Title: TOUCH DETECTING INTERACTIVE DISPLAY BACKGROUND

Abstract: The invention provides an interactive display that is controlled by user gestures identified on a touch detecting display surface (see figure 1). In the preferred embodiment of the invention, imagery is projected onto a horizontal projection surface from a projector located above the projection surface. The locations where a user contacts the projection surface are detected using a set of infrared emitters and receivers arrayed around the perimeter of the projection surface. For each contact location, a computer software application stores a history of contact position information and, from the position history, determines a velocity information, gestures are identified. The identified gestures are associated with display commands that are executed to update the displayed imagery accordingly. Thus, the invention enables users to control the display through direct physical interaction with the imagery.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER
   IPC(7) : G09G 3/00
   US CL : 345/168,156,173,157,113,185,158,161,163,180,174,175, 382/218,312
   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. : 345/168,156,173,157,113,185,158,161,163,180,174,175, 382/218,312
   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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>US 6,636,635 B2 (MATSUGU) 21 October 2003 (21,10,2003), Col. 5, Line 54 to Col. 6, Line 16, Col. 7, Lines 13-21, Col. 49, Line 36 to Col. 50, Line 31</td>
<td>1-35</td>
</tr>
</tbody>
</table>

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
- "B" earlier application or patent published on or after the international filing date
- "L" document 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

Date of the actual completion of the international search: 31 January 2006 (31.01.2006)

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