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**Shanahan**

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(54) **METHODS AND APPARATUS FOR PROGRAMMING USER-DEFINED INFORMATION INTO ELECTRONIC DEVICES**

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(51) **Int. Cl.**  
**H04N 7/10** (2006.01)

(52) **U.S. Cl.** ..... **455/419**; 455/567; 455/414.1; 455/426.1; 709/200

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See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

- 4,866,766 A 9/1989 Mitzlaff
- 4,868,561 A 9/1989 Davis
- 5,220,420 A 6/1993 Hoarty et al.
- 5,247,347 A 9/1993 Litter et al.

- 5,253,275 A 10/1993 Yurt et al.
- 5,262,875 A 11/1993 Mincer et al.
- 5,341,474 A 8/1994 Gelman et al.
- 5,414,444 A 5/1995 Britz
- 5,414,751 A 5/1995 Yamada
- 5,428,606 A 6/1995 Moskowicz
- 5,440,336 A 8/1995 Buhro et al.
- 5,442,749 A 8/1995 Northcutt et al.
- 5,452,354 A 9/1995 Kyrönahti et al.
- 5,461,666 A 10/1995 McMahan et al.
- 5,479,510 A 12/1995 Olsen et al.
- 5,481,599 A 1/1996 MacAllister et al.

(Continued)

**FOREIGN PATENT DOCUMENTS**

EP 0 851 649 A2 12/1997

(Continued)

**OTHER PUBLICATIONS**

CA Office Action, Apr. 21, 2004.

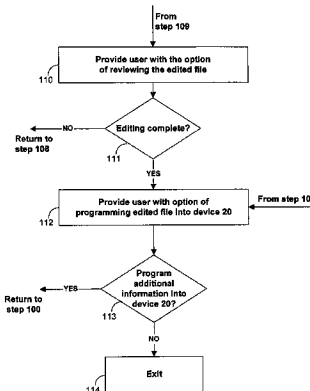
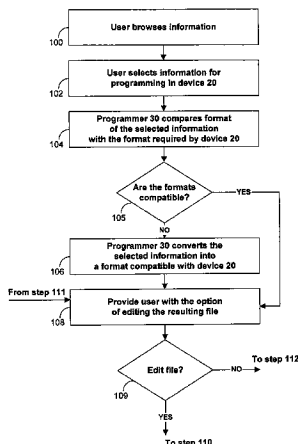
(Continued)

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(57) **ABSTRACT**

A device for programming user-defined information into an electronic device is provided. The programmer allows a user to program customized information, such as user-selected audio, video, or Internet access information into his or her programmable device. Such electronic devices include wireless telephones, pagers, and personal digital assistants. The programmer allows a user to, among other things, customize the device to suit his or her particular taste.

**10 Claims, 13 Drawing Sheets**



U.S. PATENT DOCUMENTS

5,483,580 A 1/1996 Brandman et al.  
 5,483,581 A 1/1996 Hird et al.  
 5,485,370 A 1/1996 Moss et al.  
 5,486,686 A 1/1996 Zdybel, Jr. et al.  
 5,487,671 A 1/1996 Shpiro et al.  
 5,490,210 A 2/1996 Sasso  
 5,490,251 A 2/1996 Clark et al.  
 5,499,288 A 3/1996 Hunt et al.  
 5,508,733 A 4/1996 Kassatly  
 5,510,777 A 4/1996 Pilc et al.  
 5,513,272 A 4/1996 Bogosian, Jr.  
 5,517,605 A 5/1996 Wolf  
 5,524,141 A 6/1996 Braun et al.  
 5,526,620 A 6/1996 Hallsten  
 5,528,281 A 6/1996 Grady et al.  
 5,530,852 A 6/1996 Meske, Jr. et al.  
 5,533,115 A 7/1996 Hollenbach et al.  
 5,534,855 A 7/1996 Shockley et al.  
 5,537,586 A 7/1996 Amram et al.  
 5,541,917 A 7/1996 Farris  
 5,542,046 A 7/1996 Carlson et al.  
 5,544,255 A 8/1996 Smithies et al.  
 5,544,322 A 8/1996 Cheng et al.  
 5,548,726 A 8/1996 Pettus  
 5,550,577 A 8/1996 Verbiest et al.  
 5,550,578 A 8/1996 Hoarty et al.  
 5,550,863 A 8/1996 Yurt et al.  
 5,550,976 A 8/1996 Henderson et al.  
 5,551,021 A 8/1996 Harada et al.  
 5,553,311 A 9/1996 McLaughlin et al.  
 5,557,675 A 9/1996 Schupak  
 5,561,688 A 10/1996 Jones, Jr.  
 5,563,649 A 10/1996 Gould et al.  
 5,566,353 A 10/1996 Cho et al.  
 5,568,181 A 10/1996 Greenwood et al.  
 5,570,126 A 10/1996 Blahut et al.  
 5,572,571 A 11/1996 Shirai  
 5,598,461 A 1/1997 Greenberg  
 5,600,712 A 2/1997 Hanson et al.  
 5,606,597 A 2/1997 Newland  
 5,608,786 A 3/1997 Gordon  
 5,612,682 A 3/1997 DeLuca et al.  
 5,613,012 A 3/1997 Hoffman et al.  
 5,613,190 A 3/1997 Hylton et al.  
 5,613,191 A 3/1997 Hylton et al.  
 5,619,247 A 4/1997 Russo  
 5,623,531 A 4/1997 Nilssen  
 5,625,404 A 4/1997 Grady et al.  
 5,625,405 A 4/1997 DuLac et al.  
 5,644,354 A 7/1997 Thompson et al.  
 5,661,802 A 8/1997 Nilssen  
 5,675,738 A 10/1997 Suzuki et al.  
 5,677,905 A 10/1997 Bigham et al.  
 5,680,325 A 10/1997 Rohner  
 5,687,227 A 11/1997 Cohrs et al.  
 5,689,825 A 11/1997 Averbuch et al.  
 5,694,455 A 12/1997 Goodman  
 5,724,411 A 3/1998 Eisdorfer et al.  
 5,727,047 A 3/1998 Bentley et al.  
 5,790,423 A 8/1998 Lau et al.  
 5,793,413 A 8/1998 Hylton et al.  
 5,793,980 A 8/1998 Glaser et al.  
 5,796,728 A 8/1998 Rondeau et al.  
 5,828,956 A 10/1998 Shirai  
 5,842,124 A 11/1998 Kenagy et al.  
 5,870,683 A 2/1999 Wells et al.

5,880,770 A 3/1999 Ilcisin et al.  
 5,884,262 A 3/1999 Wise et al.  
 5,907,604 A 5/1999 Hsu  
 5,915,001 A 6/1999 Uppaluru  
 5,926,624 A 7/1999 Katz et al.  
 5,926,756 A 7/1999 Piosenka et al.  
 5,930,703 A 7/1999 Cairns  
 5,940,752 A 8/1999 Henrick  
 5,940,775 A 8/1999 Kim  
 5,943,046 A 8/1999 Cave et al.  
 5,953,408 A 9/1999 Blanvillain et al.  
 5,953,638 A 9/1999 Flood et al.  
 5,963,877 A 10/1999 Kobayashi  
 5,983,069 A 11/1999 Cho et al.  
 5,986,690 A 11/1999 Hendricks  
 5,987,323 A 11/1999 Huotari  
 5,999,094 A 12/1999 Nilssen  
 5,999,599 A 12/1999 Schaffer et al.  
 6,002,720 A 12/1999 Yurt et al.  
 6,002,761 A 12/1999 Sremac  
 6,018,654 A 1/2000 Valentine et al.  
 6,018,656 A 1/2000 Shirai  
 6,035,018 A 3/2000 Kaufman  
 6,035,189 A 3/2000 Ali-Vehmas et al.  
 6,058,161 A 5/2000 Anderson et al.  
 6,073,003 A 6/2000 Nilssen  
 6,075,998 A 6/2000 Morishima  
 6,088,730 A 7/2000 Kato et al.  
 6,094,587 A 7/2000 Armanto et al.  
 6,122,526 A 9/2000 Parluski et al.  
 6,137,525 A 10/2000 Lee et al.  
 6,138,006 A 10/2000 Foti  
 6,140,568 A 10/2000 Kohler  
 6,144,722 A 11/2000 Anderson et al.  
 6,151,491 A 11/2000 Farris et al.  
 6,163,711 A 12/2000 Juntunen et al.  
 6,167,130 A 12/2000 Rosen  
 6,167,278 A 12/2000 Nilssen  
 6,179,682 B1 1/2001 Plain et al.  
 6,198,941 B1\* 3/2001 Aho et al. .... 455/552.1  
 6,256,378 B1 7/2001 Iggulden et al.  
 6,308,086 B1 10/2001 Yoshino  
 6,366,791 B1\* 4/2002 Lin et al. .... 455/567  
 6,385,305 B1 5/2002 Gerszberg et al.  
 6,389,124 B1 5/2002 Schnarel et al.  
 6,483,531 B1 11/2002 Ryu  
 6,829,618 B1 12/2004 Abraham et al.  
 6,845,398 B1 1/2005 Galensky et al.  
 6,928,468 B2\* 8/2005 Leermakers ..... 709/221  
 7,088,990 B1\* 8/2006 Isomursu et al. .... 455/412.1  
 2005/0054379 A1\* 3/2005 Cao et al. .... 455/556.1

FOREIGN PATENT DOCUMENTS

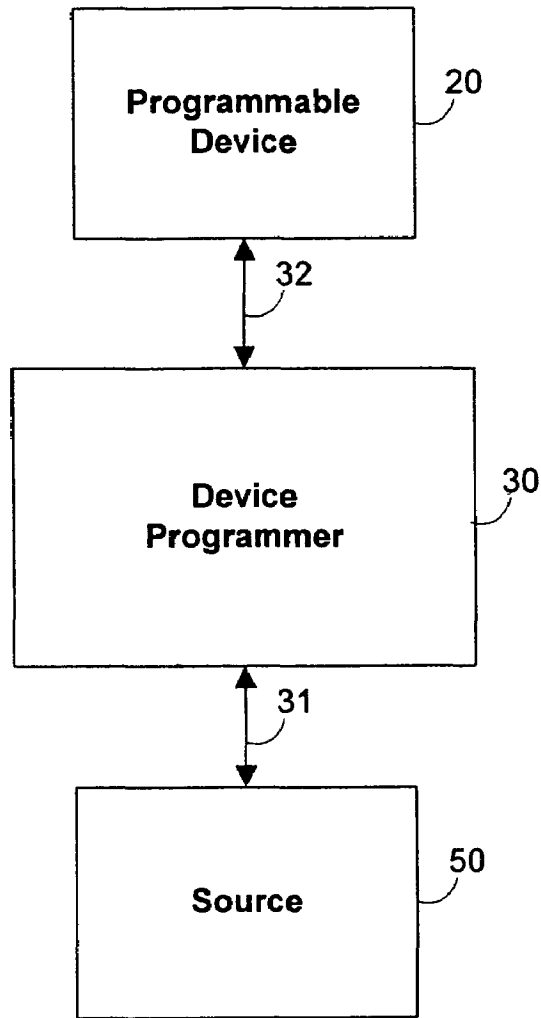
JP 09205471 8/1997  
 WO WO 9928897 12/1997  
 WO WO 9943136 2/1998  
 WO WO-98/11487 3/1998  
 WO WO 0038340 12/1998  
 WO WO 0036857 6/2000

OTHER PUBLICATIONS

CA Office Action, Dec. 19, 2004.  
 CA Office Action, Mar. 31, 2005.  
 CA Office Action, Sep. 28, 2005.  
 CA Office Action, Sep. 19, 2006.  
 Related Cases Cited in IDS, various.

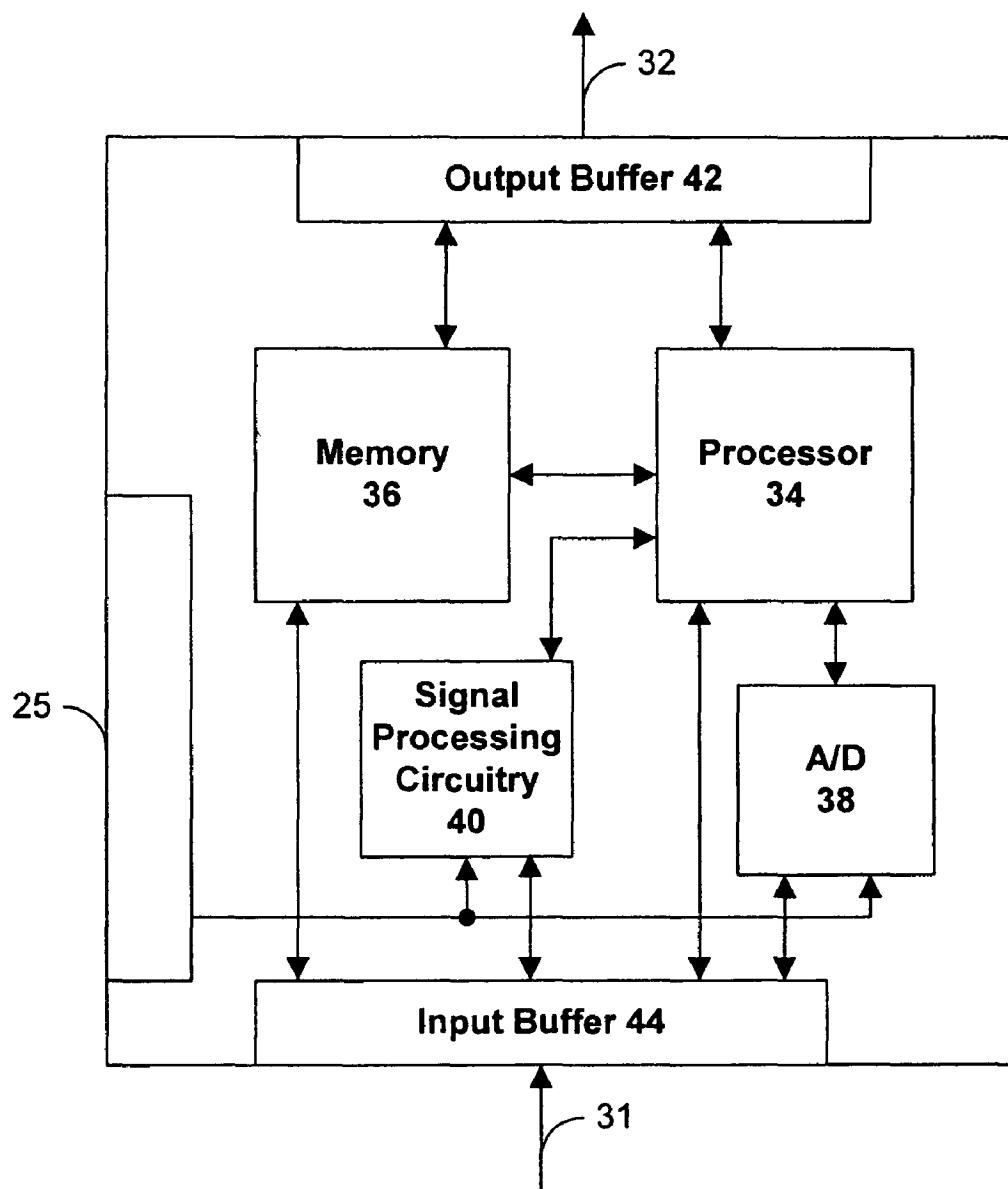
\* cited by examiner

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**FIG. 1**

**30**



**FIG. 2**

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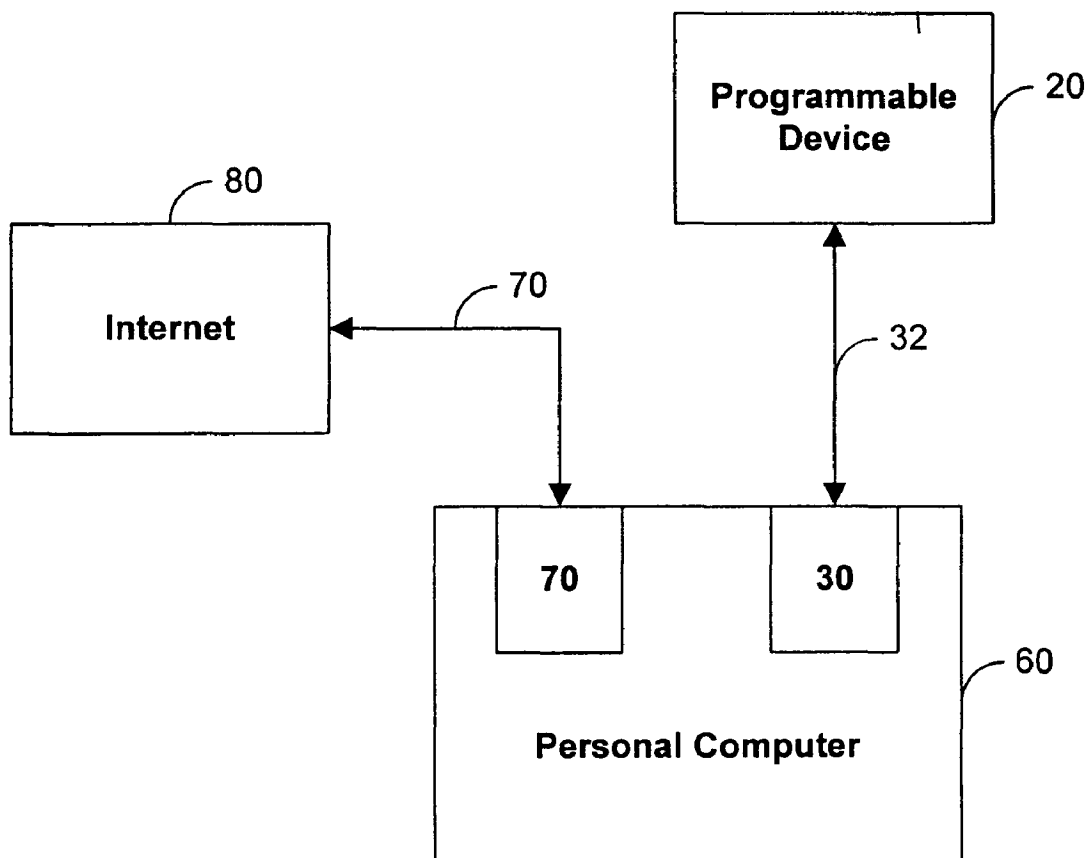


FIG. 3

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