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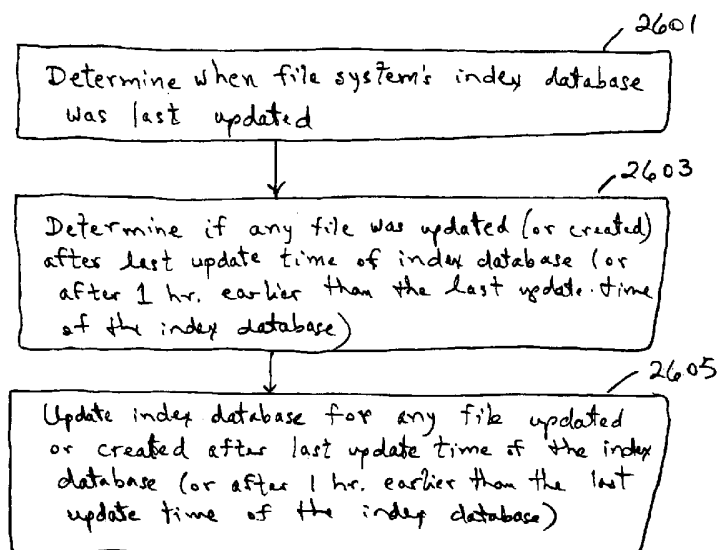
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[Continued on next page]

(54) Title: METHODS AND SYSTEMS FOR INDEXING FILES AND ADDING ASSOCIATED METADATA TO INDEX AND METADATA DATABASES



(57) Abstract: Systems and methods for managing data, such as metadata or index databases. In one exemplary method, a notification that an existing file has been modified or that a new file has been created is received by an indexing software component, which then, in response to the notification performs an indexing operation, where the notification is either not based solely on time or user input or the notification includes an identifier that identifies the file. Other methods in data processing systems and machine readable media are also described.

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

PCT/US2005/022537

A. CLASSIFICATION OF SUBJECT MATTER

G06F17/30

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)
G06F

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)

EPO-Internal, WPI Data, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	US 6 067 541 A (RAJU ET AL) 23 May 2000 (2000-05-23) abstract	1-87, 103-115, 121-123 88-102, 116-120
A	US 6 401 097 B1 (MCCOTTER THOMAS M ET AL) 4 June 2002 (2002-06-04) the whole document	1-123
A	US 5 890 147 A (PELTONEN ET AL) 30 March 1999 (1999-03-30) the whole document	1-123
X A	US 2003/084087 A1 (BERRY JON R) 1 May 2003 (2003-05-01) paragraph '0127! - paragraph '0132!; figures 10A,10B	88-102, 116-120 1-87, 103-115, 121-123



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

° Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

30 December 2005

Date of mailing of the international search report

12.01.2006

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INTERNATIONAL SEARCH REPORT

PCT/US2005/022537

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-87,103-115,121-123

Determination whether to index files or to add metadata of the files to a metadata database. The determination is based on e.g. the state of a file (i.e. being created, modified or deleted) or the time of write operations.

2. claims: 88-102,116-120

Indexing operations of files are adjusted in response to the monitoring of a user's use of a data processing system.

INTERNATIONAL SEARCH REPORT

PCT/US2005/022537

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 6067541	A	23-05-2000	EP	1023677 A1	02-08-2000
			JP	3556170 B2	18-08-2004
			JP	2001516928 T	02-10-2001
			WO	9914692 A1	25-03-1999
US 6401097	B1	04-06-2002	NONE		
US 5890147	A	30-03-1999	EP	0920666 A2	09-06-1999
			JP	2000510986 T	22-08-2000
			WO	9839700 A2	11-09-1998
US 2003084087	A1	01-05-2003	NONE		