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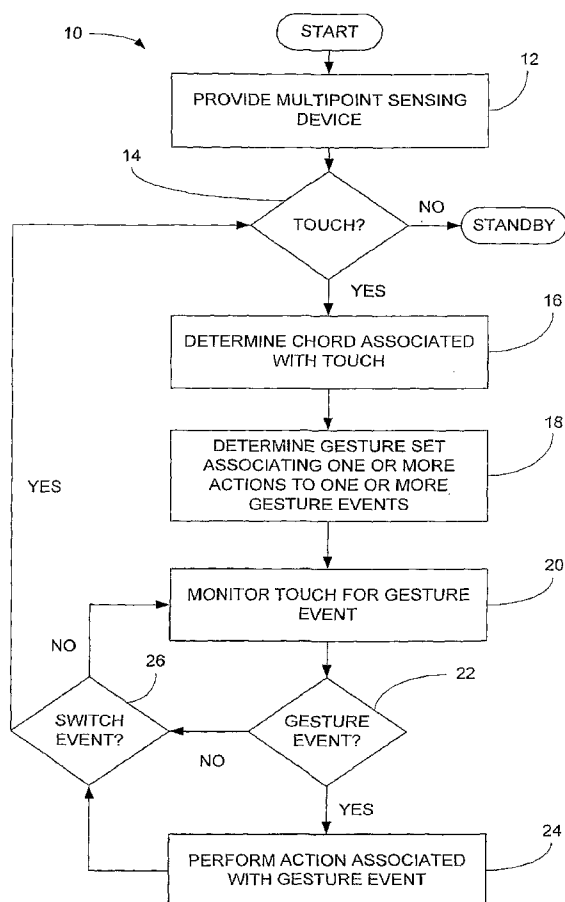
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(54) Title: GESTURING WITH A MULTIPOINT SENSING DEVICE



(57) Abstract: Methods and systems for implementing gestures with sensing devices are disclosed. More particularly, methods and systems related to gesturing with multipoint sensing devices are disclosed.

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FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT,
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A. CLASSIFICATION OF SUBJECT MATTER
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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)
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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, 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	<p>WO 99/38149 A (WESTERMAN ET AL.) 29 July 1999 (1999-07-29)</p> <p>page 12, line 23 - page 13, line 6 page 65, line 9 - page 73, line 12; figures 1,39A-40B</p> <p style="text-align: center;">----- -/--</p>	<p>1-19, 22-46, 50-56, 71,72</p>

☒ Further documents are listed in the continuation of Box C.

☒ See patent family 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
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- *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

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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 2005/052427 A1 (WU ET AL.) 10 March 2005 (2005-03-10) paragraph [0018] - paragraph [0039]; figures 1-9	1,2,4,5, 7-15,18, 19,23, 24,27, 28,30, 31,33, 34, 36-42, 45,46, 50-56, 71-73
X	US 5 825 352 A (BISSET ET AL.) 20 October 1998 (1998-10-20) column 12, line 15 - column 13, line 58 column 5, line 6 - column 7, line 3; figures 1-3,7A-7F	1-6, 9-15,17, 23-25, 27-31, 34, 36-42, 44,50-54
X	US 2005/162402 A1 (WATANACHOTE) 28 July 2005 (2005-07-28) paragraph [0110] - paragraph [0123]; figures 24A-25D	1,2, 4-17,23, 24, 26-39, 41-44, 50-54
X	WESTERMAN W ET AL: "MULTI-TOUCH- A NEW TACTILE 2-D GESTURE INTERFACE FOR HUMAN-COMPUTER INTERACTION" PROCEEDINGS OF THE HUMAN FACTORS AND ERGONOMICS SOCIETY. ANNUAL MEETING, 2001, pages 632-636, XP008070547 the whole document	1,2,4,5, 7-18,23, 24,27, 29-32, 34-39, 41-45, 47,50-54
X	EP 1 517 228 A (SMART TECHNOLOGIES INC.) 23 March 2005 (2005-03-23)	1-5, 7-17, 52-54
A	paragraph [0009] - paragraph [0041]; figures 1-4f	23-25, 27-29, 33-38, 41,43,47
X	EP 0 394 614 A (IBM CORP.) 31 October 1990 (1990-10-31) page 6, line 28 - page 10, line 16; figures 2-5	52-54
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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.
X	EP 0 926 588 A (SHARP K.K.) 30 June 1999 (1999-06-30) paragraph [0013] - paragraph [0015] paragraph [0022] - paragraph [0037] paragraph [0072] - paragraph [0095] -----	52-54, 57
X	EP 1 233 330 A (WACOM CO. LTD.) 21 August 2002 (2002-08-21) paragraph [0007] - paragraph [0018] paragraph [0065] - paragraph [0071] paragraph [0091] - paragraph [0096] -----	57, 58

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2007/002512

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.:
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 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:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers allsearchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search reportcovers 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.

FURTHER INFORMATION CONTINUED FROM PCT/SA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-54

Electronic system (claims 1-22) having a multipoint sensing device that provides gestural recognition and control, gestural control method (claims 23-51) using multiple detection points to identify chords which associate commands to gestures and control operation (claims 52-54) which uses detected gestures to initiate commands.

1.1. claims: 55, 56

Gesture operation by monitoring touch motion (not restricted to multipoint sensing) and performing a first action or second action depending on state of motion

1.2. claims: 71-73

Gesture operation comprising detecting the state of a first finger and the state of one or more additional fingers. Depending on these states, a first or second input mode is implemented.

2. claims: 57,58

Control operation using two input devices by monitoring input events at the first and second devices. The first input device includes a touch sensitive surface, the second does not.

3. claims: 59-67

Control operation (claims 59-66) in which a list of input functions is provided and the functions are linked to chords, control panel (claim 67) displaying a list of menu input functions and the gestures associated with the command initiated by said input function and further having a user set up a gesture map by assigning chords to these input functions

4. claims: 68-70

Designing gestures by ranking chords according to ease of performance and assigning these to operations based on frequency of use of the latter.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2007/002512

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