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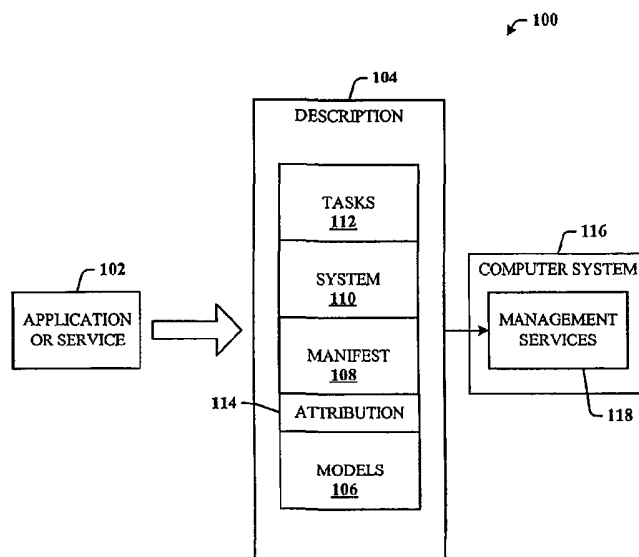
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[Continued on next page]

(54) Title: MODEL-BASED MANAGEMENT OF COMPUTER SYSTEMS AND DISTRIBUTED APPLICATIONS



(57) Abstract: Model-based application management architecture. A developer can describe an application or service (102) in terms of its constituent components. Desired states can be described in terms of functionality, configuration, security, and performance. The description is employed at application installation to configure management services (118), which services help to ensure availability of the application through automatic management actions, such as configuration management, problem detection, diagnosis, and recovery.



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INTERNATIONAL SEARCH REPORT

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PCT/US04/22378

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G06F/9/44

US CL : 709/120

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)

U.S. : 709/120 717/120, 100-104, 117, 121-127, 168-178; 709/220-226, 230; 719/310, 328, 313-317; 707/100, 20, 202, 203

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 practicable, search terms used)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Binoy Ravindran, Engineering Dynamic Real-Time Distributed Systems: Architecture, system Description Language, and Middleware, IEEE, TRansactions on Software Engineering, Vol 28, No. 1, January 2002, Abstract, Introduction, section 7.	1-17; 21-40
Y	Engineering, Vol. 28, No. 1, January 2002, Abstract, Intorduction, section 7 Berners-Lee, Uniform Resource Identifiers (URI): Generic Syntax, Xerox Corporation, August 1998, Abstract.	18-20
Y	US 6,138,168 A (KELLY et al.) 24 October 2000 (24.10.2000), Abstract.	1-40
Y,P	US 2004/0181541 A1 (GROENEDAAL et al.) 16 September 2004 (16.09.2004), Abstract.	1-40
Y,E	US 2005/0172306 A1 (AGARWAL et al) 04 August 2005 (04.08.2005), FIG. 6 and related text.	1-40
Y	US 2002/0059425 A1 (BELFIORE et al) 16 May 2002 (16.05.2002), Abstract.	1-40
Y,P	US 2004/0031038 A1 (HUGLY et al) 12 February 2004 (12.02.2004), FIG. 3 and related text.	1-40



Further documents are listed in the continuation of Box C.



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"A"	document defining the general state of the art which is not considered to be of particular relevance	"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
"E"	earlier application or patent published on or after the international filing date	"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
"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)	"&"	document member of the same patent family
"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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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/22378

Continuation of B. FIELDS SEARCHED Item 3:

USPAT; US-PGPUB, EPO, JPO, DERWENT, IBM_TDB;

Search terms; architecture, "distributed computing system", integrat\$3, phases, model, meang\$5, descri\$5, configur\$5, resource, performance, install\$5, detect\$3, recover\$3, attribut\$3, manifest, rule defin\$5, application defin\$5, rule descri\$5, application descri\$5, dependenc\$3, diagno\$4, notif\$7, automat\$3 task, defin\$5 language, avail\$5, state, subxc\$5, collect\$3, poll\$3

INTERNATIONAL SEARCH REPORTInternational application No.
PCT/US04/22378**C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6,012,152 A (DOUIK et al) 04 January 2000 (04.01.2000), Abstract.	1-40
Y,E	US 2005/0097146 A1 (KONSTANTINOOU et al) 05 May 2005 (05.05.2005), paragraph [0070].	1-40