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(51) International Patent Classification ⁷ : G06F 9/30, 9/38, 9/34, 9/28, 9/42	A3	(11) International Publication Number: WO 00/04484 (43) International Publication Date: 27 January 2000 (27.01.00)
(21) International Application Number: PCT/US99/16193 (22) International Filing Date: 15 July 1999 (15.07.99) (30) Priority Data: 60/093,165 17 July 1998 (17.07.98) US (71) Applicant: INTERGRAPH CORPORATION [US/US]; One Madison Industrial Park, Huntsville, AL 35894-0001 (US). (72) Inventors: BRETHOUR, Vernon; 2950 Hampton Cove Way, Owens Cross Roads, AL 35763 (US). KIRKLAND, Dale; 106 Spring Water Drive, Madison, AL 35758 (US). LAZENBY, William; 108 Willow Valley Drive, Madison, AL 35749 (US). SHELTON, Gary; 116 Branchwater Lane, Huntsville, AL 35806 (US). (74) Agents: SUNSTEIN, Bruce, D. et al.; Bromberg & Sunstein LLP, 125 Summer Street, Boston, MA 02110-1618 (US).		(81) Designated States: European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i> (88) Date of publication of the international search report: 6 July 2000 (06.07.00)
(54) Title: WIDE INSTRUCTION WORD GRAPHICS PROCESSOR (57) Abstract A graphics accelerator includes a vertex input for receiving vertex data, an output for forwarding processed data, and a processor coupled with the vertex input and output. The graphics accelerator also includes an instruction input that receives instructions for processing the vertex data received from the vertex input. The processor is responsive to wide word instructions.		

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 99/16193

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G06F9/30 G06F9/38 G06F9/34 G06F9/28 G06F9/42

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)

IPC 7 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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	RATHNAM AND SLAVENBURG: "Processing the new world of interactive media" IEEE SIGNAL PROCESSING MAGAZINE, vol. 15, no. 2, March 1998 (1998-03), pages 108-117, XP002121705	1,20
Y	us the whole document	2-4, 21-23
Y	US 5 313 551 A (LABROUSSE JEAN-MICHEL J ET AL) 17 May 1994 (1994-05-17)	2-4, 21-23
A	the whole document	5-9, 24-34
A	EP 0 735 463 A (SUN MICROSYSTEMS INC) 2 October 1996 (1996-10-02) see page 4, line 30 - page 5, line 5 ; page 7 last paragraph; claims	5,6,26, 28
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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- *Z* document member of the same patent family

Date of the actual completion of the international search

18 February 2000

Date of mailing of the international search report

11.04.00

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International Application No

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 717 908 A (DULONG CAROLE) 10 February 1998 (1998-02-10) column 9, line 6 -column 12, line 25 ---	10-12
A	US 5 666 510 A (HAYAKAWA YUKIHIIDE ET AL) 9 September 1997 (1997-09-09) the whole document ---	10-12
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A	GB 2 216 307 A (ARDENT COMPUTER CORP) 4 October 1989 (1989-10-04) the whole document ---	10,11
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X	US 3 689 895 A (KITAMURA TAKUO) 5 September 1972 (1972-09-05) column 3, line 42 -column 4, line 12 ---	14,17
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A	MITHANI AND MOLLER: "Microprogram sequencer handles a system's interrupts in real time" ELECTRONIC DESIGN, vol. 33, no. 1, January 1985 (1985-01), pages 319-324,326,328, XP002130596 Hasbrook Heights, New Jersey, US page 323, left-hand column, line 44 -page 326, right-hand column, line 12; figure 3 ---	17
A	US 5 329 615 A (PEASLEE JOHN M ET AL) 12 July 1994 (1994-07-12) column 2, line 1 -column 3, line 43 column 9, line 1 - line 68 ---	18,19
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INTERNATIONAL SEARCH REPORT

International Application No
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 604 695 A (BRADLEY JOHN J ET AL) 5 August 1986 (1986-08-05) column 15, line 18 - line 58 column 20, line 58 - line 62 -----	18,19

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 99/16193

Box I Observations where certain claims were found unsearchable (Continuation of item 1 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 II Observations where unity of invention is lacking (Continuation of item 2 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 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.:
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.
- ☒ 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: 1-9, 20-35

Graphics processing apparatus with reduced register file

2. Claims: 10-13

Computer with multiple data store addressing modes

3. Claims: 14-17

Graphics processing apparatus with shared control store

4. Claims: 18-19

Graphics processing apparatus with non-overflowing stack

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Information on patent family members

In ternational Application No

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