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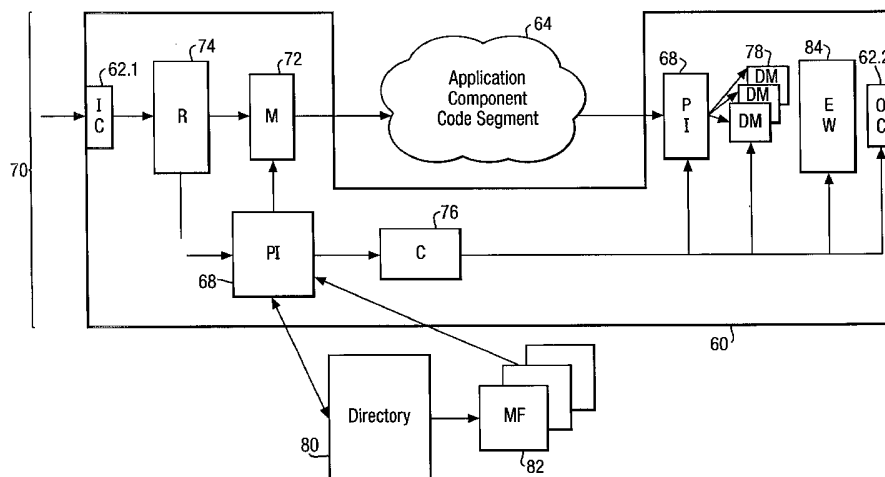
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: COMPUTER APPLICATION FRAMEWORK

(57) Abstract: An application framework supports at least one application that includes one or more application components. The framework includes a directory providing a logical definition of the application. The logical definition is referenced by an application context identifier and provides logical definitions of the application components that make ap the application. It further includes references to physical instances of the application components. An application component includes a harness that contains an application component code segment for a predetermined application context. The harness forms an interface between the application component code segment and an exterior of the application component. The harness is operable to apply a predetermined mapping for the application context to map between an external format for communication external to the application component and an internal format understandable to the application component code segment. In a particular example, LDAP is used as the directory protocol and XML is used to communicate between the framework and the application components and between application components.

INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7   G06F9/46

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category°	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 832 219 A (PETTUS CHRISTOPHER E) 3 November 1998 (1998-11-03) abstract column 5, line 15 -column 5, line 47 column 8, line 48 -column 9, line 47 column 13, line 26 -column 14, line 58 --- -/--	1-25, 31-34

[X] Further documents are listed in the continuation of box C.   [X] 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	Date of mailing of the international search report
13 May 2003	31.07.03
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 Skomorowski, M

Form PCT/ISA/210 (second sheet) (July 1992)

INTERNATIONAL SEARCH REPORT

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category°	Citation of document, with indication,where appropriate, of the relevant passages	Relevant to claim No.
X	DANIEL J ET AL: "Active COM: an inter-working framework for CORBA and DCOM" DISTRIBUTED OBJECTS AND APPLICATIONS, 1999. PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON EDINBURGH, UK 5-6 SEPT. 1999, LOS ALAMITOS, CA, USA,IEEE COMPUT. SOC, US, 5 September 1999 (1999-09-05), pages 211-222, XP010352179 ISBN: 0-7695-0182-6 page 211, column 2, line 22 -page 214, column 1, line 12 page 217, column 1, line 8 - line 18 page 218; figure 9	1-25, 31-34
X	CHANG P L ET AL: "DCOM AND CORBA SIDE BY SIDE, STEP BY STEP, AND LAYER BY LAYER" C PLUS PLUS REPORT, SIGS PUBLICATIONS, INC. NEWYORK, NY, US, vol. 10, no. 1, January 1998 (1998-01), pages 18-29,40, XP000938180 ISSN: 1040-6042 page 19, column 1, line 27 - line 37 page 20, column 2, line 4 - line 13 page 22, column 1, line 15 - line 23 page 24, column 1, line 23 -page 26, column 1, line 6	1-25, 31-34

| Box I | Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet) |

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

| Box II | Observations where unity of invention is lacking (Continuation of item 2 of first sheet) |

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-25, 31-34

Remark on Protest   ☐ The additional search fees were accompanied by the applicant's protest.

☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-25 31-34

   An application framework to provide transparent interoperation of components that are distributed across a heterogeneous network.

2. Claims: 26-30

   Method of introducing code segments around components ('harness') that performs data format mapping between the interior of said components and the exterior.

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 5832219	A	03-11-1998	US	6223217 B1	24-04-2001