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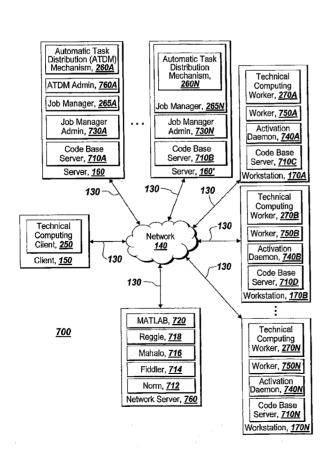
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[Continued on next page]

(54) Title: INSTRUMENT-BASED DISTRIBUTED COMPUTING SYSTEMS



(57) Abstract: An instrument-based distributed computing system is disclosed that accelerates the measurement, analysis, verification and validation of data in a distributed computing environment. A large computing work can be performed in a distributed fashion using the instrument-based distributed system. The instrument-based distributed system may include a client that creates a job. The job may include one or more tasks. The client may distribute a portion of the job to one or more remote workers on a network. The client may reside in an instrument. One or more workers may also reside in instruments. The workers execute the received portion of the job and may return execution results to the client. As such, the present invention allows the use of instrument-based distributed system on a network to conduct the job and facilitate decreasing the time for executing the job.



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FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, 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).

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INTERNATIONAL SEARCH REPORT

International application No PCT/US2006/047302

A. CLASSII INV.	FICATION OF SUBJECT MATTER G06F9/50			
According to International Patent Classification (IPC) or to both national classification and IPC				
B. FIELDS SEARCHED				
Minimum do G06F	ocumentation searched (classification system followed by classification	n symbols)		
Documental	tion searched other than minimum documentation to the extent that s	ich documents are included in th	e fields searched	
	lata base consulted during the international search (name of data bas	e and, where practical, search te	erms used)	
C. DOCUM	ENTS CONSIDERED TO BE RELEVANT			
Category*	Citation of document, with indication, where appropriate, of the rele	vant passages	Relevant to claim No.	
X	PAWLETTA S ET AL: "A MATLAB TOOL DISTRIBUTED AND PARALLEL PROCESSI INTERNET CITATION, [Online] 1995, XP007900389 Retrieved from the Internet: URL:http://citeseer.ist.psu.edu/crs/cs/2321/http:zSzzSzwww.mb.hs wismar.dezSzMitarbeiterzSzPawletthungzSzPublikationenzSzzz9 5_matlab95.pdf/pawletta95matlab.pthe whole document	NG" ache/pape azSzForsc	1-6, 9-21, 26-31, 34,35, 37-46, 51-57, 59,60	
X Furt	her documents are listed in the continuation of Box C.	See patent family annex	ζ.	
 "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 mailing of the international search report		
Date of the actual completion of the international search 27 March 2007		09/08/2007		
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk		Authorized officer		
Tel. (+31–70) 340–2040, Tx. 31 651 epo nì, Fax: (+31–70) 340–3016		Kielhöfer, Patrick		

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2006/047302

C(Continua	ontinuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	
X	YING CHEN ET AL: "MATLAB*G: A GRID-BASED PARALLEL MATLAB" INTERNET CITATION, [Online] 20 January 2004 (2004-01-20), XP007900391 Retrieved from the Internet: URL:http://ntu-cg.ntu.edu.sg/Grid_competition/report/grid-9.pdf> [retrieved on 2006-04-06] the whole document	1-6, 9-21, 26-31, 34,35, 37-46, 51-57, 59,60	
X	CLEVE MOLER: "WHY THERE ISN'T A PARALLEL MATLAB. OUR EXPERIENCE HAS MADE US Skeptical" INTERNET CITATION, [Online] 1995, XP007900495 Retrieved from the Internet: URL:http://www.mathworks.com/company/newsletters/news_notes/pdf/spr95cleve.p> [retrieved on 2006-04-07] the whole document	1-6, 9-21, 26-31, 34,35, 37-46, 51-57, 59,60	
X	ANNE E TREFETHEN AND VIJAY S MENON AND CHI-CHAO CHANG AND GRZEGORZ CZAJKOWSKI AND CHRIS MYERS AND LLOYD N TREFETHEN: "MULTIMATLAB: MATLAB ON MULTIPLE PROCESSORS (TR96-1586)" INTERNET CITATION, [Online] 1996, XP001237268 Retrieved from the Internet: URL:http://citeseer.ist.psu.edu/cache/papers/cs/2361/ftp:zSzzSzftp.tc.cornell.eduzSzpubzSztech.reportszSztr239.pdf/trefethen96multimatlab.pdf> the whole document	1-6, 9-21, 26-31, 34,35, 37-46, 51-57, 59,60	

International application No. PCT/US2006/047302

INTERNATIONAL SEARCH REPORT

Box 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:				
Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:				
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 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				
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.:				
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.: see additional sheet(s)				
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: 1-6,9-21,26-31,34,35,37-46,51-57,59,60

Method, medium and instrument for performing distributed processing $% \left(1\right) =\left(1\right) \left(1\right) +\left(1\right) \left(1\right) \left(1\right) +\left(1\right) \left(1$

2. claims: 7,8,32,33,36,58,63

Method, medium, instrument and system for interacting with a measurement functionality ${\bf r}$

3. claims: 22-25,47-50,61,62

Method, medium and instrument for computing on a graphics processing unit