

### (12) United States Patent Bianchi et al.

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### (54) METHOD AND APPARATUS FOR LOCATING AND CORRECTING SOUND OVERLOAD

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patent is extended or adjusted under 35 U.S.C. 154(b) by 635 days.

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(52) **U.S. Cl.** ...... **381/56**; 381/94.8; 381/106;

700/94; 715/716; 715/727

381/106, 94.8; 704/503; 715/727, 716;

See application file for complete search history.

#### (56)References Cited

#### U.S. PATENT DOCUMENTS

4,398,061 A *	8/1983	McMann, Jr 381/94.8
6,055,495 A *	4/2000	Tucker et al 704/210
6,403,871 B2*	6/2002	Shimizu et al 84/622

\* cited by examiner

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### **ABSTRACT**

The invention describes a graphical method for detecting and adjusting audio overload conditions. The graphical user interface provides a user complete playback control of several audio tracks, detection of overload conditions such as audio clipping, and graphical methods to correct the overload conditions. The graphical interface provides drag handles which the user can use to adjust the various characteristics of an audio file. The characteristics, such as amplitude and temp, may be adjusted as a function of time.

### 11 Claims, 4 Drawing Sheets

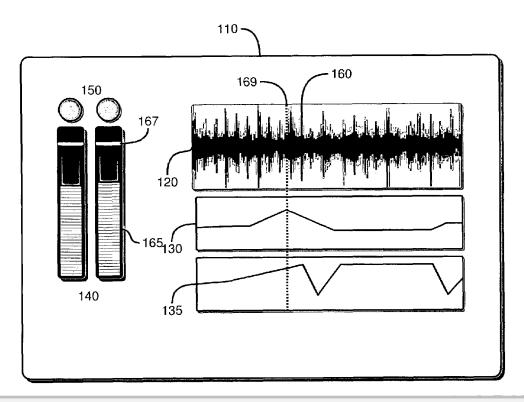
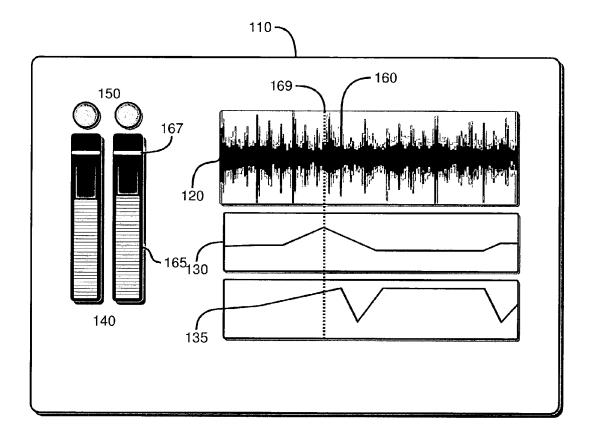




Figure 1



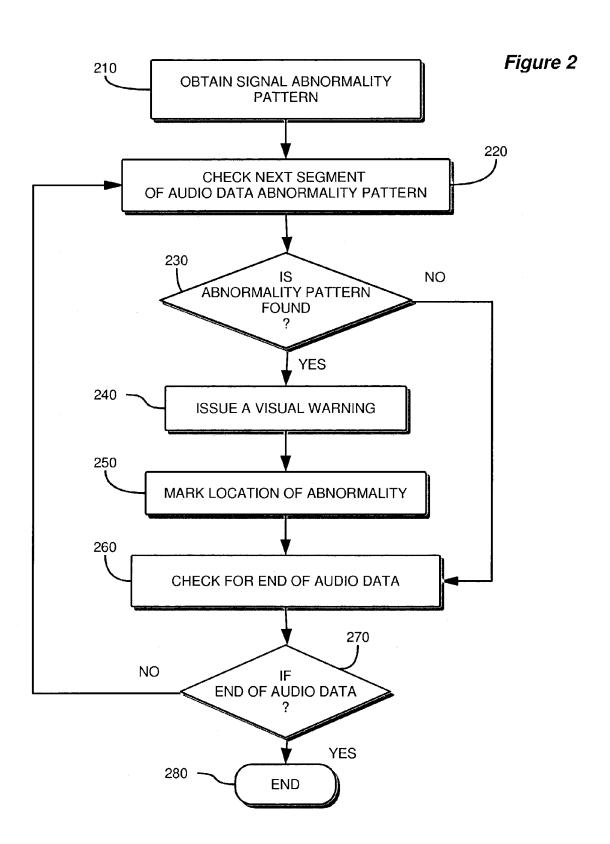




Figure 3

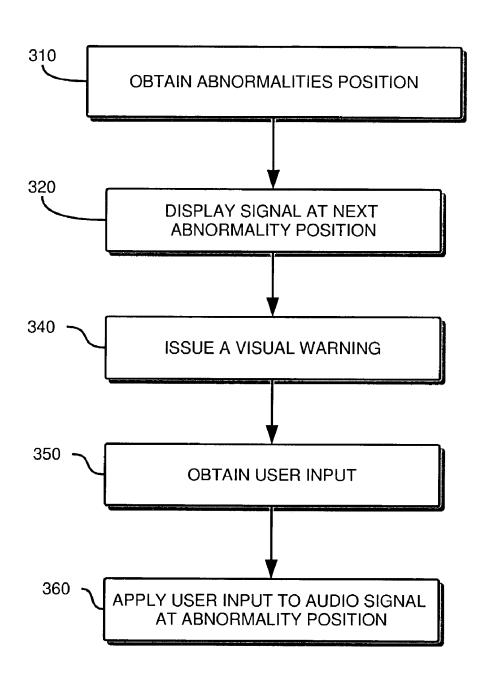
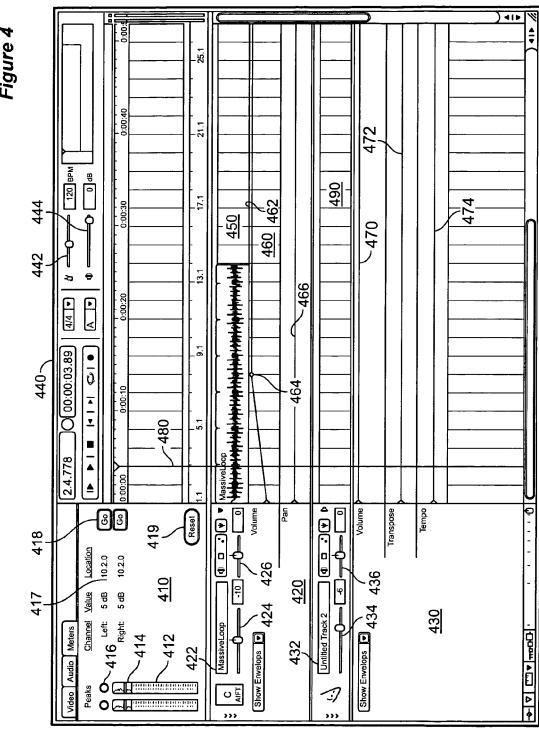




Figure 4





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