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(54) Title: PROCESS AUTOMATION SYSTEM AND METHOD EMPLOYING MULTI-STAGE REPORT GENERATION

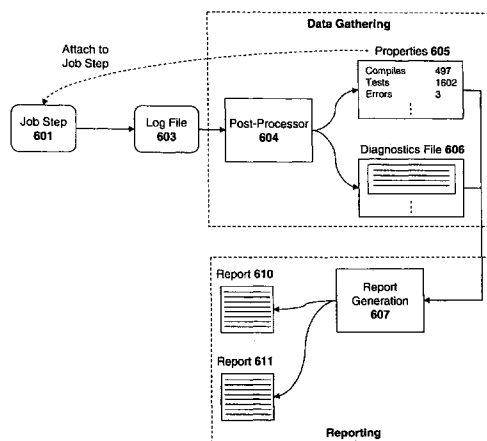


Fig. 6

(57) Abstract: The embodiments of the invention described herein employ sophisticated techniques for managing distributed processes in a process automation system. Specifically, one embodiment of the invention implements a general purpose property mechanism in which arbitrary data is attached to any object in the system (e.g., projects, procedures, jobs, job steps, resources, etc.), thereby providing a convenient way to configure the system without modifyhg the underlying program code. In addition, advanced report generation techniques are described below in which the report generation process is logically separated into a data gathering stage and a report generation stage. The data gathering stage extracts (604) certain specified properties (605) and diagnostic information (606) from each job step (601). The extracted information is then stored in a highly flexible, reusable data format which is used to create (607) different types of user-configurable reports (610, 611).

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US07/21314

A. CLASSIFICATION OF SUBJECT MATTER

IPC: G06F 9/44(2006.01)

USPC: 717/103,120,127

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)
U.S. : 717/103,120,127

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)
US-PGPUB, USPAT, EPO, JPO, DERWENT, 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	US 2004/0205565 A1 (GUPTA) 14 October 2004 (14.10.2004), especially paragraphs [0027], [0039], [0046] and [0049]-[0055].	8-14
A	US 2004/0254919 A1 (GIUSEPPINI) 16 December 2004 (16.12.2004).	8-14

Further documents are listed in the continuation of Box C.

See patent family annex.

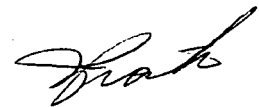
* Special categories of cited documents:	"T"	"X"	"Y"	"&"
"A" document defining the general state of the art which is not considered to be of particular relevance	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention	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	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
"E" earlier application or patent published on or after the international filing date				
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"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				

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US07/21314

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.: 1-7 and 15-21
because they relate to subject matter not required to be searched by this Authority, namely:
Claims 1-7 and 15-21 are directed to mere presentations of information.

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:

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 additional fees, this Authority did not invite payment
of any 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.