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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

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(54) Title: TAGGED TRACING, LOGGING AND PERFORMANCE MEASUREMENTS

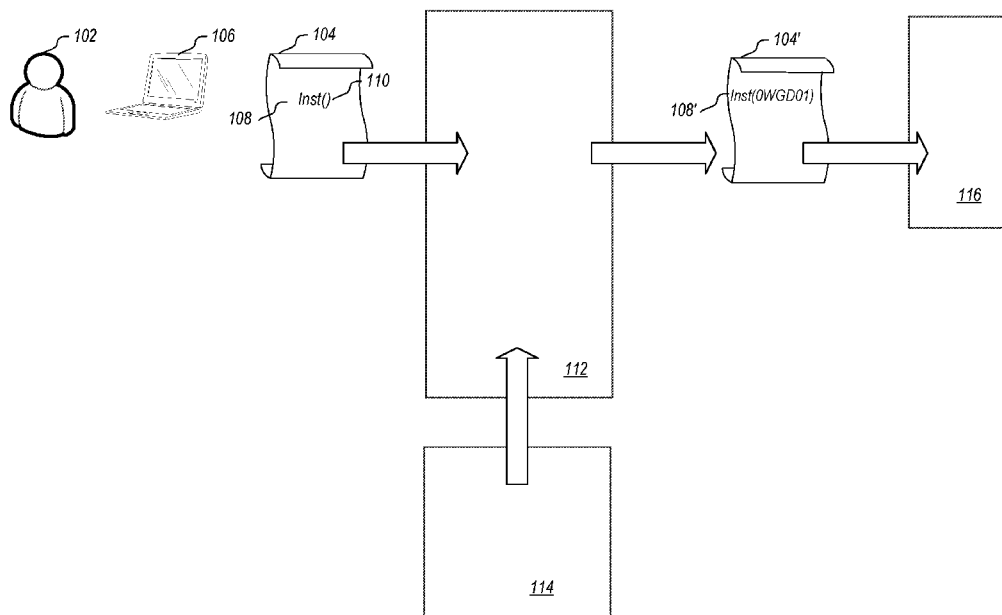


Figure 1

(57) Abstract: Instrumenting code. One embodiment includes identifying a line of source code having an incomplete instrumentation. A unique identifier tag is obtained from an identifier source. The unique identifier tag is inserted into the instrumentation.



EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV,
MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM,
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2017/024401

A. CLASSIFICATION OF SUBJECT MATTER
INV. G06F11/34 G06F11/36 G06F9/45 G06F9/44
ADD.
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)
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 practicable, 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 Y	US 6 311 327 B1 (O'BRIEN STEPHEN CAINE [US] ET AL) 30 October 2001 (2001-10-30) abstract column 3, line 28 - column 4, line 4 column 6, line 55 - column 8, line 17 column 9, line 29 - column 10, line 29 -----	1-3, 12-14 4-11,15
Y	US 2005/138111 A1 (ATON TODD R [US] ET AL) 23 June 2005 (2005-06-23) abstract paragraphs [0044], [0045] -----	4-8,15
A	US 2009/187890 A1 (BRANDA STEVEN J [US] ET AL) 23 July 2009 (2009-07-23) the whole document ----- -/--	4-8,15

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance	"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
"E" earlier application or patent but published on or after the international filing date	"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
"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)	"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
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 28 September 2017	Date of mailing of the international search report 09/10/2017
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Leuridan, Koen
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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2017/024401

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 7 735 073 B1 (KOSCHE NICOLAI [US] ET AL) 8 June 2010 (2010-06-08) abstract; figures 2, 14 column 2, line 22 - line 36 column 4, line 65 - column 5, line 64 column 6, line 11 - line 65 column 7, line 31 - column 8, line 44 column 10, line 20 - line 38 column 11, line 17 - line 48 column 12, line 25 - line 45 column 13, line 55 - column 14, line 25 -----	1,9-11
Y	US 7 698 692 B1 (GARUD CHANDRASHEKHAR [US] ET AL) 13 April 2010 (2010-04-13)	9-11
A	abstract column 3, line 9 - line 28 column 6, line 27 - column 7, line 50 column 9, line 48 - line 59 column 10, line 59 - column 12, line 3 -----	4-8

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2017/024401

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 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 No. III Observations where unity of invention is lacking (Continuation of item 3 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 fees, this Authority did not invite payment of additional fees.

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.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- 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: 1-3, 12-14

A system and corresponding method of automatically instrumenting code

2. claims: 4-8, 15

A system and corresponding method to use the instrumentation to log information indicating source code which is executed

3. claims: 9-11

A system for counting the number of times particular lines of source code are executed

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2017/024401

Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
US 6311327	B1	30-10-2001	US 6311327 B1	30-10-2001
			US 2002095660 A1	18-07-2002

US 2005138111	A1	23-06-2005	NONE	

US 2009187890	A1	23-07-2009	NONE	

US 7735073	B1	08-06-2010	NONE	

US 7698692	B1	13-04-2010	NONE	
