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Jones et al.

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(54) **METHOD AND APPARATUS FOR MEDIA DATA TRANSMISSION**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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(51) **Int. Cl.**⁷ **G06F 15/16**

(52) **U.S. Cl.** **709/230; 709/231; 345/327; 370/259**

(58) **Field of Search** **709/230, 231; 345/327; 370/259**

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,873,777 A 3/1975 Uehara et al.
3,932,698 A 1/1976 Yanagimachi et al.
4,688,214 A 8/1987 DeWitt et al.

(List continued on next page.)

FOREIGN PATENT DOCUMENTS

EP 0 497 449 A2 8/1992
EP 0 702 309 A1 3/1996

OTHER PUBLICATIONS

Aaron E. Walsh, "Multimedia to the Macs", Dr. Dobb's Journal, Jul. 1992, pp. 76, 78-80.

Paul England, Robert Allen, Ron Underwood, "RAVE: Real-Time Services for the Web", Computer Networks and ISDN Systems, pp. 1547-1558.

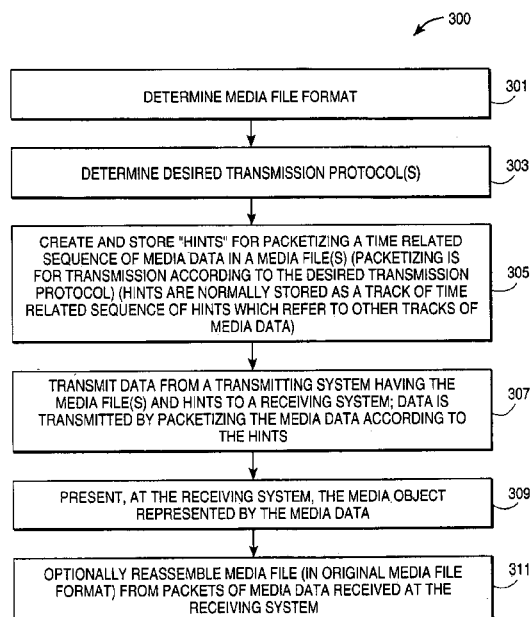
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(57) **ABSTRACT**

Methods and apparatuses for processing media data transmitted in a data communication medium. A digital processing system is provided with a time related sequence of media data provided to the digital processing system based on a set of data, wherein the set of data indicates a method to transmit the time related sequence of media data according to a transmission protocol. The set of data, itself, is a time related sequence of data associated with the time related sequence of media data. The time related sequence of media data may be presented and/or stored by the digital processing system.

32 Claims, 14 Drawing Sheets



U.S. PATENT DOCUMENTS

5,319,707 A	6/1994	Wasilewski et al.	5,818,441 A	10/1998	Throckmorton et al.
5,448,568 A	9/1995	Delpuch et al.	5,838,678 A	11/1998	Davis et al.
5,497,373 A	3/1996	Hulen et al.	5,915,094 A	6/1999	Kouloheris et al.
5,544,198 A	8/1996	Saalfank	5,928,330 A	7/1999	Goetz et al.
5,623,490 A	4/1997	Richter et al.	5,956,729 A	9/1999	Goetz et al.
5,655,117 A	8/1997	Goldberg et al.	5,966,120 A	10/1999	Arazi et al.
5,694,334 A	12/1997	Donahue et al.	5,987,501 A	11/1999	Hamilton et al.
5,774,666 A	6/1998	Portuesi	5,987,509 A	11/1999	Portuesi
5,778,187 A	7/1998	Monteiro et al.	6,055,246 A	4/2000	Jones
5,784,277 A	7/1998	Meyer	6,064,771 A	5/2000	Migdal et al.
5,799,150 A	8/1998	Hamilton et al.	6,157,674 A	12/2000	Oda et al.
5,802,294 A	9/1998	Ludwig et al.	6,175,871 B1	1/2001	Schuster et al.
			6,327,418 B1	12/2001	Barton

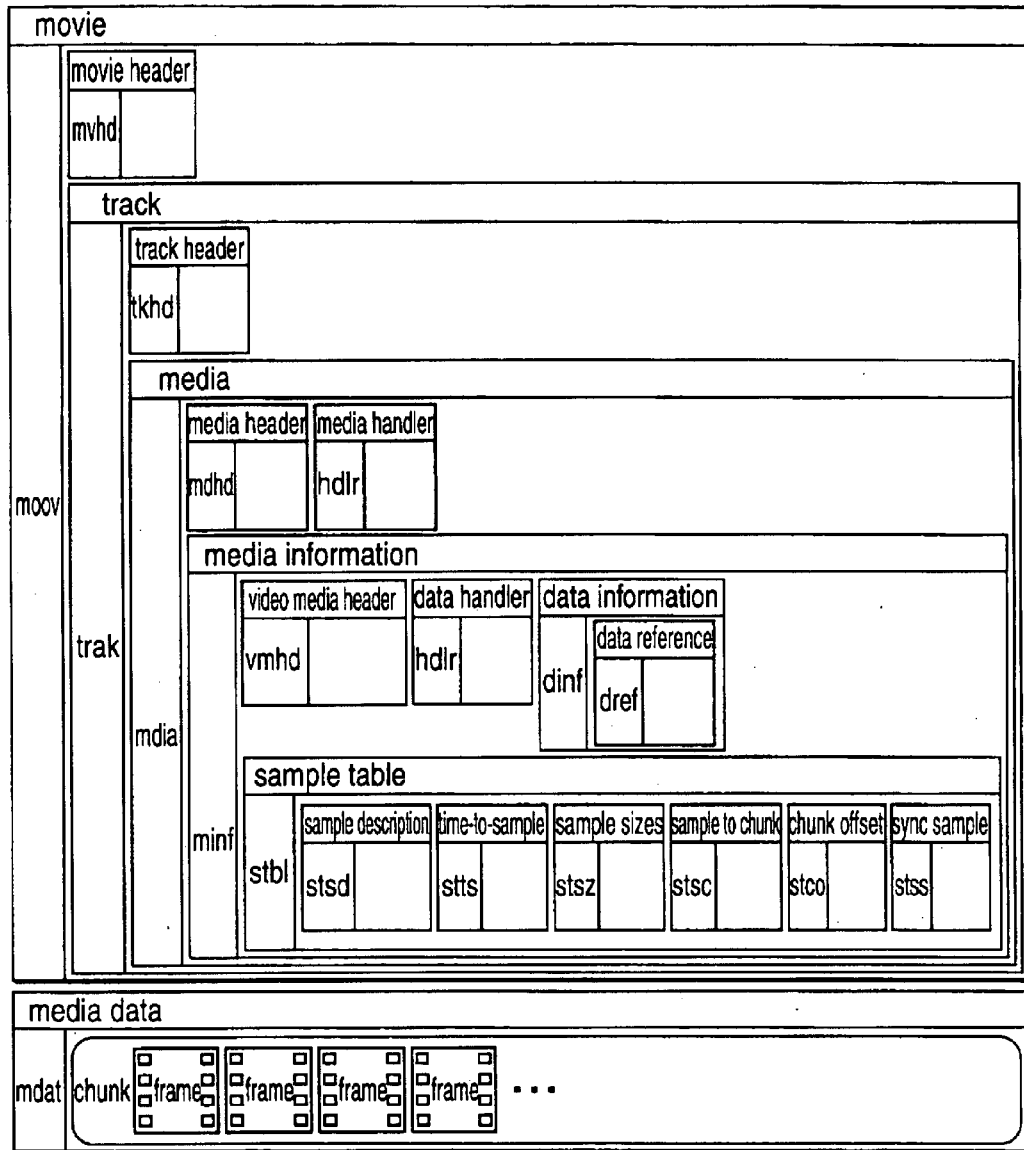


FIG. 1

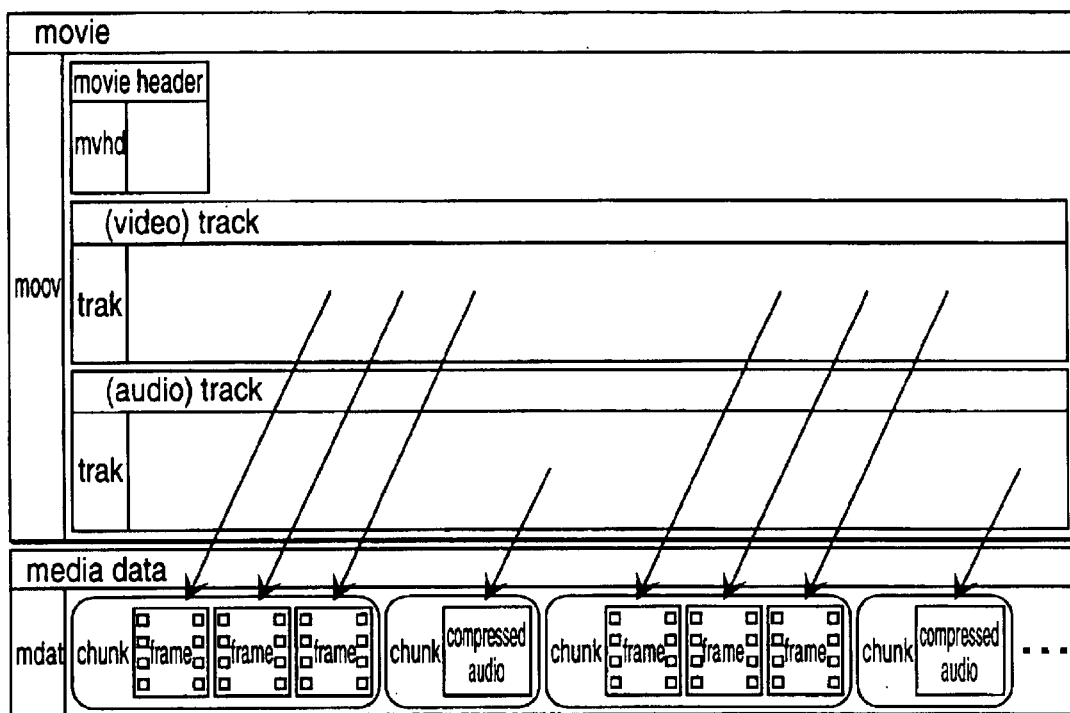


FIG. 2

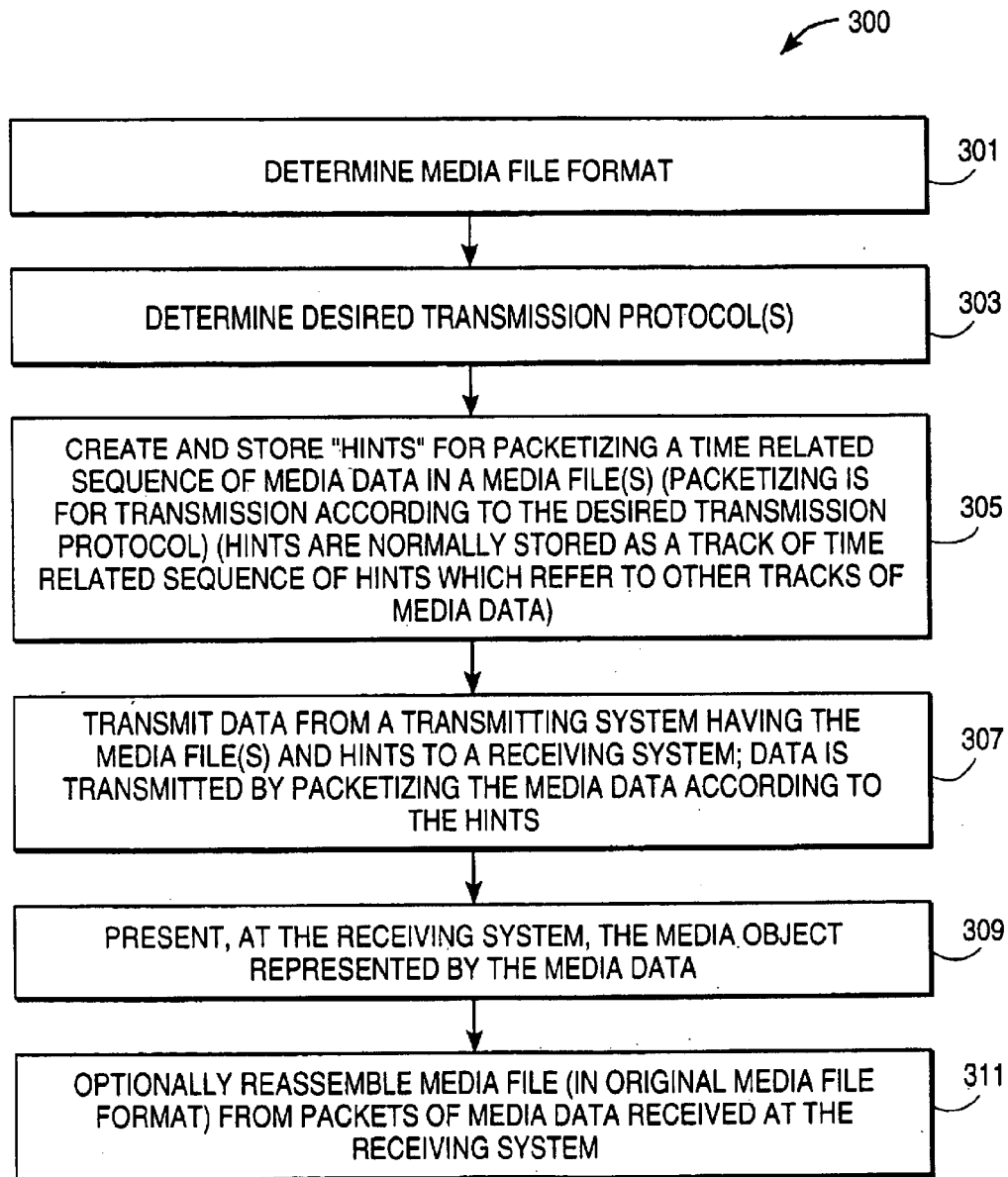


FIG. 3

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