

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
7 August 2003 (07.08.2003)

PCT

(10) International Publication Number
WO 2003/065190 A3

(51) International Patent Classification⁷: **G06F 3/033**

(21) International Application Number:

PCT/CA2003/000113

(22) International Filing Date: 29 January 2003 (29.01.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/352,228 29 January 2002 (29.01.2002) US

(71) Applicant: META4HAND INC. [CA/CA]; 10720 - 133 Street, Edmonton, Alberta T5M 1G6 (CA).

(72) Inventors: **FEDORAK, Mark, V.**; 10720 - 133 Street, Edmonton, Alberta T5M 1G6 (CA). **CAROLAN, John-Michael, B.**; 10720 - 133 Street, Edmonton, Alberta T5M 1G6 (CA). **MILLEY, Milton, E.**; 10720 - 133 Street, Edmonton, Alberta T5M 1G6 (CA). **LOU, Edmond**; 10720 - 133 Street, Edmonton, Alberta T5M 1G6 (CA).

(74) Agent: **HAUGEN, J., Jay**; Parlee McLaws, LLP, 15 Manulife Place, 10180-101 Street, Edmonton, Alberta T5J 4K1 (CA).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

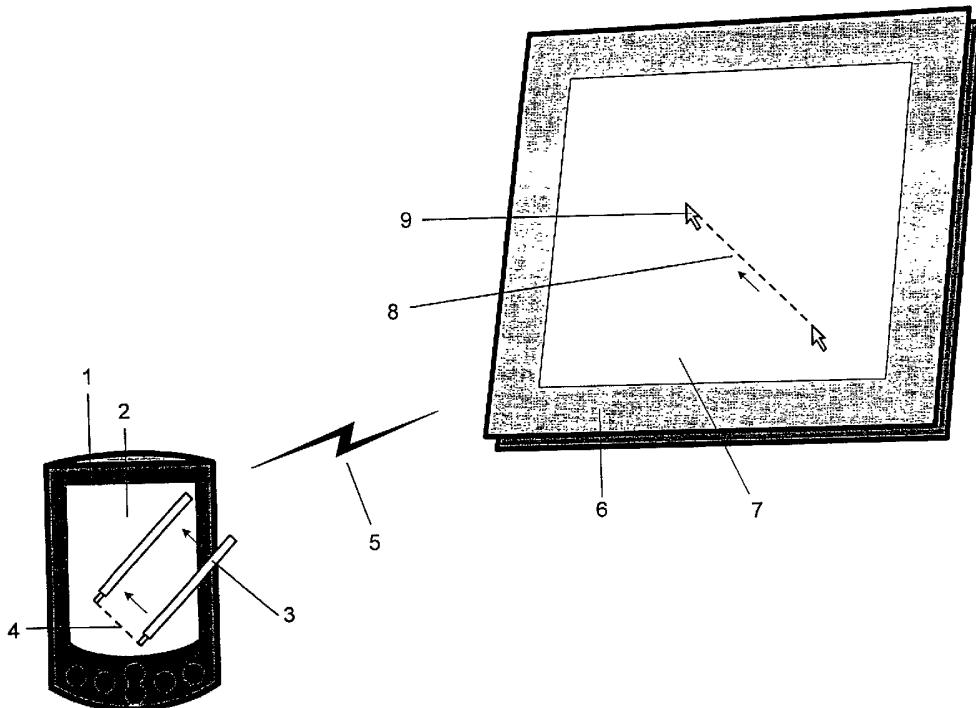
Published:

— with international search report

(88) Date of publication of the international search report:
19 February 2004

[Continued on next page]

(54) Title: COMPUTER POINTER CONTROL



WO 2003/065190 A3

(57) Abstract: The present invention relates to a method and system which allows for the transfer of pointer movements and events from small devices with space and data rate constraints to a display device (6). This will allow a pointer device (1) to be implemented in a small area, but will still enable full pointer movement and event capabilities.



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/CA 03/00113

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G06F3/033

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)

EPO-Internal, WPI Data, PAJ, 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 5 327 161 A (LOGAN JAMES D ET AL) 5 July 1994 (1994-07-05)	1,2,5, 7-9, 13-15,17
Y	column 3, line 15 - line 18 column 3, line 36 - line 46 column 7, line 26 - line 31 figures 1A,1B,5 ---	3,4,6, 10-12,16 -/-

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

- *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 the actual completion of the international search

29 October 2003

Date of mailing of the international search report

04/11/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl
Fax: (+31-70) 340-3016

Authorized officer

Griesbach, A.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/CA 03/00113

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6 160 538 A (LAMBRECHTS MARC E C) 12 December 2000 (2000-12-12) column 2, line 59 – line 67 column 4, line 12-20; figure 2 column 4, line 39 – line 45; table 1 column 5, line 43 – line 57 figures 2,5,6	3,4,6, 10-12,16
A	column 3, line 30 – line 34; figures 1-3 column 4, line 20 – line 24 column 4, line 42 ---	1
A	US 5 543 590 A (ALLEN TIMOTHY P ET AL) 6 August 1996 (1996-08-06) column 29, line 39 – column 30, line 17; figures 14A-C column 5, line 13-18,30,31 column 26, line 8 – line 27 column 27, line 31 – line 34 column 28, line 60 – line 67 figure 1 ---	1,2,7,15
A	DE 35 23 284 A (SIEMENS AG) 8 January 1987 (1987-01-08) column 6, line 48 – line 57; figures 2,4 ---	9
A	"POINTING DEVICE" IBM TECHNICAL DISCLOSURE BULLETIN, IBM CORP. NEW YORK, US, vol. 37, no. 6A, 1 June 1994 (1994-06-01), page 137 XP000455716 ISSN: 0018-8689 the whole document ---	1,4,5
A	US 5 883 617 A (YOSHIKAWA OSAMU) 16 March 1999 (1999-03-16) column 7, line 63 – line 67; figure 7 column 9, line 60 – line 63 column 3, line 62 – line 67 column 5, line 22 – line 30 column 6, line 45 – line 49 ---	1,8
A	US 6 057 830 A (LIM SWEE HOCK ALVIN ET AL) 2 May 2000 (2000-05-02) column 3, line 55 – line 58 column 3, line 61 – line 65 column 4, line 43 – line 48 column 4, line 2 – line 7 column 4, line 49 – line 56 column 6, line 10-12,21-24; figure 4B column 7, line 13 – line 34; figure 4 ---	1-3,7,15
		-/-

INTERNATIONAL SEARCH REPORT

International Application No
PCT/CA 03/00113

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 5 398 044 A (HILL TAPIO) 14 March 1995 (1995-03-14) abstract column 3, line 55 - line 58 column 4, line 4 -----	1
P, X	US 2002/047830 A1 (PHILIPSON LARS) 25 April 2002 (2002-04-25) paragraph '0043! paragraphs '0042!, '0057!; figure 9 paragraph '0047!; figures 1,4 -----	1

INTERNATIONAL SEARCH REPORT
Information on patent family members

International Application No
PCT/CA 03/00113

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 5327161	A	05-07-1994	NONE		
US 6160538	A	12-12-2000	DE 69814326 D1 EP 0929858 A1 WO 9906905 A1 JP 2001501347 T	12-06-2003 21-07-1999 11-02-1999 30-01-2001	
US 5543590	A	06-08-1996	US 5914465 A US 5374787 A AU 3544395 A CN 1166214 A DE 69521617 D1 DE 69521617 T2 EP 0777875 A1 JP 10505182 T KR 264640 B1 WO 9607966 A1 US 5488204 A US 5889236 A AU 3544495 A DE 69527295 D1 DE 69527295 T2 EP 0777888 A1 JP 10505183 T KR 274772 B1 US 6414671 B1 US 6028271 A WO 9607981 A1 US 5543591 A US 2003112228 A1 US 5942733 A US 5880411 A US 5861583 A US 6380931 B1 US 2002093491 A1 US 5543588 A US 5495077 A US 6239389 B1 DE 69324067 D1 DE 69324067 T2 EP 0574213 A1 US 5648642 A US 5841078 A	22-06-1999 20-12-1994 27-03-1996 26-11-1997 09-08-2001 18-10-2001 11-06-1997 19-05-1998 02-10-2000 14-03-1996 30-01-1996 30-03-1999 27-03-1996 08-08-2002 17-10-2002 11-06-1997 19-05-1998 15-12-2000 02-07-2002 22-02-2000 14-03-1996 06-08-1996 19-06-2003 24-08-1999 09-03-1999 19-01-1999 30-04-2002 18-07-2002 06-08-1996 27-02-1996 29-05-2001 29-04-1999 15-07-1999 15-12-1993 15-07-1997 24-11-1998	
DE 3523284	A	08-01-1987	DE 3523284 A1		08-01-1987
US 5883617	A	16-03-1999	JP 3386296 B2 JP 9034645 A	17-03-2003 07-02-1997	
US 6057830	A	02-05-2000	NONE		
US 5398044	A	14-03-1995	FI 92111 B GB 2273857 A ,B	15-06-1994 29-06-1994	
US 2002047830	A1	25-04-2002	SE 517135 C2 AU 8037301 A EP 1323022 A1 SE 0003135 A	16-04-2002 22-03-2002 02-07-2003 16-04-2002	

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/CA 03/00113

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2002047830 A1	WO	0221253 A1	14-03-2002