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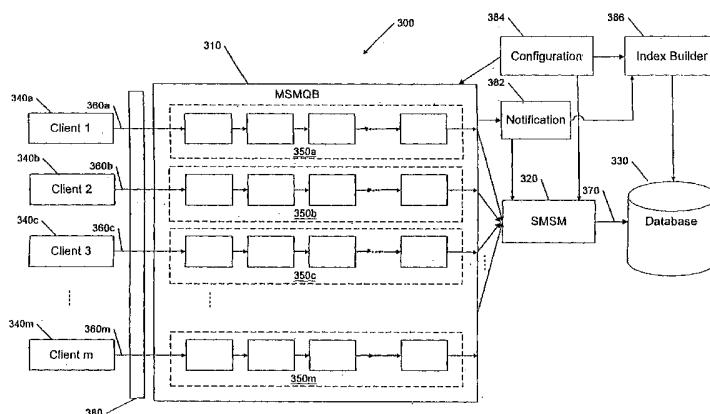
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(54) Title: SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR STORING DATA IN A DATABA USING A MULTI-THREAD SHARED MEMORY MESSAGE QUEUE BUFFER



(57) Abstract: Systems, methods and/or computer program products for storing data from multiple clients in a database include a Multi-thread Shared Memory message Queue Buffer (MSMQB) that includes multiple First-In First-Out (FIFO) queues, a respective one of which is associated with a respective one of the clients. The MSMQB is configured to store sequential bursts of data records that are received from the clients in the associated FIFO queues. The data records in the sequential bursts are sorted by a primary key. A Semi-Merge Sort Module (SMSM) also is provided that is responsive to the FIFO queues in the MSMQB. The SMSM is configured to sort the first sequential bursts in the FIFO queues based on the primary key of at least one selected record therein, to produce a semi-sorted record stream. The SMSM also serially stores the semi-sorted record stream in the database. Thus, a database can handle multiple clients and multiple bursts for high throughput writing of data into the database. Moreover, by performing a semi-merge sort, the records may be placed into the record stream based on the value of the primary key of at least one selected record, so that an efficient rough sort may be provided.



WO 03/003256 A3

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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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)

EP0-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 623 877 A (IBM) 9 November 1994 (1994-11-09) page 2, line 1 -page 5, line 45; claims 1,5; figures ----	1-56
X	BARCLAY T ET AL: "Loading Databases Using Dataflow Parallelism" SIGMOD RECORD, ASSOCIATION FOR COMPUTING MACHINERY, NEW YORK, US, vol. 23, no. 4, 31 December 1994 (1994-12-31), pages 72-83, XP002207697 page 74, left-hand column, paragraph 1 -page 75, left-hand column, paragraph 9 page 79, left-hand column, paragraph 3 -page 80, right-hand column, paragraph 1 ----- -/--	1-56

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 058 389 A (RIZVI HASAN ET AL) 2 May 2000 (2000-05-02) column 3, line 1 - line 30 column 6, line 45 -column 20, line 30 ---	1-56
A	GRAY J ET AL: "Transaction Processing: Concepts and Techniques" TRANSACTION PROCESSING: CONCEPTS AND TECHNIQUES, XX, XX, 1993, pages 333-347, 496-499, XP002207245 page 333, paragraph 2 -page 336, paragraph 2 -----	1-56

INTERNATIONAL SEARCH REPORT

information on patent family members

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