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(54) **EASILY EXPANDABLE DATA PROCESSING SYSTEM AND METHOD**

FOREIGN PATENT DOCUMENTS

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U.S. Applications:

(63) Continuation of application No. 08/439,207, filed on May 11, 1995, now Pat. No. 5,675,779, which is a division of application No. 08/083,861, filed on Jun. 28, 1993, now Pat. No. 5,604,899, which is a continuation of application No. 07/526,424, filed on May 21, 1990, now abandoned.

(57) **ABSTRACT**

Machine automated techniques are described for a method of data processing called Relationships Processing. A computing system is disclosed which provides for the high speed recording and extraction of data objects (entities) and for the development data representing a queried relationship between the entities. The system is expandable to handle the relatively voluminous data bases of large, commercial data repositories. A user defines set of entities and allowed relationships between the entities. The user can expand this set of allowed entities and relationships at any time during the life of the system without reprogramming or compiling of computer program code or disrupting concurrent operational use of the system. Large systems can now be built that are no longer limited to a scope of design requirements known during initial systems development. For a given set of defined relationships the system allows the user to perform complex inquiries (again without programming at the code level) that would normally require multiple nested inquiries to be coded programmatically and would not achieve the performance levels of the Relationships Processor.

(51) **Int. Cl.**
G06F 17/30 (2006.01)

(52) **U.S. Cl.** **707/4; 707/2**

(58) **Field of Classification Search** **707/2,**
707/3, 101, 103 Y

See application file for complete search history.

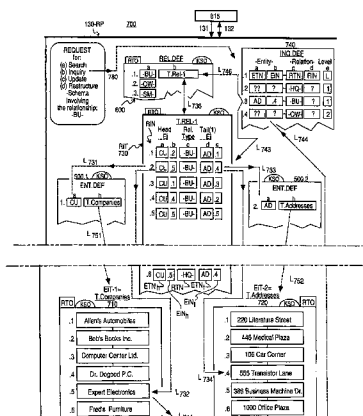
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18 Claims, 19 Drawing Sheets



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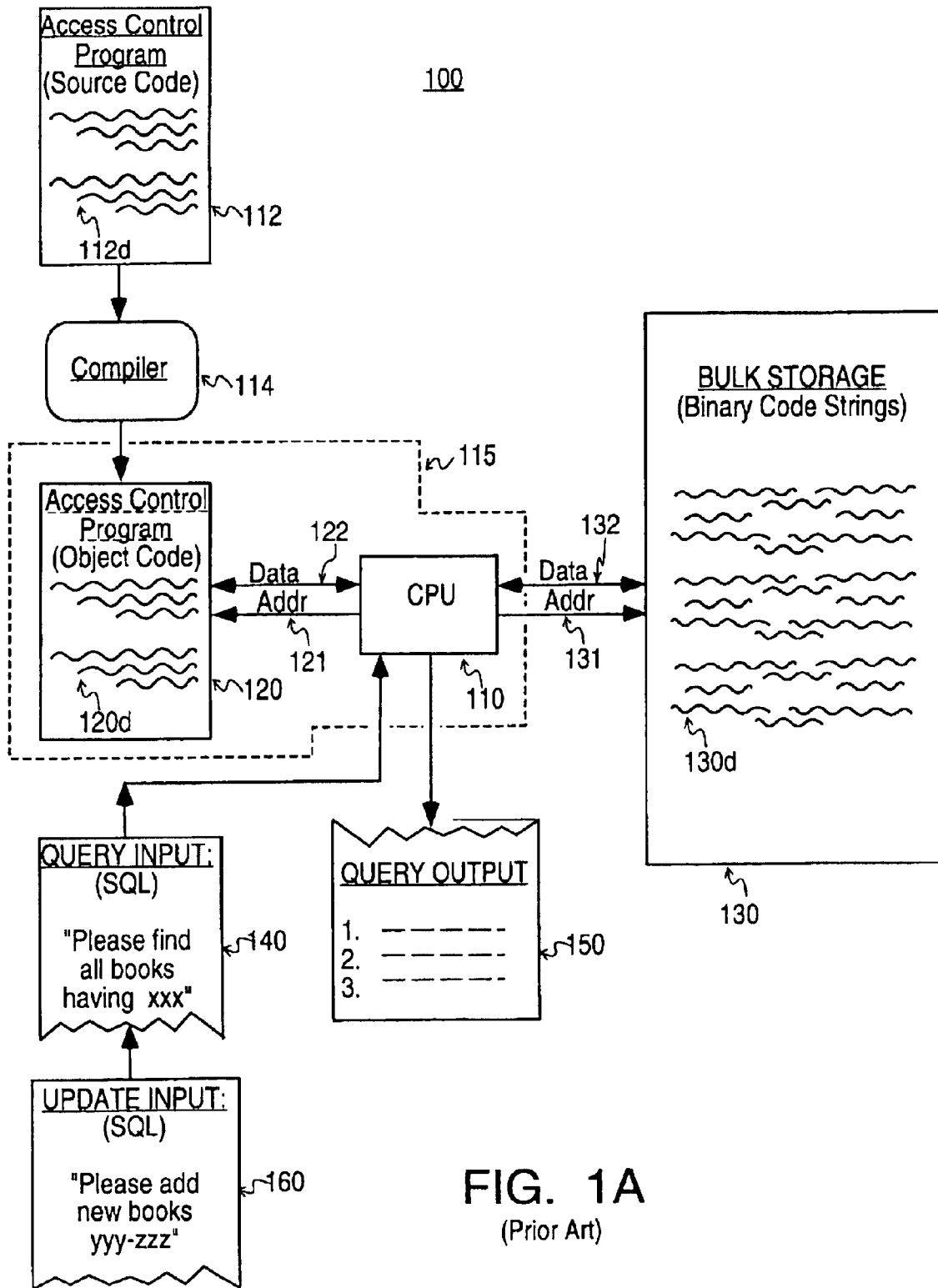


FIG. 1A
(Prior Art)

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