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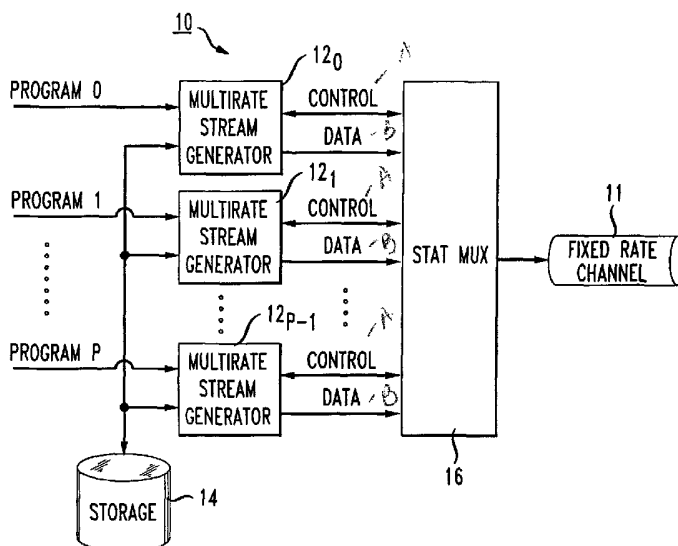
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(54) Title: VIDEO ON DEMAND SERVER SYSTEM AND METHOD



(57) Abstract: A Video-on-Demand Server architecture (100, 200, 300) transmits a plurality of pre-coded programs having different bit rates across a fixed bandwidth channel (11). For each program, a generator (120-12P-1, 110, 210) generates a plurality of different bit rate representations for each program. Each generator also provides control information at each of a plurality of successive time windows T for each bit rate representation. The control information provides a bit rate and a quality measure during each time window T. The control information enables a statistical multiplexer (16, 160, 260) to select a bit rate representation for each program during each time window T to maximize the quality of the selected representations while not exceeding the total available channel capacity.

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— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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International application No.

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| A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : H04N 7/173 US CL : 725/87, 90, 91,95, 96 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) U.S. : 725/87, 90, 91,95, 96 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched None Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Please See Continuation Sheet | | |
| C. DOCUMENTS CONSIDERED TO BE RELEVANT | | |
| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| Y | US 6,385,771 B1 (GORDON) 07 May 2002 (07.05.2002), Figs. 1-6, and column 2, line 58 to column 3, line 25. | 1-3, 10-17, 22. |
| Y | US 6,246,695 B1 (SEAZHOLTZ et al.) 12 June 2001 (12.06.2001), column 2, line 50 to column 3, line 64. | 1-3, 10-17, 22 |
| Y | US 5,812,786 A (SEAZHOLTZ) 22 September 1998 (09.22.1998), column 2, line 46 to column 3, line 64. | 1-3, 10-17, 22. |
| Y | US 5,926,649 A (MA et al.) 20 July 1999 (20.07.1999), column 6, line 30 to column 7, line 18. | 1-3, 10-17, 22. |
| Y | US 5,940,738 A (RAO) 17 August 1999 (17.08.1999), column 2, line 35 to column 4, line 35. | 1-3, 10-17, 22. |
| <input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex. | | |
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INTERNATIONAL SEARCH REPORT

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Continuation of B. FIELDS SEARCHED Item 3:

EAST.

Search terms: VOD, video on demand, different bit rate, variable rate, fixed bandwidth, bandwidth, channel, program, signal to noise, S/N, SNR, ratio, index, pre-coded, quality, encoder, digital, stream/streaming, and peak signal.