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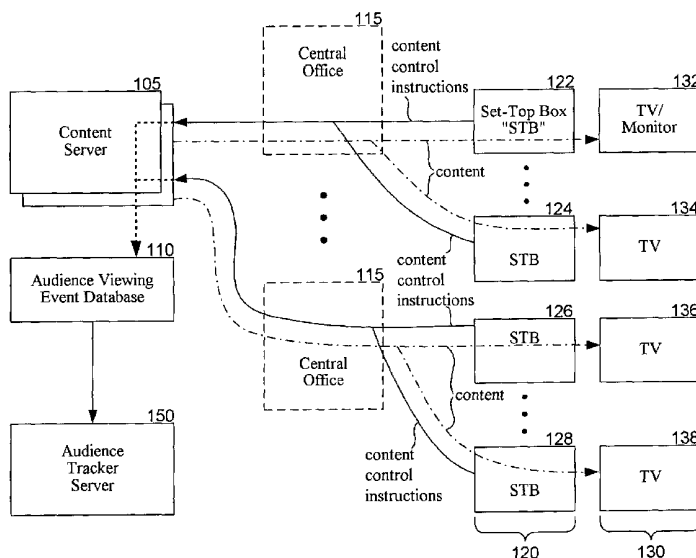
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- (74) Agents: WHITE, James, A., D. et al.; Perkins Coie LLP, P.O. Box 1247, Seattle, WA 98111-1247 (US).
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26 September 2002

[Continued on next page]

(54) Title: REAL-TIME AUDIENCE MONITORING, CONTENT RATING, AND CONTENT ENHANCING



(57) Abstract: A method, system, and computer-readable medium for collecting usage information in real-time for a computing device receiving digital content for presentation, such as to enable various types or real-time content modifications for content-related services enhancements, is described. In some situations, real-time informations is collected about Set-Top Boxes that allow viewers to receive various types of content (e.g., video broadcasts, media-on-demand, etc.) and to interact with the content and with related services in various ways, such as information about content viewing and types of viewer interactions. Having access to information related to content viewing and to various types of user interactions provides a variety of benefits, with real-time or near real-time collection of such information enabling dynamic modifications to provided content, functionality, and services.

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*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

INTERNATIONAL SEARCH REPORT

International Application No  
PCT/US 01/27344

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC 7 H04N7/173 H04H9/00		
According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b>		
Minimum documentation searched (classification system followed by classification symbols) IPC 7 H04N H04H		
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) EPO-Internal, WPI Data, PAJ		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98 31114 A (BELLSOUTH CORP) 16 July 1998 (1998-07-16)	1-5,7,8, 10,11, 13-15, 18-20, 23-35, 37-41, 43,44, 47-49
Y	page 10, line 12 - line 19 page 11, line 23 -page 12, line 1 page 12, line 18 -page 13, line 1 page 22, line 15 - line 17 page 25, line 1 - line 6 page 26, line 8 - line 10 page 28, line 11 - line 15 page 30, line 4 - line 10 --- -/--	16,42
<input checked="" type="checkbox"/> Further documents are listed in the continuation of box C. <input checked="" type="checkbox"/> 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  9 April 2002	Date of mailing of the international search report  08. 07. 2002	
Name and mailing address of the ISA 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	Authorized officer  Sindic, G	

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/US 01/27344

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 773 687 A (AT & T CORP) 14 May 1997 (1997-05-14)  page 3, line 6 - line 10 page 3, line 28 - line 44 page 4, line 9 - line 12 page 4, line 30 -page 5, line 12 page 7, line 16 - line 25 page 8, line 23 - line 47 page 10, line 11 - line 19 ---	1-8,10, 11,15, 17-20, 23-31,40
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A	column 26, line 62 -column 28, line 57 column 29, line 60 -column 30, line 49 column 34, line 14 - line 24 column 35, line 31 - line 42 column 36, line 24 - line 29 column 37, line 13 - line 20 column 37, line 33 - line 44 column 38, line 40 - line 44 ---	
Y	US 6 026 430 A (RAMACHANDRAN RAJA ET AL) 15 February 2000 (2000-02-15)  ---	16,42
A	column 28, line 21 - line 28 ---	32,47,49
A	US 6 038 601 A (VAN DER RIJN DANIEL J G ET AL) 14 March 2000 (2000-03-14) column 25, line 37 - line 62 column 26, line 63 -column 27, line 2 -----	21,22, 45,46

INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US 01/27344

**Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)**

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
  
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)**

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

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-49

**Remark on Protest**

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-49

Providing a reliable mechanism for collecting monitored data from STB

2. Claims: 50-71,96-102

Targeting content based on monitored data

3. Claims: 72-77

Detecting unauthorized viewing

4. Claims: 78-83

Allowing third-party monitoring

5. Claims: 84-88

Counting the audience of a show

6. Claims: 89-95

Adapting a user interface

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/27344

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International Application No

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