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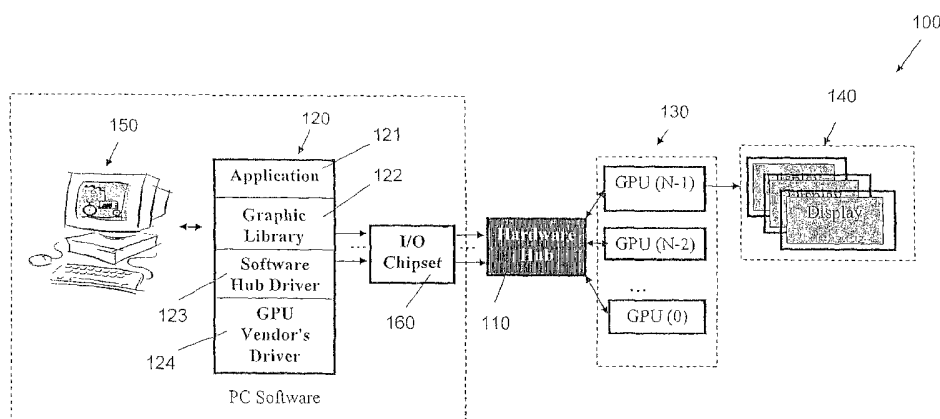
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[Continued on next page]

(54) Title: METHOD AND SYSTEM FOR MULTIPLE 3-D GRAPHIC PIPELINE OVER A PC BUS



(57) Abstract: Method and system for improving the parallelization of image processing, using one or more parallelization modes, wherein the image that is displayed on at least one computer screen by one or more Graphics Processing Units (GPUs) (130). Software applications (121) are provided for issuing graphics command and graphics libraries (122) are provided for storing data used to implement the graphics commands. A Software Hub Drivers (123) is provided for controlling a Hardware Hub (110), for performing real-time analysis of a data stream, from which frames of the image are generated, for determining the parallelization mode of each GPU, and for forwarding the data stream or a portion thereof to each GPU. GPU Drivers (124) are provided for allowing the GPUs to interact with the graphics libraries and an I/O module (160) is provided for interconnecting between the Software module and the Hardware Hub.

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— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/IL04/01069

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) : G06F 15/80  
 US CL : 345/505

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. : 345/501-503, 505, 519, 520; 718/100, 102, 104, 105, 107; 719/321-324, 327, 328.

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
 none

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
 Please See Continuation Sheet

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,745,762 A (CELL, Jr. et al) 28 April 1998, Figures 1 and 2; abstract, col. 1, lines 50-60; col. 2, lines 12-28, lines 60-64; col. 3, lines 12-14, 23-45; col. 4, lines 30-67; col. 5, lines 1-64; col. 6, lines 26-67; col. 12, lines 22-67; col. 13, line 4 to col. 15, line 41.	1-11 and 13
Y	US 5,757,385 A (NARAYANASWAMI et al) 26 May 1998, Figures 2-4; col. 2, line 65 to col. 5, line 43; col. 5, line 64 to col. 7, line 3.	1-11 and 13
A	US 6,362,825 A (JOHNSON) 26 March 2002, Fig. 3. and col. 7, line 62 to col. 8, line 59.	1-13
Y	MOLNAR et al, PixelFlow: High-Speed Rendering Using Image Composition, Computer Graphics, Vol. 26, No. 2, July 1992, Fig. 1a and 1B, pages 231-237.	1-11 and 13
A	LI et al, ParVox - A Parallel Splatting Volume Rendering System for Distributed Visualization, IEEE Symposium on Parallel Rendering, Oct 1997, pages 9-11.	1-13

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:	"T"
"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
"E" earlier application or patent 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
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"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

Date of mailing of the international search report

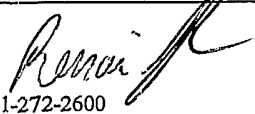
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**INTERNATIONAL SEARCH REPORT**

International application No.  
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Continuation of B. FIELDS SEARCHED Item 3:

DATABASES: EAST, ACM and IEEE; search terms: load balance, parallel processing, graphics driver, application program interface.