

# (12) EX PARTE REEXAMINATION CERTIFICATE (7285th)

# **United States Patent**

**Doktor** 

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

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(51) Int. Cl.

G06F 17/30 (2006.01)

Field of Classification Search ...... None See application file for complete search history.

(56)

#### References Cited

### U.S. PATENT DOCUMENTS

4,506,326 A 3/1985 Shaw et al. 9/1988 Kumpati 4,774,661 A 4/1990 Huber 4,918,593 A

#### OTHER PUBLICATIONS

Toby J. Teorey, et al., "A Logical Design Methodology for Relational Databases Using the Extended Entity-Relationship Model", Computing Surveys, vol. 18, No. 2, pp. 197-222 (Jun. 1986).

Daniel R. Dolk, et al., "A Relational Information Resource Dictionary System", Computing Practices, Communications of the ACM, vol. 30, No. 1 (Jan. 1987).

M. M. Zloof, "Query-by-Example: a data base language", IBM Systems Journal, No. 4, pp. 324-343 (1977).

D. Tsichritzis, "LSL: A Link and Selector Language", Proceedings of the 1976 ACM SIGMOD International Conference on Management of Data, Washington, DC, (Jun. 2-4,

Rudolph Munz, "The Well System: A Multi-User Database System Based on Bunary Relationships and Graph-Pattern-Matching", 3 Information Systems, pp. 99-115, Pergamon Press (1978).

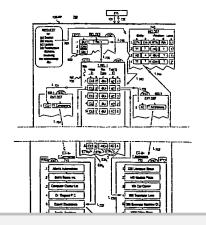
Peter Pin-Shan Chen, "The entity-relationship model-A basis for the enterprise view of data" 77 (1977).

Mark L. Gillenson, "Database Step-by-Step", pp. 141-142, 2d Ed. (1990).

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#### (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 user 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.





IBM Ex. 1027

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## 1 **EX PARTE REEXAMINATION CERTIFICATE ISSUED UNDER 35 U.S.C. 307**

NO AMENDMENTS HAVE BEEN MADE TO THE PATENT

2 AS A RESULT OF REEXAMINATION, IT HAS BEEN DETERMINED THAT:

The patentability of claims 1–18 is confirmed.

