



US00537608A

United States Patent [19]

[11] Patent Number: **5,537,608**

Beatty et al.

[45] Date of Patent: **Jul. 16, 1996**

[54] PERSONAL COMMUNICATOR APPARATUS

[75] Inventors: **Brent A. Beatty**, Boca Raton; **Francis J. Canova, Jr.**, Boynton Beach; **Charles S. Lanier**, Delray Beach; **Wayne P. Whitley**, Boca Raton; **Debra A. G. Johnson**, Ft. Lauderdale, all of Fla.

| | | | |
|-----------|---------|------------------|-----------|
| 5,189,593 | 2/1993 | Ooi | 455/195.1 |
| 5,195,130 | 3/1993 | Weiss et al. | 379/98 |
| 5,201,067 | 4/1993 | Grube et al. | 455/89 |
| 5,227,614 | 7/1993 | Danielson et al. | 235/380 |
| 5,249,218 | 9/1993 | Sainton | 379/59 |
| 5,260,697 | 11/1993 | Barrett et al. | 345/173 |
| 5,347,632 | 9/1994 | Filepp et al. | 395/200 |

[73] Assignee: **International Business Machines Corporation**, Armonk, N.Y.

[21] Appl. No.: **459,552**

[22] Filed: **Jun. 2, 1995**

Related U.S. Application Data

[63] Continuation of Ser. No. 976,127, Nov. 13, 1992, abandoned.

[51] Int. Cl.⁶ **G06F 13/00**

[52] U.S. Cl. **395/800**; 364/DIG. 1; 364/232.91; 364/231.1; 364/243

[58] Field of Search 395/200, 800, 395/650, 700, 375, 425; 379/59, 58, 98, 57

[56] References Cited

U.S. PATENT DOCUMENTS

| | | | |
|-----------|---------|------------------|----------|
| 4,481,382 | 11/1984 | Villa-Real | 179/2 EA |
| 4,825,448 | 4/1989 | Critchlow et al. | 375/8 |
| 4,916,441 | 4/1990 | Gombrich | 235/380 |
| 4,949,248 | 8/1990 | Caro et al. | 395/725 |
| 5,008,925 | 4/1991 | Pireh | 379/60 |
| 5,008,927 | 4/1991 | Weiss et al. | 379/98 |
| 5,020,093 | 5/1991 | Pireh | 379/59 |
| 5,029,233 | 7/1991 | Metroka | 455/11 |
| 5,050,207 | 9/1991 | Hitchcock | 379/96 |
| 5,063,600 | 11/1991 | Norwood | 382/13 |
| 5,127,050 | 6/1992 | Takahashi et al. | 379/428 |
| 5,138,649 | 8/1992 | Krisbergh et al. | 379/56 |

OTHER PUBLICATIONS

9075 *PCradio Hardware Interface Technical Reference*, IBM, 1992 pp. 1-1 to 6-63.

9075 *PCradio Guide to Operations*, IBM, 1992, pp. 1-1 to D-5.

Danny Goodman, "The Hyber Card 2.2 Handbook", Random House, Fourth Edition, No Date.

Data sheet, VG-230 Single-Chip PC Platform VADEM, Sep. 1992.

Primary Examiner—Mehmet B. Geckil

Attorney, Agent, or Firm—George E. Grosser; Andrew J. Dillon

[57] ABSTRACT

A personal communication apparatus includes a digital processor, a memory coupled to the processor, an operating system, stored in the memory and executable by the processor, a touch-screen user interface coupled to the processor and the memory and responsive to file execution commands from the user, and a navigation utility file, executable by the processor, for initiating execution of files and for monitoring the sequence in which file executions occur. The Navigation utility maintains a stack in the memory into which the calling sequences of files are stored according to the order in which files were executed. In one embodiment, the apparatus further comprises a modem and RF transceiver coupled to the processor for receiving and transmitting data. In another embodiment, the communicator further includes a port for receiving an external memory medium containing a plurality of executable files.

4 Claims, 10 Drawing Sheets

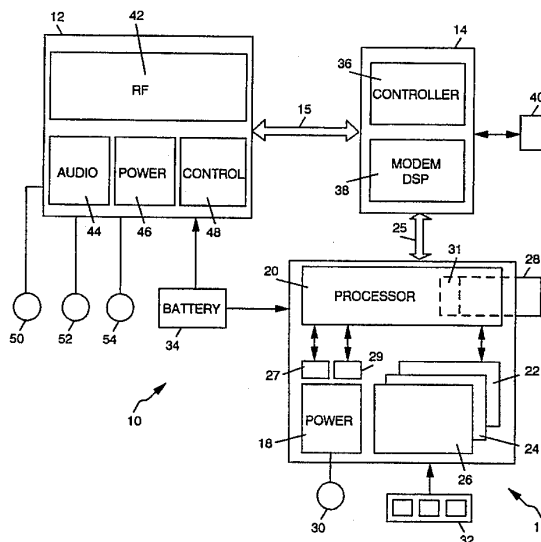
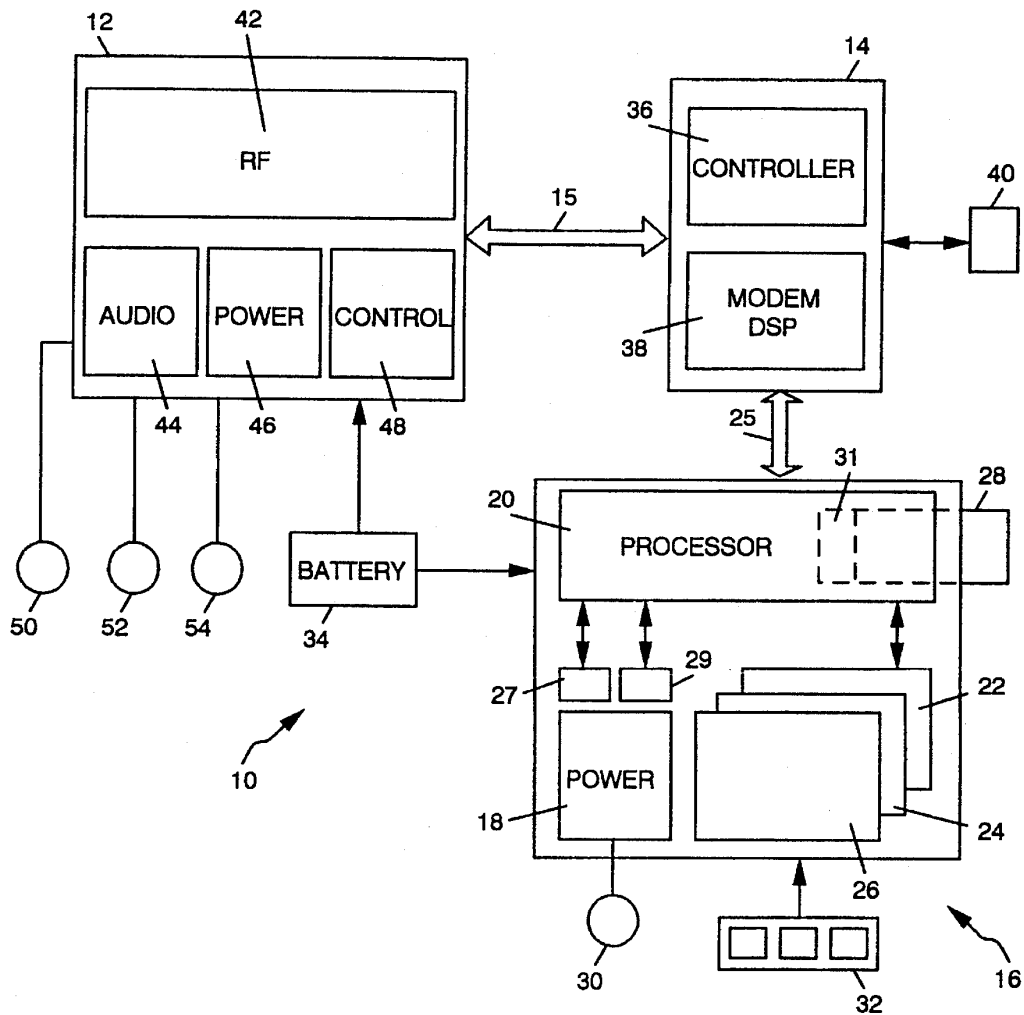


FIG. 1



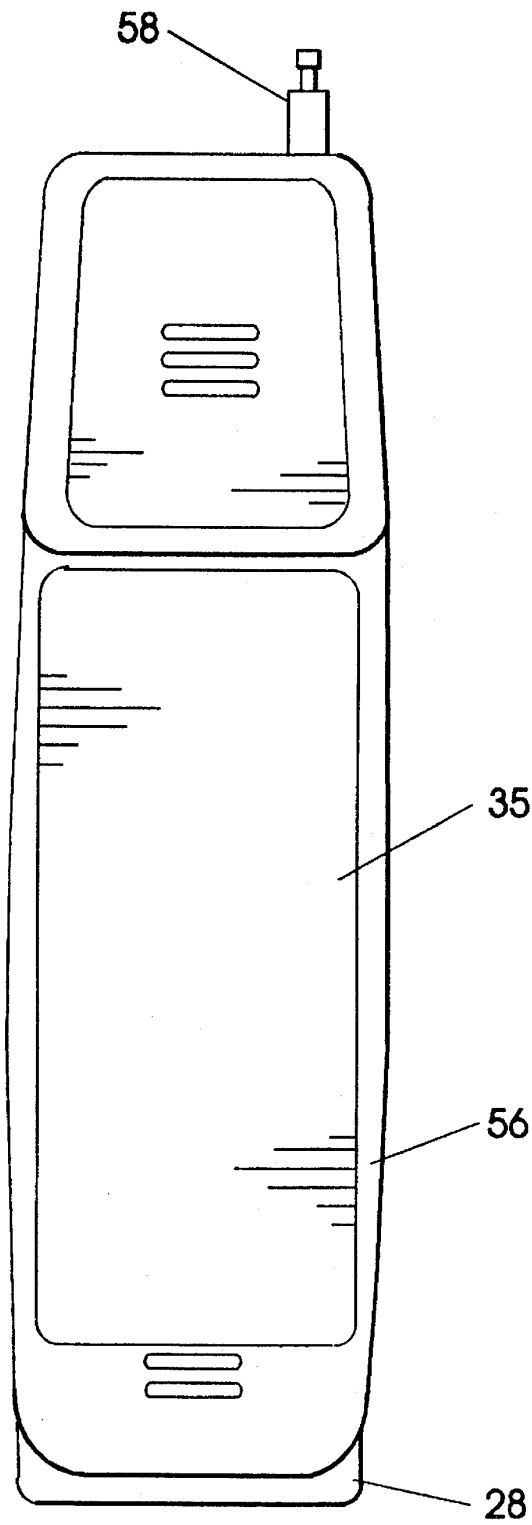
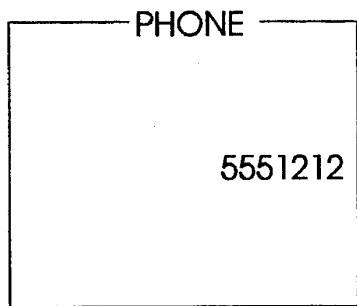


FIG. 2

FIG. 3A



BATTERY SIGNAL

PHONE OFF

PANIC

| | | |
|----------|----------|----------|
| 1 | ABC 2 | DEF 3 |
| GHI 4 | JKL 5 | MNO 6 |
| PRS 7 | TUV 8 | WXY 9 |
| * | 0 | # |

| | |
|------|------------|
| DIAL | QUICK DIAL |
| | CLR |

| | | | |
|------|-------|-------|------|
| HELP | PHONE | TOOLS | BACK |
|------|-------|-------|------|

FIG. 3E

CALCULATOR

3.85714

| | | |
|----|---|---|
| 7 | 8 | 9 |
| 4 | 5 | 6 |
| 1 | 2 | 3 |
| 0 | . | + |
| % | - | |
| C | X | = |
| CE | / | |

| | | | |
|-----------|-----------|-----------|----------|
| ? HELP | PHONE | TOOLS | BACK |
|-----------|-----------|-----------|----------|

FIG. 3B

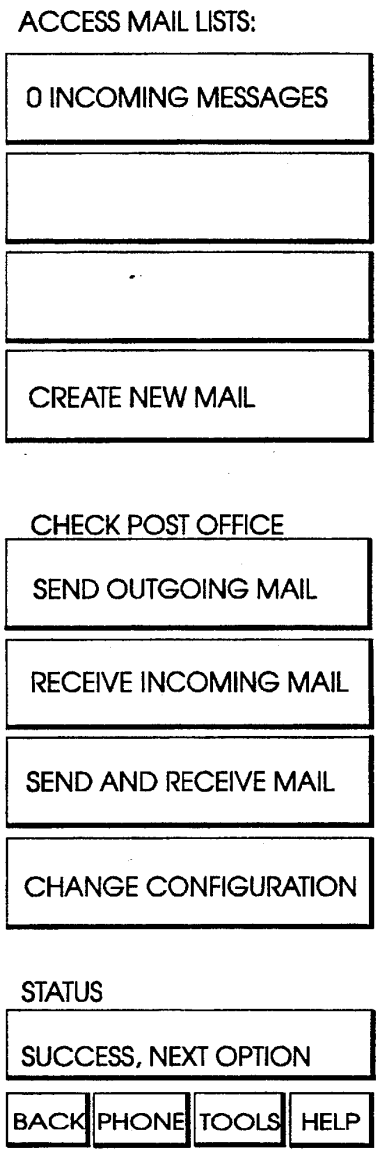
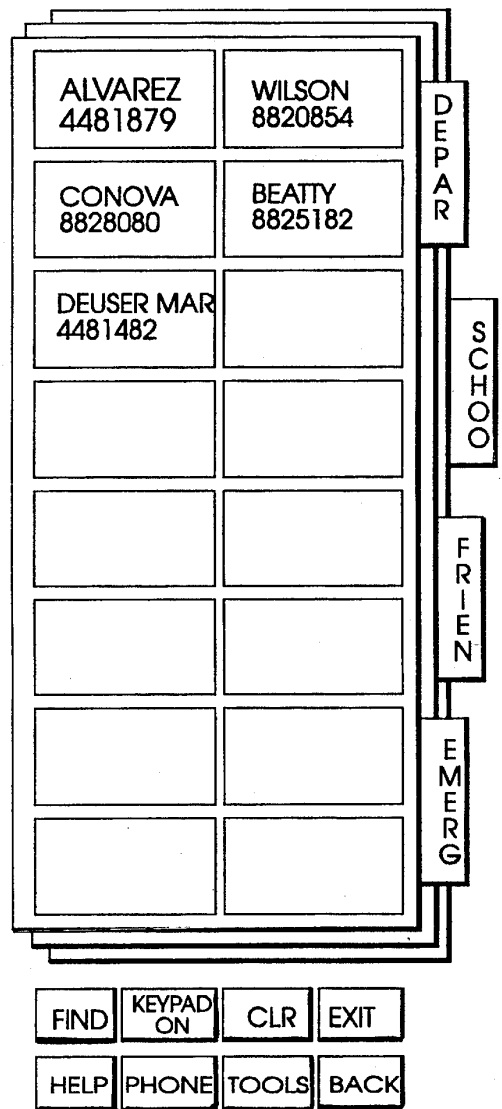


FIG. 3C



Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.