**	WO-2001010128-A1	02-08-2001	Videoshare, Inc		
	**	WO-2001011865-A1	02-15-2001	British Sky Broadcasting Ltd		
	**	WO-2001022729-A1	03-29-2001	Tivo, Inc		
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	**	WO-2001047238-A2	06-28-2001	Tivo, Inc		
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	**	WO-2001076239-A2	10-11-2001	United Video Properties, Inc		
	**	WO-2001076248-A2	10-11-2001	United Video Properties Inc		

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	**	WO-2006/060157-A2	06-08-2006	Sbc Knowledge Ventures Lp		

NON PATENT LITERATURE DOCUMENTS

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	**	"Advanced Analog Systems - Addressable Terminals" General Instrument Corp. of Horsham, Pennsylvania (URL:http//www.gi.com/BUSAREA/ANALOG/TERMINAL/WATCH/watch.html) Printed from the Internet on March 4, 1999.	
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	**	Hofmann, Neumann, Oberlies, and Schadwinkel, "Videotext Programmiert Videorecorder," Rundfunktechnische Mitteilungen, Nov.-Dec. 1982, pp. 254-57.	
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	**	TV Guide Online, TV Guide Spot, http://www.tvguide.com/spot, accessed April 10, 2006.	
	**	User's Guide RCA Color TV with TV Plus + Guide, 1997.	

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EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	3909	725/87	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 06:48
L2	1972	725/61	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 06:48
L3	4959	725/39	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 06:48
L4	324	h04n21/47217	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 06:49
L5	1368	h04n21/858	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 06:52
L6	522	1 and (serial series) with program$5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 07:00
L7	2	1 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 07:01
L8	0	2 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 07:01
L9	530	1 and (serial$4 series) with program$5	US-PGPUB;	OR	ON	2016/01/08 07:01

Petitioner Disney Ex-1004, 0310

			USPAT; USOCR; EPO; JPO; DERWENT			
L10	76	1 and (serial$4 series) with program$5 same episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 07:01
L11	72	1 and (serial$4 series) with program$5 with episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 07:01
L12	65	2 and (serial$4 series) with program$5 with episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 07:02
L13	190	3 and (serial$4 series) with program$5 with episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 07:02
L14	26	4 and (serial$4 series) with program$5 with episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 07:02
L15	28	5 and (serial$4 series) with program$5 with episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 07:02
S1	2	"20150229991"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 12:22
S2	2	"20050273819"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 12:24
S3	2	"20060173974"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 12:24
S4	2	"20030190150"	US-PGPUB;	OR	ON	2016/01/07 12:24

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			USPAT; USOCR; EPO; JPO; DERWENT			
S5	3	(US-20060173974-$ or US-20030190150-$ or US-20050273819-$).did.	US-PGPUB	OR	ON	2016/01/07 12:24
S6	1	S5 and serial	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 12:25
S7	72899	serial with link$5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 12:27
S8	2166	serial with link$5 with program	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 12:27
S9	2581	series with link$5 with program$5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 12:27
S10	3	second near3 series near4 link$5 near4 program$5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 12:28
S11	491	serial near4 link$5 near4 program$5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 12:28
S12	2	("9015736").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2016/01/07 14:41
S13	1820	episode with (serial series) with program$5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 14:44
S14	0	sex near2 in near2 the near2 city	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 14:49

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S15	17	sex near4 city with (serial series)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 16:04
S16	2	"20150229991"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 16:05
S17	1826	episode with (viewed watched)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 16:08
S18	414	episode with (viewed watched) with (series serial)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 16:08
S19	93	episode with (viewed watched) with (series serial) and ((@ad<="20051229") (@rlad<="20051229"))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 16:09
S20	584	("20020056087" | "20020059599" | "20020129368" | "20020133817" | "20020144262" | "20020174424" | "20020174430" | "20020191954" | "20020194596" | "20030005445" | "20030009766" | "20030014755" | "20030061610" | "20030093329" | "20030118323" | "20030149980" | "20030149988" | "20030167471" | "20030190150" | "20030208763" | "20040049787" | "20040098744" | "20040111748" | "20040111756" | "20040117257" | "20040193483" | "20040229568" | "20040237102" | "20050055715" | "20050120003" | "20050120373" | "20050193414" | "20050204388" | "20050223516" | "20050229213" | "20050240962" | "20050240968" | "20050251827" | "20050265169" | "20050273819" | "20060031883" | "20060075015" | "20060117343" | "20060136966" | "20060140584" | "20060173974" | "20060277191" | "20070058034" | "20070089148" | "20070157220" | "20070157237" | "20070157249" | "20070204308" | "20080028064" | "20080195468" | "20080270417" | "20090077589" | "4264924" | "4264925" | "4355415" | "4573072" | "4602279" | "4605964" | "4694490" | "4706121" | "4718107" | "4847698" | "4847700" |	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 20:25

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S21	69	S20 and episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 20:26

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S22	40	partial$4 with (watched viewed) with episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 20:36
S23	13	partial$4 with (watched viewed) with episode and ((@ad<="20051229") (@rlad<="20051229"))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 20:36
S24	843	(watched viewed) with episode and ((@ad<="20051229") (@rlad<="20051229"))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 20:39
S25	686	(watched viewed) near5 episode and ((@ad<="20051229") (@rlad<="20051229"))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 20:39
S26	634	(watched viewed) near3 episode and ((@ad<="20051229") (@rlad<="20051229"))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 20:39
S27	3	"20050265169"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 21:07
S28	2	("6865746").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2016/01/07 21:11
S29	208	netflix.as.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 22:08
S30	0	netflix.as. with episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 22:08
S31	0	netflix.as. with (series serial)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 22:09

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S32	560	episode with (serial series) with program$4 and ((@ad<="20051229") (@rlad<="20051229"))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 22:09
S33	363	episode near4 (serial series) near4 program$4 and ((@ad<="20051229") (@rlad<="20051229"))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 22:10
S34	5	last near5 episode near4 (serial series) near4 program$4 and ((@ad<="20051229") (@rlad<="20051229"))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 22:19

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L16	305607	(charles cordray todd walker samir armaly).in.	US-PGPUB; USPAT	OR	ON	2016/01/08 07:04
L17	110	(charles cordray todd walker samir armaly).in. and (serial$4 series) with program$5 with episode	US-PGPUB; USPAT	OR	ON	2016/01/08 07:04
L18	236	(charles cordray todd walker samir armaly).in. and (serial$4 series) with program$5 with link$5	US-PGPUB; USPAT	OR	ON	2016/01/08 07:05
L19	1	(charles cordray todd walker samir armaly).in. and (serial$4 series) with program$5 with link$5 with progress	US-PGPUB; USPAT	OR	ON	2016/01/08 07:05
L20	4	((serial$4 series) with program$5 with link$5 with progress).clm.	US-PGPUB; USPAT	OR	ON	2016/01/08 07:05

1/8/2016 7:06:40 AM
C:\Users\fandramuno\Documents\EAST\Workspaces\14660596.wsp

Petitioner Disney Ex-1004, 0316

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BIB DATA SHEET

CONFIRMATION NO. 1084

SERIAL NUMBER	FILING or 371(c) DATE RULE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
14/660,596	03/17/2015	725	2424	003597-0375-103

APPLICANTS

Rovi Guides, Inc., Santa Clara, CA;

INVENTORS

Charles Cordray, New York, NY;
Todd A. Walker, Bixby, OK;
Samir B. Armaly, La Canada Flintridge, CA;

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

This application is a CON of 11/323,464 12/29/2005 PAT 9015736

**** FOREIGN APPLICATIONS ***************************

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ****

03/26/2015

Foreign Priority claimed ☐ Yes ☑ No 35 USC 119(a-d) conditions met ☐ Yes ☑ No Verified and Acknowledged /FRANKLIN S ANDRAMUNO/ Examiner's Signature	☐ Met after Allowance Initials	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
		NY	20	12	2

ADDRESS

ROPES & GRAY LLP
PATENT DOCKETING 39/361
1211 AVENUE OF THE AMERICAS
NEW YORK, NY 10036-8704
UNITED STATES

TITLE

SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT

FILING FEE RECEIVED		
1740	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

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14660596	CORDRAY ET AL.
	Examiner	Art Unit
	FRANKLIN ANDRAMUNO	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	01/11/2016								
	1	-								
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Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14660596	CORDRAY ET AL.
	Examiner	Art Unit
	FRANKLIN ANDRAMUNO	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	01/11/2016								
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	67	✓								
	68	✓								
	69	✓								

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14660596	CORDRAY ET AL.
	Examiner	Art Unit
	FRANKLIN ANDRAMUNO	2424

CPC- SEARCHED		
Symbol	Date	Examiner
h04n21/858 and h04n21/47217	1/8/2016	FA

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
725	87, 61 and 39	1/8/2016	FA

SEARCH NOTES		
Search Notes	Date	Examiner

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

Docket No.: 003597-0375-103
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Cordray et al.

Application No.: 14/660,596 | Confirmation No.: 1084

Filed: March 17, 2015 | Art Unit: 2424

For: SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT | Examiner: F. S. Andramuno

RESPONSE TO OFFICE ACTION

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

Dear Sir:

In response to the Office Action dated January 20, 2016 ("Office Action"), please amend the above-identified U.S. patent application as follows. A Petition for Extension of Time for two (2) months, extending the time for reply to June 20, 2016 is filed concurrently herewith.

Amendments of the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 6 of this paper.

AMENDMENTS OF THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in this application.

Listing of Claims:

58. (Currently Amended) A method for presenting media content based on a user's viewing progress within serial programs on user equipment, the method comprising:

creating, using control circuitry, a media profile comprising a first viewing progress within a first serial program and a second viewing progress within a second serial program;

storing the media profile in a storage device;

determining, using the control circuitry, a first progress point in the first serial program based on the first viewing progress and a second progress point in the second serial program based on the second viewing progress; [[and]]

generating for display, on a display screen, a first link corresponding to the first progress point in the first serial program adjacent to a second link corresponding to the second progress point in the second serial program[[.]];

receiving a user selection of the first link; and

in response to receiving the user selection, generating for display the first serial program at the first progress in point.

59. (Previously Presented) The method of claim 58, wherein the first link and the second link are associated with a first cell and a second cell, respectively.

60. (Previously Presented) The method of claim 59, wherein the first cell and the second cell are included in a plurality of cells, wherein the plurality of cells are arranged in rows and columns.

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61. (Previously Presented) The method of claim 58, further comprising automatically presenting an unwatched episode in the first serial program in response to a user selecting the first link.

62. (Previously Presented) The method of claim 58, further comprising presenting a summary region associated with the first serial program.

63. (Previously Presented) The method of claim 58, wherein the summary region indicates a predefined viewing order for the first serial program.

64. (Currently Amended) A system for presenting media content based on a user's viewing progress within serial programs on user equipment, the system comprising control circuitry configured to:

create a media profile comprising a first viewing progress within a first serial program and a second viewing progress within a second serial program;

store the media profile in a storage device;

determine a first progress point in the first serial program based on the first viewing progress and a second progress point in the second serial program based on the second viewing progress; and

generate for display a first link corresponding to the first progress point in the first serial program adjacent to a second link corresponding to the second progress point in the second serial program[[.]];

receive a user selection of the first link; and

in response to receiving the user selection, generate for display the first serial program at the first progress in point.

65. (Previously Presented) The system of claim 64, wherein the first link and the second link are associated with a first cell and a second cell, respectively.

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66. (Previously Presented) The system of claim 65, wherein the first cell and the second cell are included in a plurality of cells arranged in rows and columns.

67. (Previously Presented) The system of claim 64, wherein the control circuitry is further configured to present an episode in the first serial program in response to a user selecting the first link.

68. (Previously Presented) The system of claim 64, wherein the control circuitry is further configured to present a summary region associated with the first serial program.

69. (Previously Presented) The system of claim 64, wherein the summary region indicates a predefined viewing order for the first serial program.

70. (New) A method for presenting media content based on a user's viewing progress within serial programs on user equipment, the method comprising:

receiving a user request for a user profile associated with a unique identifier;

in response to the user request, retrieving a user profile record from a storage device, wherein the user profile record includes the user profile associated with the unique identifier, and wherein the user profile record includes a pointer to a media profile record associated with the user profile;

retrieving the media profile record, wherein the media profile record includes a data structure that indicates a first viewing progress within a first serial program and a second viewing progress within a second serial program;

retrieving, from the media profile record, the first viewing progress within the first serial program and the second viewing progress within the second serial program; and

generating for display, on a display screen, a first link corresponding to the first viewing progress in the first serial program adjacent to a second link corresponding to the second viewing progress in the second serial program.

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71. (New) A system for presenting media content based on a user's viewing progress within serial programs on user equipment, the system comprising:

a storage device; and

control circuitry configured to:

receive a user request for a user profile associated with a unique identifier;

in response to the user request, retrieve a user profile record from the storage device, wherein the user profile record includes the user profile associated with the unique identifier, and wherein the user profile record includes a pointer to a media profile record associated with the user profile;

retrieve the media profile record, wherein the media profile record includes a data structure that indicates a first viewing progress within a first serial program and a second viewing progress within a second serial program;

retrieve, from the media profile record, the first viewing progress within the first serial program and the second viewing progress within the second serial program; and

generate for display, on a display screen, a first link corresponding to the first viewing progress in the first serial program adjacent to a second link corresponding to the second viewing progress in the second serial program.

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REMARKS

Claims 58-69 were pending in this application. Claims 58 and 64 have been amended and new claims 70 and 71 have been added. No new matter has been added and the amendments and new claims are fully supported by the originally-filed application (*see, e.g.,* originally filed specification at ¶¶ 127-131 and FIGs. 7A, 7B, and 12).

The Examiner has rejected claims 58-69 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. In *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1294 (2012), the Supreme Court set forth an analytical framework under § 101 to distinguish patents that claim patent-ineligible laws of nature, natural phenomena, and abstract ideas—or add too little to such underlying ineligible subject matter—from those that claim patent-eligible applications of those concepts. This analytical framework included a two-step analysis, which is discussed in the USPTO's 2014 Interim Guidance on Patent Subject Matter Eligibility, 79 FR 74618 (Dec. 16, 2014) ("Interim Guidance").

The first step of the two-step analysis requires determining whether or not the claimed subject matter falls into a judicial exception. In the present case, the claims recite a method and a system, which are statutorily defined as patent eligible subject matter. *See* MPEP § 2106. Thus, the next step is to determine if the claims fall into one of the judicial exceptions. The Examiner alleges that the claims are directed to an abstract idea. *See* Office Action, p. 2. Applicant has amended claim 58 to recite the "creating" and "determining" steps as being performed "via control circuitry". Similarly, claim 64 recites that all steps are performed by control circuitry.

Therefore, as amended, the claims, taken as a whole, do not constitute an "abstract idea" because they are not "an idea standing alone" such as an "uninstantiated concept, plan or scheme, as well as a mental process (thinking) that 'can be performed in the human mind, or by a human using a pen and paper'" as described in the USPTO's July 2015 Update: Subject Matter Eligibility, 80 FR 45429 (July 30, 2015) ("Guidance Update").

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Furthermore, USPTO Memorandum on "Formulating a Subject Matter Eligibility Rejection …" (the "Bahr Memo") requires that the Examiner address claim elements beyond the abstract idea both individually and *as a combination* when determining subject matter eligibility. *See* Bahr Memo, pp. 3-4. However, the Examiner alleges, in the Office Action, that the "claim limitations are insufficient to ensure the claims amount to significantly more than the judicial exception" without addressing the limitations in combination, as required.

The Bahr memo requires that the Examiner identify the abstract idea and make a rejection only if it is *readily apparent to the examiner relying on his expertise* in the art that the claim elements beyond the abstract idea are well-understood, routine, and conventional and therefore do not amount to significantly more. *See Id.*, p.1 and p. 4. The Examiner failed to identify the abstract idea and also failed to provide evidence that it is readily apparent to the Examiner relying on his expertise in the art that the claim elements beyond the identified abstract idea. Instead, the Examiner simply states the claims are "rejected under 101 for claiming an abstract idea." *See* Office Action, p. 2. Because the Examiner considers the combination of elements in applicant's claims to be novel and non-obvious, this is evidence that it cannot be readily apparent to the examiner that the claim elements beyond the abstract idea are well-understood, routine, or conventional.

Similar to *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1258 (Fed. Cir. 2014), the claims relate to a specific challenge encountered in the field of media guidance (*i.e.*, how to enable a user to efficiently continue consuming a series from previous progress point). Moreover, the claims recite a specific solution to solving this problem. For example, as amended, claim 58 recites, *inter alia*, (1) generating for display a first link corresponding to the first progress point in the first serial program adjacent to a second link corresponding to the second progress point in the second serial program, (2) receiving a user selection of the first link, and (3) in response to receiving the user selection, generating for display the first serial program at the first progress in point. For example, the claims recite a specific, way to enable a user to continue to watch a series from a previous progress point. Thus, the specificity at which the method has been claimed precludes the claims from simply being an, "uninstantiated concept, plan or scheme." Additionally, the claims do

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not constitute an "abstract idea" because the claims recite limitations that cannot be "performed in the human mind, or by using a pen and paper." *See* Guidance Update. In fact, the detail and specificity of the claims draws a clear contrast to the claims of *Ultramercial, Inc. v. Hulu, LLC*, No. 2010-1544 (Fed. Cir. Nov. 14, 2014) and *Alice Corp. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2355 (2014), which did not feature such detail and specificity, and were thus abstract.

Nonetheless, applicant points out that the claims include "a specific limitation other than what is well-understood, routine, and conventional in the field, or adding unconventional steps that confine the claim to a particular useful application" (*i.e.,* the claims meet the "significantly more" threshold of the two-step analysis). Specifically, the amended claims recite: (i) determining, using control circuitry, a first progress point in the first serial program based on the first viewing progress and a second progress point in the second serial program based on the second viewing progress and using that information to (ii) generate for display a first link corresponding to the first progress point in the first serial program adjacent to a second link corresponding to the second progress point in the second serial program, which was clearly not known (*i.e.,* "well-understood, routine, and conventional in the field") to the prior art, as the Examiner has not identified any prior art with which to reject such a concept.

Additionally, the unconventional steps in combination with the other elements of the claim confine the claim to a particular useful application. For example, as described above, the claims are limited to the specific way to enable a user to continue consuming serial programming from a previous progress point. Therefore, the claim does not preempt all ways of continuing with serial programming. *See DDR Holdings*, 773 F.3d 1245, 1258 (Fed. Cir. 2014). Therefore, as the claims recite "a specific limitation other than what is well-understood, routine, and conventional in the field," as well as add an unconventional step that confines "the claim to a particular useful application," the claims constitute "significantly more" than a judicial exception.

Accordingly, as neither prong of the two-step analysis is satisfied, the claims constitute patent eligible subject matter. For at least these reasons, applicant requests reconsideration and withdrawal of the rejection of claims 58-69 under 35 U.S.C. § 101.

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New Claims

New claims 70 and 71 include limitations similar to those of claim 58 and are thus patent eligible for at least the same reasons.

Conclusion

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due with this response other than the fee indicated in the enclosed fee transmittal. However, if a fee is due, please charge our Deposit Account No. 06-1075, under Order No. 003597-0375-103 from which the undersigned is authorized to draw.

Dated: June 20, 2016

Respectfully submitted,

By /Dmitry Kagan/
Dmitry Kagan
Registration No.: 74,806
ROPES & GRAY LLP
1211 Avenue of the Americas
New York, New York 10036
(212) 596-9000
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Attorney For Applicant

Petitioner Disney Ex-1004, 0329

Electronic Patent Application Fee Transmittal

Application Number:	14660596
Filing Date:	17-Mar-2015
Title of Invention:	SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT
First Named Inventor/Applicant Name:	Charles Cordray
Filer:	Dmitry Kagan/Petra Valentin
Attorney Docket Number:	003597-0375-103

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Independent claims in excess of 3	1201	1	420	420
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Extension - 2 months with $0 paid	1252	1	600	600
Miscellaneous:				
			Total in USD ($)	**1020**

Electronic Acknowledgement Receipt

EFS ID:	26113798
Application Number:	14660596
International Application Number:	
Confirmation Number:	1084
Title of Invention:	SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT
First Named Inventor/Applicant Name:	Charles Cordray
Customer Number:	75563
Filer:	Dmitry Kagan/Petra Valentin
Filer Authorized By:	Dmitry Kagan
Attorney Docket Number:	003597-0375-103
Receipt Date:	20-JUN-2016
Filing Date:	17-MAR-2015
Time Stamp:	16:02:52
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$1020
RAM confirmation Number	062116INTEFSW00002739061075
Deposit Account	061075
Authorized User	Dmitry Kagan

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

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Extension of Time	003597-0375-103-EOT.pdf	12702 c2626fc427c16c56d51a11f192fe230b522298fc	no	1
Warnings:					
Information:					
2		003597-0375-103-Response.pdf	37791 101fb8b27f6aadbd709ebb56153003bedeea11ca	yes	9

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Amendment/Req. Reconsideration-After Non-Final Reject	1	1
	Claims	2	5
	Applicant Arguments/Remarks Made in an Amendment	6	9

Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	32255 462ac957f76f5715151b879d19ae064bc03daa3c	no	2
Warnings:					
Information:					
			Total Files Size (in bytes):	82748	

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/AIA/22 (03-13)
Approved for use through 7/31/2016. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a)	Docket Number (Optional) 003597-0375-103
Application Number 14/660,596	Filed March 17, 2015
For SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT	
Art Unit 2424	Examiner F. S. Andramuno

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	Micro Entity Fee	
☐	One month (37 CFR 1.17(a)(1))	$200	$100	$50	$
☒	Two months (37 CFR 1.17(a)(2))	$600	$300	$150	$ 600.00
☐	Three months (37 CFR 1.17(a)(3))	$1,400	$700	$350	$
☐	Four months (37 CFR 1.17(a)(4))	$2,200	$1,100	$550	$
☐	Five months (37 CFR 1.17(a)(5))	$3,000	$1,500	$750	$

☐ Applicant asserts small entity status. See 37 CFR 1.27.

☐ Applicant certifies micro entity status. See 37 CFR 1.29.
Form PTO/SB/15A or B or equivalent must either be enclosed or have been submitted previously.

☐ 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 06-1075 .

☒ Payment made via EFS-Web.

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.

☒ attorney or agent of record. Registration number 74,806 .

☐ attorney or agent acting under 37 CFR 1.34. Registration number _____ .

/Dmitry Kagan/	June 20, 2016
Signature	Date
Dmitry Kagan	(212) 596-9000
Typed or printed name	Telephone Number

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below*.

☒ * Total of 1 forms are submitted.

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 14/660,596	Filing Date 03/17/2015	☐ To be Mailed

ENTITY: ☒ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

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

APPLICATION AS AMENDED – PART II

AMENDMENT **06/20/2016**

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 14	Minus	** 20	= 0	X $80 =	0
Independent (37 CFR 1.16(h))	* 4	Minus	***3	= 1	X $420 =	420
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	**420**

AMENDMENT

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

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

LIE
/KATRINA . TURNER/

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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75563 e 2016-06-24

ROPES & GRAY LLP
PATENT DOCKETING 39/361
1211 AVENUE OF THE AMERICAS
NEW YORK, NY 10036-8704

Paper No.

Application No.:	**14/660,596**	**Date Mailed:**	**2016-06-24** **ELECTRONIC**
First Named Inventor:	Charles Cordray	Examiner:	ANDRAMUNO, FRANKLIN S
Attorney Docket No.:	003597-0375-103	Art Unit:	2424
Confirmation No.:	1084	Filing Date:	03/17/2015

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

Commissioner for Patents

PTO-90c (Rev.08-06)

Notice of Non-Compliant Amendment (37 CFR 1.121)	Application No. 14/660,596	Applicant(s) CORDRAY ET AL.
		Art Unit OCDD

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

The amendment document filed on *20 June, 2016* is considered non-compliant because it has failed to meet the requirements of 37 CFR 1.121 or 1.4. In order for the amendment document to be compliant, correction of the following item(s) is required.

THE FOLLOWING MARKED (X) ITEM(S) CAUSE THE AMENDMENT DOCUMENT TO BE NON-COMPLIANT:

- ☐ 1. Amendments to the specification:
  - ☐ A. Amended paragraph(s) do not include markings.
  - ☐ B. New paragraph(s) should not be underlined.
  - ☐ C. Other _____.
- ☐ 2. Abstract:
  - ☐ A. Not presented on a separate sheet. 37 CFR 1.72.
  - ☐ B. Other _____.
- ☐ 3. Amendments to the drawings:
  - ☐ A. The drawings are not properly identified in the top margin as "Replacement Sheet," "New Sheet," or "Annotated Sheet" as required by 37 CFR 1.121(d).
  - ☐ B. The practice of submitting proposed drawing correction has been eliminated. Replacement drawings showing amended figures, without markings, in compliance with 37 CFR 1.84 are required.
  - ☐ C. Other _____.
- ☒ 4. Amendments to the claims:
  - ☒ A. A complete listing of all of the claims is not present.
  - ☐ B. The listing of claims does not include the text of all pending claims (including withdrawn claims)
  - ☐ C. Each claim has not been provided with the proper status identifier, and as such, the individual status of each claim cannot be identified. Note: the status of every claim must be indicated after its claim number by using one of the following status identifiers: (Original), (Currently amended), (Canceled), (Previously presented), (New), (Not entered), (Withdrawn) and (Withdrawn-currently amended).
  - ☐ D. The claims of this amendment paper have not been presented in ascending numerical order.
  - ☒ E. Other: *Claims 1-57 not present*.
- ☐ 5. Other (e.g., the amendment is unsigned or not signed in accordance with 37 CFR 1.4): For further explanation of the amendment format required by 37 CFR 1.121, see MPEP § 714.

TIME PERIODS FOR FILING A REPLY TO THIS NOTICE:

1. Applicant is given **no new time period if the non-compliant amendment is an** after-final amendment or an amendment filed after allowance, or a drawing submission (only) If applicant wishes to resubmit the non-compliant after-final amendment with corrections, the **entire corrected amendment** must be resubmitted.

2. Applicant is given **two months** from the mail date of this notice to supply the correction, if the non-compliant amendment is one of the following: a preliminary amendment, a non-final amendment (including a submission for a request for continued examination (RCE) under 37 CFR 1.114), a supplemental amendment filed within a suspension period under 37 CFR 1.103(a) or (c), and an amendment filed in response to a Quayle action. If any of above boxes 1 to 4 are checked, the correction required is only the corrected section of the non-compliant amendment in compliance with 37 CFR 1.121.

Extensions of time are available under 37 CFR 1.136(a) only if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action.

Failure to timely respond to this notice will result in:

Abandonment of the application if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action; or

Non-entry of the amendment if the non-compliant amendment is a preliminary amendment or supplemental amendment.

Legal Instruments Examiner (LIE), if applicable /KATRINA . TURNER/ Telephone No: (571)272-0564

Docket No.: 003597-0375-103
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Cordray et al.

Application No.: 14/660,596 | Confirmation No.: 1084

Filed: March 17, 2015 | Art Unit: 2424

For: SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT | Examiner: F. S. Andramuno

RESPONSE TO NOTICE OF NON-COMPLIANT AMENDMENT

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

Dear Sir:

In response to the Notice of Non-Compliant Amendment dated June 24, 2016 (the "Notice"), please amend the above-identified U.S. Patent application as set forth below.

Amendments of the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 6 of this paper.

AMENDMENTS OF THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in this application.

Listing of Claims:

1. – 57. (Cancelled)

58. (Currently Amended) A method for presenting media content based on a user's viewing progress within serial programs on user equipment, the method comprising:

creating, using control circuitry, a media profile comprising a first viewing progress within a first serial program and a second viewing progress within a second serial program;

storing the media profile in a storage device;

determining, using the control circuitry, a first progress point in the first serial program based on the first viewing progress and a second progress point in the second serial program based on the second viewing progress; [[and]]

generating for display, on a display screen, a first link corresponding to the first progress point in the first serial program adjacent to a second link corresponding to the second progress point in the second serial program[[.]];

receiving a user selection of the first link; and

in response to receiving the user selection, generating for display the first serial program at the first progress in point.

59. (Previously Presented) The method of claim 58, wherein the first link and the second link are associated with a first cell and a second cell, respectively.

60. (Previously Presented) The method of claim 59, wherein the first cell and the second cell are included in a plurality of cells, wherein the plurality of cells are arranged in rows and columns.

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61. (Previously Presented) The method of claim 58, further comprising automatically presenting an unwatched episode in the first serial program in response to a user selecting the first link.

62. (Previously Presented) The method of claim 58, further comprising presenting a summary region associated with the first serial program.

63. (Previously Presented) The method of claim 58, wherein the summary region indicates a predefined viewing order for the first serial program.

64. (Currently Amended) A system for presenting media content based on a user's viewing progress within serial programs on user equipment, the system comprising control circuitry configured to:

create a media profile comprising a first viewing progress within a first serial program and a second viewing progress within a second serial program;

store the media profile in a storage device;

determine a first progress point in the first serial program based on the first viewing progress and a second progress point in the second serial program based on the second viewing progress; and

generate for display a first link corresponding to the first progress point in the first serial program adjacent to a second link corresponding to the second progress point in the second serial program[[.]];

receive a user selection of the first link; and

in response to receiving the user selection, generate for display the first serial program at the first progress in point.

65. (Previously Presented) The system of claim 64, wherein the first link and the second link are associated with a first cell and a second cell, respectively.

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66. (Previously Presented) The system of claim 65, wherein the first cell and the second cell are included in a plurality of cells arranged in rows and columns.

67. (Previously Presented) The system of claim 64, wherein the control circuitry is further configured to present an episode in the first serial program in response to a user selecting the first link.

68. (Previously Presented) The system of claim 64, wherein the control circuitry is further configured to present a summary region associated with the first serial program.

69. (Previously Presented) The system of claim 64, wherein the summary region indicates a predefined viewing order for the first serial program.

70. (New) A method for presenting media content based on a user's viewing progress within serial programs on user equipment, the method comprising:

receiving a user request for a user profile associated with a unique identifier;

in response to the user request, retrieving a user profile record from a storage device, wherein the user profile record includes the user profile associated with the unique identifier, and wherein the user profile record includes a pointer to a media profile record associated with the user profile;

retrieving the media profile record, wherein the media profile record includes a data structure that indicates a first viewing progress within a first serial program and a second viewing progress within a second serial program;

retrieving, from the media profile record, the first viewing progress within the first serial program and the second viewing progress within the second serial program; and

generating for display, on a display screen, a first link corresponding to the first viewing progress in the first serial program adjacent to a second link corresponding to the second viewing progress in the second serial program.

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71. (New) A system for presenting media content based on a user's viewing progress within serial programs on user equipment, the system comprising:

a storage device; and

control circuitry configured to:

receive a user request for a user profile associated with a unique identifier;

in response to the user request, retrieve a user profile record from the storage device, wherein the user profile record includes the user profile associated with the unique identifier, and wherein the user profile record includes a pointer to a media profile record associated with the user profile;

retrieve the media profile record, wherein the media profile record includes a data structure that indicates a first viewing progress within a first serial program and a second viewing progress within a second serial program;

retrieve, from the media profile record, the first viewing progress within the first serial program and the second viewing progress within the second serial program; and

generate for display, on a display screen, a first link corresponding to the first viewing progress in the first serial program adjacent to a second link corresponding to the second viewing progress in the second serial program.

Petitioner Disney Ex-1004, 0344

REMARKS

The Notice states that the reply filed on June 20, 2016 ("Reply") is not fully responsive to the prior Office Action because a complete listing of all the claims is not present. Specifically, the Notice remarks that claims 1-57 have been omitted in the Reply, which was done inadvertently and without deceptive intent. Applicant submits herewith a response to the Notice replacing the previously submitted "Amendments of the Claims" section with a new "Amendments of the Claims" section that includes in the listing of cancelled claims 1-57. No new matter has been added and the amendments are fully supported by the originally-filed application.

Applicant apologizes for any inconvenience this may have caused the Office or the Examiner.

Conclusion

For the reasons stated above, applicant respectfully submits that this application, as amended, is in condition for allowance. Reconsideration and prompt allowance of this application are accordingly respectfully requested.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 06-1075, under Order No. 003597-0375-103 from which the undersigned is authorized to draw.

Dated: August 23, 2016

Respectfully submitted,

By /Dmitry Kagan/
Dmitry Kagan
Registration No.: 74,806
ROPES & GRAY LLP
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(212) 596-9000
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Attorney For Applicant

Petitioner Disney Ex-1004, 0345

Electronic Acknowledgement Receipt

EFS ID:	26719794
Application Number:	14660596
International Application Number:	
Confirmation Number:	1084
Title of Invention:	SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT
First Named Inventor/Applicant Name:	Charles Cordray
Customer Number:	75563
Filer:	Dmitry Kagan/Petra Valentin
Filer Authorized By:	Dmitry Kagan
Attorney Docket Number:	003597-0375-103
Receipt Date:	23-AUG-2016
Filing Date:	17-MAR-2015
Time Stamp:	14:25:35
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		003597-0375-103-Response.pdf	22657 9e001dd1ccfdcbc13461d20f7f96a69dbd87d1c9	yes	6

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Amendment/Req. Reconsideration-After Non-Final Reject	1	1
	Claims	2	5
	Applicant Arguments/Remarks Made in an Amendment	6	6

Warnings:	
Information:	
Total Files Size (in bytes):	22657

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 (09-11)
Approved for use through 1/31/2014. 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 14/660,596	Filing Date 03/17/2015	☐ To be Mailed

ENTITY: ☒ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

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

APPLICATION AS AMENDED – PART II

AMENDMENT	08/23/2016	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 14	Minus	** 20	= 0	X $80 =	0
	Independent (37 CFR 1.16(h))	* 4	Minus	***4	= 0	X $420 =	0
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	0

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

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

LIE
VENESSA JONES

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.
14/660,596	03/17/2015	Charles Cordray	003597-0375-103	1084

75563 7590 12/09/2016

ROPES & GRAY LLP
PATENT DOCKETING 39/361
1211 AVENUE OF THE AMERICAS
NEW YORK, NY 10036-8704

EXAMINER	
ANDRAMUNO, FRANKLIN S	

ART UNIT	PAPER NUMBER
2424	

NOTIFICATION DATE	DELIVERY MODE
12/09/2016	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):

USPatentMail@ropesgray.com
USPatentMail2@ropesgray.com
pair_rg@firsttofile.com

Petitioner Disney Ex-1004, 0349

Office Action Summary	Application No. 14/660,596	Applicant(s) CORDRAY ET AL.	
	Examiner FRANKLIN ANDRAMUNO	Art Unit 2424	AIA (First Inventor to File) Status No

-- 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 MONTHS 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 *08/23/2016*.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

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) *58-71* 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) *58-71* 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 _____ 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).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

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/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

The present application is being examined under the pre-AIA first to invent provisions.

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 58-71 include abstract components that a human can perform in his/her mind. For example, a human can track media progress by writing/recording user watched up to advertisement A. Furthermore, a person can write the time linking the advertisement to the viewing program. Moreover, humans can present, select, indicate predefined order, and automatically present unwatched episodes by writing on a piece of paper. Humans can further receive user selection of a specified section and in response a display is generated with the updated information. The instant claims also include non-abstract components such as: control circuitry, display screen, storage device. However, these claim limitations are insufficient to ensure the claims amount to significantly more than the judicial exception. As a result, these claims are rejected under 101 for claiming an abstract idea. Lastly, the current abstract idea directly relates to the court case labeled "Cyberfone" which uses categories to organize, store and transmit information.

Conclusion

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 FRANKLIN ANDRAMUNO whose telephone number is (571)270-3004. The examiner can normally be reached on Mon-Fri 9:00am - 5:00pm.

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.

/PANKAJ KUMAR/
Supervisory Patent Examiner, Art Unit 2424

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14660596	CORDRAY ET AL.
	Examiner	Art Unit
	FRANKLIN ANDRAMUNO	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	11/24/2016								
	1	-								
	2	-								
	3	-								
	4	-								
	5	-								
	6	-								
	7	-								
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	34	-								
	35	-								
	36	-								

Petitioner Disney Ex-1004, 0354

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14660596	CORDRAY ET AL.
	Examiner	Art Unit
	FRANKLIN ANDRAMUNO	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	11/24/2016								
	37	-								
	38	-								
	39	-								
	40	-								
	41	-								
	42	-								
	43	-								
	44	-								
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	68	✓								
	69	✓								
	70	✓								
	71	✓								

Doc code: RCEX
Doc description: Request for Continued Examination (RCE)

PTO/SB/30EFS (07-14)
Approved for use through 07/31/2016. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL
(Submitted Only via EFS-Web)

Application Number	14660596	Filing Date	2015-03-17	Docket Number (if applicable)	003597-0375-103	Art Unit	2424
First Named Inventor	Charles Cordray			Examiner Name	F. S. Andramuno		

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.
Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8 1995, to any international application that does not comply with the requirements of 35 U.S.C. 371, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV.

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 orde 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 _____

☒ 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 Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to Deposit Account No 06-1075

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

☒ Patent Practitioner Signature

Applicant Signature

PTO/SB/30EFS (07-14)
Approved for use through 07/31/2016. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Signature of Registered U.S. Patent Practitioner			
Signature	/Dmitry Kagan/	Date (YYYY-MM-DD)	2017-03-09
Name	Dmitry Kagan	Registration Number	74806

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is t 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 estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Tim will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions fo 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.

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

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 informatio 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 ma 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.

Docket No.: 003597-0375-103
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Cordray et al.

Application No.: 14/660,596 | Confirmation No.: 1084

Filed: March 17, 2015 | Art Unit: 2424

For: SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT | Examiner: F. S. Andramuno

REPLY TO OFFICE ACTION

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

Dear Sir:

In response to the Office Action dated December 9, 2016 ("Office Action"), please amend the above-identified U.S. patent application as follows:

Amendments of the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 6 of this paper.

Petitioner Disney Ex-1004, 0359

AMENDMENTS OF THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in this application.

Listing of Claims:

1. – 57. (Cancelled)

58. (Currently Amended) A method for presenting media content based on a user's viewing progress within serial programs on user equipment, the method comprising:

creating, using control circuitry, a media profile comprising a first viewing progress within a first serial program and a second viewing progress within a second serial program;

storing the media profile in a storage device;

determining, using the control circuitry, a first progress point in the first serial program based on the first viewing progress and a second progress point in the second serial program based on the second viewing progress;

generating for display, on a display screen, a first user-selectable link corresponding to the first progress point in the first serial program adjacent to a second user-selectable link corresponding to the second progress point in the second serial program, wherein selecting the first user-selectable link causes the first serial program to be generated for display at the first progress point, and wherein selecting the second user-selectable link causes the second serial program to be generated for display at the second progress point;

receiving a user selection of the first link; and

in response to receiving the user selection, generating for display the first serial program at the first progress in point.

59. (Previously Presented) The method of claim 58, wherein the first link and the second link are associated with a first cell and a second cell, respectively.

Petitioner Disney Ex-1004, 0360

60. (Previously Presented) The method of claim 59, wherein the first cell and the second cell are included in a plurality of cells, wherein the plurality of cells are arranged in rows and columns.

61. (Previously Presented) The method of claim 58, further comprising automatically presenting an unwatched episode in the first serial program in response to a user selecting the first link.

62. (Previously Presented) The method of claim 58, further comprising presenting a summary region associated with the first serial program.

63. (Previously Presented) The method of claim 58, wherein the summary region indicates a predefined viewing order for the first serial program.

64. (Currently Amended) A system for presenting media content based on a user's viewing progress within serial programs on user equipment, the system comprising control circuitry configured to:

create a media profile comprising a first viewing progress within a first serial program and a second viewing progress within a second serial program;

store the media profile in a storage device;

determine a first progress point in the first serial program based on the first viewing progress and a second progress point in the second serial program based on the second viewing progress; and

generate for display a first user-selectable link corresponding to the first progress point in the first serial program adjacent to a second user-selectable link corresponding to the second progress point in the second serial program, wherein selecting the first user-selectable link causes the first serial program to be generated for display at the first progress point, and wherein selecting the second user-selectable link causes the second serial program to be generated for display at the second progress point;

receive a user selection of the first link; and

Petitioner Disney Ex-1004, 0361

in response to receiving the user selection, generate for display the first serial program at the first progress in point.

65. (Previously Presented) The system of claim 64, wherein the first link and the second link are associated with a first cell and a second cell, respectively.

66. (Previously Presented) The system of claim 65, wherein the first cell and the second cell are included in a plurality of cells arranged in rows and columns.

67. (Previously Presented) The system of claim 64, wherein the control circuitry is further configured to present an episode in the first serial program in response to a user selecting the first link.

68. (Previously Presented) The system of claim 64, wherein the control circuitry is further configured to present a summary region associated with the first serial program.

69. (Previously Presented) The system of claim 64, wherein the summary region indicates a predefined viewing order for the first serial program.

70. (Currently Amended) A method for presenting media content based on a user's viewing progress within serial programs on user equipment, the method comprising:

receiving a user request for a user profile associated with a unique identifier;

in response to the user request, retrieving a user profile record from a storage device, wherein the user profile record includes the user profile associated with the unique identifier, and wherein the user profile record includes a pointer to a media profile record associated with the user profile;

retrieving the media profile record, wherein the media profile record includes a data structure that indicates a first viewing progress within a first serial program and a second viewing progress within a second serial program;

Petitioner Disney Ex-1004, 0362

retrieving, from the media profile record, the first viewing progress within the first serial program and the second viewing progress within the second serial program; and

generating for display, on a display screen, a first user-selectable link corresponding to the first viewing progress in the first serial program adjacent to a second user-selectable link corresponding to the second viewing progress in the second serial program, wherein selecting the first user-selectable link causes the first serial program to be generated for display at the first progress point, and wherein selecting the second user-selectable link causes the second serial program to be generated for display at the second progress point.

71. (Currently Amended) A system for presenting media content based on a user's viewing progress within serial programs on user equipment, the system comprising:

a storage device; and

control circuitry configured to:

receive a user request for a user profile associated with a unique identifier;

in response to the user request, retrieve a user profile record from the storage device, wherein the user profile record includes the user profile associated with the unique identifier, and wherein the user profile record includes a pointer to a media profile record associated with the user profile;

retrieve the media profile record, wherein the media profile record includes a data structure that indicates a first viewing progress within a first serial program and a second viewing progress within a second serial program;

retrieve, from the media profile record, the first viewing progress within the first serial program and the second viewing progress within the second serial program; and

generate for display, on a display screen, a first user-selectable link corresponding to the first viewing progress in the first serial program adjacent to a second user-selectable link corresponding to the second viewing progress in the second serial program, wherein selecting the first user-selectable link causes the first serial program to be generated for display at the first progress point, and wherein selecting the second user-selectable link causes the second serial program to be generated for display at the second progress point.

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REMARKS

Claims 58-71 are pending. Claims 58, 64, 70 and 71 have been amended. No new matter has been added and the amendments are fully supported by the originally-filed application (*see, e.g.,* originally filed specification at ¶¶ 127-131 and FIGs. 7A, 7B, and 12).

The Examiner has rejected Claims 58-71 under 35 U.S.C. § 101 as allegedly being directed to the patent-ineligible subject matter of an abstract idea. In the USPTO's 2014 Interim Guidance on Patent Subject Matter Eligibility, 79 FR 74618 (Dec. 16, 2014) ("Interim Guidance"), the PTO discusses the two-step analytical framework for patent-eligibility under the *Alice/Mayo* Test. First, the Examiner must determine whether the claim is directed to an abstract idea. Second, if the claim is found to be directed to an abstract idea, the Examiner must then determine whether any element or combination of elements, both individually and as an ordered combination, amount to significantly more than the abstract idea.

Subject Matter Eligibility Analysis –Step 1

As set forth in the USPTO Memorandum on "Recent Subject Matter Eligibility Decisions (*Enfish, LLC v. Microsoft Corp.* and *TLI Communications LLC v. A.V. Automotive, LLC*)," (the "Enfish Memo"), referring to *Enfish, LLC v. Microsoft Corp*, "the Federal Circuit cautioned against describing a claim at a high level of abstraction untethered from the language of the claim when determining the focus of the claimed invention."[1] The Enfish Memo further states, "the fact that a claim is directed to an improvement in computer-related technology can demonstrate that the claim does not recite a concept similar to previously identified abstract ideas."[2] Here, the Office Action described the claims at a high level of abstraction, simply stating that the claims "include abstract components that a human can perform in his/her mind with the aid of pen and paper..."[3] However, amended claims require, "generating for display, on a display screen, a first user-selectable link corresponding to the first viewing progress in the first serial program adjacent to a second user-selectable link corresponding to the second viewing progress in the second serial program, wherein

[1] The *Enfish* Memo, p. 1.
[2] The *Enfish* Memo, p. 2.
[3] *See*, Office Action, p. 2.

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selecting the first user-selectable link causes the first serial program to be generated for display at the first progress point, and wherein selecting the second user-selectable link causes the second serial program to be generated for display at the second progress point." This is not a task that can be "performed mentally" by a human, as humans do not generate for display links that can cause the display of a series at a specific progress point. In fact, one problem potentially solved by the claimed invention is that conventional systems do not enable a user to start viewing a series from a progress point by generating for display adjacent user-selectable links that will cause the respective series to be displayed at the respective progress point. Accordingly, the claims are not directed to an abstract idea.

Subject Matter Eligibility Analysis – Step 2

Even if the claims are considered to be directed to an abstract idea, which Applicant does not concede, Applicant submits that the amended claims, "add a specific limitation other than what is well-understood, routine and conventional in the field." *See* 2014 Interim Guidance on Patent Subject Matter Eligibility, FR at 74625 (Section I.B.1). Here, the amended claims recite a specific unconventional solution to enabling a user to continue to consume multiple series of media assets from their respective progress points. Namely, the claimed system requires "generating for display, on a display screen, a first user-selectable link corresponding to the first viewing progress in the first serial program adjacent to a second user-selectable link corresponding to the second viewing progress in the second serial program, wherein selecting the first user-selectable link causes the first serial program to be generated for display at the first progress point, and wherein selecting the second user-selectable link causes the second serial program to be generated for display at the second progress point" that confines "the claim to a particular useful application," the claims constitute "significantly more" than an abstract idea. *See* 2014 Interim Guidance on Patent Subject Matter Eligibility, FR at 74625 (Section I.B.3).

As the claims are neither directed to an abstract idea nor conventional routines, the claims constitute patent eligible subject matter. Accordingly, applicant requests withdrawal of the rejection of independent claims 58, 64, 70, and 71, and by extension, their dependent claims. Accordingly, as neither prong of the two-step analysis is satisfied, the claims constitute patent

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eligible subject matter. For at least these reasons, applicant requests reconsideration and withdrawal of the rejection of claims 58-71 under 35 U.S.C. § 101.

Conclusion

In view of the above amendment and remarks, applicant believes the pending application is in condition for allowance. Reconsideration and prompt allowance are accordingly respectfully requested.

Applicant believes no fee is due with this response other than the fees indicated in the enclosed fee transmittal. However, if a fee is due, please charge our Deposit Account No. 06-1075 from which the undersigned is authorized to draw.

Dated: March 9, 2017

Respectfully submitted,

By: /Dmitry Kagan/
Dmitry Kagan
Registration No.: 74,806
ROPES & GRAY LLP
1211 Avenue of the Americas
New York, New York 10036
(212) 596-9000
(617) 235-9492 (Fax)
Attorney For Applicant

Petitioner Disney Ex-1004, 0366

Electronic Patent Application Fee Transmittal

Application Number:	14660596
Filing Date:	17-Mar-2015
Title of Invention:	SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT
First Named Inventor/Applicant Name:	Charles Cordray
Filer:	Dmitry Kagan/Lorraine Quiles
Attorney Docket Number:	003597-0375-103

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

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($)
Miscellaneous:				
RCE- 1st Request	1801	1	1200	1200
		Total in USD ($)		**1200**

Electronic Acknowledgement Receipt

EFS ID:	28581217
Application Number:	14660596
International Application Number:	
Confirmation Number:	1084
Title of Invention:	SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT
First Named Inventor/Applicant Name:	Charles Cordray
Customer Number:	75563
Filer:	Dmitry Kagan/Lorraine Quiles
Filer Authorized By:	Dmitry Kagan
Attorney Docket Number:	003597-0375-103
Receipt Date:	09-MAR-2017
Filing Date:	17-MAR-2015
Time Stamp:	16:05:52
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$1200
RAM confirmation Number	031017INTEFSW00002742061075
Deposit Account	
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Request for Continued Examination (RCE)	003597-0375-103-RCE.pdf	1349797 6111a54447a83a2e2a67ee27054a45d07b5f4739	no	3
Warnings:					
Information:					
2		003597-0375-103-Reply.pdf	35298 af9f41f238612d063a4e2c9f6f4a7e23a3119a25	yes	8

	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	8

Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	30491 f60d11dd2955ae9ba4609ac028b5afac912218a7	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	1415586		

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 (09-11)
Approved for use through 1/31/2014. 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
14/660,596	03/17/2015	

ENTITY: ☒ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

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

APPLICATION AS AMENDED – PART II

AMENDMENT **03/09/2017**

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 14	Minus	** 20	= 0	X $80 =	0
Independent (37 CFR 1.16(h))	* 4	Minus	***4	= 0	X $420 =	0
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	0

AMENDMENT

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

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

** 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.

LIE
PEARLIE FENNELL

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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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/660,596	03/17/2015	Charles Cordray	003597-0375-103	1084

75563 7590 04/10/2017

ROPES & GRAY LLP
PATENT DOCKETING 39/361
1211 AVENUE OF THE AMERICAS
NEW YORK, NY 10036-8704

EXAMINER	
ANDRAMUNO, FRANKLIN S	

ART UNIT	PAPER NUMBER
2424	

NOTIFICATION DATE	DELIVERY MODE
04/10/2017	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):

USPatentMail@ropesgray.com
USPatentMail2@ropesgray.com
pair_rg@firsttofile.com

Petitioner Disney Ex-1004, 0373

Office Action Summary	Application No. 14/660,596	Applicant(s) CORDRAY ET AL.	
	Examiner FRANKLIN ANDRAMUNO	Art Unit 2424	AIA (First Inventor to File) Status No

-- 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 MONTHS 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 *03/09/2017*.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

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) *58-71* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☒ Claim(s) *58-63 and 70-71* is/are allowed.

7)☒ Claim(s) *64-69* 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 _____ 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).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

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/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

The present application is being examined under the pre-AIA first to invent provisions.

Continued Examination Under 37 CFR 1.114

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 03/09/2017 has been entered.

Response to Arguments

Applicant's arguments with respect to claims 58-71 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

The following is a quotation of 35 U.S.C. 112(b):

(b) CONCLUSION.—The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

The following is a quotation of 35 U.S.C. 112 (pre-AIA), second paragraph:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 64-69 are rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention. Independent claim 64 is a system claim which only has 1 structure. System claims are required to have at least 2 structures. Therefore, claims 64-69 are rejected as 112 second paragraph.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRANKLIN ANDRAMUNO whose telephone number is (571)270-3004. The examiner can normally be reached on Mon-Fri 9:00am - 5:00pm.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

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.

/PANKAJ KUMAR/
Supervisory Patent Examiner, Art Unit 2424

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BIB DATA SHEET

CONFIRMATION NO. 1084

SERIAL NUMBER	FILING or 371(c) DATE RULE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
14/660,596	03/17/2015	725	2424	003597-0375-103

APPLICANTS

Rovi Guides, Inc., Santa Clara, CA;

INVENTORS

Charles Cordray, New York, NY;
Todd A. Walker, Bixby, OK;
Samir B. Armaly, La Canada Flintridge, CA;

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

This application is a CON of 11/323,464 12/29/2005 PAT 9015736

**** FOREIGN APPLICATIONS ***************************

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ****

03/26/2015

Foreign Priority claimed ☐ Yes ☑ No 35 USC 119(a-d) conditions met ☐ Yes ☑ No Verified and Acknowledged /FRANKLIN S ANDRAMUNO/ Examiner's Signature	☐ Met after Allowance Initials	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
		NY	20	12	2

ADDRESS

ROPES & GRAY LLP
PATENT DOCKETING 39/361
1211 AVENUE OF THE AMERICAS
NEW YORK, NY 10036-8704
UNITED STATES

TITLE

SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT

FILING FEE RECEIVED		
2160	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
	14660596	CORDRAY ET AL.
	Examiner	Art Unit
	FRANKLIN ANDRAMUNO	2424

CPC- SEARCHED		
Symbol	Date	Examiner
h04n21/858 and h04n21/47217	3/30/2017	FA

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
725	87, 61 and 39	3/30/2017	FA

SEARCH NOTES		
Search Notes	Date	Examiner

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner
725	61 and 39	3/30/2017	FA
h04n21	47217	3/30/2017	FA

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1	"20150229991"	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 19:14
L2	1253	h04n21/84	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 19:45
L3	294	h04n21/4825	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 19:45
L4	498	h04n21/4755	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 19:45
L5	214	h04n21/4751	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 19:45
L6	169	h04n21/4583	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 19:45
L7	1352	h04n21/4532	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 19:45
L8	1891	h04n21/435	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 19:45
L9	1046	h04n21/25891	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 19:46
L10	1630	h04n21/235	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 19:46
L11	988	h04n7/17318	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 19:46
L12	261	h04n5/782	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 19:46

L13	1074	h04n21/44222	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 19:46
L14	9638	g06f3/0482	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 19:46
L15	1	2 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 19:46
L16	3	3 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 19:46
L17	5	4 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 19:47
L18	3	5 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 19:47
L19	3	6 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 19:47
L20	5	7 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 19:47
L21	4	8 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 19:47
L22	3	9 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 19:47
L23	3	10 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 19:47
L24	3	11 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 19:47
L25	3	12 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 19:47
L26	6	13 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 19:47
L27	3	14 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT;	OR	OFF	2017/03/30 19:47

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			EPO; JPO			
L28	3	14 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 19:48
S1	2	"20150229991"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 12:22
S2	2	"20050273819"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 12:24
S3	2	"20060173974"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 12:24
S4	2	"20030190150"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 12:24
S5	3	(US-20060173974-$ or US-20030190150-$ or US-20050273819-$).did.	US-PGPUB	OR	ON	2016/01/07 12:24
S6	1	S5 and serial	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 12:25
S7	72899	serial with link$5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 12:27
S8	2166	serial with link$5 with program	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 12:27
S9	2581	series with link$5 with program$5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 12:27
S10	3	second near3 series near4 link$5 near4 program$5	US-PGPUB; USPAT; USOCR; EPO; JPO;	OR	ON	2016/01/07 12:28

			DERWENT			
S11	491	serial near4 link$5 near4 program$5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 12:28
S12	2	("9015736").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2016/01/07 14:41
S13	1820	episode with (serial series) with program$5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 14:44
S14	0	sex near2 in near2 the near2 city	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 14:49
S15	17	sex near4 city with (serial series)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 16:04
S16	2	"20150229991"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 16:05
S17	1826	episode with (viewed watched)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 16:08
S18	414	episode with (viewed watched) with (series serial)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 16:08
S19	93	episode with (viewed watched) with (series serial) and ((@ad<="20051229") (@rlad<="20051229"))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 16:09
S20	584	("20020056087" | "20020059599" | "20020129368" | "20020133817" | "20020144262" | "20020174424" | "20020174430" | "20020191954" | "20020194596" | "20030005445" |	US-PGPUB; USPAT; USOCR; EPO; JPO;	OR	ON	2016/01/07 20:25

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		"20030009766" | "20030014755" | "20030061610" | "20030093329" | "20030118323" | "20030149980" | "20030149988" | "20030167471" | "20030190150" | "20030208763" | "20040049787" | "20040098744" | "20040111748" | "20040111756" | "20040117257" | "20040193483" | "20040229568" | "20040237102" | "20050055715" | "20050120003" | "20050120373" | "20050193414" | "20050204388" | "20050223516" | "20050229213" | "20050240962" | "20050240968" | "20050251827" | "20050265169" | "20050273819" | "20060031883" | "20060075015" | "20060117343" | "20060136966" | "20060140584" | "20060173974" | "20060277191" | "20070058034" | "20070089148" | "20070157220" | "20070157237" | "20070157249" | "20070204308" | "20080028064" | "20080195468" | "20080270417" | "20090077589" | "4264924" | "4264925" | "4355415" | "4573072" | "4602279" | "4605964" | "4694490" | "4706121" | "4718107" | "4847698" | "4847700" | "4857999" | "4908707" | "4930158" | "4945563" | "4959720" | "4977455" | "5038211" | "5047867" | "5068733" | "5109279" | "5151789" | "5172413" | "5187589" | "5195134" | "5200822" | "5210611" | "5223924" | "5253066" | "5285284" | "5296931" | "5323234" | "5335277" | "5345430" | "5353121" | "5371551" | "5410344" | "5412720" | "5416508" | "5442389" | "5459522" | "5479266" | "5479268" | "5483278" | "5485197" | "5485219" | "5517257" | "5532195" | "5532754" | "5534911" | "5537141" | "5539449" | "5539822" | "5550576" | "5559548" | "5559549" | "5568272" | "5583561" | "5583563" | "5585838" | "5585858" | "5589892" | "5592551" | "5600364" | "5602582" | "5619274" | "5629733" | "5630119" | "5631007" | "5631995" | "5648824" | "5654748" | "5654886" | "5657072" | "5657414" | "5659367" | "5666645" | "5684525" | "5694163" | "5694381" | "5699107" | "5717452" | "5724091" | "5727060" | "5732216" | "5745710" | "5751282" | "5752159" | "5754771" | "5758257" | "5760821" | "5768528" | "5778182" | "5781226" | "5781246" | "5790198" | "5790202" | "5796952" | "5801787" | "5805155" | "5805763" | "5805804" | "5808608" | "5809204" | "5812123" | "5812205" | "5812937" | "5818438" | "5819019" | "5819156" | "5822123" | "5828945" | "5838314" | "5850218" | "5900867" | "5940572" | "5945988" | "5959592" | "5963264" | "5963645" | "5970486" | "5973683" |	DERWENT				

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S21	69	S20 and episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 20:26
S22	40	partial$4 with (watched viewed) with episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 20:36
S23	13	partial$4 with (watched viewed) with episode and ((@ad<="20051229") (@rlad<="20051229"))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 20:36
S24	843	(watched viewed) with episode and ((@ad<="20051229") (@rlad<="20051229"))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 20:39
S25	686	(watched viewed) near5 episode and ((@ad<="20051229") (@rlad<="20051229"))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 20:39
S26	634	(watched viewed) near3 episode and ((@ad<="20051229") (@rlad<="20051229"))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 20:39
S27	3	"20050265169"	US-PGPUB; USPAT; USOCR; EPO; JPO;	OR	ON	2016/01/07 21:07

			DERWENT			
S28	2	("6865746").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2016/01/07 21:11
S29	208	netflix.as.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 22:08
S30	0	netflix.as. with episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 22:08
S31	0	netflix.as. with (series serial)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 22:09
S32	560	episode with (serial series) with program$4 and ((@ad<="20051229") (@rlad<="20051229"))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 22:09
S33	363	episode near4 (serial series) near4 program$4 and ((@ad<="20051229") (@rlad<="20051229"))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 22:10
S34	5	last near5 episode near4 (serial series) near4 program$4 and ((@ad<="20051229") (@rlad<="20051229"))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 22:19
S35	3909	725/87	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 06:48
S36	1972	725/61	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 06:48
S37	4959	725/39	US-PGPUB; USPAT; USOCR; EPO; JPO;	OR	ON	2016/01/08 06:48

			DERWENT			
S38	324	h04n21/47217	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 06:49
S39	1368	h04n21/858	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 06:52
S40	522	S35 and (serial series) with program$5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 07:00
S41	2	S35 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 07:01
S42	0	S36 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 07:01
S43	530	S35 and (serial$4 series) with program$5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 07:01
S44	76	S35 and (serial$4 series) with program$5 same episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 07:01
S45	72	S35 and (serial$4 series) with program$5 with episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 07:01
S46	65	S36 and (serial$4 series) with program$5 with episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 07:02
S47	190	S37 and (serial$4 series) with program$5 with episode	US-PGPUB; USPAT; USOCR; EPO; JPO;	OR	ON	2016/01/08 07:02

			DERWENT			
S48	26	S38 and (serial$4 series) with program$5 with episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 07:02
S49	28	S39 and (serial$4 series) with program$5 with episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 07:02

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L29	1	(charles cordray todd walker samir armaly).in. and (serial$4 series) with program$5 with link$5 with progress	US-PGPUB; USPAT	OR	ON	2017/03/30 19:48
L30	4	((serial$4 series) with program$5 with link$5 with progress).clm.	US-PGPUB; USPAT	OR	ON	2017/03/30 19:48
S50	305607	(charles cordray todd walker samir armaly).in.	US-PGPUB; USPAT	OR	ON	2016/01/08 07:04
S51	110	(charles cordray todd walker samir armaly).in. and (serial$4 series) with program$5 with episode	US-PGPUB; USPAT	OR	ON	2016/01/08 07:04
S52	236	(charles cordray todd walker samir armaly).in. and (serial$4 series) with program$5 with link$5	US-PGPUB; USPAT	OR	ON	2016/01/08 07:05
S53	1	(charles cordray todd walker samir armaly).in. and (serial$4 series) with program$5 with link$5 with progress	US-PGPUB; USPAT	OR	ON	2016/01/08 07:05
S54	4	((serial$4 series) with program$5 with link$5 with progress).clm.	US-PGPUB; USPAT	OR	ON	2016/01/08 07:05

3/30/2017 7:48:48 PM
C:\Users\fandramuno\Documents\EAST\Workspaces\14660596.wsp

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Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14660596	CORDRAY ET AL.
	Examiner	Art Unit
	FRANKLIN ANDRAMUNO	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	04/03/2017								
	1	-								
	2	-								
	3	-								
	4	-								
	5	-								
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	31	-								
	32	-								
	33	-								
	34	-								
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	36	-								

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Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14660596	CORDRAY ET AL.
	Examiner	**Art Unit**
	FRANKLIN ANDRAMUNO	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	04/03/2017								
	37	-								
	38	-								
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	62	=								
	63	=								
	64	✓								
	65	✓								
	66	✓								
	67	✓								
	68	✓								
	69	✓								
	70	=								
	71	=								

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Docket No.: 003597-0375-103
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Cordray et al.

Application No.: 14/660,596 | Confirmation No.: 1084

Filed: March 17, 2015 | Art Unit: 2424

For: SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT | Examiner: F. S. Andramuno

REPLY TO OFFICE ACTION

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

Dear Sir:

In response to the Office Action dated April 10, 2017 ("Office Action"), please amend the above-identified U.S. patent application as follows.

Amendments of the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 7 of this paper.

AMENDMENTS OF THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in this application.

Listing of Claims:

1. – 57. (Cancelled)

58. (Previously Presented) A method for presenting media content based on a user's viewing progress within serial programs on user equipment, the method comprising:

creating, using control circuitry, a media profile comprising a first viewing progress within a first serial program and a second viewing progress within a second serial program;

storing the media profile in a storage device;

determining, using the control circuitry, a first progress point in the first serial program based on the first viewing progress and a second progress point in the second serial program based on the second viewing progress;

generating for display, on a display screen, a first user-selectable link corresponding to the first progress point in the first serial program adjacent to a second user-selectable link corresponding to the second progress point in the second serial program, wherein selecting the first user-selectable link causes the first serial program to be generated for display at the first progress point, and wherein selecting the second user-selectable link causes the second serial program to be generated for display at the second progress point;

receiving a user selection of the first link; and

in response to receiving the user selection, generating for display the first serial program at the first progress in point.

59. (Previously Presented) The method of claim 58, wherein the first link and the second link are associated with a first cell and a second cell, respectively.

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60. (Previously Presented) The method of claim 59, wherein the first cell and the second cell are included in a plurality of cells, wherein the plurality of cells are arranged in rows and columns.

61. (Previously Presented) The method of claim 58, further comprising automatically presenting an unwatched episode in the first serial program in response to a user selecting the first link.

62. (Previously Presented) The method of claim 58, further comprising presenting a summary region associated with the first serial program.

63. (Previously Presented) The method of claim 58, wherein the summary region indicates a predefined viewing order for the first serial program.

64. (Currently Amended) A system for presenting media content based on a user's viewing progress within serial programs on user equipment, the system comprising:

a storage device; and

control circuitry configured to:

create a media profile comprising a first viewing progress within a first serial program and a second viewing progress within a second serial program;

store the media profile in [[a]] the storage device;

determine a first progress point in the first serial program based on the first viewing progress and a second progress point in the second serial program based on the second viewing progress; and

generate for display a first user-selectable link corresponding to the first progress point in the first serial program adjacent to a second user-selectable link corresponding to the second progress point in the second serial program, wherein selecting the first user-selectable link causes the first serial program to be generated for display at the first progress point, and wherein selecting the second user-selectable link causes the second serial program to be generated for display at the second progress point;

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receive a user selection of the first link; and

in response to receiving the user selection, generate for display the first serial program at the first progress in point.

65. (Previously Presented) The system of claim 64, wherein the first link and the second link are associated with a first cell and a second cell, respectively.

66. (Previously Presented) The system of claim 65, wherein the first cell and the second cell are included in a plurality of cells arranged in rows and columns.

67. (Previously Presented) The system of claim 64, wherein the control circuitry is further configured to present an episode in the first serial program in response to a user selecting the first link.

68. (Previously Presented) The system of claim 64, wherein the control circuitry is further configured to present a summary region associated with the first serial program.

69. (Previously Presented) The system of claim 64, wherein the summary region indicates a predefined viewing order for the first serial program.

70. (Previously Presented) A method for presenting media content based on a user's viewing progress within serial programs on user equipment, the method comprising:

receiving a user request for a user profile associated with a unique identifier;

in response to the user request, retrieving a user profile record from a storage device, wherein the user profile record includes the user profile associated with the unique identifier, and wherein the user profile record includes a pointer to a media profile record associated with the user profile;

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retrieving the media profile record, wherein the media profile record includes a data structure that indicates a first viewing progress within a first serial program and a second viewing progress within a second serial program;

retrieving, from the media profile record, the first viewing progress within the first serial program and the second viewing progress within the second serial program; and

generating for display, on a display screen, a first user-selectable link corresponding to the first viewing progress in the first serial program adjacent to a second user-selectable link corresponding to the second viewing progress in the second serial program, wherein selecting the first user-selectable link causes the first serial program to be generated for display at the first progress point, and wherein selecting the second user-selectable link causes the second serial program to be generated for display at the second progress point.

71. (Previously Presented) A system for presenting media content based on a user's viewing progress within serial programs on user equipment, the system comprising:

a storage device; and

control circuitry configured to:

receive a user request for a user profile associated with a unique identifier;

in response to the user request, retrieve a user profile record from the storage device, wherein the user profile record includes the user profile associated with the unique identifier, and wherein the user profile record includes a pointer to a media profile record associated with the user profile;

retrieve the media profile record, wherein the media profile record includes a data structure that indicates a first viewing progress within a first serial program and a second viewing progress within a second serial program;

retrieve, from the media profile record, the first viewing progress within the first serial program and the second viewing progress within the second serial program; and

generate for display, on a display screen, a first user-selectable link corresponding to the first viewing progress in the first serial program adjacent to a second user-selectable link corresponding to the second viewing progress in the second serial program, wherein selecting the first user-

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selectable link causes the first serial program to be generated for display at the first progress point, and wherein selecting the second user-selectable link causes the second serial program to be generated for display at the second progress point.

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REMARKS

Claims 58-71 are pending. Claim 64 has been amended. No new matter has been added and the amendments are fully supported by the originally-filed application (*see, e.g.,* originally filed specification at ¶¶ 127-131 and FIGs. 7A, 7B, and 12).

The Examiner has rejected claims 64-69 under 35 U.S.C. § 112(b) as allegedly being indefinite because claim 64 recites a single structure. Without concurring with the rejection, and solely in order to expedite prosecution, applicant has amended claim 64 to recite "a storage device" in addition to "control circuitry." Therefore, applicant respectfully requests that this rejection be withdrawn.

Conclusion

In view of the above amendment and remarks, applicant believes the pending application is in condition for allowance. Reconsideration and prompt allowance are accordingly respectfully requested.

Applicant believes no fee is due with this response other than the fees indicated in the enclosed fee transmittal. However, if a fee is due, please charge our Deposit Account No. 06-1075 from which the undersigned is authorized to draw.

Dated: July 10, 2017

Respectfully submitted,

By: /Dmitry Kagan/
Dmitry Kagan
Registration No.: 74,806
ROPES & GRAY LLP
1211 Avenue of the Americas
New York, New York 10036
(212) 596-9000
(617) 235-9492 (Fax)
Attorney For Applicant

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Electronic Patent Application Fee Transmittal

Application Number:	14660596
Filing Date:	17-Mar-2015
Title of Invention:	SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT
First Named Inventor/Applicant Name:	Charles Cordray
Filer:	Dmitry Kagan/Maria Marley
Attorney Docket Number:	003597-0375-103

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

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($)
Miscellaneous:				
Submission- Information Disclosure Stmt	1806	1	180	180
		Total in USD ($)		**180**

Electronic Acknowledgement Receipt

EFS ID:	29727315
Application Number:	14660596
International Application Number:	
Confirmation Number:	1084
Title of Invention:	SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT
First Named Inventor/Applicant Name:	Charles Cordray
Customer Number:	75563
Filer:	Dmitry Kagan/Maria Marley
Filer Authorized By:	Dmitry Kagan
Attorney Docket Number:	003597-0375-103
Receipt Date:	10-JUL-2017
Filing Date:	17-MAR-2015
Time Stamp:	12:17:55
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$180
RAM confirmation Number	071017INTEFSW00011337061075
Deposit Account	061075
Authorized User	Maria Marley

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

37 CFR 1.16 (National application filing, search, and examination fees)

37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal Letter	003597-0375-103-IDS.pdf	80226 0fca2f332317e4aec17ecaf671457a8dbc498bf0	no	2
Warnings:					
Information:					
2	Information Disclosure Statement (IDS) Form (SB08)	003597-0375-103-SB08.pdf	107668 86a225e90556d9fcabae7368edcdd4a8c6f99be4	no	1
Warnings:					
Information:					
This is not an USPTO supplied IDS fillable form					
3		003597-0375-103-Reply.pdf	106143 54ba05ee5eac9e20eb09eb13def9f04959366f65	yes	7

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	7

Warnings:					
Information:					
4	Fee Worksheet (SB06)	fee-info.pdf	30622 fc936c56384fd29e9883337697bc27ffc1d9d0bf	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	324659		

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.

Docket No.: 003597-0375-103
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Cordray et al.

Application No.: 14/660,596 | Confirmation No.: 1084

Filed: March 17, 2015 | Art Unit: 2424

For: SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT | Examiner: F. S. Andramuno

INFORMATION DISCLOSURE STATEMENT (IDS)

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

Dear Sir:

Pursuant to 37 C.F.R. § 1.56, 1.97 and 1.98, the attention of the United States Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of the above-identified application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed after the mailing date of a first Office Action on the merits, but before the mailing date of any of a Final Action under 37 C.F.R.§ 1.113, a Notice of Allowance under 37 C.F.R. § 1.311 or an action that otherwise closes prosecution in this application (37 C.F.R. § 1.97(c)).

In accordance with 37 C.F.R. § 1.98(a)(2)(ii), a copy of U.S. patent application publication is not submitted.

In accordance with 37 C.F.R. § 1.97(g), the filing of this Information Disclosure Statement shall not be construed as a representation that a search has been made. In accordance with 37 C.F.R. § 1.97(h), the filing of this Information Disclosure Statement shall not be construed to be an admission that the information cited in this Information Disclosure Statement is, or is considered to be, material to the patentability as defined in 37 C.F.R. § 1.56(b).

It is submitted that the Information Disclosure Statement is in compliance with 37 C.F.R. § 1.98, and the Examiner is respectfully requested to consider the listed references.

Please charge our Deposit Account No. 06-1075 in the amount of $180.00 covering the fee set forth in 37 C.F.R. § 1.17(p). The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 06-1075, under Order No. 003597-0375-103.

Dated: July 10, 2017

Respectfully submitted,

By /Dmitry Kagan/
Dmitry Kagan
Registration No.: 74,806
ROPES & GRAY LLP
1211 Avenue of the Americas
New York, New York 10036
(212) 596-9000
(617) 235-9492 (Fax)
Attorney For Applicant

Petitioner Disney Ex-1004, 0404

July 10, 2017

Substitute for form 1449A/B/PTO				*Complete if Known*	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application Number	14/660,596
				Filing Date	03-17-2015
				First Named Inventor	Charles Cordray
(Use as many sheets as necessary)				Art Unit	2424
				Examiner Name	F.S. Andramuno
Sheet	1	of	1	Attorney Docket Number	003597-0375-103

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (*if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		20040221308	11-04-2004	Cutter	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3]-Number[4]-Kind Code[5] *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]		T[2]

Examiner Signature		Date Considered	

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. 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 14/660,596	Filing Date 03/17/2015	☐ To be Mailed

ENTITY: ☒ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

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

APPLICATION AS AMENDED – PART II

AMENDMENT	07/10/2017	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 14	Minus	** 20	= 0	X $80 =	0
	Independent (37 CFR 1.16(h))	* 4	Minus	***4	= 0	X $420 =	0
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	0

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

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

** 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.

LIE
/MARSHA RICHARDS/

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.

Doc Code: Oath
Document Description: Oath or declaration filed

PTO/AIA/08 (06-12)
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DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)

☐ Declaration Submitted With Initial Filing **OR** ☒ Declaration Submitted After Initial Filing (surcharge (37 CFR 1.16(f)) required)

Attorney Docket Number	003597-0375-103
First Named Inventor	Charles Cordray
COMPLETE IF KNOWN	
Application Number	14/660,596
Filing Date	March 17, 2015
Art Unit	2425
Examiner Name	Not Yet Assigned

SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT

(Title of the Invention)

As a below named inventor, I hereby declare that:

This declaration is directed to:

☐ The attached application,

OR

☒ United States Application Number or PCT International application number 14/660,596

filed on 03/17/2015 .

The above-identified application was made or authorized to be made by me.

I believe I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

Authorization To Permit Access To Application by Participating Office

☐ If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the above-identified patent application is filed access to the above-identified patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, WIPO, or other intellectual property office in which a foreign application claiming priority to the above-identified patent application is filed to have access to the above-identified patent application.

In accordance with 37 CFR 1.14(h)(3), access will be provided to a copy of the above-identified patent application with respect to: 1) the above-identified patent application-as-filed; 2) any foreign application to which the above-identified patent application claims priority under 35 U.S.C. 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the above-identified patent application; and 3) any U.S. application-as-filed from which benefit is sought in the above-identified patent application.

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing the Authorization to Permit Access to Application by Participating Offices.

28962_1

Petitioner Disney Ex-1004, 0407

DECLARATION — Utility or Design Patent Application

Direct all correspondence to: [X] The address associated with Customer Number: 75563 **OR** [ ] Correspondence address below

Name		
Address		
City	State	Zip
Country	Telephone	Email

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available. Petitioner/applicant is advised that documents which form the record of a patent application (such as the PTO/SB/01) are placed into the Privacy Act system of records DEPARTMENT OF COMMERCE, COMMERCE-PAT-7, System name: *Patent Application Files*. Documents not retained in an application file (such as the PTO-2038) are placed into the Privacy Act system of COMMERCE/PAT-TM-10, System name: *Deposit Accounts and Electronic Funds Transfer Profiles*.

LEGAL NAME OF SOLE OR FIRST INVENTOR:

(*E.g.*, Given Name (first and middle (if any)) and Family Name or Surname)

Charles Cordray

Inventor's Signature		Date (Optional)
Charles Cordray		10/10/2017
Residence: City: New York	State: NY	Country: United States of America

Mailing Address: ~~200 Mercer Street, Apt. 2B~~ 11520 Canterbury Circle

City	State	Zip	Country
Leawood ~~New York~~	~~NY~~ KS	66211 ~~10012~~	United States of America

[X] Additional inventors are being named on the 1 supplemental sheet(s) PTO/AIA/10 attached hereto

Petitioner Disney Ex-1004, 0408

PTO/AIA/10 (06-12)
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SUPPLEMENTAL SHEET FOR DECLARATION	ADDITIONAL INVENTOR(S) Supplemental Sheet (for PTO/AIA/08,09) Page 1 of 1

Legal Name of Additional Joint Inventor, if any:
(*E.g.*, Given Name (first and middle (if any)) and Family Name or Surname)
Todd A. Walker

Inventor's Signature	Date (Optional)
	7/21/17

Residence: City	State	Country
Bixby	OK	United States of America

Mailing Address: 11126 South 70th East Avenue

City	State	Zip	Country
Bixby	OK	74008	United States of America

Legal Name of Additional Joint Inventor, if any:
(*E.g.*, Given Name (first and middle (if any)) and Family Name or Surname)
Samir B. Armaly

Inventor's Signature	Date (Optional)

Residence: City	State	Country
La Canada Flintridge	CA	United States of America

Mailing Address: 4400 Bel Air Drive

City	State	Zip	Country
La Canada Flintridge	CA	91011	United States of America

Legal Name of Additional Joint Inventor, if any:
(*E.g.*, Given Name (first and middle (if any)) and Family Name or Surname)

Inventor's Signature	Date (Optional)

Residence: City	State	Country

Mailing Address

City	State	Zip	Country

Doc Code: Oath
Document Description: Oath or declaration filed

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DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)

☐ Declaration Submitted With Initial Filing **OR** ☒ Declaration Submitted After Initial Filing (surcharge (37 CFR 1.16(f)) required)

Attorney Docket Number	003597-0375-103
First Named Inventor	Charles Cordray
COMPLETE IF KNOWN	
Application Number	14/660,596
Filing Date	March 17, 2015
Art Unit	2425
Examiner Name	F.S. Adramuno

SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT

(Title of the Invention)

As a below named inventor, I hereby declare that:

This declaration is directed to:

☐ The attached application,

OR

☒ United States Application Number or PCT International application number 14/660,596

filed on 03/17/2015 .

The above-identified application was made or authorized to be made by me.

I believe I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

Authorization To Permit Access To Application by Participating Office

☐ If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the above-identified patent application is filed access to the above-identified patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, WIPO, or other intellectual property office in which a foreign application claiming priority to the above-identified patent application is filed to have access to the above-identified patent application.

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In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing the Authorization to Permit Access to Application by Participating Offices.

PTO/AIA/08 (06-12)
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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DECLARATION — Utility or Design Patent Application

Direct all correspondence to:	[X] The address associated with Customer Number:	75563	OR	[ ] Correspondence address below

Name		
Address		
City	State	Zip
Country	Telephone	Email

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available. Petitioner/applicant is advised that documents which form the record of a patent application (such as the PTO/SB/01) are placed into the Privacy Act system of records DEPARTMENT OF COMMERCE, COMMERCE-PAT-7, System name: *Patent Application Files*. Documents not retained in an application file (such as the PTO-2038) are placed into the Privacy Act system of COMMERCE/PAT-TM-10, System name: *Deposit Accounts and Electronic Funds Transfer Profiles*.

LEGAL NAME OF SOLE OR FIRST INVENTOR:

(*E.g.*, Given Name (first and middle (if any)) and Family Name or Surname)

Charles Cordray

Inventor's Signature	Date (Optional)

Residence: City	State	Country
New York	NY	United States of America

Mailing Address

200 Mercer Street, Apt. 2B

City	State	Zip	Country
New York	NY	10012	United States of America

[X] Additional inventors are being named on the 1 supplemental sheet(s) PTO/AIA/10 attached hereto

Petitioner Disney Ex-1004, 0411

PTO/AIA/10 (06-12)
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SUPPLEMENTAL SHEET FOR DECLARATION	ADDITIONAL INVENTOR(S) Supplemental Sheet (for PTO/AIA/08,09) Page 1 of 1

Legal Name of Additional Joint Inventor, if any:
(*E.g.*, Given Name (first and middle (if any)) and Family Name or Surname)
Todd A. Walker

Inventor's Signature			Date (Optional)
Bixby Residence: City	OK State	United States of America Country	
11126 South 70th East Avenue Mailing Address			
Bixby City	OK State	74008 Zip	United States of America Country

Legal Name of Additional Joint Inventor, if any:
(*E.g.*, Given Name (first and middle (if any)) and Family Name or Surname)
Samir B. Armaly

Inventor's Signature			Date (Optional) 7/11/17
La Canada Flintridge Residence: City	CA State	United States of America Country	
4400 Bel Air Drive Mailing Address			
La Canada Flintridge City	CA State	91011 Zip	United States of America Country

Legal Name of Additional Joint Inventor, if any:
(*E.g.*, Given Name (first and middle (if any)) and Family Name or Surname)

Inventor's Signature			Date (Optional)
Residence: City	State	Country	
Mailing Address			
City	State	Zip	Country

Corrected Application Data Sheet

Inventor Information

Inventor Number::	1
Prefix::	Mr.
Given Name::	Charles
Middle Name::	
Family Name::	Cordray
City of Residence::	~~New York~~ Leawood
State or Province of Residence::	~~NY~~ KS
Country of Residence::	US
Street of mailing address::	~~200 Mercer Street, Apt. 2B~~ 11520 Canterbury Circle
City of mailing address::	~~New York~~ Leawood
State or Province of mailing address::	~~NY~~ KS
Postal or Zip Code of mailing address::	~~10012~~ 66211

Inventor Number::	2
Name Prefix::	Mr.
Given Name::	Todd
Middle Name::	A.
Family Name::	Walker
City of Residence::	Bixby
State or Province of Residence::	OK
Country of Residence::	US

Street of mailing address::	11126 South 70th East Avenue
City of mailing address::	Bixby
State or Province of mailing address::	OK
Postal or Zip Code of mailing address::	74008

Inventor Number::	3
Name Prefix::	Mr.
Given Name::	Samir
Middle Name::	B.
Family Name::	Armaly
City of Residence::	La Canada Flintridge
State or Province of Residence::	CA
Country of Residence::	US
Street of mailing address::	4400 Bel Aire Drive
City of mailing address::	La Canada Flintridge
State or Province of mailing address::	CA
Postal or Zip Code of mailing address::	91011

Correspondence Information

Correspondence Customer Number::	75563
E-Mail address::	~~USPatentMail@ropesgray.com~~ HGpatentdocket@hglaw.com

Application Information

Application Number::	14/660,596
Filing Date::	03-17-2015
Application Type::	Regular
Subject Matter::	Utility
CD-ROM or CD-R?::	None
Sequence submission?::	None
Computer Readable Form (CRF)?::	No
Title::	SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT
Attorney Docket Number::	003597-0375-103
Request for Early Publication?::	No
Request for Non-Publication?::	No
Small Entity?::	No
Petition included?::	No
Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2::	No
This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013::	No

Representative Information

Representative Customer Number:: 75563

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	/Dmitry Kagan/	Date	October 13, 2017
Name (Print/Type)	Dmitry Kagan	Registration No. (Attorney/Agent)	74,806

Electronic Acknowledgement Receipt

EFS ID:	30639495
Application Number:	14660596
International Application Number:	
Confirmation Number:	1084
Title of Invention:	SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT
First Named Inventor/Applicant Name:	Charles Cordray
Customer Number:	75563
Filer:	Dmitry Kagan/Maria Marley
Filer Authorized By:	Dmitry Kagan
Attorney Docket Number:	003597-0375-103
Receipt Date:	13-OCT-2017
Filing Date:	17-MAR-2015
Time Stamp:	13:35:41
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	Oath or Declaration filed	003597-0375-103-Dec.pdf	1935728 ba595c50a6972666eec8662da95d1e0c7aec11aa	no	6

Warnings:

Information:					
2	Application Data Sheet	003597-0375-103-CADS.pdf	133536 6afca5f5526c383991b82941c8fcefcb4553eb84	no	4
Warnings:					
Information:					
This is not an USPTO supplied ADS fillable form					
			Total Files Size (in bytes):	2069264	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

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

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

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

New International Application Filed with the USPTO as a Receiving Office

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

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

75563 7590 10/25/2017

Haley Guiliano LLP
75 Broad Street
Suite 1000
NEW YORK, NY 10004

EXAMINER
ANDRAMUNO, FRANKLIN S

ART UNIT	PAPER NUMBER
2424	

DATE MAILED: 10/25/2017

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/660,596	03/17/2015	Charles Cordray	003597-0375-103	1084

TITLE OF INVENTION: SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	$960	$0	$0	$960	01/25/2018

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Maintenance fees are due in utility patents issuing on applications filed on or after Dec. 12, 1980. It is patentee's responsibility to ensure timely payment of maintenance fees when due. More information is available at www.uspto.gov/PatentMaintenanceFees.

PTOL-85 (Rev. 02/11)

Petitioner Disney Ex-1004, 0419

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

75563 7590 10/25/2017
Haley Guiliano LLP
75 Broad Street
Suite 1000
NEW YORK, NY 10004

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission
I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/660,596	03/17/2015	Charles Cordray	003597-0375-103	1084

TITLE OF INVENTION: SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	$960	$0	$0	$960	01/25/2018

EXAMINER	ART UNIT	CLASS-SUBCLASS
ANDRAMUNO, FRANKLIN S	2424	725-087000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
- ❑ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ❑ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.
1 _____
2 _____
3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ❑ Corporation or other private group entity ❑ Government

4a. The following fee(s) are submitted:
- ❑ Issue Fee
- ❑ Publication Fee (No small entity discount permitted)
- ❑ Advance Order - # of Copies _____

4b. Payment of Fee(s): **(Please first reapply any previously paid issue fee shown above)**
- ❑ A check is enclosed.
- ❑ Payment by credit card. Form PTO-2038 is attached.
- ❑ The director is hereby authorized to charge the required fee(s), any deficiency, or credits any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)
- ❑ Applicant certifying micro entity status. See 37 CFR 1.29 — NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
- ❑ Applicant asserting small entity status. See 37 CFR 1.27 — NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
- ❑ Applicant changing to regular undiscounted fee status. — NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

PTOL-85 Part B (10-13) Approved for use through 10/31/2013. OMB 0651-0033 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Petitioner Disney Ex-1004, 0420

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
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www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/660,596	03/17/2015	Charles Cordray	003597-0375-103	1084

75563 7590 10/25/2017

Haley Guiliano LLP
75 Broad Street
Suite 1000
NEW YORK, NY 10004

EXAMINER	
ANDRAMUNO, FRANKLIN S	
ART UNIT	PAPER NUMBER
2424	

DATE MAILED: 10/25/2017

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Petitioner Disney Ex-1004, 0421

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. 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, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. 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.

Privacy Act Statement

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

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

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No. 14/660,596	Applicant(s) CORDRAY ET AL.	
	Examiner FRANKLIN ANDRAMUNO	Art Unit 2424	AIA (First Inventor to File) Status No

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

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *07/10/2017*.
   ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on_____.
2. ☐ 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.
3. ☒ The allowed claim(s) is/are *58-71*. As a result of the allowed claim(s), 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.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   Certified copies:

   a) ☐ All b) ☐ Some *c) ☐ None of the:
   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)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 07/10/2017
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
5. ☐ Examiner's Amendment/Comment
6. ☐ Examiner's Statement of Reasons for Allowance
7. ☐ Other _____.

/PANKAJ KUMAR/
Supervisory Patent Examiner, Art Unit 2424

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14660596	CORDRAY ET AL.
	Examiner	Art Unit
	FRANKLIN ANDRAMUNO	2424

CPC- SEARCHED		
Symbol	Date	Examiner
h04n21/858 and h04n21/47217	10/16/2017	FA

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
725	87, 61 and 39	10/16/2017	FA

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

SEARCH NOTES		
Search Notes	Date	Examiner

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner
725	61 and 39	10/16/2017	FA
h04n21	47217	10/16/2017	FA

Petitioner Disney Ex-1004, 0424

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1612	h04n21/84	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/10/17 12:47
L2	376	h04n21/4825	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/10/17 12:47
L3	585	h04n21/4755	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/10/17 12:48
L4	251	h04n21/4751	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/10/17 12:48
L5	209	h04n21/4583	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/10/17 12:48
L6	1741	h04n21/4532	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/10/17 12:48
L7	1316	h04n21/44222	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/10/17 12:48
L8	2201	h04n21/435	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/10/17 12:48
L9	1331	h04n21/25891	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/10/17 12:50
L10	1954	h04n21/235	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/10/17 12:50
L11	1135	h04n7/17318	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/10/17 12:50
L12	288	h04n5/782	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/10/17 12:50

L13	0	h06f3/0482	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/10/17 12:50
L14	908	h04n21/47217	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/10/17 12:50
L15	613	h04n21/44204	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/10/17 12:50
L16	353	1 and (serial series) with program$5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2017/10/17 12:51
L17	263	1 and (serial series) near5 program$5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2017/10/17 12:51
L18	78	1 and (serial series) near5 program$5 with episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2017/10/17 12:51
L19	37	2 and (serial series) near5 program$5 with episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2017/10/17 12:51
L20	60	3 and (serial series) near5 program$5 with episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2017/10/17 12:51
L21	9	4 and (serial series) near5 program$5 with episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2017/10/17 12:51
L22	33	5 and (serial series) near5 program$5 with episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2017/10/17 12:51
L23	117	6 and (serial series) near5 program$5 with episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2017/10/17 12:51

L24	105	6 and (serial series) near5 program$5 near5 episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2017/10/17 12:52
L25	79	6 and (serial series) near3 program$5 near3 episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2017/10/17 12:52
L26	53	7 and (serial series) near3 program$5 near3 episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2017/10/17 12:52
L27	33	8 and (serial series) near3 program$5 near3 episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2017/10/17 12:52
L28	34	9 and (serial series) near3 program$5 near3 episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2017/10/17 12:52
L29	28	10 and (serial series) near3 program$5 near3 episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2017/10/17 12:52
L30	29	11 and (serial series) near3 program$5 near3 episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2017/10/17 12:53
L31	31	12 and (serial series) near3 program$5 near3 episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2017/10/17 12:53
L32	36	14 and (serial series) near3 program$5 near3 episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2017/10/17 12:53
L33	29	15 and (serial series) near3 program$5 near3 episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2017/10/17 12:53

L34	12053	g06f3/0482	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/10/17 12:53
L35	13	34 and (serial series) near3 program$5 near3 episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2017/10/17 12:54
S1	2	"20150229991"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 09:22
S2	2	"20050273819"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 09:24
S3	2	"20060173974"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 09:24
S4	2	"20030190150"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 09:24
S5	3	(US-20060173974-$ or US-20030190150-$ or US-20050273819-$).did.	US-PGPUB	OR	ON	2016/01/07 09:24
S6	1	S5 and serial	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 09:25
S7	72899	serial with link$5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 09:27
S8	2166	serial with link$5 with program	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 09:27
S9	2581	series with link$5 with program$5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 09:27

S10	3	second near3 series near4 link$5 near4 program$5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 09:28
S11	491	serial near4 link$5 near4 program$5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 09:28
S12	2	("9015736").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2016/01/07 11:41
S13	1820	episode with (serial series) with program$5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 11:44
S14	0	sex near2 in near2 the near2 city	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 11:49
S15	17	sex near4 city with (serial series)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 13:04
S16	2	"20150229991"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 13:05
S17	1826	episode with (viewed watched)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 13:08
S18	414	episode with (viewed watched) with (series serial)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 13:08
S19	93	episode with (viewed watched) with (series serial) and ((@ad<="20051229") (@rlad<="20051229"))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 13:09

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S21	69	S20 and episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 17:26
S22	40	partial$4 with (watched viewed) with episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 17:36
S23	13	partial$4 with (watched viewed) with episode and ((@ad<="20051229") (@rlad<="20051229"))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 17:36
S24	843	(watched viewed) with episode and ((@ad<="20051229") (@rlad<="20051229"))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 17:39
S25	686	(watched viewed) near5 episode and ((@ad<="20051229") (@rlad<="20051229"))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 17:39
S26	634	(watched viewed) near3 episode and ((@ad<="20051229") (@rlad<="20051229"))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 17:39

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S27	3	"20050265169"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 18:07
S28	2	("6865746").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2016/01/07 18:11
S29	208	netflix.as.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 19:08
S30	0	netflix.as. with episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 19:08
S31	0	netflix.as. with (series serial)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 19:09
S32	560	episode with (serial series) with program$4 and ((@ad<="20051229") (@rlad<="20051229"))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 19:09
S33	363	episode near4 (serial series) near4 program$4 and ((@ad<="20051229") (@rlad<="20051229"))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 19:10
S34	5	last near5 episode near4 (serial series) near4 program$4 and ((@ad<="20051229") (@rlad<="20051229"))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/07 19:19
S35	3909	725/87	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 03:48
S36	1972	725/61	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 03:48

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S37	4959	725/39	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 03:48
S38	324	h04n21/47217	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 03:49
S39	1368	h04n21/858	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 03:52
S40	522	S35 and (serial series) with program$5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 04:00
S41	2	S35 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 04:01
S42	0	S36 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 04:01
S43	530	S35 and (serial$4 series) with program$5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 04:01
S44	76	S35 and (serial$4 series) with program$5 same episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 04:01
S45	72	S35 and (serial$4 series) with program$5 with episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 04:01
S46	65	S36 and (serial$4 series) with program$5 with episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 04:02

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S47	190	S37 and (serial$4 series) with program$5 with episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 04:02
S48	26	S38 and (serial$4 series) with program$5 with episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 04:02
S49	28	S39 and (serial$4 series) with program$5 with episode	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2016/01/08 04:02
S55	1	"20150229991"	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 16:14
S56	1253	h04n21/84	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 16:45
S57	294	h04n21/4825	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 16:45
S58	498	h04n21/4755	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 16:45
S59	214	h04n21/4751	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 16:45
S60	169	h04n21/4583	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 16:45
S61	1352	h04n21/4532	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 16:45
S62	1891	h04n21/435	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 16:45
S63	1046	h04n21/25891	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 16:46
S64	1630	h04n21/235	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 16:46
S65	988	h04n7/17318	US-	OR	OFF	2017/03/30

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S66	261	h04n5/782	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 16:46
S67	1074	h04n21/44222	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 16:46
S68	9638	g06f3/0482	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 16:46
S69	1	S56 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 16:46
S70	3	S57 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 16:46
S71	5	S58 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 16:47
S72	3	S59 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 16:47
S73	3	S60 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 16:47
S74	5	S61 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 16:47
S75	4	S62 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 16:47
S76	3	S63 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 16:47
S77	3	S64 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 16:47
S78	3	S65 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 16:47
S79	3	S66 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 16:47

S80	6	S67 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 16:47
S81	3	S68 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 16:47
S82	3	S68 and (serial$4 series) with program$5 with progress	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2017/03/30 16:48

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S50	305607	(charles cordray todd walker samir armaly).in.	US-PGPUB; USPAT	OR	ON	2016/01/08 04:04
S51	110	(charles cordray todd walker samir armaly).in. and (serial$4 series) with program$5 with episode	US-PGPUB; USPAT	OR	ON	2016/01/08 04:04
S52	236	(charles cordray todd walker samir armaly).in. and (serial$4 series) with program$5 with link$5	US-PGPUB; USPAT	OR	ON	2016/01/08 04:05
S53	1	(charles cordray todd walker samir armaly).in. and (serial$4 series) with program$5 with link$5 with progress	US-PGPUB; USPAT	OR	ON	2016/01/08 04:05
S54	4	((serial$4 series) with program$5 with link$5 with progress).clm.	US-PGPUB; USPAT	OR	ON	2016/01/08 04:05
S83	1	(charles cordray todd walker samir armaly).in. and (serial$4 series) with program$5 with link$5 with progress	US-PGPUB; USPAT	OR	ON	2017/03/30 16:48
S84	4	((serial$4 series) with program$5 with link$5 with progress).clm.	US-PGPUB; USPAT	OR	ON	2017/03/30 16:48
S85	1	(charles cordray todd walker samir armaly).in. and (serial$4 series) with program$5 with link$5 with progress	US-PGPUB; USPAT	OR	ON	2017/10/16 02:32
S86	4	((serial$4 series) with program$5 with link$5 with progress).clm.	US-PGPUB; USPAT	OR	ON	2017/10/16 02:32

10/17/2017 12:54:20 PM
C:\Users\fandramuno\Documents\EAST\Workspaces\14660596.wsp

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July 10, 2017

Substitute for form 1449A/B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

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Complete if Known	
Application Number	14/660,596
Filing Date	03-17-2015
First Named Inventor	Charles Cordray
Art Unit	2424
Examiner Name	F.S. Andramuno
Attorney Docket Number	003597-0375-103

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (*if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
/F.S.A/		20040221308	11-04-2004	Cutter	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3]-Number[4]-Kind Code[5] *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]		T[2]

Examiner Signature	/FRANKLIN S ANDRAMUNO/	Date Considered	10/16/2017

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /F.S.A/

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14660596	CORDRAY ET AL.
	Examiner	**Art Unit**
	FRANKLIN ANDRAMUNO	2424

CPC						
Symbol					**Type**	**Version**
H04N		21	/	44204	F	2013-01-01
H04N		21	/	47217	I	2013-01-01
G06F		3	/	0482	I	2013-01-01
H04N		5	/	782	I	2013-01-01
H04N		7	/	17318	I	2013-01-01
H04N		21	/	235	I	2013-01-01
H04N		21	/	25891	I	2013-01-01
H04N		21	/	435	I	2013-01-01
H04N		21	/	44222	I	2013-01-01
H04N		21	/	4532	I	2013-01-01
H04N		21	/	4583	I	2013-01-01
H04N		21	/	4751	I	2013-01-01
H04N		21	/	4755	I	2013-01-01
H04N		21	/	4825	I	2013-01-01
H04N		21	/	84	I	2013-01-01
H04N		21	/	858	I	2013-01-01

CPC Combination Sets							
Symbol					**Type**	**Set**	**Ranking**	**Version**
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/FRANKLIN ANDRAMUNO/ Examiner.Art Unit 2424		**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	14	
/PANKAJ KUMAR/ Supervisory Patent Examiner.Art Unit 2424	10/19/2017	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	12

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	14660596	CORDRAY ET AL.
	Examiner	**Art Unit**
	FRANKLIN ANDRAMUNO	2424

US ORIGINAL CLASSIFICATION		INTERNATIONAL CLASSIFICATION	
CLASS	SUBCLASS	CLAIMED	NON-CLAIMED
725	87	H 0 4 N 5 / 445 (2011.01.01)	
CROSS REFERENCE(S)		H 0 4 N 7 / 173 (2011.01.01)	

CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)				
725	61	39			

/FRANKLIN ANDRAMUNO/ Examiner.Art Unit 2424		Total Claims Allowed:
(Assistant Examiner)	(Date)	14
/PANKAJ KUMAR/ Supervisory Patent Examiner.Art Unit 2424	10/19/2017	O.G. Print Claim(s): 1 / O.G. Print Figure: 12
(Primary Examiner)	(Date)	

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
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	Examiner	**Art Unit**
	FRANKLIN ANDRAMUNO	2424

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

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	58														
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11	68														
12	69														
13	70														
14	71														

/FRANKLIN ANDRAMUNO/ Examiner.Art Unit 2424 (Assistant Examiner)	(Date)	**Total Claims Allowed:** 14	
/PANKAJ KUMAR/ Supervisory Patent Examiner.Art Unit 2424 (Primary Examiner)	10/19/2017 (Date)	O.G. Print Claim(s) 1	O.G. Print Figure 12

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✓	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	10/16/2017								
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Petitioner Disney Ex-1004, 0441

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14660596	CORDRAY ET AL.
	Examiner	Art Unit
	FRANKLIN ANDRAMUNO	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	10/16/2017								
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UNITED STATES PATENT AND TRADEMARK OFFICE

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BIB DATA SHEET

CONFIRMATION NO. 1084

SERIAL NUMBER	FILING or 371(c) DATE RULE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
14/660,596	03/17/2015	725	2424	003597-0375-103

APPLICANTS

Rovi Guides, Inc., Santa Clara, CA;

INVENTORS

Charles Cordray, New York, NY;
Todd A. Walker, Bixby, OK;
Samir B. Armaly, La Canada Flintridge, CA;

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

This application is a CON of 11/323,464 12/29/2005 PAT 9015736

**** FOREIGN APPLICATIONS ***************************

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ****

03/26/2015

Foreign Priority claimed ☐ Yes ☑ No 35 USC 119(a-d) conditions met ☐ Yes ☑ No Verified and Acknowledged /FRANKLIN S ANDRAMUNO/ Examiner's Signature	☐ Met after Allowance Initials	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
		NY	20	12	2

ADDRESS

Haley Guiliano LLP
75 Broad Street
Suite 1000
NEW YORK, NY 10004
UNITED STATES

TITLE

SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT

FILING FEE RECEIVED		
2160	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

Docket No.: 003597-0375-103
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: Cordray et al.	Allowed: October 25, 2017
Application No.: 14/660,596	Confirmation No.: 1084
Filed: March 17, 2015	Art Unit: 2424
For: SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT	Examiner: F. S. Andramuno

AMENDMENT AFTER ALLOWANCE UNDER 37 C.F.R. 1.312

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

Dear Sir:

Prior to issuance of the patent, applicants respectfully request entry on this amendment under 37 C.F.R. 1.312 for the above-captioned patent application.

Amendments of the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 6 of this paper.

AMENDMENTS OF THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in this application.

Listing of Claims:

1. – 57. (Cancelled)

58. (Currently Amended) A method for presenting media content based on a user's viewing progress within serial programs on user equipment, the method comprising:

creating, using control circuitry, a media profile comprising a first viewing progress within a first serial program and a second viewing progress within a second serial program;

storing the media profile in a storage device;

determining, using the control circuitry, a first progress point in the first serial program based on the first viewing progress and a second progress point in the second serial program based on the second viewing progress;

generating for display, on a display screen, a first user-selectable link corresponding to the first progress point in the first serial program adjacent to a second user-selectable link corresponding to the second progress point in the second serial program, wherein selecting the first user-selectable link causes the first serial program to be generated for display at the first progress point, and wherein selecting the second user-selectable link causes the second serial program to be generated for display at the second progress point;

receiving a user selection of the first link; and

in response to receiving the user selection, generating for display the first serial program at the first progress [[in]] point.

59. (Previously Presented) The method of claim 58, wherein the first link and the second link are associated with a first cell and a second cell, respectively.

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60. (Previously Presented) The method of claim 59, wherein the first cell and the second cell are included in a plurality of cells, wherein the plurality of cells are arranged in rows and columns.

61. (Previously Presented) The method of claim 58, further comprising automatically presenting an unwatched episode in the first serial program in response to a user selecting the first link.

62. (Previously Presented) The method of claim 58, further comprising presenting a summary region associated with the first serial program.

63. (Previously Presented) The method of claim 58, wherein the summary region indicates a predefined viewing order for the first serial program.

64. (Currently Amended) A system for presenting media content based on a user's viewing progress within serial programs on user equipment, the system comprising:

a storage device; and

control circuitry configured to:

create a media profile comprising a first viewing progress within a first serial program and a second viewing progress within a second serial program;

store the media profile in the storage device;

determine a first progress point in the first serial program based on the first viewing progress and a second progress point in the second serial program based on the second viewing progress; and

generate for display a first user-selectable link corresponding to the first progress point in the first serial program adjacent to a second user-selectable link corresponding to the second progress point in the second serial program, wherein selecting the first user-selectable link causes the first serial program to be generated for display at the first progress point, and wherein selecting the second user-selectable link causes the second serial program to be generated for display at the second progress point;

receive a user selection of the first link; and

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in response to receiving the user selection, generate for display the first serial program at the first progress [[in]] point.

65. (Previously Presented) The system of claim 64, wherein the first link and the second link are associated with a first cell and a second cell, respectively.

66. (Previously Presented) The system of claim 65, wherein the first cell and the second cell are included in a plurality of cells arranged in rows and columns.

67. (Previously Presented) The system of claim 64, wherein the control circuitry is further configured to present an episode in the first serial program in response to a user selecting the first link.

68. (Previously Presented) The system of claim 64, wherein the control circuitry is further configured to present a summary region associated with the first serial program.

69. (Previously Presented) The system of claim 64, wherein the summary region indicates a predefined viewing order for the first serial program.

70. (Previously Presented) A method for presenting media content based on a user's viewing progress within serial programs on user equipment, the method comprising:

receiving a user request for a user profile associated with a unique identifier;

in response to the user request, retrieving a user profile record from a storage device, wherein the user profile record includes the user profile associated with the unique identifier, and wherein the user profile record includes a pointer to a media profile record associated with the user profile;

retrieving the media profile record, wherein the media profile record includes a data structure that indicates a first viewing progress within a first serial program and a second viewing progress within a second serial program;

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retrieving, from the media profile record, the first viewing progress within the first serial program and the second viewing progress within the second serial program; and

generating for display, on a display screen, a first user-selectable link corresponding to the first viewing progress in the first serial program adjacent to a second user-selectable link corresponding to the second viewing progress in the second serial program, wherein selecting the first user-selectable link causes the first serial program to be generated for display at the first progress point, and wherein selecting the second user-selectable link causes the second serial program to be generated for display at the second progress point.

71. (Previously Presented) A system for presenting media content based on a user's viewing progress within serial programs on user equipment, the system comprising:

a storage device; and

control circuitry configured to:

receive a user request for a user profile associated with a unique identifier;

in response to the user request, retrieve a user profile record from the storage device, wherein the user profile record includes the user profile associated with the unique identifier, and wherein the user profile record includes a pointer to a media profile record associated with the user profile;

retrieve the media profile record, wherein the media profile record includes a data structure that indicates a first viewing progress within a first serial program and a second viewing progress within a second serial program;

retrieve, from the media profile record, the first viewing progress within the first serial program and the second viewing progress within the second serial program; and

generate for display, on a display screen, a first user-selectable link corresponding to the first viewing progress in the first serial program adjacent to a second user-selectable link corresponding to the second viewing progress in the second serial program, wherein selecting the first user-selectable link causes the first serial program to be generated for display at the first progress point, and wherein selecting the second user-selectable link causes the second serial program to be generated for display at the second progress point.

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REMARKS

This application was allowed on October 25, 2017. Applicants has proposed amending claims 58 and 64 to correct minor informalities. No new matter has been added and the amendments are fully supported by the originally-filed application. Pursuant to 37 C.F.R. § 1.312, applicants respectfully request that the above listing of claims replace all prior versions, and listings, of claims in the above-identified patent application.

Applicants respectfully submit that each of the proposed amendments "embod[ies] merely the correction of formal matters in the specification, formal changes in a claim without changing the scope thereof, or the cancellation of claims." MPEP § 714.16(d). Accordingly, entry of these amendments would require no substantial amount of additional work on the part of the Office.

An early and favorable action, entering the foregoing amendment, is respectfully requested.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 06-1075 from which the undersigned is authorized to draw.

Dated: October 27, 2017

Respectfully submitted,

By: /Drew Schulte/
Drew Schulte
Registration No.: 63,216
HALEY GUILIANO LLP
75 Broad Street., Suite 1000
New York, New York 10004
(646) 973-2500
Attorney For Applicant

Petitioner Disney Ex-1004, 0449

Electronic Acknowledgement Receipt

EFS ID:	30778279
Application Number:	14660596
International Application Number:	
Confirmation Number:	1084
Title of Invention:	SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT
First Named Inventor/Applicant Name:	Charles Cordray
Customer Number:	75563
Filer:	Drew Joseph Schulte/Maria Marley
Filer Authorized By:	Drew Joseph Schulte
Attorney Docket Number:	003597-0375-103
Receipt Date:	27-OCT-2017
Filing Date:	17-MAR-2015
Time Stamp:	10:59:36
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		003597-0375-103-Amend.pdf	119137 53cd3dffe6bac0231334ac126a803810583ac45c	yes	6

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Amendment after Notice of Allowance (Rule 312)	1	1
	Claims	2	5
	Applicant Arguments/Remarks Made in an Amendment	6	6

Warnings:	
Information:	
Total Files Size (in bytes):	119137

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.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/660,596	03/17/2015	Charles Cordray	003597-0375-103	1084

75563 7590 11/08/2017

Haley Guiliano LLP
75 Broad Street
Suite 1000
NEW YORK, NY 10004

EXAMINER
ANDRAMUNO, FRANKLIN S

ART UNIT	PAPER NUMBER
2424	

NOTIFICATION DATE	DELIVERY MODE
11/08/2017	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):

haleyguiliano_PAIR@firsttofile.com
HGPatentDocket@hglaw.com
DocketRequests@hglaw.com

Notice of Allowability	Application No. 14/660,596	Applicant(s) CORDRAY ET AL.	
	Examiner FRANKLIN ANDRAMUNO	Art Unit 2424	AIA (First Inventor to File) Status No

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

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *10/27/2017*.
   ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on_____.
2. ☐ 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.
3. ☒ The allowed claim(s) is/are *58-71*. As a result of the allowed claim(s), 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.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   Certified copies:

   a) ☐ All b) ☐ Some *c) ☐ None of the:
   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)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
5. ☐ Examiner's Amendment/Comment
6. ☐ Examiner's Statement of Reasons for Allowance
7. ☒ Other *PTO-90C*.

/Hunter B Lonsberry/
Primary Examiner, Art Unit 2424

Petitioner Disney Ex-1004, 0453

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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
14/660,596	17 March, 2015	CORDRAY ET AL.	003597-0375-103

Haley Guiliano LLP
75 Broad Street
Suite 1000
NEW YORK, NY 10004

EXAMINER	
FRANKLIN ANDRAMUNO	
ART UNIT	**PAPER**
2424	20171101

DATE MAILED:

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

Commissioner for Patents

claims dated 10/27/2017 have been considered.

PTO-90C (Rev.04-03)

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14660596	CORDRAY ET AL.
	Examiner	Art Unit
	FRANKLIN ANDRAMUNO	2424

CPC- SEARCHED		
Symbol	Date	Examiner
h04n21/858 and h04n21/47217	11/1/2017	FA

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
725	87, 61 and 39	11/1/2017	FA

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

SEARCH NOTES		
Search Notes	Date	Examiner

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner
725	61 and 39	11/1/2017	FA
h04n21	47217	11/1/2017	FA

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14660596	CORDRAY ET AL.
	Examiner	Art Unit
	FRANKLIN ANDRAMUNO	2424

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
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☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

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Petitioner Disney Ex-1004, 0456

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14660596	CORDRAY ET AL.
	Examiner	Art Unit
	FRANKLIN ANDRAMUNO	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	11/01/2017								
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Petitioner Disney Ex-1004, 0457

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14660596	CORDRAY ET AL.
	Examiner	**Art Unit**
	FRANKLIN ANDRAMUNO	2424

CPC								
Symbol							**Type**	**Version**
H04N		21	/	44204			F	2013-01-01
H04N		21	/	47217			I	2013-01-01
G06F		3	/	0482			I	2013-01-01
H04N		5	/	782			I	2013-01-01
H04N		7	/	17318			I	2013-01-01
H04N		21	/	235			I	2013-01-01
H04N		21	/	25891			I	2013-01-01
H04N		21	/	435			I	2013-01-01
H04N		21	/	44222			I	2013-01-01
H04N		21	/	4532			I	2013-01-01
H04N		21	/	4583			I	2013-01-01
H04N		21	/	4751			I	2013-01-01
H04N		21	/	4755			I	2013-01-01
H04N		21	/	4825			I	2013-01-01
H04N		21	/	84			I	2013-01-01
H04N		21	/	858			I	2013-01-01

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

/FRANKLIN ANDRAMUNO/ Examiner.Art Unit 2424	11/01/2017	**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	14	
/HUNTER B LONSBERRY/ Primary Examiner.Art Unit 2424	11/02/2017	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	12

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14660596	CORDRAY ET AL.
	Examiner	**Art Unit**
	FRANKLIN ANDRAMUNO	2424

US ORIGINAL CLASSIFICATION		INTERNATIONAL CLASSIFICATION	
CLASS	SUBCLASS	CLAIMED	NON-CLAIMED
725	87	H 0 4 N 5 / 445 (2011.01.01)	
		H 0 4 N 7 / 173 (2011.01.01)	

CROSS REFERENCE(S)					
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)				
725	61	39			

/FRANKLIN ANDRAMUNO/ Examiner.Art Unit 2424	11/01/2017	**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	14	
/HUNTER B LONSBERRY/ Primary Examiner.Art Unit 2424	11/02/2017	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	12

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14660596	CORDRAY ET AL.
	Examiner	**Art Unit**
	FRANKLIN ANDRAMUNO	2424

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

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	58														
2	59														
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14	71														

/FRANKLIN ANDRAMUNO/ Examiner.Art Unit 2424	11/01/2017	**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	14	
/HUNTER B LONSBERRY/ Primary Examiner.Art Unit 2424	11/02/2017	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	12

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

75563 7590 10/25/2017
Haley Guiliano LLP
75 Broad Street
Suite 1000
NEW YORK, NY 10004

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission
I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/660,596	03/17/2015	Charles Cordray	003597-0375-103	1084

TITLE OF INVENTION: SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	$960	$0	$0	$960	01/25/2018

EXAMINER	ART UNIT	CLASS-SUBCLASS
ANDRAMUNO, FRANKLIN S	2424	725-087000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.
1 HALEY GUILIANO LLP
2
3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE: ROVI GUIDES, INC., San Carlos, CA, US

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☒ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:
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☐ Payment by credit card. Form PTO-2038 is attached.
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5. **Change in Entity Status** (from status indicated above)
☐ Applicant certifying micro entity status. See 37 CFR 1.29 — NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
☐ Applicant asserting small entity status. See 37 CFR 1.27 — NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
☐ Applicant changing to regular undiscounted fee status. — NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature /Jonathan Crawford/ Date November 16, 2017
Typed or printed name Jonathan Crawford Registration No. 66,605

PTOL-85 Part B (10-13) Approved for use through 10/31/2013. OMB 0651-0033 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Petitioner Disney Ex-1004, 0461

Electronic Patent Application Fee Transmittal

Application Number:	14660596
Filing Date:	17-Mar-2015
Title of Invention:	SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT
First Named Inventor/Applicant Name:	Charles Cordray
Filer:	Jonathan P. Crawford/Maria Marley
Attorney Docket Number:	003597-0375-103

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

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:				
UTILITY APPL ISSUE FEE	1501	1	960	960

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**960**

Electronic Acknowledgement Receipt

EFS ID:	30968520
Application Number:	14660596
International Application Number:	
Confirmation Number:	1084
Title of Invention:	SYSTEMS AND METHODS FOR EPISODE TRACKING IN AN INTERACTIVE MEDIA ENVIRONMENT
First Named Inventor/Applicant Name:	Charles Cordray
Customer Number:	75563
Filer:	Jonathan P. Crawford/Maria Marley
Filer Authorized By:	Jonathan P. Crawford
Attorney Docket Number:	003597-0375-103
Receipt Date:	16-NOV-2017
Filing Date:	17-MAR-2015
Time Stamp:	12:49:38
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$960
RAM confirmation Number	111617INTEFSW00015358061075
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The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.16 (National application filing, search, and examination fees)

37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Issue Fee Payment (PTO-85B)	003597-0375-103-IF.pdf	1741825 9202413f624c6c294738bd15482adafd4aeb2ca1	no	1
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30477 2438c76a9cd1f2a742dfc22e15604bfecff97d2b	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	1772302		

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New Applications Under 35 U.S.C. 111

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

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

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

New International Application Filed with the USPTO as a Receiving Office

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

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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/660,596	01/02/2018	9860595	003597-0375-103	1084

75563 7590 12/13/2017

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ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

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