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United States Patent [19]

Liaguno et al.

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[54] **SYSTEM FOR STORAGE AND RETRIEVAL OF DIVERSE TYPES OF INFORMATION OBTAINED FROM DIFFERENT MEDIA SOURCES WHICH INCLUDES VIDEO, AUDIO, AND TEXT TRANSCRIPTIONS**

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[21] Appl. No.: **419,152**

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[51] Int. Cl.^{6} **G06F 17/30**

[52] U.S. Cl. **395/615**; 395/2.79; 395/603; 395/606; 395/612; 395/617; 364/551.01; 364/282.1

[58] Field of Search .... 364/900, 419, 364/518, 283.2, 514 R, 401, 551.01; 395/600, 147, 200, 615, 603, 154, 106, 508, 605, 208, 796, 761, 604, 2.79, 612, 617; 341/67; 382/36, 61, 317, 175; 340/995; 434/118

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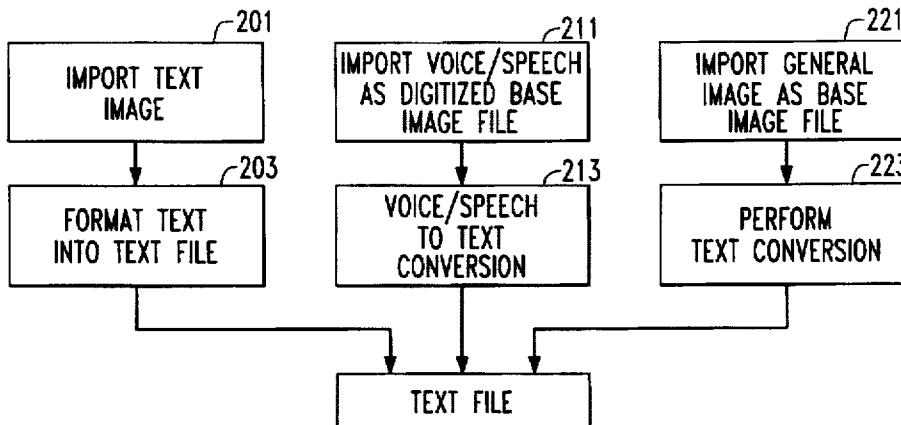
[57] **ABSTRACT**

An integrated media image information storage and retrieval system processes information supplied by different types of media. A processor-based network server operates as a system interface between one or more user control terminals, a media image capture station through which media image input/output devices are coupled to the network server, and a memory for storing media image files to be retrieved for reproduction. A supervisory media image manipulation and control program is accessed through a supervisory graphical user interface at any user control terminal, and has embedded subordinate media image manipulation programs for different types of media and information formats. When using the interface to import information from an arbitrary medium, the user is able to generate a first, index storage file, and a supplemental text description-based file, so as to facilitate rapid retrieval of any type of data, regardless of its original format (e.g. text, picture, text-picture combination, video, audio) and regardless of the capture medium or source from which it is imported into the system.

12 Claims, 3 Drawing Sheets

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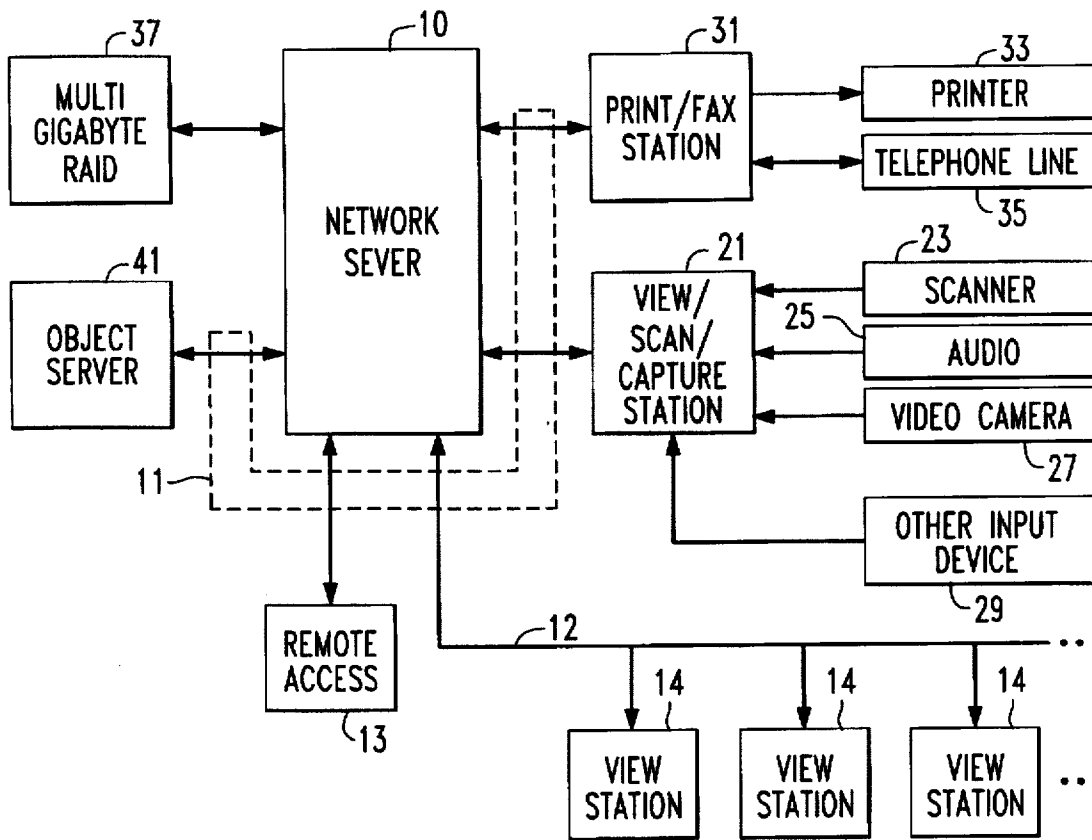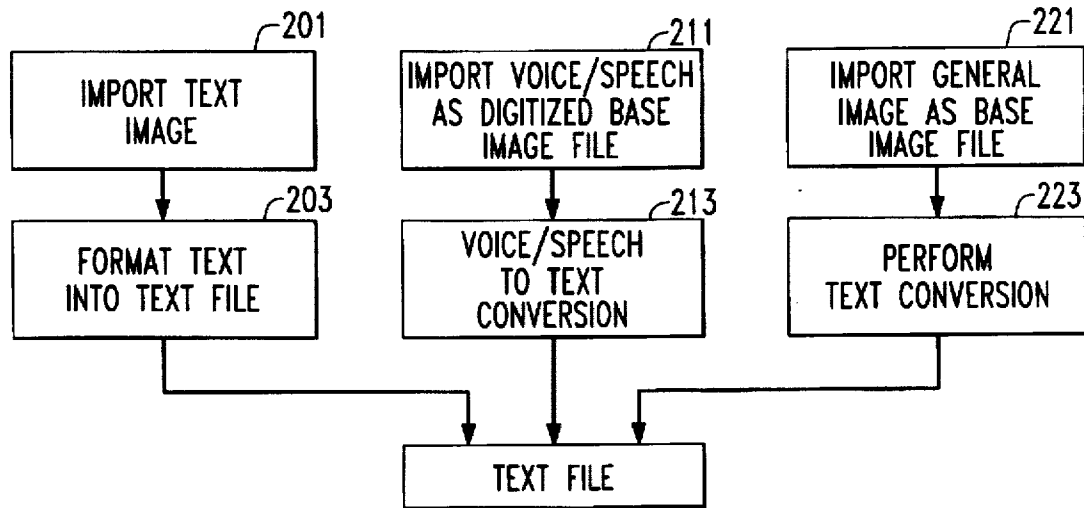
FIG. 1

FIG. 2

FOLDER ─301

TOPIC ─303

DESCRIPTION ─305

ORIGINAL TEXT FILE (FROM FIG.2) ─311

NON-ESSENTIAL WORD EXTRACTION OPERATOR ─313

KEY WORD INDEX ─307

FIG. 3

401

F1 F2 F3 F4 F5 ...

403

T1 T2 T3 T4 T5 ...

405

Wv1 Wv2 Wv3 Wv4   Wv5 Wv6 Wv7 Wv8   Wv9 ...
| G1 | | G2 |

407

Wt1 Wt2 Wt3 Wt4 Wt5 Wt6 Wt7 Wt8 Wt9 Wt10 Wt11 ...

FIG. 4

```
  ┌─────────────┐ 501        ┌─────────────┐ 505    ┌─────────────┐ 507
  │ VOICE-TEXT  │──────┐     │  CORRELATE  │        │ INSERT VIDEO│
  └─────────────┘      │     │ VOICE-TEXT  │        │  TIME LINE  │
                       ├────▶│    WITH     │───────▶│   INDICES   │
  ┌─────────────┐      │     │ TRANSCRIBED │        │    INTO     │
  │ TRANSCRIBED │──────┘     │    TEXT     │        │ TRANSCRIBED │
  │    TEXT     │            └─────────────┘        │  TEXT FILE  │
  └─────────────┘                                   └─────────────┘
        503
```

FIG. 5

```
        ┌───────────────┐
        │   GENERATE    │── 601
        │  INDEX FILE   │
        └───────────────┘
                │
                ▼
        ┌───────────────┐
        │   HASHING     │── 603
        │   OPERATOR    │
        └───────────────┘
                │
                ▼
        ┌───────────────┐
        │  HASHED TEXT  │── 605
        │     FILE      │
        └───────────────┘
                │
                ▼
        ┌───────────────┐
        │ STORE HASHED  │── 607
        │ CODE IN INDEX │
        │  SEARCH FILE  │
        └───────────────┘
```

FIG. 6

DOCKET ALARM
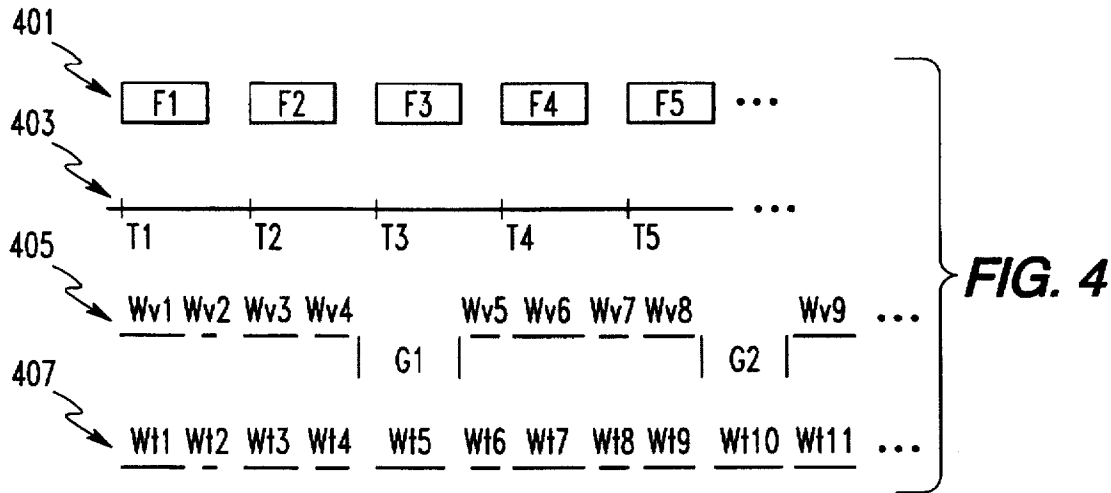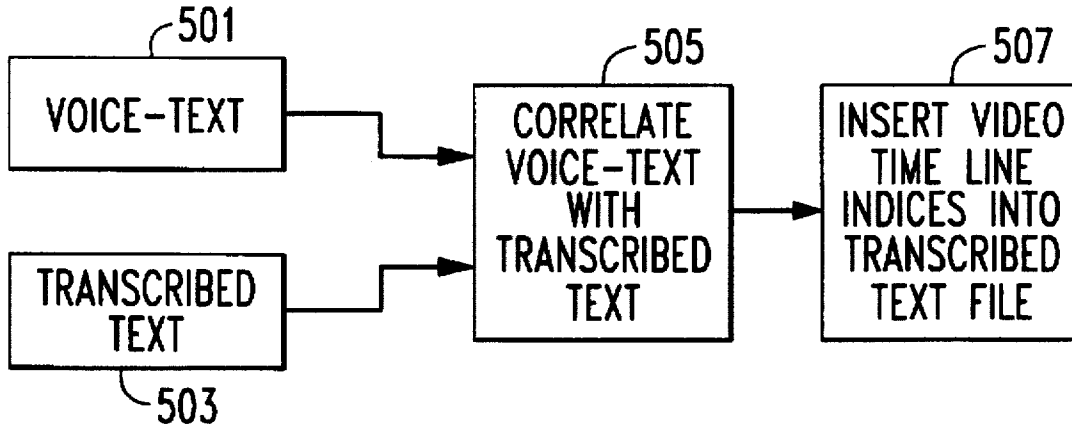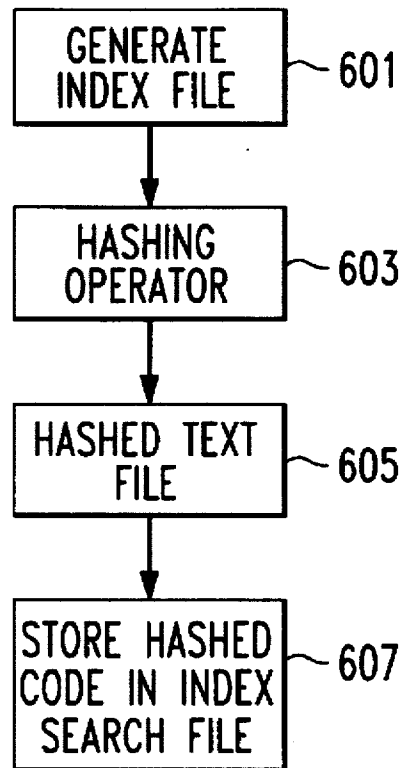
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