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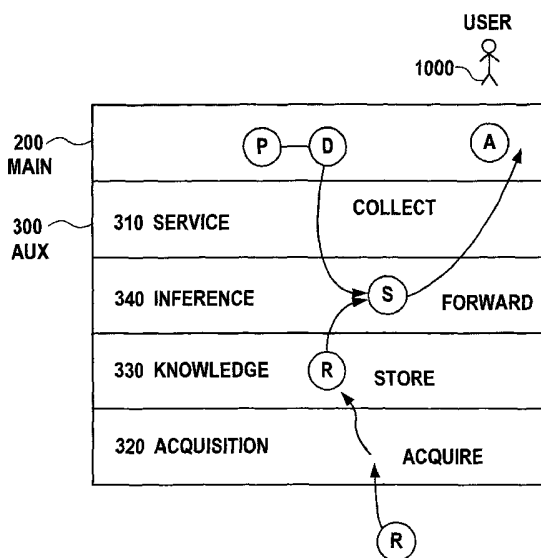
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(75) Inventor/Applicant (for US only): AREND, Thomas [DE/DE]; N 4, 15, 68161 Mannheim (DE).

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(57) Abstract: A computer system (200/300) has a main system (200) to execute an application (A) in cooperation with a human user (1000). The auxiliary system (300) evaluates problems (P) in the main system (200). The auxiliary system (300) has a service module (310) to collect problem related data (D) from the main system (200), an acquisition module (320) to acquire knowledge representations (R), a knowledge module (330) to store knowledge representations (R), an inference module (340) for processing problem related data (D) with knowledge representations (R) to identify solutions (S) and for forwarding the solutions (S) through the service module (310) to the main system (200). The auxiliary system (200) distinguishes context of the problems (P) and distinguishes versions of the main system (200).

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A. CLASSIFICATION OF SUBJECT MATTER IPC 7 G06N5/02		
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B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC 7 G06N 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, PAJ		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 295 525 B1 (GRAHAM JAMEY ET AL)	1
X	25 September 2001 (2001-09-25) abstract column 1, line 42 - line 51 column 2, line 9 - line 46 column 5, line 52 - line 60 column 13, line 9 - line 26 ----- -/--	12
<input checked="" type="checkbox"/> Further documents are listed in the continuation of box C.		
<input checked="" type="checkbox"/> 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 16 April 2004		Date of mailing of the international search report 06/05/2004
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016		Authorized officer Kingma, Y

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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.
A	<p>SHUTT T S ET AL: "COPRA: Computer Operations Problem Resolution Assistant" 1 March 1993 (1993-03-01), PROCEEDINGS OF THE CONFERENCE ON ARTIFICIAL INTELLIGENCE FOR APPLICATIONS. ORLANDO, MAR. 1 - 5, 1993, LOS ALAMITOS, IEEE COMP. SOC. PRESS, US, VOL. CONF. 9, PAGE(S) 107-113 , XP010125568 ISBN: 0-8186-3840-0 abstract page 108, right-hand column, line 47 - page 109, left-hand column, line 18 -----</p>	1,12

INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
US 6295525	B1	25-09-2001	US 6049792 A	11-04-2000
			US 6041182 A	21-03-2000
			US 5546502 A	13-08-1996
			US 2001051938 A1	13-12-2001
			GB 2329989 A ,B	07-04-1999
			HK 1019797 A1	13-07-2001
			JP 11167452 A	22-06-1999
			DE 616288 T1	30-11-1995
			EP 0616288 A2	21-09-1994
			JP 6274300 A	30-09-1994
			JP 2004046813 A	12-02-2004
