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(54) **Title:** SYSTEM REPRESENTATION AND HANDLING TECHNIQUES

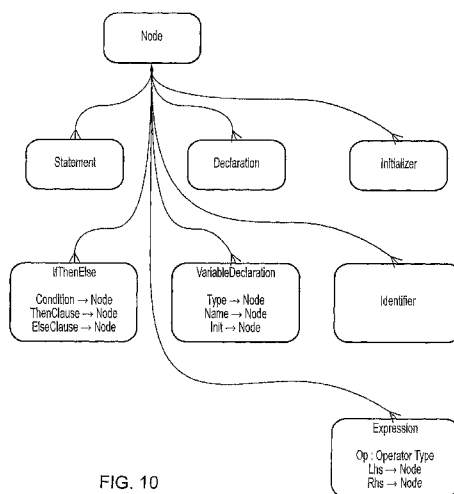


FIG. 10

(57) **Abstract:** An implementation tool for generating an implementation of a first data structure, wherein the first data structure comprises a plurality of linked structural components, and wherein the first data structure represents meaningful components of a given system and a parent set of interrelationships between those meaningful components, the tool comprising: first-data-structure input means, operable to receive a said first data structure, or a description thereof; and processing means operable to generate an implementation of the received first data structure, the implementation comprising: a second data structure, or a description thereof, corresponding to said first data structure, wherein said second data structure is defined by a subset of the parent set of interrelationships; and implementation rules which allow the parent set of interrelationships to be enforced during a subsequent processing operation which utilises said implementation.



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INTERNATIONAL SEARCH REPORT

International application No
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A. CLASSIFICATION OF SUBJECT MATTER INV. G06F9/44 G06F9/45				
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 practical, search terms used) EPO-Internal, WPI Data				
C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
X	MUCHNIK S: "Advanced Compiler Design and Implementation" 1997, MORGAN KAUFMANN, XP002479081 chapter 4 -----	1-23, 52-53, 55-57		
X	WEATHERLEY R: "TreeCC: An Aspect-Oriented Approach to Writing Compilers" FREE SOFTWARE MAGAZINE, [Online] 2002, XP002479080 Retrieved from the Internet: URL: http://rholbert.colug.net/english/FSM/ISSUE02/treecc.pdf [retrieved on 2008-04-30] the whole document -----	1-23, 52-53, 55-57		
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<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> <input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. </td> <td style="width: 50%; border: none;"> <input checked="" type="checkbox"/> See patent family annex. </td> </tr> </table>			<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C.	<input checked="" type="checkbox"/> See patent family annex.
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C.	<input checked="" type="checkbox"/> See patent family annex.			
* Special categories of cited documents :				
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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 <p style="text-align: center; font-size: 1.2em;">26 November 2009</p>		Date of mailing of the international search report <p style="text-align: center; font-size: 1.2em;">02/12/2009</p>		
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 <p style="text-align: center; font-size: 1.2em;">Rackl, Günther</p>		

INTERNATIONAL SEARCH REPORT

International application No

PCT/GB2009/000552

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>BUTLER G ET AL: "Yoocla: a parser generator for l-attributed grammars" TECHNOLOGY OF OBJECT-ORIENTED LANGUAGES AND SYSTEMS, 2000. TOOLS-PACIFIC 2000. PROCEEDINGS. 37TH INTERNATIONAL CONFERENCE ON NOVEMBER 20-23, 2000, PISCATAWAY, NJ, USA, IEEE, 20 November 2000 (2000-11-20), pages 214-225, XP010527800 ISBN: 978-0-7695-0918-1 sections 4-7</p>	1-23, 52-53, 55-57
A	<p>US 5 488 727 A (AGRAWAL RAKESH [US] ET AL) 30 January 1996 (1996-01-30) claim 1</p>	10,14-15
X	<p>TERRENCE PARR ET AL.: "ANTLR Reference Manual"</p> <p>19 January 2003 (2003-01-19), XP007906461 Retrieved from the Internet: URL:http://www.lsi.us.es/{troyano/documentos/antlr.pdf [retrieved on 2008-11-24] page 5 page 14 - page 19 page 62 - page 68 page 91 - page 101 page 113 - page 118 page 88 page 130 - page 133</p>	1-57
X	<p>Wanjun Wang: "JTB Java Tree Builder Documentation"</p> <p>1 August 2000 (2000-08-01), XP007906462 Retrieved from the Internet: URL:http://compilers.cs.ucla.edu/jtb/jtb-2003/docs.html [retrieved on 2008-11-24] the whole document</p>	1,22-24, 49-51,54

INTERNATIONAL SEARCH REPORT

International application No.
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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: 1-23, 52-53, 55-57

Generating an implementation of a first data structure comprising linked structural components.

2. claims: 24-50, 54

Operating on a candidate instance of a generated second data structure.

3. claim: 51

Extending a system by adapting a first data structure.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/GB2009/000552

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5488727	A	US 5696974 A	09-12-1997
