



US005675789A

United States Patent [19]
Ishii et al.

[11] Patent Number: 5,675,789
[45] Date of Patent: Oct. 7, 1997

- [54] **FILE COMPRESSION PROCESSOR MONITORING CURRENT AVAILABLE CAPACITY AND THRESHOLD VALUE**
- [75] Inventors: **Masanori Ishii; Masashi Omuro**, both of Tokyo, Japan
- [73] Assignee: **NEC Corporation**, Tokyo, Japan
- [21] Appl. No.: **669,847**
- [22] Filed: **Jun. 26, 1996**

Related U.S. Application Data

- [63] Continuation of Ser. No. 139,030, Oct. 21, 1993, abandoned.

Foreign Application Priority Data

- Oct. 22, 1992 [JP] Japan 4-308173

- [51] Int. Cl.⁶ **G06F 17/30**
- [52] U.S. Cl. **395/620; 364/715.02**
- [58] Field of Search **395/620, 444, 395/445, 463, 460, 612, 616; 364/715.02**

References Cited

U.S. PATENT DOCUMENTS

4,888,681	12/1989	Barms et al.	395/600
5,109,433	4/1992	Notemboom	382/40
5,128,776	7/1992	Scorese et al.	358/426
5,276,898	1/1994	Keil et al.	395/800
5,313,631	5/1994	Kao	395/600
5,317,728	5/1994	Truis et al.	395/600
5,367,698	11/1994	Webber et al.	395/800
5,374,916	12/1994	Chu	340/146.2
5,403,639	4/1995	Belsan et al.	395/620
5,579,507	11/1996	Hosouchi et al.	395/497.02

OTHER PUBLICATIONS

Israel et al., "Evolutionary Path to Network Storage Management", *USENIX*, 1991 (Winter) p. 185-198.
 Alsberg, "Space and Time Savings Through Large Path Base Compression and Dynamic Restructuring". Aug. 1975 pp. 1114-1122, Proceedings of the IEEE, vol. 63 No. 8.
 Lelewer, D. A. et al., "Data Compression", *ACM Computing Surveys*, vol. 19, No. 3, pp. 261-296, (Sep. 1987).

Primary Examiner—Thomas G. Black
Assistant Examiner—Jack M. Choules
Attorney, Agent, or Firm—Foley & Lardner

[57] ABSTRACT

A file compression processor of the present invention comprises a file status monitor which compares the current available capacity on the file unit to record files and the threshold value predetermined as the upper limit of the available capacity and a file compression portion which compresses a file on said file unit when the file status monitor judges that the current available capacity is smaller than the threshold. It further comprises a file attribute controller which stores the control information for the files recorded on the file unit including the last access date, the number of accesses, whether the file is already compressed or not and a search portion which searches for files not yet compressed with low access frequency based on the control information so as to select files to be compressed for compression by said compression portion and a compression method selector which determines the data type and the access frequency of the file for compression by said compression portion based on the control information, selects the file compression method suitable for said data type and the access frequency and instructs said compression portion to execute processing by the selected compression method.

15 Claims, 9 Drawing Sheets

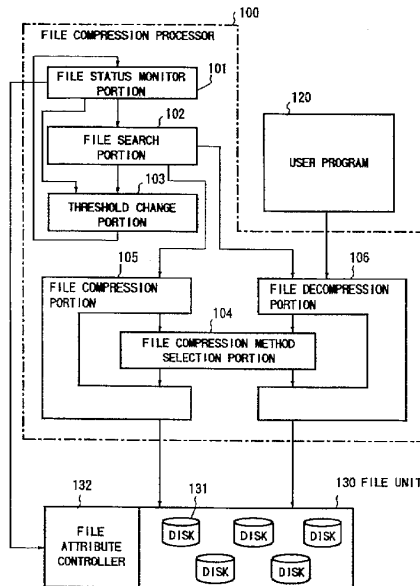


FIG. 1

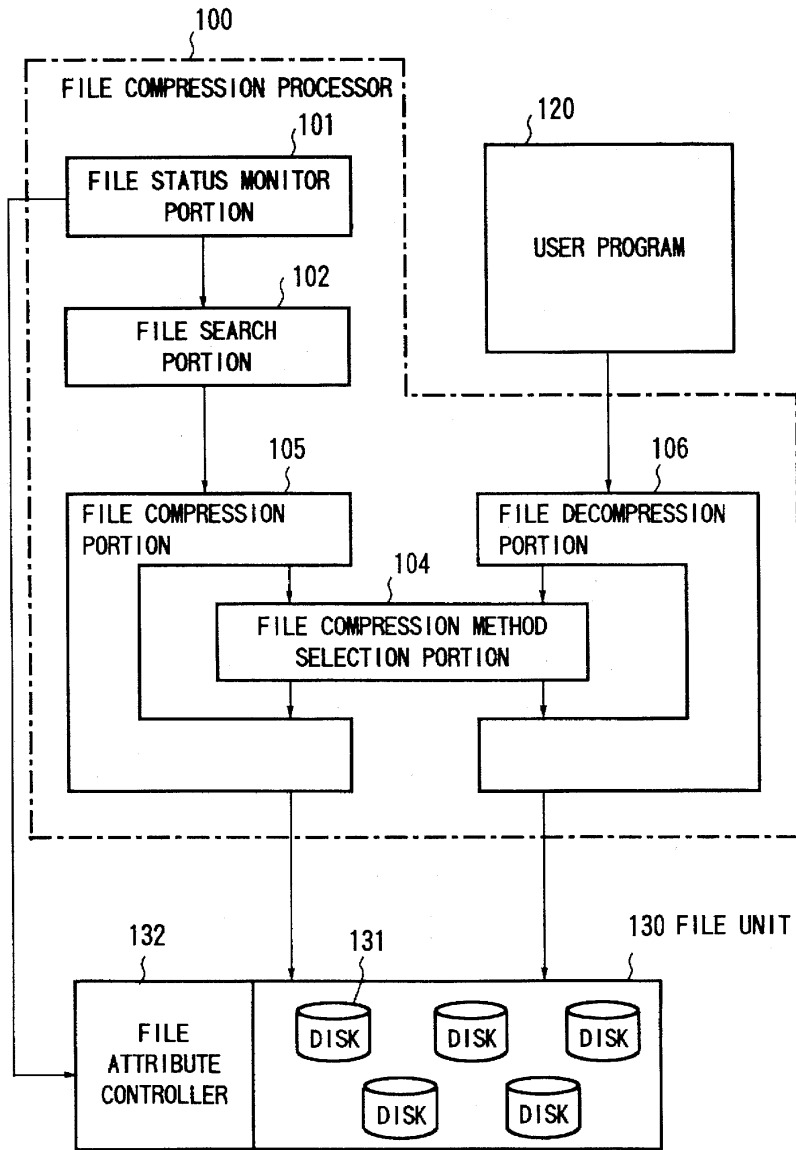


FIG.2

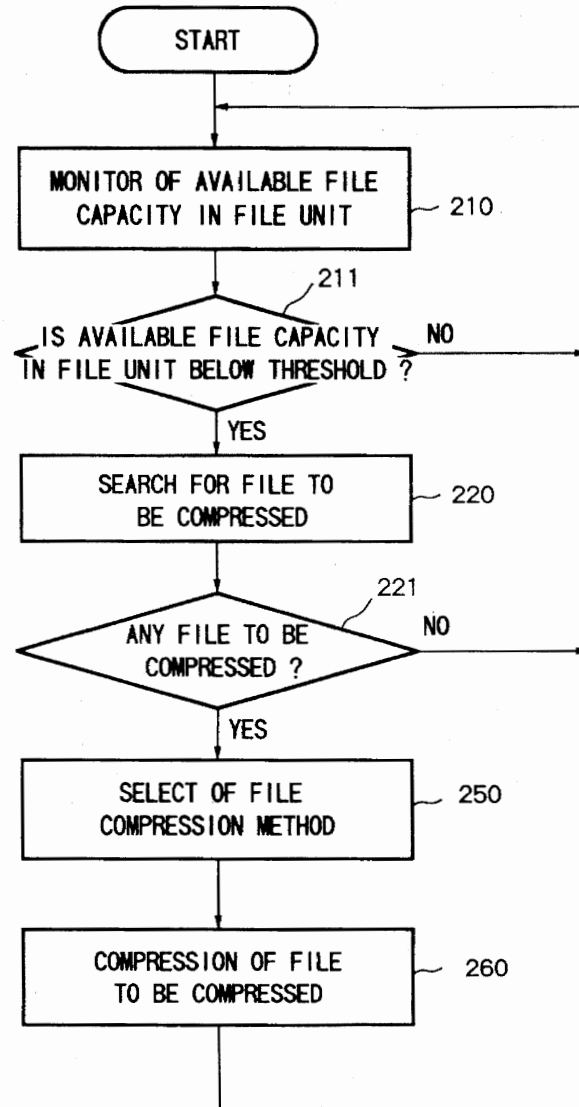
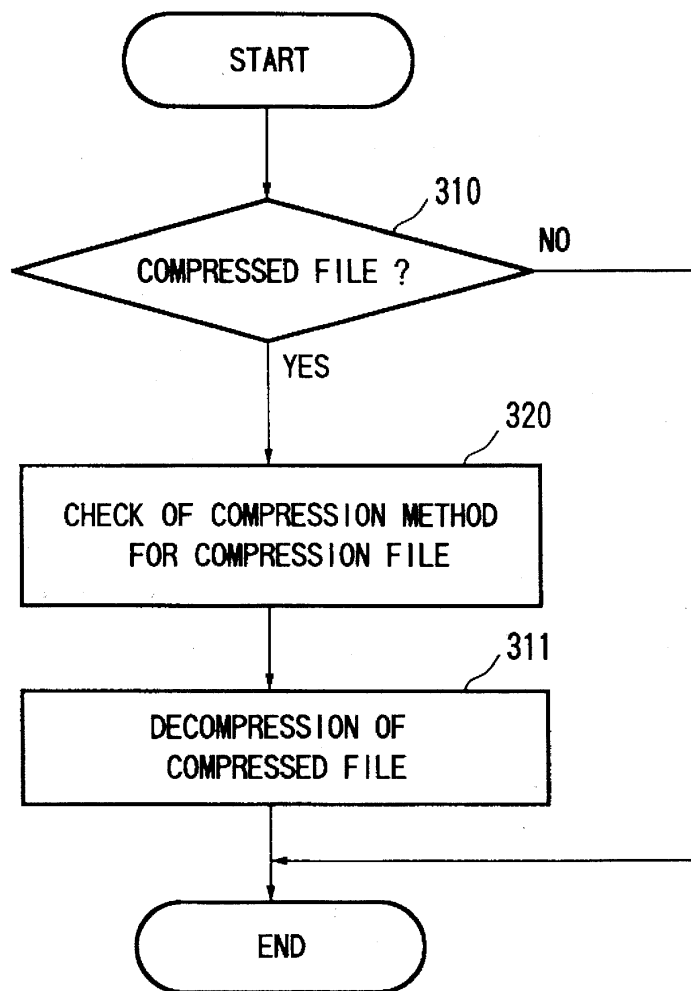
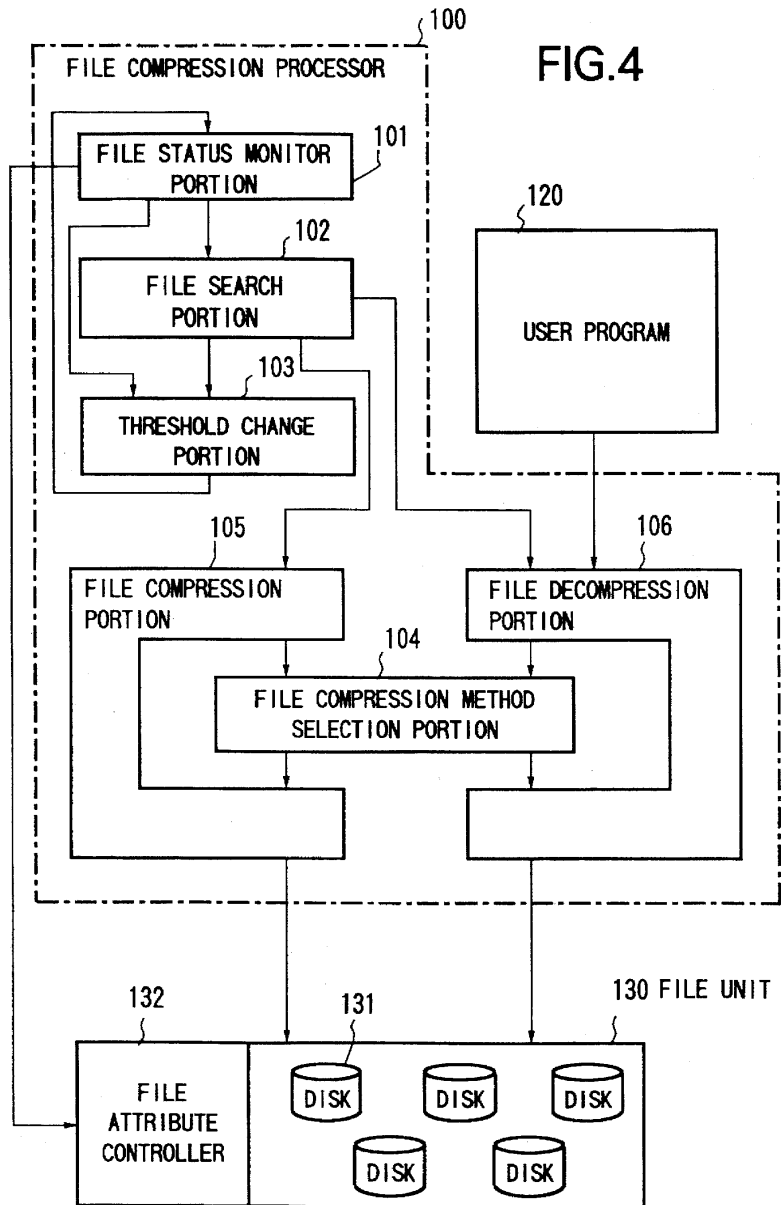


FIG.3





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.