

# UNIFIED PATENTS

## EXHIBIT 1003



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**Balcha et al.**

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(54) **METHOD AND SYSTEM FOR REFLECTING DIFFERENCES BETWEEN TWO FILES**

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(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/127,523**  
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(51) **Int. Cl.**<sup>7</sup> ..... **G06F 17/30**  
(52) **U.S. Cl.** ..... **707/203**  
(58) **Field of Search** ..... **707/203-10, 201, 707/204, 217, 2, 6, 8, 101, 202, 205**

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

5,479,654	12/1995	Squibb	707/201
5,574,906	11/1996	Morris	707/1
5,634,052	5/1997	Morris	707/1
5,778,395	* 7/1998	Whiting et al.	707/204
5,919,247	* 7/1999	Van Hoff et al.	709/217
6,052,531	* 4/2000	Waldin, Jr. et al.	707/10

**OTHER PUBLICATIONS**

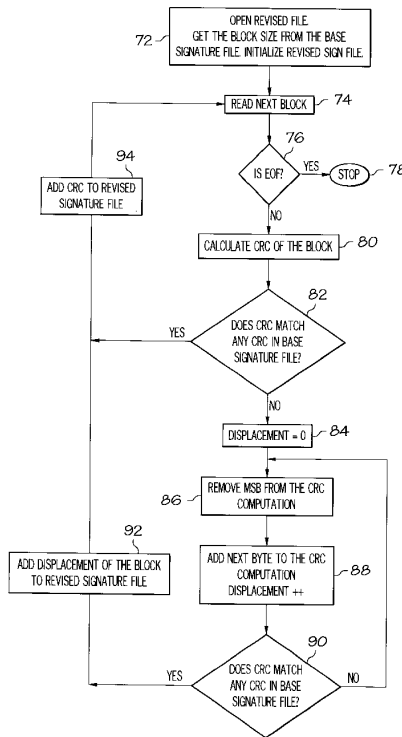
ICS 161: Design and Analysis of Algorithms Lecture Notes for Feb. 19, 1996, "Longest Common Sequences", World Wide Web publication.  
"Longest Common Subsequence Problem", Pruhs, World Wide Web publication, Oct. 6, 1997.  
"Longest Common Subsequence", World Wide Web publication, 2 pp., author and publication date unknown.  
"Executive Summary", World Wide Web publication, 5 pp., author and publication date unknown.  
\* cited by examiner

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(57) **ABSTRACT**

A method and system for reflecting differences between two files. The method includes generating a base signature file having a plurality of base bit patterns, each base bit pattern being generated as a function of a portion of data in a first file. A second file containing a plurality of revised bit patterns is generated from a second file. Each revised bit pattern is compared to and matches at least one of the base bit patterns. A delta file reflecting the differences between a first file and the second file based on the base signature file, the delta signature file, and the second file is created.

**20 Claims, 4 Drawing Sheets**



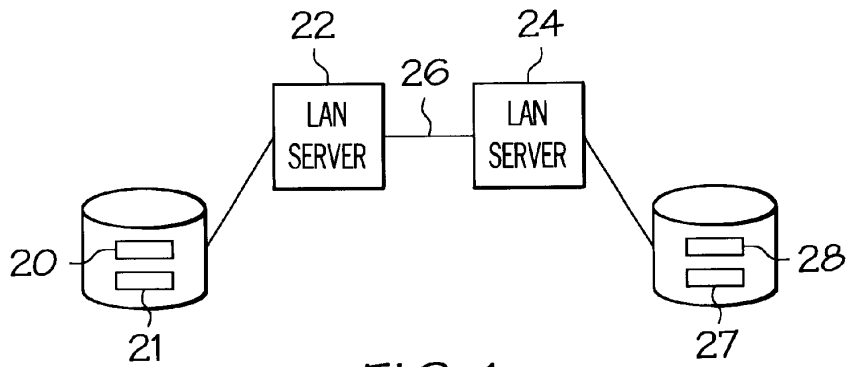


FIG. 1

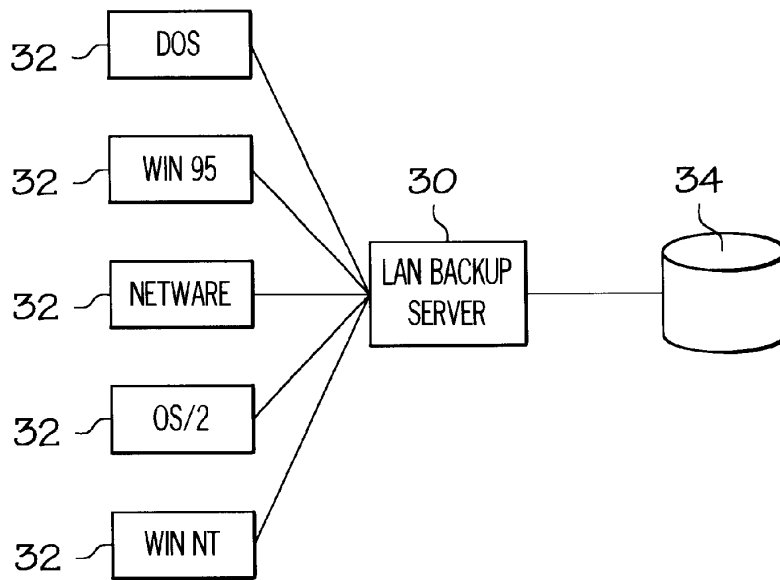


FIG. 2

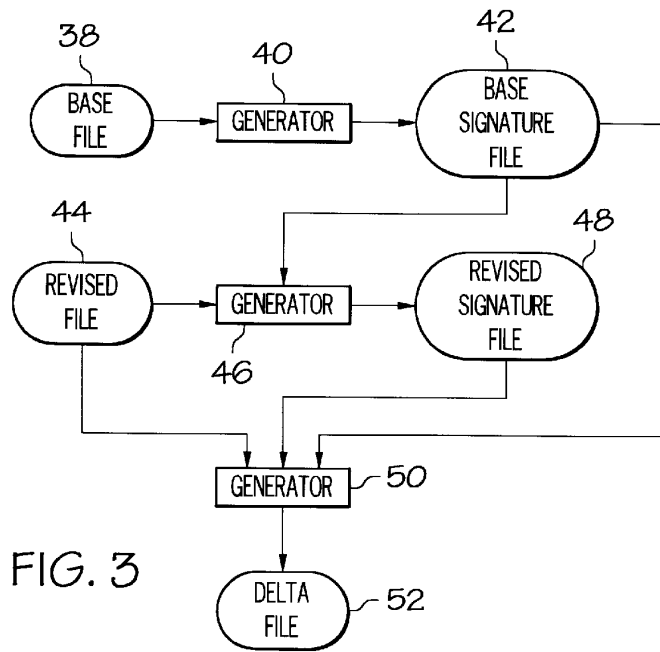


FIG. 3

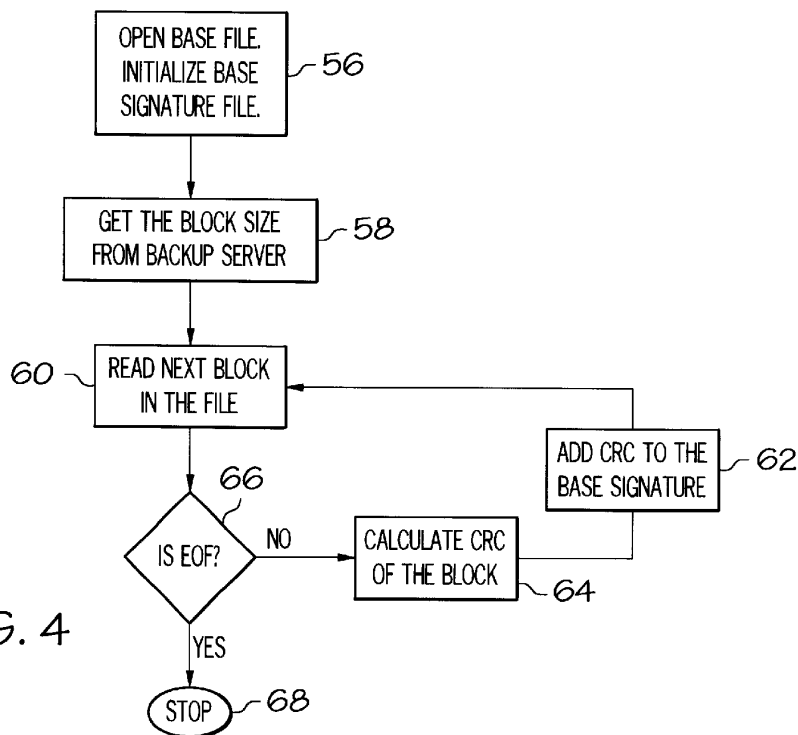


FIG. 4

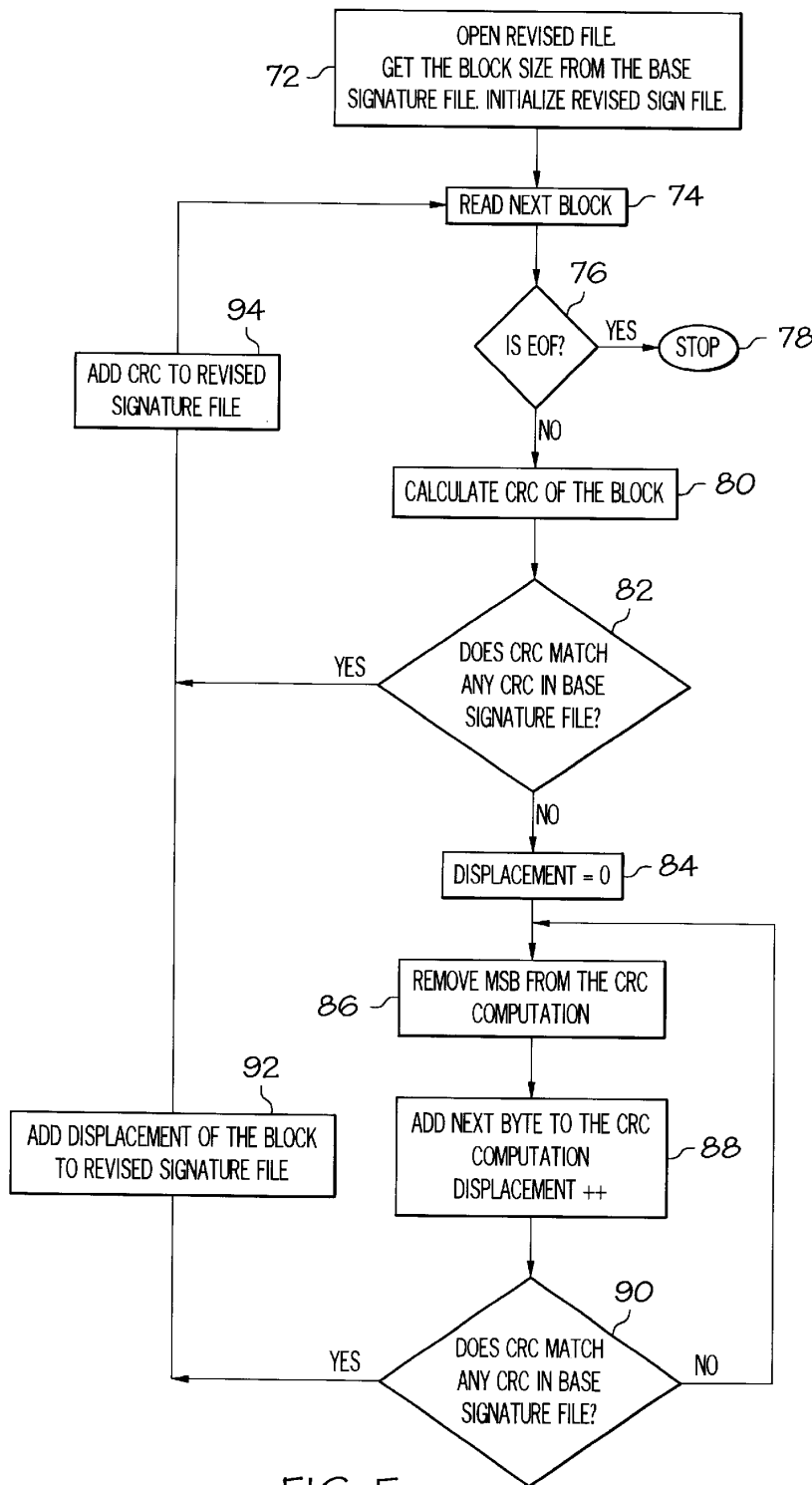


FIG. 5

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