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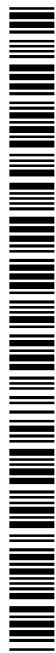


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(54) Title: ADAPTIVE MULTI-PROTOCOL COMMUNICATIONS SYSTEM

(57) Abstract: An adaptive multi-protocol communications system provides a plurality of single computer interface cards connected to a common backplane or interconnect. Each interface card sends and receives bit streams of a specific application protocol, exchanging data between possibly differing application protocols. The interface card feeds the incoming binary stream into a finite state machine dedicated to converting a specific application protocol bit stream into a multi-dimensional matrix representation for a particular communication protocol, e.g., EDI, XML, or the invention's intermediate translation representation. The invention uses finite state machines to convert from the initial communication protocol bit stream to the invention's intermediate representation. A finite state machine on a receiving interface card is used to convert the incoming bit stream into an intermediate language multi-dimensional matrix and passes the matrix to a destination interface card which has a finite state machine used to convert the intermediate language multi-dimensional matrix to an application protocol bit stream. The application protocol bit stream is then sent to a receiving computer system.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/13182

<b>A. CLASSIFICATION OF SUBJECT MATTER</b>																	
IPC(7) :G06F 15/16; H04J 3/16 US CL :709/250, 228; 370/466 According to International Patent Classification (IPC) or to both national classification and IPC																	
<b>B. FIELDS SEARCHED</b>																	
Minimum documentation searched (classification system followed by classification symbols) U.S. : 709/2050, 228, 328, 318; 370/466																	
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)																	
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>																	
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.															
Y	US 6,111, 893 A (VOLFTSUN et al) 29 August 2000, col. 6, line 23 - col. 32, line 35.	1-68															
A	US 5,826,030A (HEBERT) 20 October 1998, col. 5, line 6 - col. 22, line 67.	1-68															
Y	US 5,555,415A (ALLEN) 10 September 1996, col. 13, line 50 - col. 21, line 34.	1-68															
A	US 5,680,552A (NETRAVALI et al) 21 October 1997, col. 3, line 65 - col. 16, line 52.	1-68															
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.																	
* Special categories of cited documents: <table border="0" style="width:100%"> <tr> <td style="width:40%">"A" document defining the general state of the art which is not considered to be of particular relevance</td> <td style="width:10%">"T"</td> <td>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</td> </tr> <tr> <td>"E" earlier document published on or after the international filing date</td> <td>"X"</td> <td>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</td> </tr> <tr> <td>"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)</td> <td>"Y"</td> <td>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</td> </tr> <tr> <td>"O" document referring to an oral disclosure, use, exhibition or other means</td> <td>"&amp;"</td> <td>document member of the same patent family</td> </tr> <tr> <td>"P" document published prior to the international filing date but later than the priority date claimed</td> <td></td> <td></td> </tr> </table>			"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 document 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		
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