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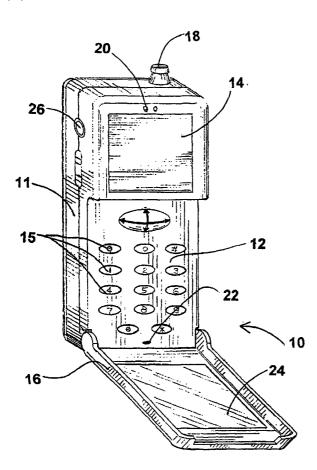
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(54) Title: METHOD AND APPARATUS FOR DATA ENTRY IN A WIRELESS NETWORK ACCESS DEVICE



(57) Abstract: A method and apparatus for adding at least one and preferably two new data entry functions to otherwise conventional flip-type cell phones. One such data entry function is handwritten alpha-numeric entry using the fingertip as the entry device. The other such data entry function is use of the fingertip for point and click. Thus, the apparatus does not require a special tool for data entry. A button or switch added on the side of the phone, permits switching between the two data entry functions. By depressing a button on the side, the user can use the touch pad as a point and click device. This will allow service providers to offer user friendly web pages that look and feel like surfing the web at home or office. The invention also offers the ability to operate both the numeric phone keypad and the touch pad simultaneously.

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patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

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A. CLASSIFICATION OF SUBJECT MATTER IPC 7 H04M1/725 H04M H04M1/02 H04M1/247 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) HO4M G06F IPC 7 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 C. DOCUMENTS CONSIDERED TO BE RELEVANT Relevant to claim No. Category 6 Citation of document, with indication, where appropriate, of the relevant passages 1 - 3P,X GB 2 348 075 A (MOTOROLA INC) 20 September 2000 (2000-09-20) abstract page 3, line 17 - line 30 page 4, line 17 - line 23 page 5, line 4 -page 6, line 8 page 6, line 18 - line 27 page 7, line 18 - line 27 page 8, line 16 - line 28 page 10, line 21 - line 31 figures 1,3 1 - 3US 5 923 327 A (BEATON ET AL) Α 13 July 1999 (1999-07-13) column 6, line 11 - line 46 column 7, line 6 - line 14 column 11, line 59 -column 12, line 37 figures 3,4,20A,20B Patent family members are listed in annex. Further documents are listed in the continuation of box C. ° Special categories of cited documents: "T" later document published after the international filing date or priority date and not in conflict with the application but "A" document defining the general state of the art which is not considered to be of particular relevance cited to understand the principle or theory underlying the invention "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention citation or other special reason (as specified) cannot be considered to involve an inventive step when the document is combined with one or more other such docu-"O" document referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled other means *P* document published prior to the international filing date but later than the priority date claimed *&" document member of the same patent family Date of mailing of the international search report Date of the actual completion of the international search 5 April 2002 17/04/2002 Authorized officer 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, Fragua, M Fax: (+31-70) 340-3016

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INTERNATIONAL SEARCH REPORT

Prnational Application No

	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	GB 2 289 555 A (NOKIA MOBILE PHONES LTD) 22 November 1995 (1995-11-22) page 10, line 16 - line 22 page 11, line 20 -page 12, line 24 figures 3,8	1-3
A	US 5 896 575 A (BECKER ET AL) 20 April 1999 (1999-04-20) column 2, line 16 - line 53 figure 2	1-3
A	EP 0 898 405 A (HITACHI LTD) 24 February 1999 (1999-02-24) column 1, line 55 -column 2, line 1 column 3, line 7 - line 49 column 5, line 27 - line 34 column 9, line 9 - line 34 figures 1A,5C,7,8A,8B	1-3
A	GB 2 339 505 A (NIPPON ELECTRIC CO) 26 January 2000 (2000-01-26) page 4, line 8 -page 6, line 8 page 8, line 14 -page 11, line 12 figures 2A,2B	1-3

1

INTERNATIONAL SEARCH REPORT

Information on patent family members

rnational Application No PCT/US 01/40717

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
GB 2348075	Α	20-09-2000	CN	1267965 A	27-09-2000
US 5923327	Α	13-07-1999	WO	9848552 A1	29-10-1998
GB 2289555	Α	22-11-1995	FI	942334 A	20-11-1995
US 5896575	Α	20-04-1999	BR CN EP JP WO	9714549 A 1247675 A 0963668 A1 2001509930 T 9838822 A1	08-02-2000 15-03-2000 15-12-1999 24-07-2001 03-09-1998
EP 0898405	Α	24-02-1999	JP EP US	11069214 A 0898405 A2 6069648 A	09-03-1999 24-02-1999 30-05-2000
GB 2339505	Α	26-01-2000	JP AU	2000032099 A 3915099 A	28-01-2000 03-02-2000