

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
17 February 2005 (17.02.2005)

PCT

(10) International Publication Number
WO 2005/015436 A3

(51) International Patent Classification⁷: **G06F 17/30**, 9/40

(21) International Application Number:
PCT/EP2004/007379

(22) International Filing Date: 6 July 2004 (06.07.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/489,573 22 July 2003 (22.07.2003) US
10/747,020 23 December 2003 (23.12.2003) US

(71) Applicant (for all designated States except US): **SAP AK-TIENGESSELLSCHAFT** [DE/DE]; Neurottstr. 16, 69190 Walldorf (DE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BRENDLE, Rainer** [DE/DE]; Adalbert-Seifriz-Str. 28, 69151 Neckargemuend (DE). **BRUNSWIG, Frank** [DE/DE]; Oberer Rainweg 18, 69118 Heidelberg (DE). **DIETL, Josef** [DE/DE]; Theodor-Heuss-Str. 69, 69226 Nussloch (DE). **KRANE, Rolf** [DE/DE]; Muenchaeckerweg 16, 69168 Wiesloch

(DE). **REMMELE, Juergen** [DE/DE]; Adenauerstr. 69, 69242 Muehlhausen (DE). **RITTER, Stephan** [DE/DE]; Bergstr. 27A, 66130 Saarbruecken (DE). **VIEGENER, Johannes** [DE/DE]; Indianaring 7, 76149 Karlsruhe (DE).

(74) Agent: **SCHIUMA, Daniele**; Müller-Borè & Partner, Grafinger Str. 2, 81671 München (DE).

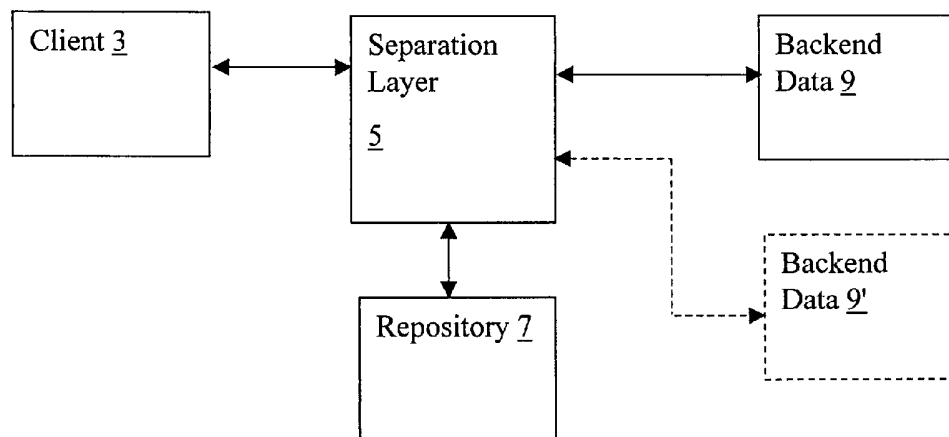
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,

[Continued on next page]

(54) Title: SELF DESCRIBING BUSINESS OBJECTS

2



(57) Abstract: Methods and apparatus, including computer program products, that include representing, in a repository, services from a server, the services including interacting with one or more collections of data elements using a set of operations on the data elements in the collections, the repository comprising descriptions of the collections and common attributes for each collection, the repository organized according to a meta model. The method also includes enabling a software entity to request a service represented in the repository, the service representing a first operation on one or more data elements in a first collection from the collections, and executing the first operation on the one or more data elements in the first collection.



FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

(88) Date of publication of the international search report:
19 May 2005

Published:

- with international search report
- 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.

INTERNATIONAL SEARCH REPORT

PCT/EP2004/007379

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 G06F17/30 G06F9/40

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, WPI Data, PAJ, INSPEC, COMPENDEX, IBM-TDB

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 081 609 A (COGNOS INCORPORATED) 7 March 2001 (2001-03-07) abstract paragraph '0010! - paragraph '0011! paragraph '0023! paragraph '0035! - paragraph '0036!; figure 3 paragraph '0040! - paragraph '0047!; figure 2B paragraph '0069!; figure 2 ----- -/--	1-28

☒ 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
- *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.
- *Z* document member of the same patent family

Date of the actual completion of the international search

4 March 2005

Date of mailing of the international search report

11/03/2005

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

Pose Rodríguez, J

INTERNATIONAL SEARCH REPORT

PCT/EP2004/007379

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01/75679 A (METAMATRIX, INC; SCANLON, ROBERT; MILLER, ALEX, M; WOLFANGEL, STEVEN;) 11 October 2001 (2001-10-11) abstract page 4, line 20 - page 5, line 28 page 10, line 11 - page 11, line 20; figure 1 page 11, line 21 - line 27; figure 2 page 13, line 6 - page 14, line 5; figure 3 claims 1,2 -----	1-28
A	US 5 644 720 A (BOLL ET AL) 1 July 1997 (1997-07-01) the whole document -----	1,15
A	HONG S ET AL: "Using a metamodel to represent object-oriented data models" PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON DATA ENGINEERING. LOS ANGELES, FEB. 5 - 9, 1990, LOS ALAMITOS, IEEE. COMP. SOC. PRESS, US, vol. CONF. 6, 5 February 1990 (1990-02-05), pages 11-19, XP010018249 ISBN: 0-8186-2025-0 the whole document -----	4,8
A	US 6 016 499 A (FERGUSON ET AL) 18 January 2000 (2000-01-18) abstract column 2, line 20 - line 42 column 5, line 8 - line 39 column 6, line 28 - line 40; figure 1 column 7, line 53 - column 8, line 20; figure 3 -----	1-28

INTERNATIONAL SEARCH REPORT

PCT/EP2004/007379

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
EP 1081609	A	07-03-2001	CA	2281331 A1	03-03-2001
			US	6609123 B1	19-08-2003
			US	6662188 B1	09-12-2003
			CA	2317166 A1	03-03-2001
			CA	2317194 A1	03-03-2001
			CA	2318302 A1	03-03-2001
			EP	1081609 A2	07-03-2001
			EP	1081610 A2	07-03-2001
			EP	1081611 A2	07-03-2001
WO 0175679	A	11-10-2001	AU	5313601 A	15-10-2001
			EP	1277138 A1	22-01-2003
			WO	0175679 A1	11-10-2001
US 5644720	A	01-07-1997	NONE		
US 6016499	A	18-01-2000	NONE		