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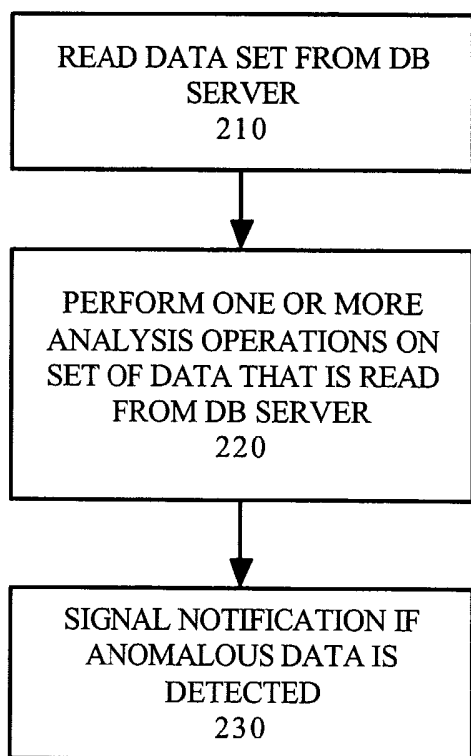
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60/378,604 6 May 2002 (06.05.2002) US
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(54) Title: METHOD AND APPARATUS FOR MONITORING A DATABASE SYSTEM



(57) Abstract: Techniques are provided for monitoring a database system. A set of data elements may be read from a database system into a device. The device may be external to the database system. From the device, a set of analysis operations are performed on the data elements in order to identify if any of the data elements satisfy a criteria for being considered potentially anomalous. A notification is signaled if potentially anomalous data is identified.

WO 2003/073332 A3



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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**

International Application No

PCT/US 03/05673

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 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)  
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)

EPO-Internal, INSPEC

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>CHUNG C Y ET AL: "DEMIDS: a misuse detection system for database systems" INTEGRITY AND INTERNAL CONTROL IN INFORMATION SYSTEMS: STRATEGIC VIEWS ON THE NEED FOR CONTROL. IFIP TC11 WG11.5 THIRD WORKING CONFERENCE, PROCEEDINGS OF 3RD INTERNATIONAL WORKING CONFERENCE ON INTEGRITY AND INTERNAL CONTROL IN INFORMATION SYSTEMS, A, pages 1-21, XP002262247 2000, Norwell, MA, USA, Kluwer Academic Publishers, USA ISBN: 0-7923-7821-0 abstract page 4, last paragraph -page 6, paragraph 3 page 17, paragraph 4 -page 18, paragraph 4 page 19, paragraph 4</p> <p align="center">-/--</p>	1-46

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
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- \*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

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- \*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

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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 03/05673

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>TURKER C ET AL: "Semantic integrity support in SQL:1999 and commercial (object-)relational database management systems" VLDB JOURNAL, DEC. 2001, SPRINGER-VERLAG, GERMANY, vol. 10, no. 4, pages 241-269, XP002262248 ISSN: 1066-8888 abstract page 243, right-hand column, paragraph 2 - paragraph 3 page 244, left-hand column, last paragraph -right-hand column, paragraph 4 page 248, right-hand column, paragraph 5 -page 250, left-hand column, paragraph 4</p>	1-46
A	<p>MCAULIFFE N ET AL: "Is your computer being misused? A survey of current intrusion detection system technology" COMPUTER SECURITY APPLICATIONS CONFERENCE, 1990., PROCEEDINGS OF THE SIXTH ANNUAL TUCSON, AZ, USA 3-7 DEC. 1990, LOS ALAMITOS, CA, USA, IEEE COMPUT. SOC, US, 3 December 1990 (1990-12-03), pages 260-272, XP010021644 ISBN: 0-8186-2105-2 abstract page 262, left-hand column, paragraph 3 page 263, left-hand column, paragraph 2 -page 264, left-hand column, paragraph 2 page 267, left-hand column, paragraph 2 -page 268, left-hand column, paragraph 3</p>	1-46
A	<p>BIERMANN E ET AL: "A comparison of Intrusion Detection systems" COMPUTERS &amp; SECURITY. INTERNATIONAL JOURNAL DEVOTED TO THE STUDY OF TECHNICAL AND FINANCIAL ASPECTS OF COMPUTER SECURITY, ELSEVIER SCIENCE PUBLISHERS. AMSTERDAM, NL, vol. 20, no. 8, 1 December 2001 (2001-12-01), pages 676-683, XP004329578 ISSN: 0167-4048 abstract; tables 1-3</p>	1-46
A	<p>US 6 041 327 A (GLITHO ROCH ET AL) 21 March 2000 (2000-03-21) abstract</p>	1,6,7
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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 03/05673

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>LIN J-L ET AL: "ABSTRACTION-BASED MISUSE            DETECTION: HIGH-LEVEL SPECIFICATIONS AND            ADAPTABLE STRATEGIES"            PROCEEDINGS. THE IEEE COMPUTER SECURITY            FOUNDATIONS WORKSHOP,            June 1998 (1998-06), pages 190-201,            XP002938218            abstract            page 191, left-hand column, paragraph 3            -page 192, right-hand column, paragraph 1;            figure 2</p> <p style="text-align: center;">-----</p>	1-46

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 03/05673

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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		WO 9931566 A1	24-06-1999

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