



US006029092A

# United States Patent [19]

[11] Patent Number: **6,029,092**

Stein

[45] Date of Patent: **\*Feb. 22, 2000**

[54] **SYSTEM AND METHOD FOR PROVIDING MODULAR CONTROL AND FOR MANAGING ENERGY CONSUMPTION**

5,684,710 11/1997 Ehlers et al. .... 364/492  
5,696,695 12/1997 Ehlers et al. .... 364/492

### OTHER PUBLICATIONS

International Search Report dated Sep. 1, 1998.

Primary Examiner—Paul P. Gordon  
Attorney, Agent, or Firm—George T. Marcou; Kilpatrick Stockton LLP

[75] Inventor: **Michael Stein**, Naples, Fla.

[73] Assignee: **Intellinet, Inc.**, Naples, Fla.

[\*] Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

### [57] ABSTRACT

A control system is extremely flexible and modular and can be equipped or upgraded to have any number or combination of features, such as security, home theater/audio, HVAC, energy management, and lighting with each feature having a separate task unit. The task units can be added or removed from a core set of units within minimal impact on the core set of units. The core set of units includes a control database unit that stores sets of commands in a relational database according to an input/output event and a command execution unit that routes the commands to the appropriate task units for execution. The core set of units do not need to understand the input/output event or the commands but rather routes the commands to the task units addressed for execution. The system has a variable database that contains a relational database of variables shared between the various task units and stores such things as all keypad displays. The individual task units query the variable database unit for values of all shared variables and automatically receive any updates in values of the shared variables from the variable database unit. The software for the system is stored in flash ROM and can be automatically upgraded through a download task unit. The system may have an energy task unit that adjusts consumption of electricity based on any changes in rate and which provides a pathway of communication with the electrical utility company.

[21] Appl. No.: **08/749,341**

[22] Filed: **Nov. 21, 1996**

[51] Int. Cl.<sup>7</sup> ..... **G05B 11/01**

[52] U.S. Cl. .... **700/11; 700/291**

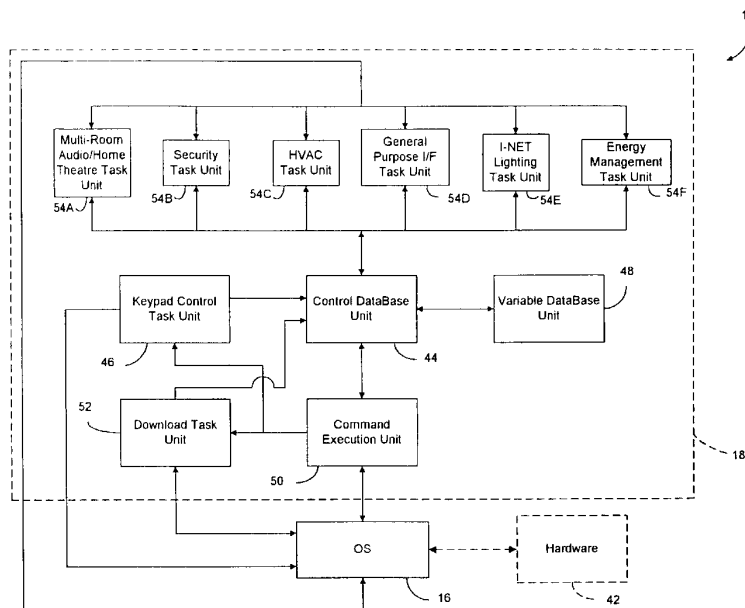
[58] Field of Search ..... 340/825.06, 825.07, 340/825.08, 825.37, 310.01, 310.02, 310.06, 310.07, 310.08; 320/85.8, 85.9, 85.1, 85.13; 700/2, 9-17, 83-87, 80, 286, 291

### [56] References Cited

#### U.S. PATENT DOCUMENTS

4,965,742	10/1990	Skeirik	.....	364/513
5,086,385	2/1992	Launey et al.	.....	364/188
5,400,246	3/1995	Wilson et al.	.....	364/146
5,463,735	10/1995	Pascucci et al.	.....	395/200.52
5,510,975	4/1996	Ziegler, Jr.	.....	364/148
5,570,085	10/1996	Bertsch	.....	364/146
5,572,438	11/1996	Ehlers et al.	.....	364/492
5,598,566	1/1997	Pascucci et al.	.....	395/750.06
5,621,662	4/1997	Humphries et al.	.....	364/138
5,640,153	6/1997	Hildebrand et al.	.....	340/825.06
5,642,101	6/1997	Stirk et al.	.....	340/825.08

**55 Claims, 16 Drawing Sheets**



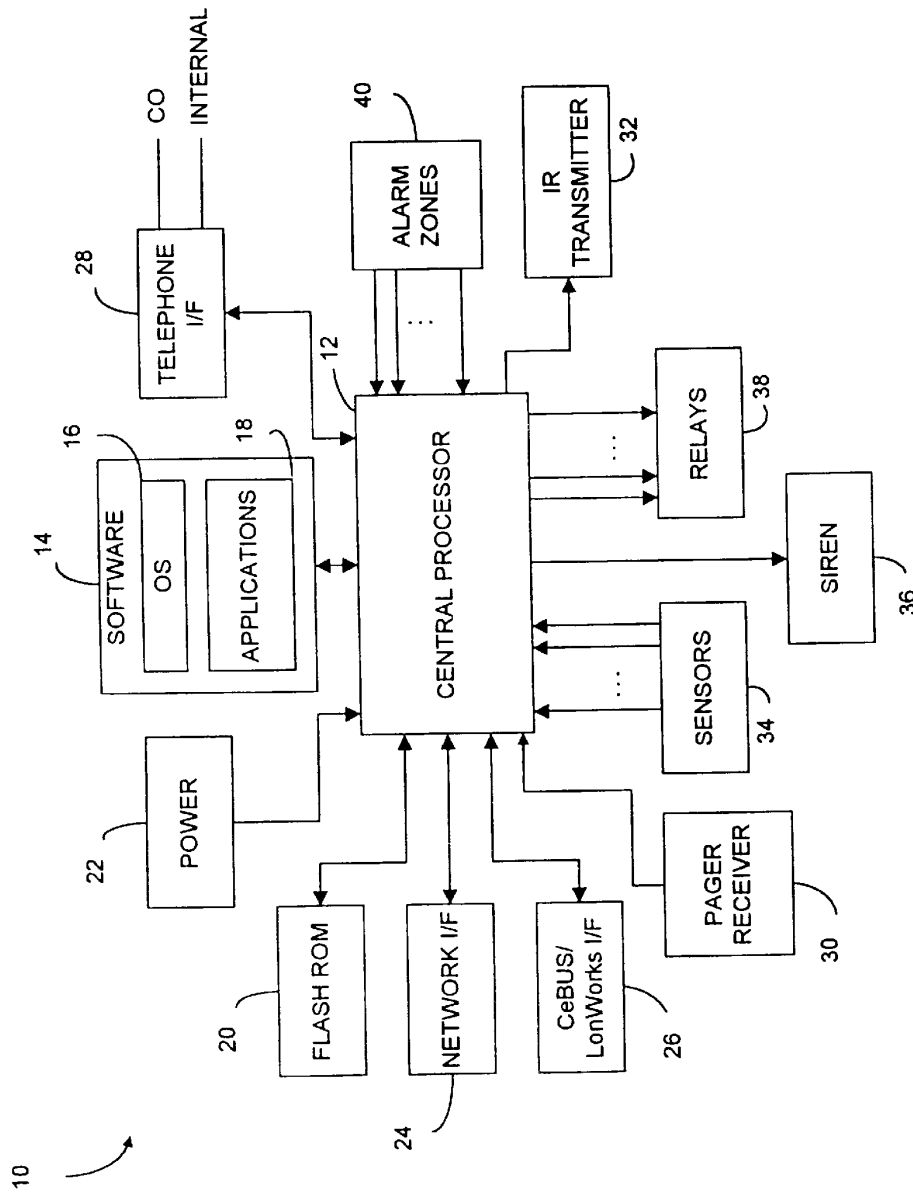


FIG. 1

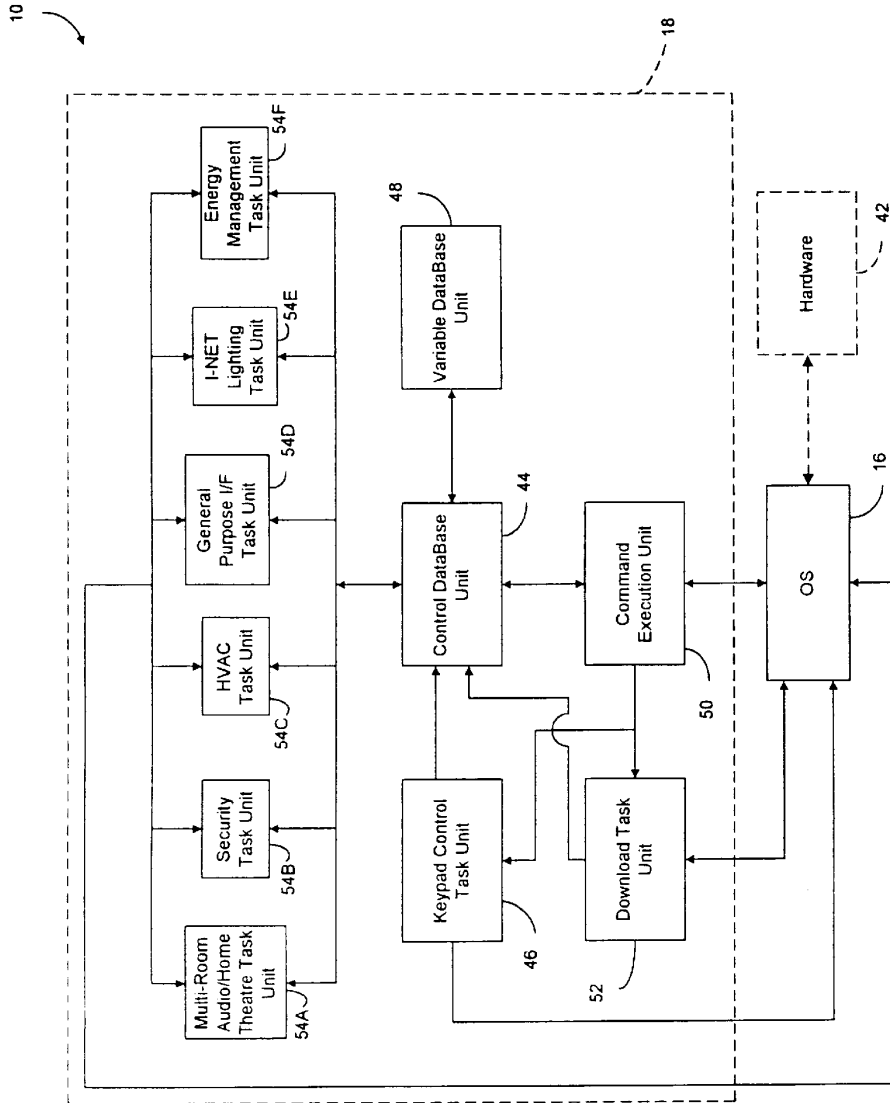


FIG. 2

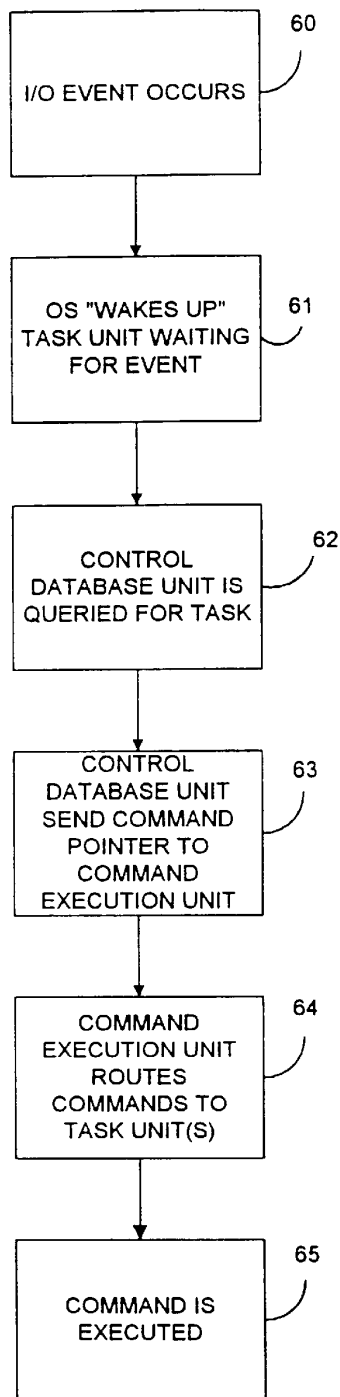


FIG. 3

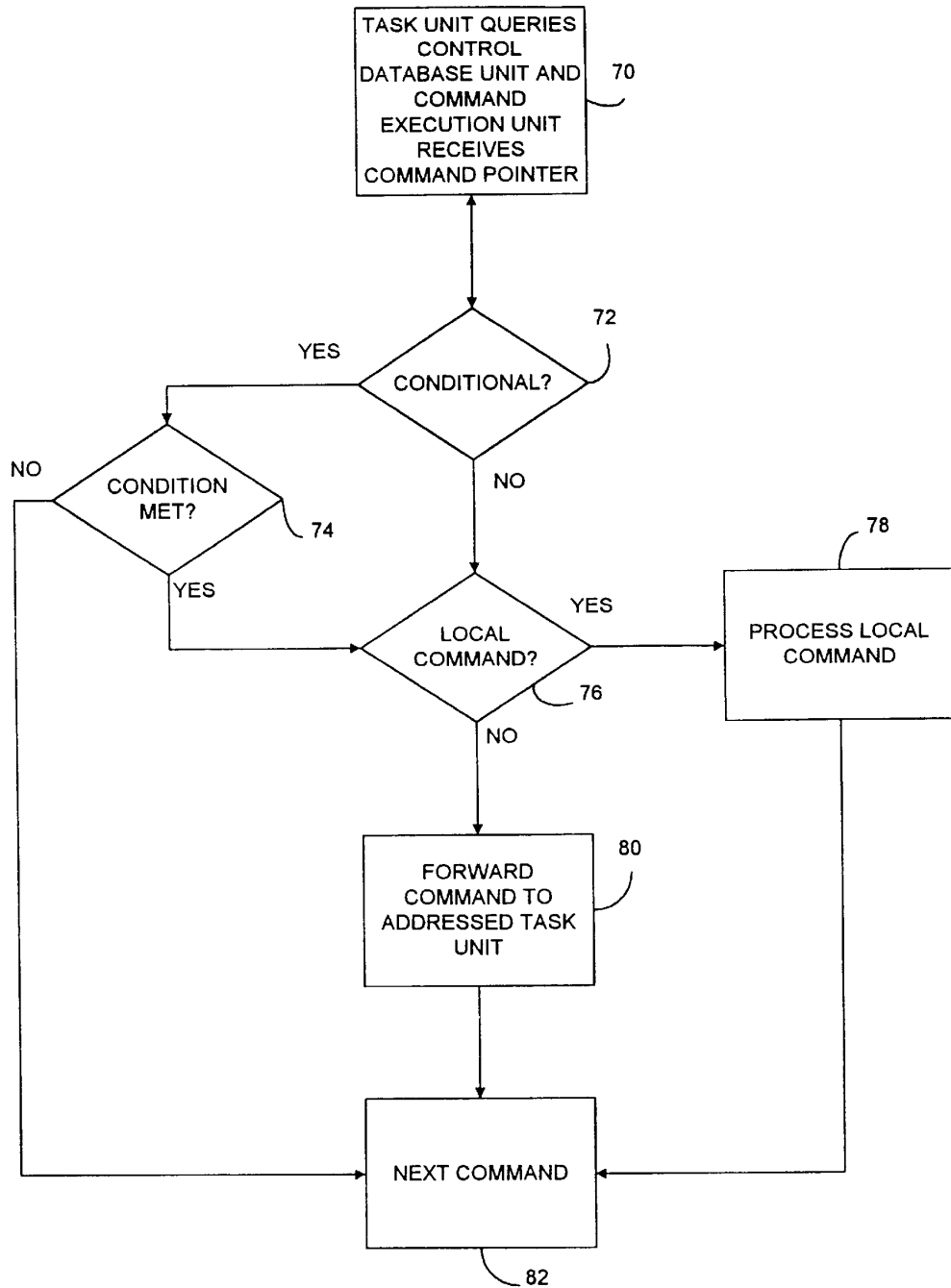


FIG. 4

# 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.