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(12) **United States Patent**
Goodman et al.

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(45) **Date of Patent:** **Aug. 9, 2005**

(54) **AUTOMATIC HIERARCHICAL
CATEGORIZATION OF MUSIC BY
METADATA**

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(57) **ABSTRACT**

A method, performed by software executing on the processor of a portable music playback device, that automatically files tracks according to hierarchical structure of categories to organize tracks in a logical order. A user interface is utilized to change the hierarchy, view track names, and select tracks for playback or other operations.

16 Claims, 12 Drawing Sheets

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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 323 days.

(21) **Appl. No.:** **09/755,723**

(22) **Filed:** **Jan. 5, 2001**

(65) **Prior Publication Data**

US 2002/0147728 A1 Oct. 10, 2002

(51) **Int. Cl.**⁷ **G06F 17/30**

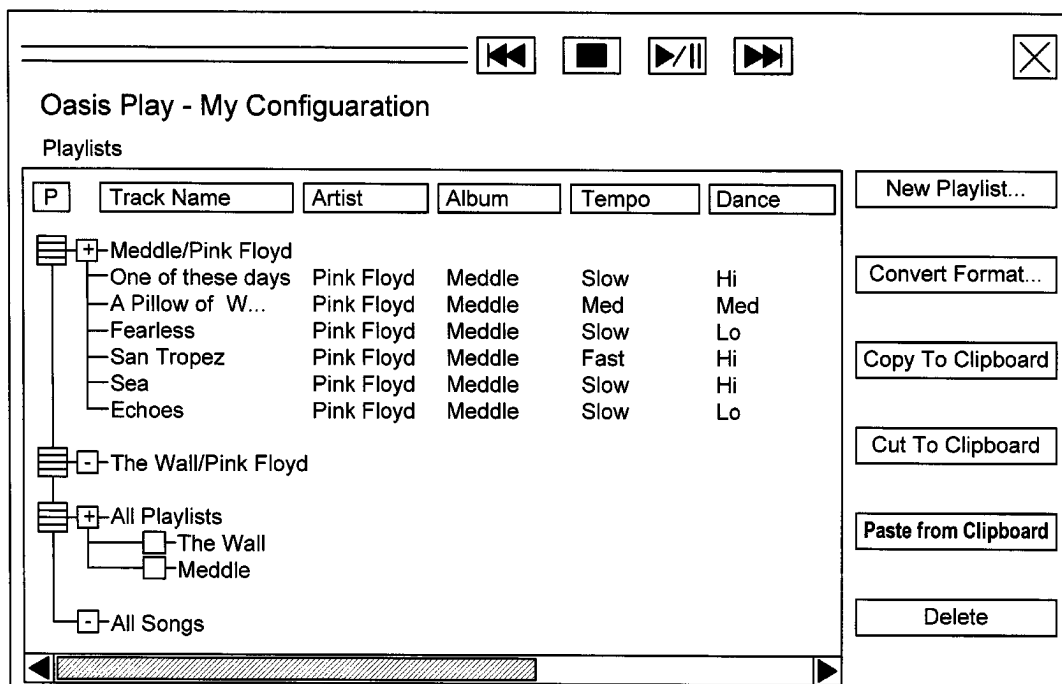
(52) **U.S. Cl.** **707/4; 707/3; 707/102; 386/46**

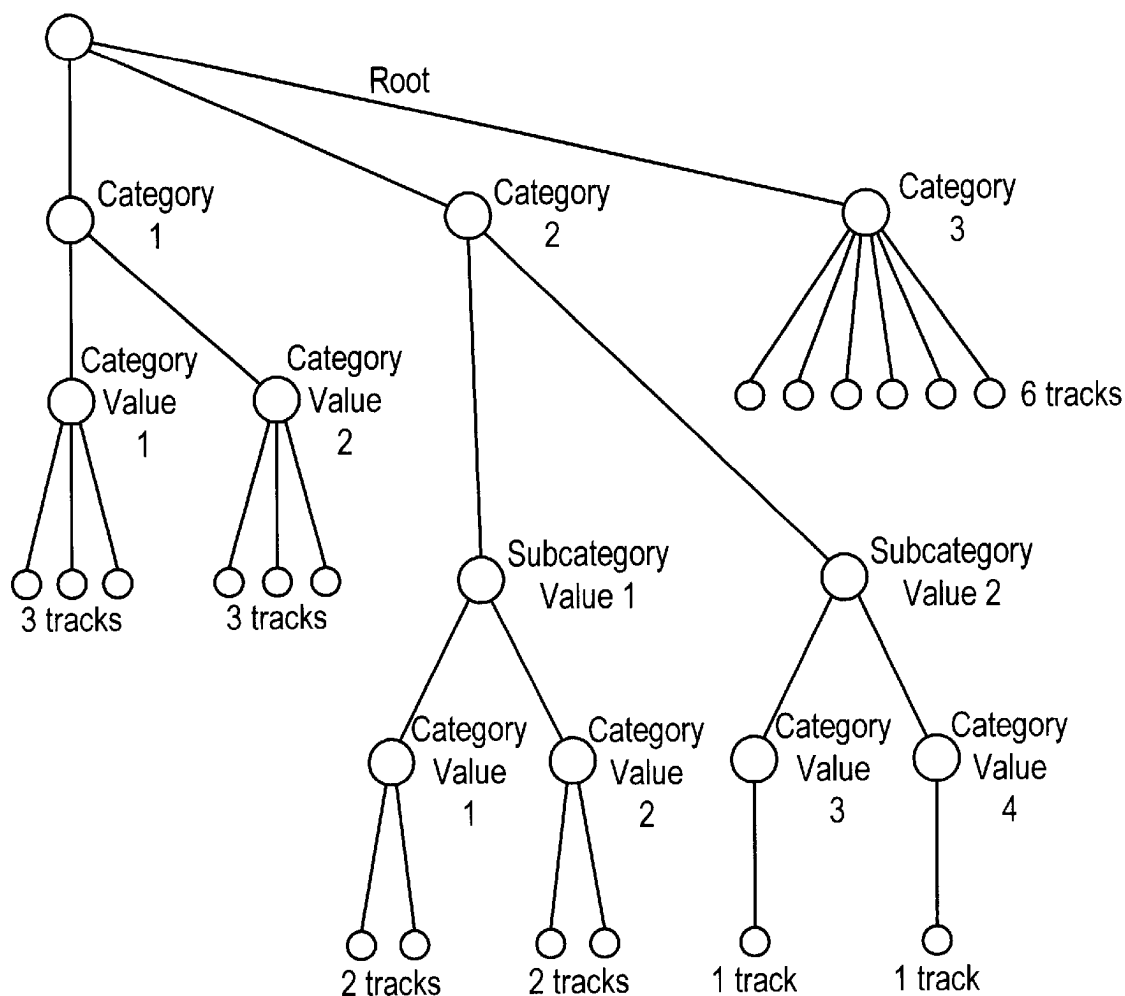
(58) **Field of Search** 84/609, 601, 602, 84/611–614; 707/104.1, 3, 4, 102; 386/46

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For example:

Category 1 = Album Name

Category Value 1 = Abbey Road

Category Value 2 = Hits from the 60's

Category 2 = Artist Name

Subcategory Value 1 = British Artists

Subcategory Value 2 = American Artists

Category Value 1 = The Beatles

Category Value 2 = Petula Clark

Category Value 3 = Mamas and the Papas

Category Value 4 = Nick Drake

Category 3 = All tracks

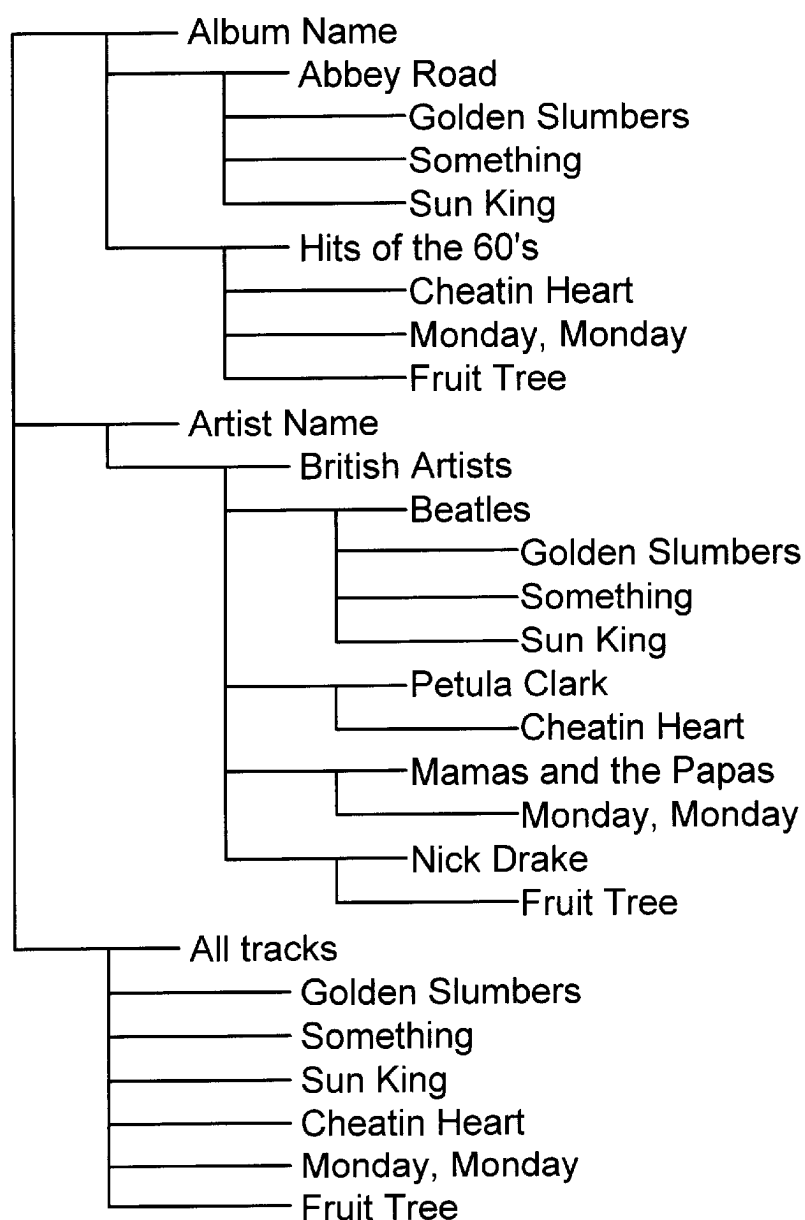
FIG. 1.

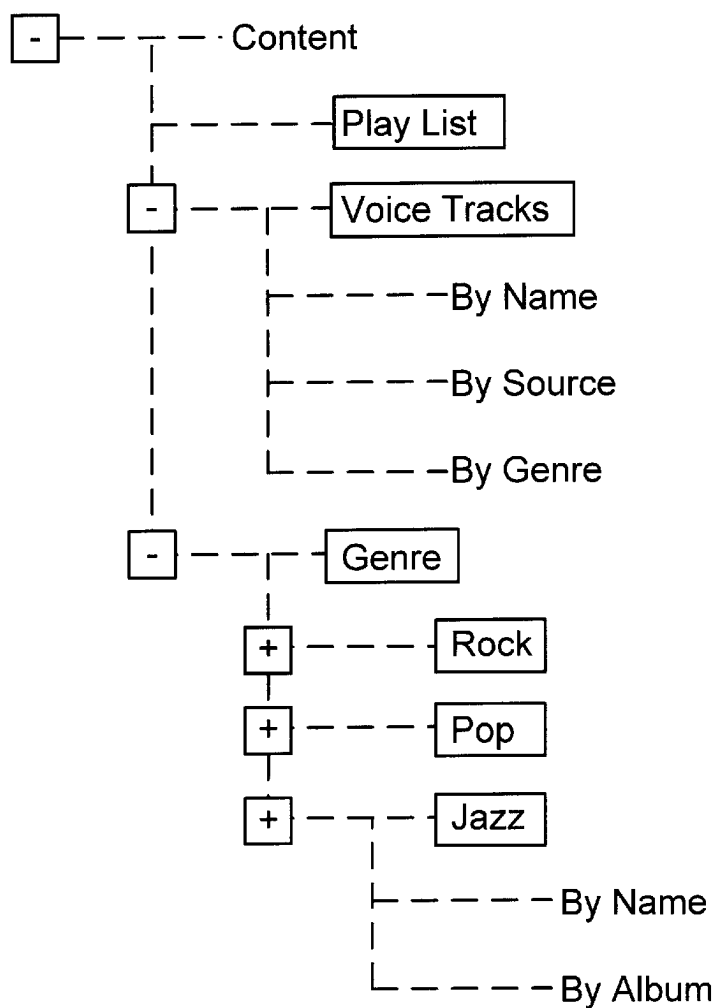
V1.0

Albums|0x01|BLBN

Artists|0x01|BCBMBN

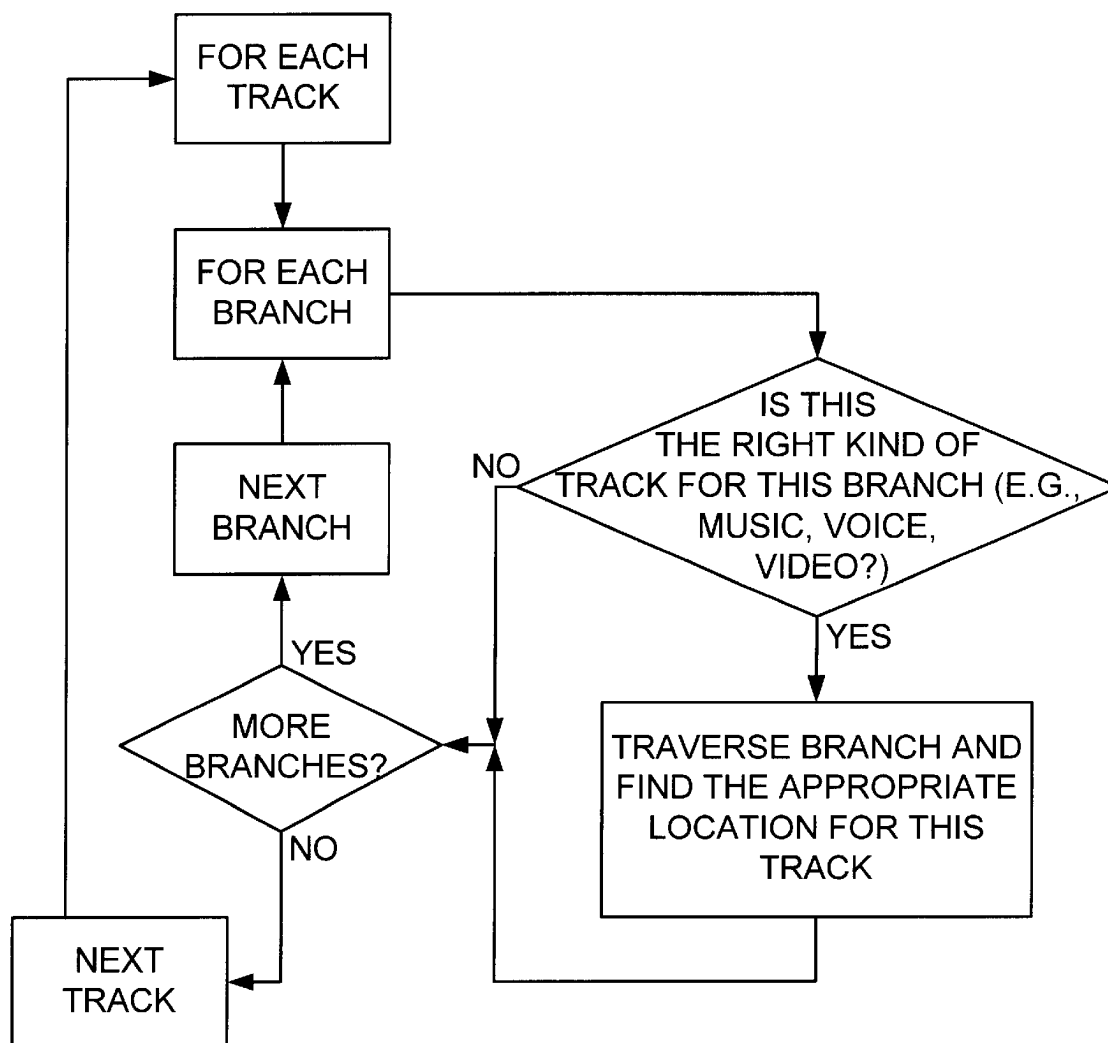
All Tracks|0x01|BN

FIG. 2.**FIG. 3.**

**FIG. 4.**

file data	album	name	genre	type
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FIG. 5.

**FIG. 6.**

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