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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
24 December 2003 (24.12.2003)

PCT

(10) International Publication Number
WO 2003/107164 A3

(51) International Patent Classification[7]: G06F 3/023, 9/44, H04H 1/00

(21) International Application Number: PCT/US2003/018775

(22) International Filing Date: 13 June 2003 (13.06.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/388,214	13 June 2002 (13.06.2002)	US
60/388,586	13 June 2002 (13.06.2002)	US
60/388,588	13 June 2002 (13.06.2002)	US
60/388,217	13 June 2002 (13.06.2002)	US
60/388,337	13 June 2002 (13.06.2002)	US
60/388,838	14 June 2002 (14.06.2002)	US
60/389,023	14 June 2002 (14.06.2002)	US
60/388,824	14 June 2002 (14.06.2002)	US
60/388,698	14 June 2002 (14.06.2002)	US
60/389,048	14 June 2002 (14.06.2002)	US

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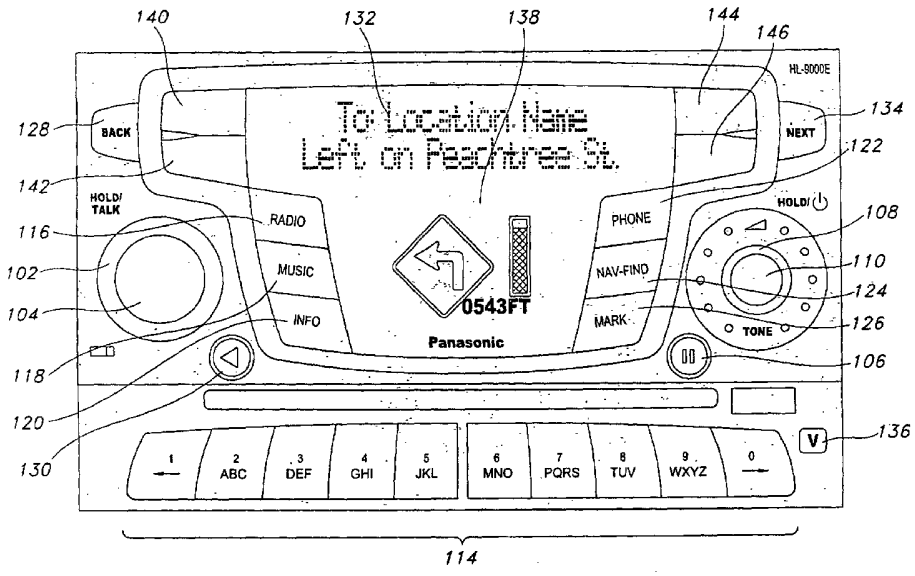
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(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,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

[Continued on next page]

(54) Title: MULTIMODE INTERFACE



(57) Abstract: The interface uses a combination of controls that retain essentially the same function throughout all modes and features and controls that vary based on the active mode or feature. The system uses a common list modifier interface and a common list interface so that the interface is intuitive to the user regardless of the active mode. The interface allows a user to easily select a mode or switch to another mode. In addition, the interface provides some automatic mode switching. The interface also includes a display. The arrangement of the mode controls, the soft controls and the display is designed to facilitate the user's interaction with the system. The system provides some redundant controls so that the user can select the control that is most convenient or intuitive for that user.

WO 2003/107164 A3

(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, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations 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, NI, 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, 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, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

Published:

— *with international search report*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

(88) Date of publication of the international search report:
30 June 2005

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/US 03/18775

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G06F3/023 G06F9/44 H04H1/00

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 H04H

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, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 687 081 A (PIONEER ELECTRONIC CORPORATION) 13 December 1995 (1995-12-13) column 6, line 47 - column 9, line 39; figures 2-4 column 7, lines 7-14 column 8, lines 13-28 column 9, lines 22-39	1-3
Y	-----	4-7
Y	US 5 463 599 A (YIFRACH ET AL) 31 October 1995 (1995-10-31) column 5, lines 28-50; figure 1	4,5

Y	EP 0 844 778 A2 (NOKIA CORPORATION) 27 May 1998 (1998-05-27) column 3, lines 39-45 column 5, line 5 - column 6, line 44; figures 1-4	6,7

☐ 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	Date of mailing of the international search report
4 February 2005	10/05/2005

Name and mailing address of the ISA	Authorized officer
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	Quesson, C

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 03/18775

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.:

1-7

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: 1-7

A method for providing an interface, comprising: receiving a selection of a first mode control that corresponds to a first mode type; activating the first mode; receiving a selection of a second mode control that corresponds to a second mode type; in response to receiving the selection of the second mode control: pausing the first mode at an interrupt point; and activating the second mode; determining that an activity associated with the second mode has completed; and in response to determining that the activity has completed: reactivating the first mode beginning at the interrupt point; and deactivating the second mode.

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2. claims: 8-16

A method for providing an interface, comprising: receiving a selection of a first mode control that corresponds to a first mode type; activating the first mode; receiving a selection of a second mode control that corresponds to a second mode type; in response to receiving the selection of the second mode control : pausing the first mode at an interrupt point; and activating the second mode; providing a first communication that is related to the second mode; determining whether an anticipated amount of time until a second communication that is related to the second mode is provided exceeds a predetermined amount of time; if the anticipated amount of time until a second communication is provided exceeds the predetermined amount of time, then reactivating the first mode at the interrupt point while the second mode remains active; determining that it is time to provide the second communication; in response to determining that it is time to provide the second communication: pausing the first mode at a second interrupt point; and providing the second communication.

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3. claims: 13-23

A method for providing an interface, comprising: receiving a selection of a first mode control that corresponds to a first mode type; activating the first mode; presenting a first plurality of list modifiers using a common list modifier interface; receiving a selection of one of the first plurality of list modifiers; presenting a first list that corresponds to the first selected list modifier using a common list interface; receiving a selection of a second mode control that corresponds to a second mode type; in response to receiving the selection of the second mode control : pausing the first mode at an interrupt point; and activating the second mode; presenting a second plurality of list modifiers using the common list modifier interface; receiving a selection of one of the second plurality of list modifiers; presenting a second list that corresponds to the second selected list modifier using the common list interface.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/US 03/18775

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