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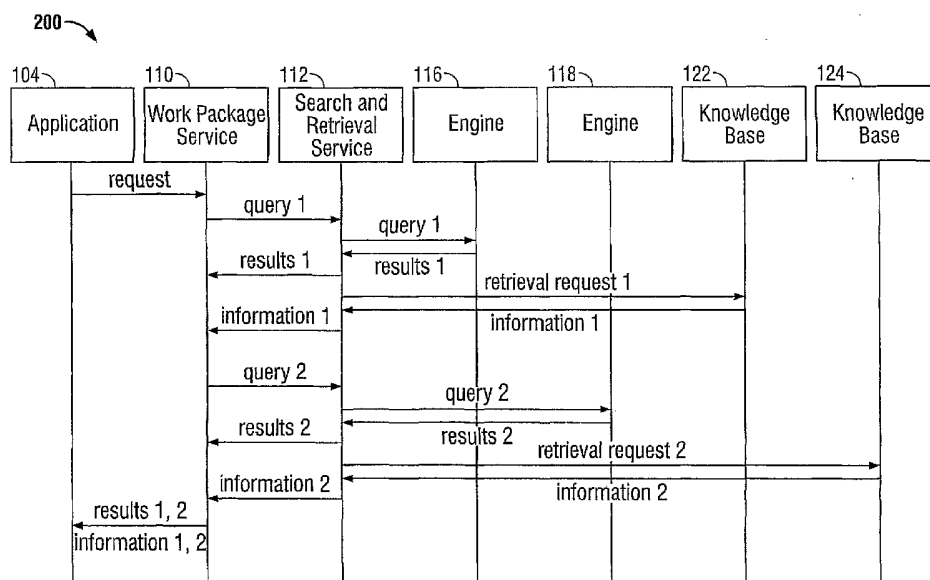
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[Continued on next page]

(54) Title: SEARCH RESULT BASED AUTOMATIC QUERY REFORMULATION



(57) Abstract: One embodiment of the invention provides a computer-implemented method for obtaining information contained in multiple knowledge bases. In this embodiment, the method includes receiving a request for information from an application system, using the request to create a first search query, and using the first search query to obtain a first search result that includes information contained in a first knowledge base. The method further includes using the first search result to automatically create a second search query, and using the second search query to obtain a second search result that includes information contained in a second knowledge base.



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INTERNATIONAL SEARCH REPORT

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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, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 02/27541 A (INTEL CORPORATION; ZHOU, JOE, F; LIU, WEIQUAN) 4 April 2002 (2002-04-04) abstract; claims 1-3	1-13
X	EP 1 003 111 A (HITACHI, LTD) 24 May 2000 (2000-05-24) abstract; claims 1,2	1-13
X	US 2003/126235 A1 (CHANDRASEKAR RAMAN ET AL) 3 July 2003 (2003-07-03) abstract; claims 1,10,11	1-13
X	US 6 078 917 A (PAULSEN, JR. ET AL) 20 June 2000 (2000-06-20) abstract; claim 1	1-13
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☒ Patent family members are listed in annex.

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INTERNATIONAL SEARCH REPORT

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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.
X	PATENT ABSTRACTS OF JAPAN vol. 1997, no. 03, 31 March 1997 (1997-03-31) & JP 08 287103 A (FUJI XEROX CO LTD), 1 November 1996 (1996-11-01) abstract -----	1-13
X	WO 00/54185 A (THE PROCTER & GAMBLE COMPANY) 14 September 2000 (2000-09-14) abstract; claim 1 -----	1-13
X	WO 99/66427 A (AMAZON.COM) 23 December 1999 (1999-12-23) abstract; claim 1 -----	1-13
A	US 2003/028512 A1 (STENSMO J. MAGNUS) 6 February 2003 (2003-02-06) abstract; claim 1 -----	1-13
A	EP 1 202 187 A (MICROSOFT CORPORATION) 2 May 2002 (2002-05-02) abstract -----	1-13

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/008951

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0227541	A	04-04-2002	WO 0227541 A1	04-04-2002
			AU 6816200 A	08-04-2002
EP 1003111	A	24-05-2000	JP 2000155758 A	06-06-2000
			EP 1003111 A1	24-05-2000
			US 2002078030 A1	20-06-2002
			US 6584460 B1	24-06-2003
US 2003126235	A1	03-07-2003	NONE	
US 6078917	A	20-06-2000	NONE	
JP 08287103	A	01-11-1996	JP 2900832 B2	02-06-1999
WO 0054185	A	14-09-2000	AU 4007000 A	28-09-2000
			EP 1212697 A1	12-06-2002
			WO 0054185 A1	14-09-2000
WO 9966427	A	23-12-1999	US 6006225 A	21-12-1999
			AU 4678399 A	05-01-2000
			CA 2334792 A1	23-12-1999
			EP 1104567 A1	06-06-2001
			JP 2002518748 T	25-06-2002
			WO 9966427 A1	23-12-1999
			US 6169986 B1	02-01-2001
US 2003028512	A1	06-02-2003	US 2002194158 A1	19-12-2002
EP 1202187	A	02-05-2002	EP 1202187 A2	02-05-2002
			JP 2002197117 A	12-07-2002
			US 2004267740 A1	30-12-2004
			US 2005055344 A1	10-03-2005