METHOD OF ORGANISING, INTERROGATING AND NAVIGATING A DATABASE

1. All navigation starts at the Origin within the Decision Graph.
2. Decision Nodes within the Decision Graph are followed until a Conclusion Set is found or no further navigation is possible.
3. All key entries in the Conclusion Set are scanned to find the required keys.

Abstract: A database is provided in which an index (2) for the database is provided as a hierarchical structure of nodes that are navigated during a search until a conclusion set is reached, and the structure is organised such that key information relation to nodes is inferred from the position of the node in the structure.
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

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.

(88) Date of publication of the international search report:
12 September 2003
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G06F 17/30

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)

IPC 7 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)

WPI Data, EPO-Internal, INSPEC, IBM-TDB, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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<tbody>
<tr>
<td>A.P</td>
<td>US 6 208 897 B1 (GLINER BRADFORD E ET AL) 27 March 2001 (2001-03-27)</td>
<td>1,47,55, 64,69, 71,72, 74,81, 83,84, 86,87, 90,91, 99,104</td>
</tr>
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[X] Further documents are listed in the continuation of box C.  [X] 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
* "D" 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 could not 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 could not be considered to involve an inventive step when the document is considered with one or more other documents, such combination being obvious to a person skilled in the art

"A" document member of the same patent family

Date of the actual completion of the international search: 28 April 2003

Date of mailing of the international search report: 21 July 2003

Name and mailing address of the ISA

European Patent Office, P.B. 5618 Patentiliaan 2 NL - 2280 HV Spijkenisse
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016

Authorized officer

Bowler, A
<table>
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<tr>
<td>A</td>
<td>US 5 899 992 A (WANG MIN ET AL) 4 May 1999 (1999-05-04)</td>
<td>1,47,55, 64,69, 71,72, 74,81, 83,86, 87,90, 91,99, 104</td>
</tr>
</tbody>
</table>

column 2, line 7 -column 27  
column 3, line 50 -column 7, line 40  
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INTERNATIONAL SEARCH REPORT

Box I  Observations where certain claims were found unsearable (Continuation of Item 1 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 II  Observations where unity of invention is lacking (Continuation of Item 2 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. [X] 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.:

   1-46,47,55-63,64-68,74,83,86-103 and 69-73,81-82,84-85,104

Remark on Protest

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

[ ] No protest accompanied the payment of additional search fees.

Form PCT/IA/210 (continuation of first sheet (1)) (July 1998)
This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-46, 47, 55-63, 64-68, 74, 83, 86-103 and 69-73, 81-82, 84-85, 104

   A method for organizing a database comprising an index and data, a database according to the method and computer instructions for carrying out the method, respectively.

2. Claims: 48, 77

   A database keys encoding method and computer readable instructions.

3. Claims: 49-50, 75, 76

   A method of navigating a database with a range of keys and computer readable instructions therefore.


   A method of managing keys in a database and a data field indicating a time duration for which the keys should be maintained and computer readable instructions for performing the method of claims 51-54.
<table>
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<tr>
<th>Patent document cited in search report</th>
<th>Publication date</th>
<th>Patent family member(s)</th>
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<tr>
<td>US 6208897</td>
<td>B1</td>
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