



US005724069A

United States Patent [19]
Chen

[11] **Patent Number:** **5,724,069**
[45] **Date of Patent:** **Mar. 3, 1998**

[54] **SPECIAL PURPOSE TERMINAL FOR INTERACTIVE USER INTERFACE**
[76] Inventor: **Jack Y. Chen**, 3773 Fox Pointe Rd., Rockford, Ill. 61114
[21] Appl. No.: **275,847**
[22] Filed: **Jul. 15, 1994**
[51] **Int. Cl.**⁶ **G09G 5/00**
[52] **U.S. Cl.** **345/172; 345/173**
[58] **Field of Search** **345/156, 168, 345/169, 173, 901, 903, 905, 172; 364/708, 709.01, 709.02, 709.11, 709.12, 709.15**

5,177,328 1/1993 Ito et al. 345/173
5,185,628 2/1993 Wilson et al. 355/209
5,202,817 4/1993 Koenck et al. 361/393
5,250,929 10/1993 Hoffman et al. 345/173
5,268,816 12/1993 Abel, Jr. et al. 361/729
5,302,969 4/1994 Kuroda et al. 345/168
5,305,014 4/1994 Mutschler et al. 345/173

Primary Examiner—Mark R. Powell
Assistant Examiner—Matthew Luu
Attorney, Agent, or Firm—Leydig, Voit & Mayer, Ltd.

[57] **ABSTRACT**

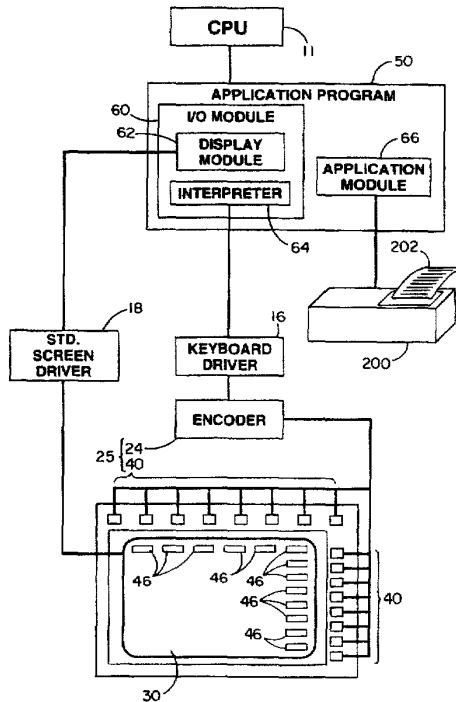
A special purpose microcomputer-based terminal for interactive user interface. The terminal includes a general purpose microcomputer and an interface module made up of a general purpose display screen and an array of pushbuttons positioned along the sides of the screen. Actuating a push-button causes the interface module to generate a standard keystroke signal which is transmitted to the microcomputer through the keyboard port. The input elements of the user interface thus make use of the standard keyboard drivers normally available in a general purpose microcomputer to communicate with the application program. The application program in the computer memory displays on-the-screen selection indicators for available options coordinated to the positions of the pushbuttons, and actuating a button serves to select an option. The application program may present to a user options organized in hierarchal menu tree fashion, and the user may select a path through the menu tree by consecutively actuating the buttons.

[56] **References Cited**

U.S. PATENT DOCUMENTS

D. 287,969 1/1987 Kusanagi D14/106
D. 310,662 9/1990 Fellman et al. D14/106
D. 345,351 3/1994 Wingate D4/115
2,909,761 10/1959 Rockola 340/162
4,333,097 6/1982 Buric et al. 340/711
4,497,036 1/1985 Dunn 364/708
4,524,414 6/1985 Kiyokawa 345/168
4,634,970 1/1987 Payne et al. 345/134
4,667,299 5/1987 Dunn 364/708
4,845,495 7/1989 Bollard et al. 340/973
4,879,548 11/1989 Mitarai et al. 340/712
4,964,018 10/1990 Mallory et al. 361/391
5,020,012 5/1991 Stockberger et al. 364/709
5,050,116 9/1991 Stahnke 364/709
5,059,960 10/1991 Rosenberg et al. 340/111
5,121,477 6/1992 Koopmans et al. 395/156

18 Claims, 11 Drawing Sheets



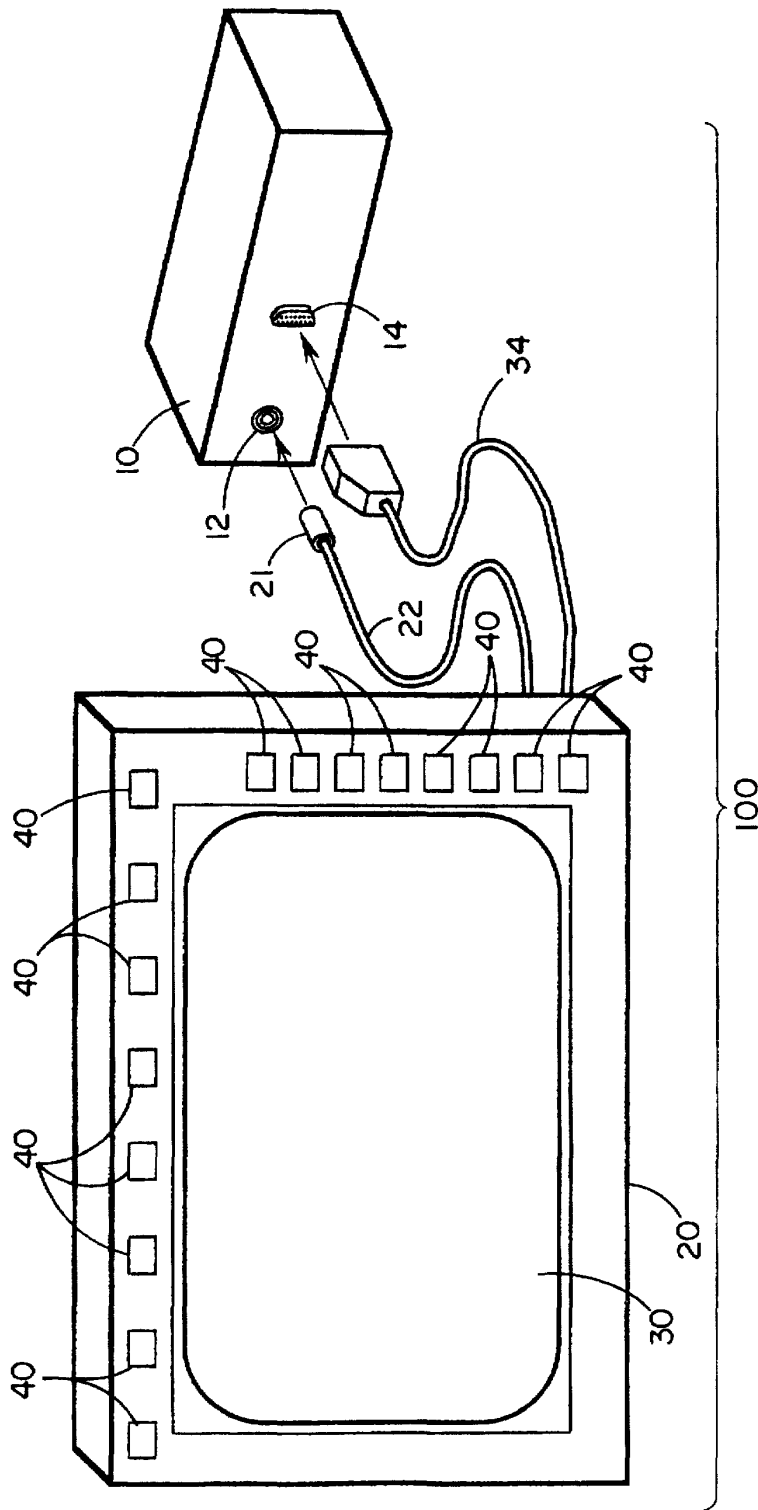


FIG. 1

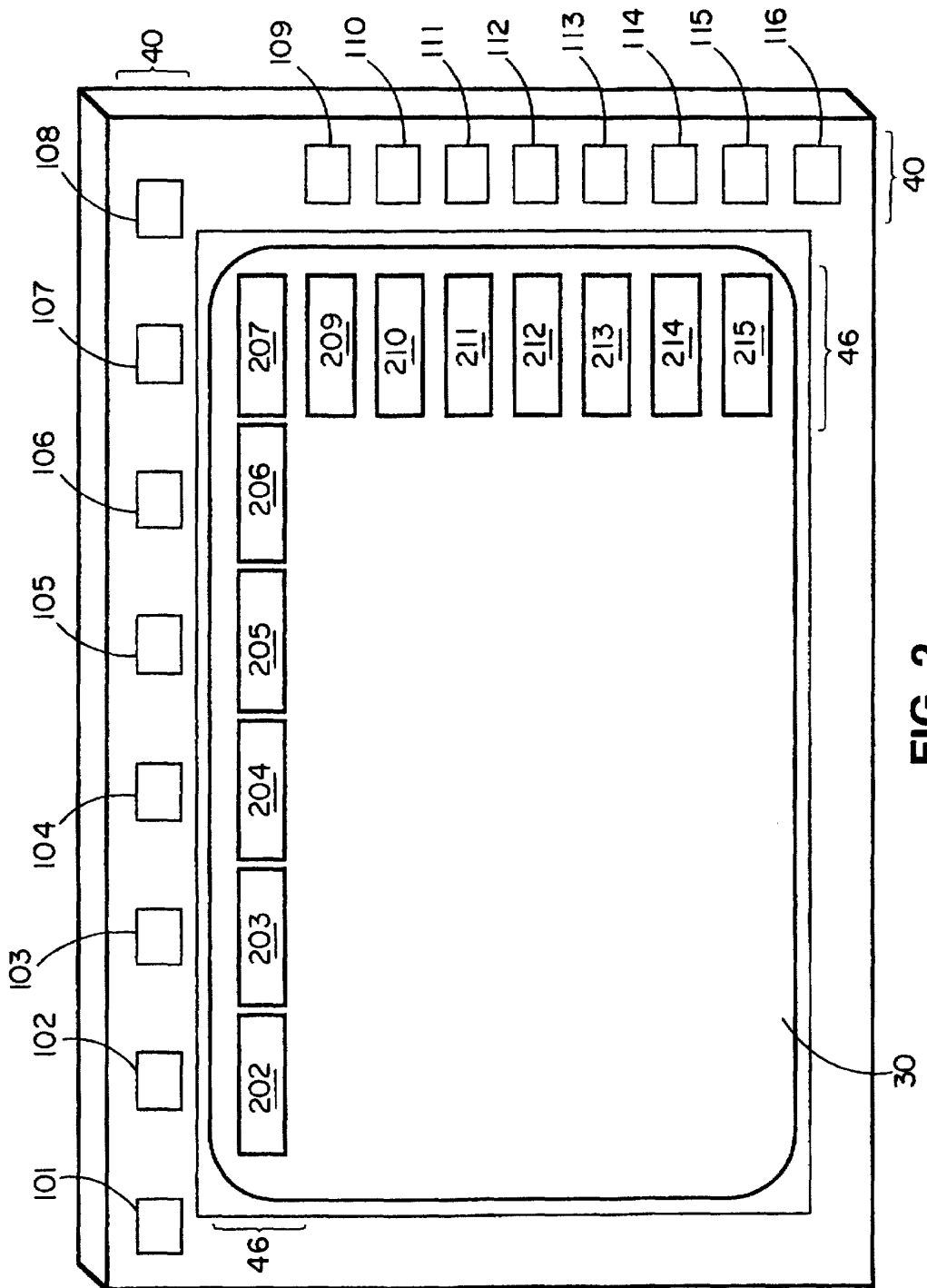


FIG. 2

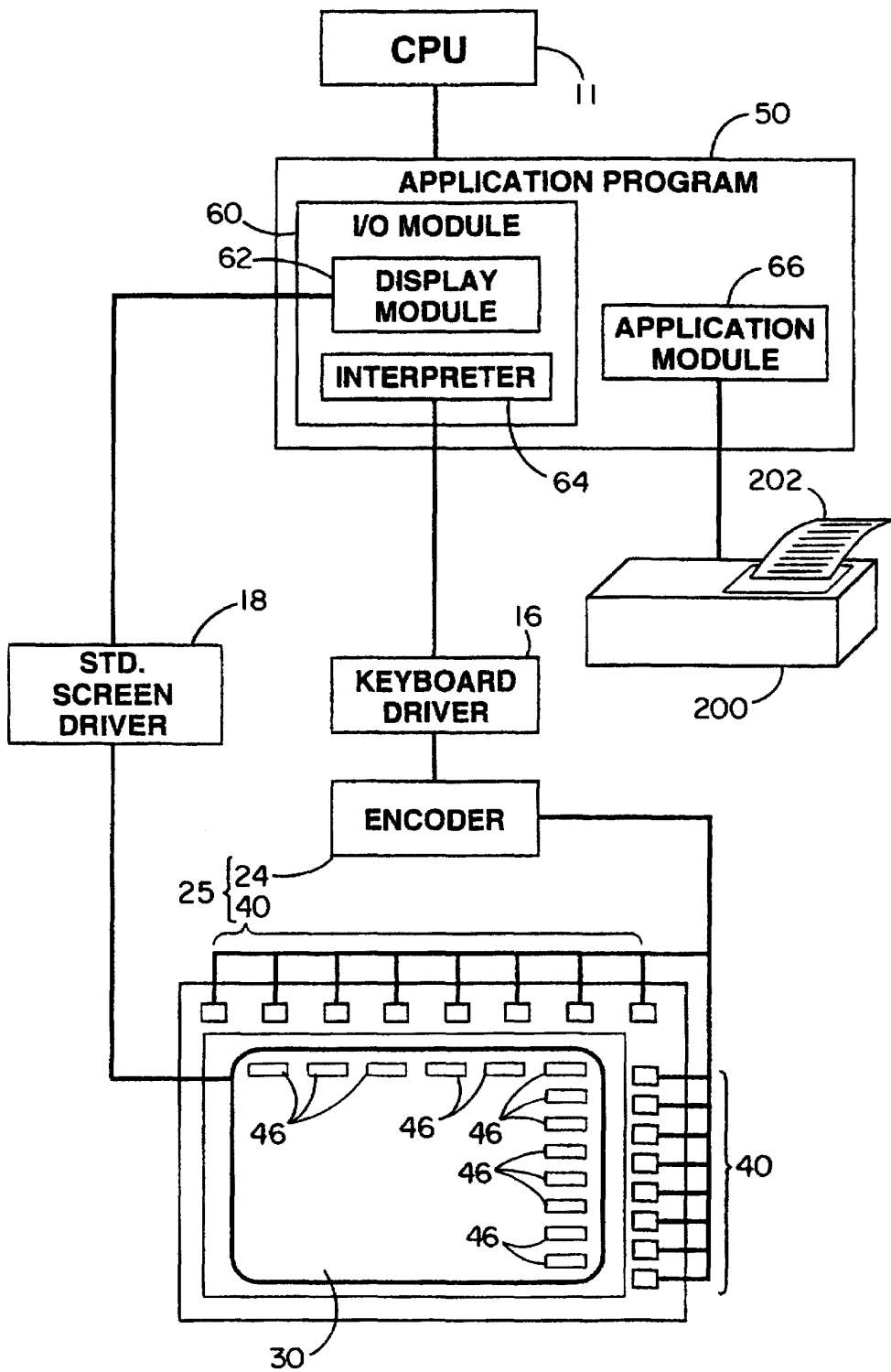


FIG. 3

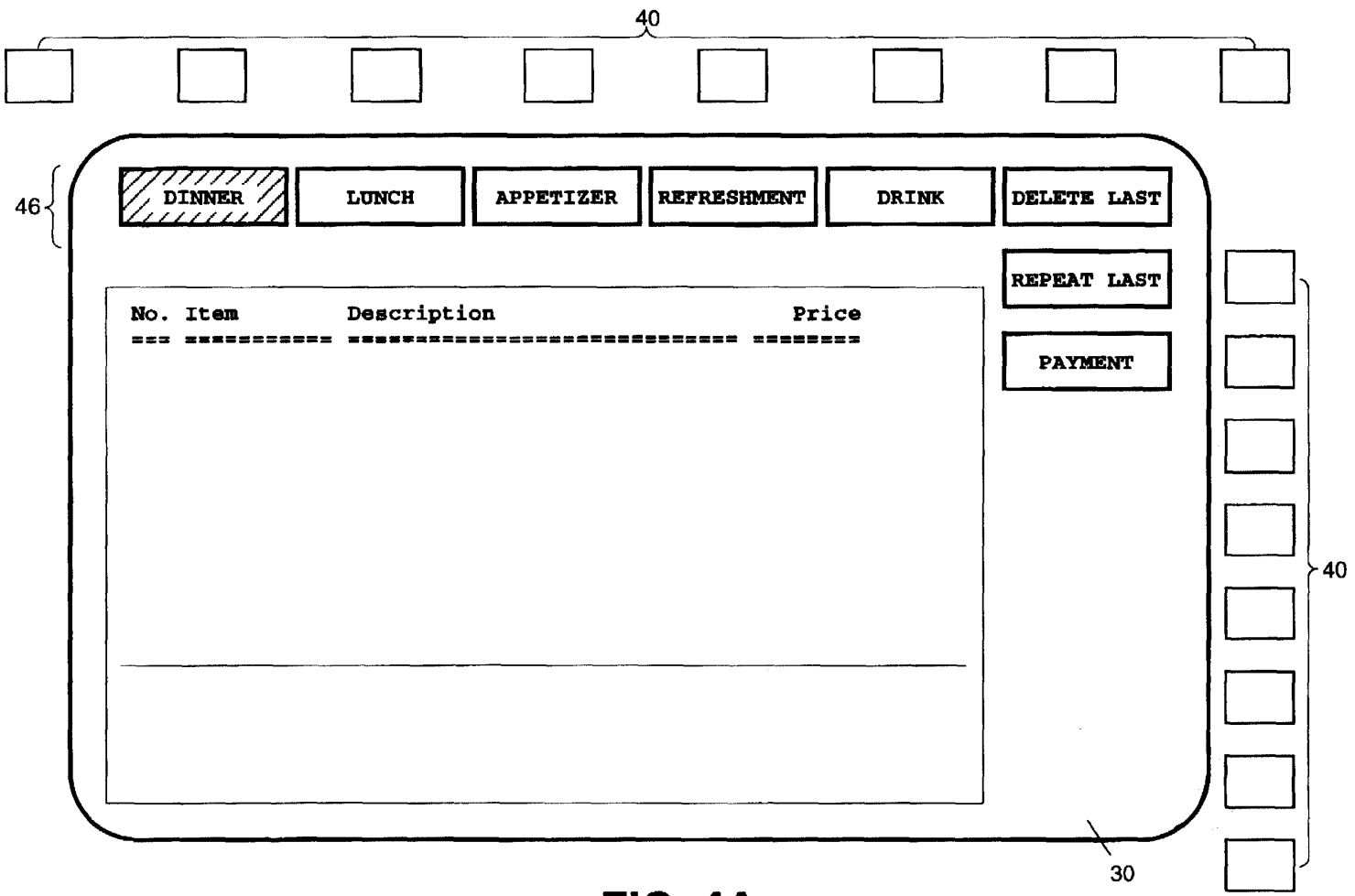


FIG. 4A

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.