



US005155847A

# United States Patent [19] Kirouac et al.

[11] Patent Number: **5,155,847**  
[45] Date of Patent: **Oct. 13, 1992**

- [54] METHOD AND APPARATUS FOR UPDATING SOFTWARE AT REMOTE LOCATIONS
- [75] Inventors: Donald L. Kirouac, Thornhill; William A. Porrett, Unionville; Marek J. Czerwinski, Scarborough, all of Canada
- [73] Assignee: Minicom Data Corporation, Markham, Canada
- [21] Appl. No.: 227,799
- [22] Filed: Aug. 3, 1988
- [51] Int. Cl.<sup>5</sup> ..... G06F 7/00; G06F 9/00; G06F 13/00
- [52] U.S. Cl. .... 395/600; 395/650; 395/200; 364/DIG. 1; 364/DIG. 2
- [58] Field of Search ..... 364/300, 200 MS File, 364/900 MS File; 395/600, 650, 200

### [56] References Cited U.S. PATENT DOCUMENTS

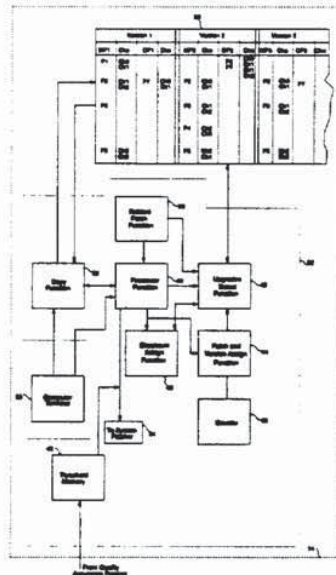
4,558,413	12/1985	Schmidt et al. ....	364/300
4,630,234	12/1986	Holly .....	364/900
4,641,274	2/1987	Swank .....	364/900
4,714,996	12/1987	Gladney et al. ....	364/300
4,748,561	5/1988	Brown .....	364/300
4,794,519	12/1988	Koizumi et al. ....	364/200
4,827,399	5/1989	Shibayama .....	364/200
4,845,665	7/1989	Heath et al. ....	364/900
4,849,879	7/1989	Chinnaswamy et al. ....	364/200
4,858,114	8/1989	Heath et al. ....	364/200
4,866,611	9/1989	Cree et al. ....	364/900
5,019,963	5/1991	Alderson et al. ....	364/200

Primary Examiner—Stuart N. Hecker  
Assistant Examiner—Michael A. Whitfield  
Attorney, Agent, or Firm—Nixon & Vanderhye

### [57] ABSTRACT

A method and system are provided for updating the software used in remote computer systems from a central computer system. The method includes storing in the central computer system, copies of the software executable used in each remote computer system. When the copies of the software in the central computer system are upgraded, for example, to correct the software, to add new facilities, to change user interfaces, to make cosmetic changes, to improve performance, etc., each change made to the software is monitored and stored. The remote computer systems are permitted access to the central computer system via communication links and the software in the remote computer systems and the corresponding software in the central computer system are compared. All of the changes that have been made to the software at the central computer system which have not been made to the corresponding software at the remote computer system accessing the central computer are detected. The detected changes are then transmitted to the remote computer system and applied to the software therein in order to upgrade the software in the remote computer system. The upgraded software in the remote computer system is examined to ensure that the software has been changed correctly. The method allows the software at the remote computer systems to be upgraded even while the software at the remote site is being used. The system and method also allow the software used in the remote computer systems to be upgraded when the remote computer systems use different versions of the software and allow the software to be upgraded in a variety of hardware environments and operating systems.

32 Claims, 7 Drawing Sheets



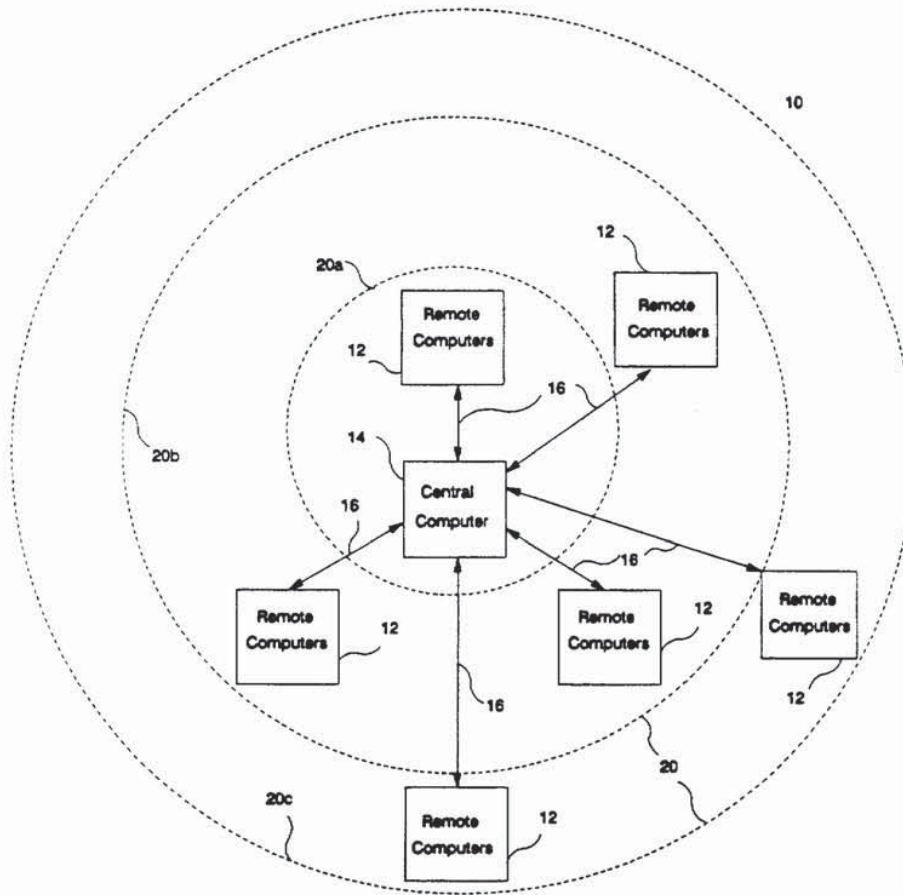


Figure 1

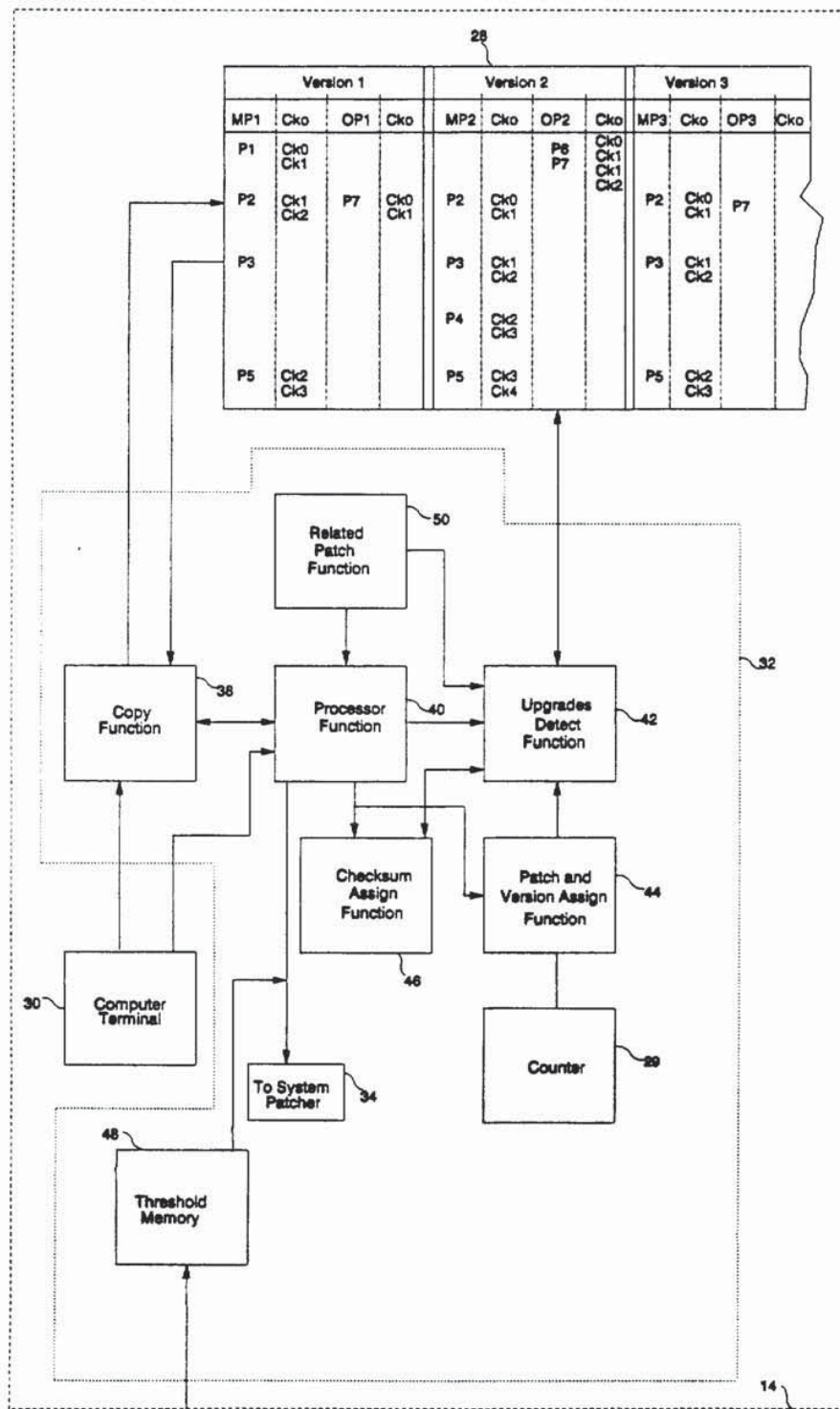
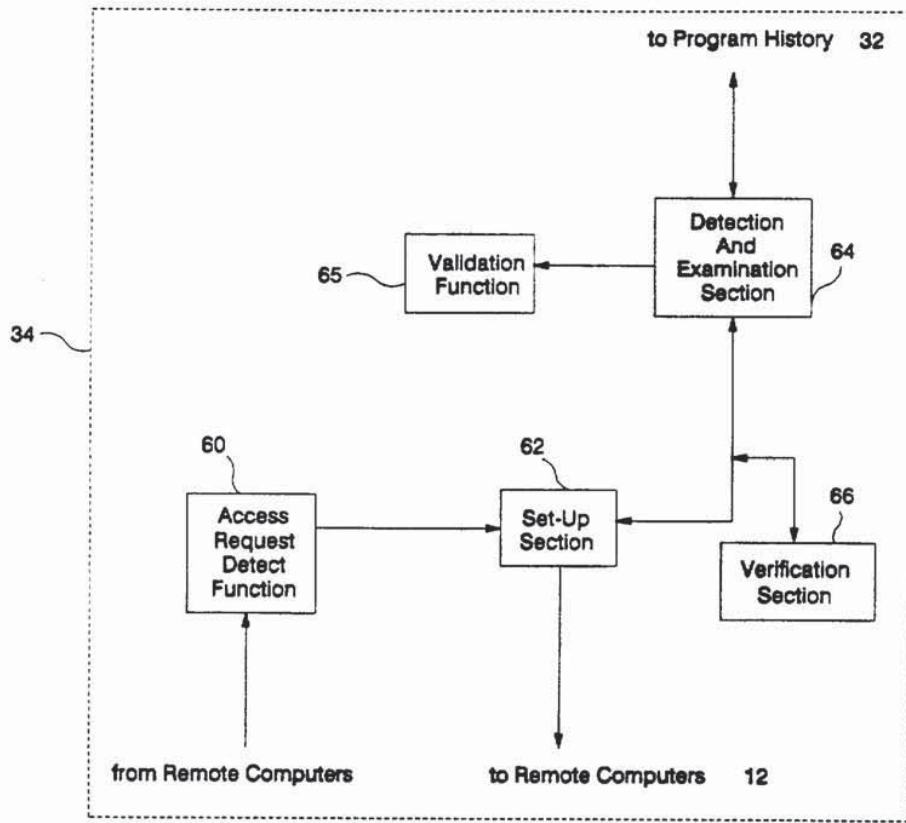


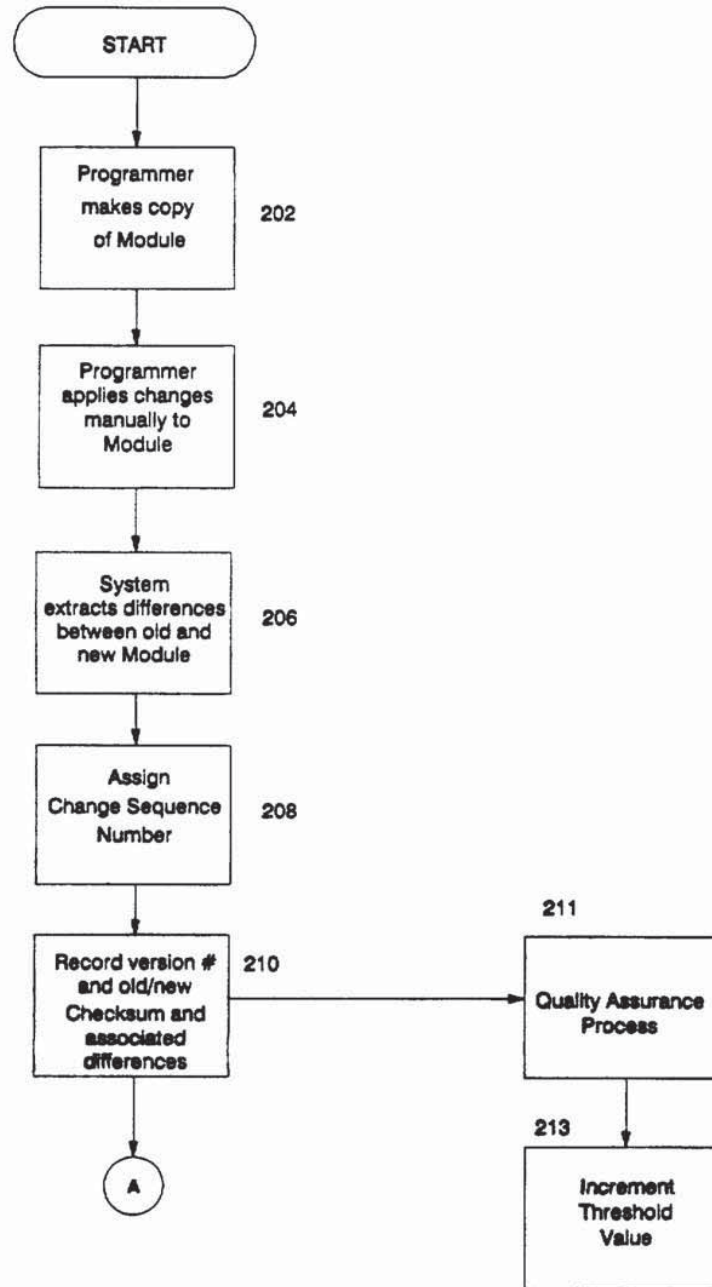
Figure 2a



14

Figure 2b

Figure 3a



# 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.