Title: SYSTEMS AND METHODS EMPLOYING CHANGEABLE TOUCH-KEY

Abstract: Methods and systems including a key-using device having at least one key and a microprocessor, the at least one key comprising a flexible display module, the at least one key in communications with the microprocessor, where the microprocessor includes instructions for controlling the appearance of the flexible display module based on at least one of an application and a user profile. The flexible display module can include electronic paper and/or flexible organic light emitting devices (FOLEDs). The communications between the microprocessor the flexible display module can be wired and/or wireless.
# INTERNATIONAL SEARCH REPORT

## A. CLASSIFICATION OF SUBJECT MATTER

**IPC 7 G06F3/023**

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 H03K H03M**

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, PAJ

## 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>X</td>
<td>US 6 256 020 B1 (MAURO RICHARD ET AL) 3 July 2001 (2001-07-03) column 3, line 7 - line 16; figures 1-3 column 4, line 50 -column 5, line 47 column 5, line 65 -column 6, line 11 column 7, line 21 - line 28 column 7, line 54 -column 8, line 12 column 9, line 7 - line 17 column 9, line 62 -column 10, line 5 column 10, line 24 - line 30 column 10, line 44 - line 62</td>
<td>1,4-7, 9-17</td>
</tr>
</tbody>
</table>

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 novel or 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.
  *"A"* document member of the same patent family

Date of the actual completion of the international search

23 June 2004

Date of mailing of the international search report

01/07/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31—70) 940—3040, Tx. 31 651 epo nl, Fax: (+31—70) 340—3016

Authorized officer

Alonso y Goicoeia, L

Form PCT/SAF/010 (second sheet) (January 2004)
<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>A</td>
<td>WO 01/35531 A (KATZ SAMUEL M; SCREENBOARD TECHNOLOGIES INC (US))&lt;br&gt;17 May 2001 (2001-05-17)&lt;br&gt;page 3, line 20 - page 5, line 4&lt;br&gt;page 5, line 23 - line 31&lt;br&gt;page 6, line 6 - line 14&lt;br&gt;page 6, line 34 - line 35</td>
<td>1-17</td>
</tr>
<tr>
<td>Patent document cited in search report</td>
<td>Publication date</td>
<td>Patent family member(s)</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>-----------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AU 6792898 A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CA 2285313 A1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>WO 9844482 A1</td>
</tr>
<tr>
<td>WO 0135531 A</td>
<td>17-05-2001</td>
<td>AU 2923601 A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CA 2389641 A1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CN 1408145 T</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EP 1230735 A1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>JP 2003514315 T</td>
</tr>
<tr>
<td></td>
<td></td>
<td>WO 0135531 A1</td>
</tr>
</tbody>
</table>