SYSTEM AND METHOD FOR COMPACT DISC PRESENTATION OF VIDEO MOVIES

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ABSTRACT

A method for converting video movie (e.g., family video movie or the like) clips for computer presentation in multimedia format using compact discs by presenting on a computer screen a starting frame of each of desired video clips. Each starting frame of each of the desired video clips is made into a thumbnail image or picture (e.g., a reduced size video picture of the start of a certain video clip) for viewing on a computer screen. A plurality of thumbnail images or pictures are then set in a presentable format, and background sound or music is created for each of the video clips, if desired. Upon presentation of a plurality of thumbnail images or pictures on the computer screen, a user is capable of selecting and clicking a desired thumbnail image or picture in order to play a video clip corresponding to a selected one of the plurality of thumbnail images or pictures.
INSTALL VIDEO CAPTURE CARD INTO PERSONAL COMPUTER (PC)

INSTALL AND PLAY VIDEO TAPE IN VIDEO PLAYER

CAPTURE VIDEO TAPE INTO HARD DISK OF PC

SEPARATE CAPTURED VIDEO FILM INTO PLURALITY OF SEGMENTS

STORE PLURALITY OF FILM SEGMENTS INTO AUDIO-VISUAL INTERFACE (".avi") FORMAT

STORE A FIRST FRAME OF EACH OF THE PLURALITY OF FILM SEGMENTS IN BIT MAP PROFILE (".bmp") FORMAT

RE-SIZE THE FIRST FRAME OF EACH OF THE FILM SEGMENTS (FORMATION OF "THUMBNAIL" PICTURES)

TRANSFORM A SOUND TRACK OF EACH FILM SEGMENT INTO (".wav") FORMAT

FIG. 2
S9

INSERT COMPACT DISC (CD)
INTO PC CD-ROM DRIVE
(WITH CD RECORDER)

S10

START CD RECORDER PROGRAM

S11

CLICK ANY BUTTONS CORRESPONDING
TO FIRST FRAME OF VIDEO CLIP
FOR VIEWING VIDEO CLIP
SEGMENT ON COMPUTER SCREEN

FIG. 3
S20
START

S21
CREATE & NAME NEW PROJECT WORKSPACE

S22
SELECT DIALOG-BASED APPLICATION FRAMEWORK WITH 3D CONTROLS

S23
CREATE A FRAMEWORK

S24
WRITE ADDITIONAL COMMANDS (e.g., PICTURES, BUTTONS, BACKGROUND SOUND OR MUSIC AND VIDEO CLIPS)

S25
LINK TO "vfw32.lib" LIBRARY MODULE

S26
CREATE FILES, INCLUDING RESOURCE FILES

S27
CREATE DIALOG-BASED SOURCE FILES AND BUTTONS TO CORRESPOND TO EACH THUMBNAIL AND VIDEO CLIP

S28
COMPILE AND LINK DIALOG-BASED SOURCE FILES

FIG. 4
CREATE AN APPLICATION ("MOVIE VIEWER.exe")

CHANGE APPLICATION NAME TO "HERE.exe"

CREATE NOTEPAD FILE

ENTITLE NOTEPAD FILE TO "autorun.inf"

INCORPORATE NOTEPAD FILE INTO COMPACT DISC

RECORD PROGRAM INTO COMPACT DISC

RECORD ASSOCIATED THUMBNAIL PICTURES, LABELS, BACKGROUND SOUND AND MUSIC AND VIDEO CLIPS

RECORD AUTORUN FILE INTO COMPACT DISC

FIG. 4 (CONTINUED)
FIG. 5
SYSTEM AND METHOD FOR COMPACT DISC PRESENTATION OF VIDEO MOVIES

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

This invention generally relates to a method for compact disc presentation of video movies. Such apparatus and method of this invention convert video movie (e.g., family video movie or the like) clips for computer presentation in multi-media format using compact discs. More particularly, a family video movie is captured and digitized into the hard drive of a computer. The video clips are edited; and a starting frame of each of the video clips is made into a thumbnail image or picture (e.g., a reduced size video picture of the start of a certain video clip) for viewing on a computer screen. A plurality of thumbnail images or pictures are then set in a presentable format. Background sound or music is created for each of the video clips, if desired. A unique program is then created to provide an interactive multimedia presentation of the thumbnail pictures, along with their corresponding video clips. The files are stored into recordable compact disc for easy use; and the disc is then labeled.

[0002] 2. Description of the Relevant Art

The traditional manner for viewing movie clips, in a traditional multimedia presentation, with the use of a video tape player imposes time-consuming fast forward and rewind searches of a film segment of interest.

At present, there are numerous commercially available video capture cards and programs that capture video tape playback, and store the corresponding film in digital format with a personal computer. Likewise, there are numerous compact disc recorders available for storing information, including digitized video clips.

However, without an organized program to present the movie video clips, a user or viewer must painstakingly search for the individual video clips. To a user’s dismay, this task is fairly complex, and time-consuming.

A need was therefore felt to significantly ease the process of showing desired movie video clips by showing such desired movie clips on a computer screen in a multimedia format and in a clickable format using a compact disc medium.

It is therefore an object of the present invention to provide a method for compact disc presentation of video movies on a computer screen in a multimedia format and in a clickable format.

It is another object of the present invention to provide a method for compact disc presentation of video movies in which a video movie is captured and digitized into a hard drive of a computer, and edited, wherein a starting frame of each desired video clip is made into a thumbnail picture and set in a presentable format.

It is another object of this invention to provide a method for compact disc presentation of video movies in which a user or viewer can choose which segment or segments of a video movie to play by clicking on a thumbnail image or picture of a first frame of a desired video clip.
video movies with the creation in this invention of thumbnail images or pictures set in a presentable format on a computer screen. Illustrated in FIG. 1 is a movie video tape recorder 10 coupled to a video capture card 20, which in turn is coupled to a personal computer 30. The video capture card 20 is preferably a Bravado video capture card with Adobe Premiere 4.2 software. The personal computer 30 is, for example, an IBM Pentium II 266 Mhz 48RAM personal computer. Standard RCA cables 15 are attached to the input jacks 18 of the video capture card 20 and the output jacks 13 of the video tape recorder 13.

[0021] As shown in FIG. 2, the video capture card 20 is installed into a PCI expansion slot in the personal computer 30 (S1). A video tape is then played in the video tape recorder 10 (S2) and captured into a hard disk of the personal computer 30 (S3). A captured video film is then separated into many segments by editing with Adobe Premiere software (S4). These are stored in "avi" format (S5).

[0022] The first frame of each segment of video film clips is then stored as a "bmp" format (S6) and re-sized with an image software or Paint Shop Pro software (S7). These will be the thumbnail images or pictures used to visually guide a user into selecting the corresponding video clip that is desired by the user.

[0023] The sound track of a segment of a video clip can be transformed into "wav" format by the Adobe Premiere software (S8). The background sound or music is played as the thumbnail pictures are presented to the user.

[0024] A program or application is then created using Microsoft Development Studio in Visual C++ to show the collated thumbnail images or pictures, as well as the corresponding video clips and background sound or music thereof. This program provides for presentation the multiple thumbnail images or pictures and video clips in an interactive format. FIG. 3 illustrates a general flowchart for showing the creation of such a program.

[0025] As illustrated in FIG. 3, a compact disc (CD) is inserted into a PC CD-ROM Drive (with CD recorder) (S9) so that the created program, along with the corresponding video clips, thumbnail images or pictures with background music or sound, and a "self-starting" command are recorded in the CD. It is preferred that a Philips Omnwriter CD recorder be used. The program, in the CD, automatically starts (S10); and the user merely clicks on any of the buttons relating to the thumbnail pictures or images T1-T6 (see, FIG. 5) corresponding to the first frame of a desired video clip to view that video clip segment on the computer screen (S11). The user may manually stop, rewind or replay any video clip, and has instantaneous access to any video clip at any time.

[0026] It is noted that the operating system needed to view the CD, having the above-discussed program therein, is Windows 95 or Windows 98. The computer system for use to view such CD is preferably a multimedia computer with a Pentium or similar processor, a CD-rom drive with video and sound capabilities.

[0027] The creation of the program installed in the CD in Step S10 is discussed hereinafter in reference to FIG. 4.

[0028] As shown in FIG. 4, the program creation starts by starting Microsoft Development Studio in, preferably, the same computer described above (S20). A new project workspace of Microsoft Foundation Class AppWizard type is named MOVIE VIEWER (or any preferred name) and created (S21). A dialog-based application framework is chosen with 3D controls (S22). A Microsoft Development Studio program then creates a framework (S23), where additional commands are written to incorporate the thumbnail images or pictures, buttons, background sound or music and video clips (S24). Three additional files are included into the project workspace; namely, "Dibapi.cpp", "Dibapi.h" and "Myfile.cpp". The first two files are part of a Microsoft Foundation Class Visual C++ library, while the last file is a source file for presenting Device Independent Bitmaps. The project is then linked to a "vfw32.lib" library module (S25). The Microsoft Development Studio then creates the following files: "MOVIE VIEWERDlg.cpp", "MOVIE VIEWERDlg.h" and resource files (S26).

[0029] Hereinafter, the files created by Microsoft Development Studio are modified, as shown in the attached complete program. That is dialog-based source files and buttons are created to correspond to each thumbnail picture or image and video clip (S27). After the source files are created, they are compiled and linked by Microsoft Development Studio (S28). Then, an application "MOVIE VIEWER.exe" is created and tested (S29). Once tested and working, the application name is changed. In this case, it is changed to "HERE.exe" (S30). A Notepad file is created (S31), and is entitled "autorum.inf" (S32). The contents of such notepad are as follows: [autorun] and open= HERE.exe. Such notepad file is incorporated into the CD (S33) in order to allow the user’s personal computer to automatically start the program "HERE.exe" once it is loaded into the CD-rom drive.

[0030] Once the program is successfully created, it is recorded permanently into a recordable CD, using, preferably, a Philips Omnwriter (S34). Associated thumbnail images or pictures, labels, background sound and music and video clips are recorded into the CD (S35); and the autorun file are likewise recorded into the CD (S36).

[0031] While the invention has been particularly shown and described in reference to preferred embodiments thereof, it will be understood by those skilled in the art that changes in form and details may be made therein without departing from the spirit and scope of the invention.

1. A method for compact disc presentation of a video movie, comprising the steps of:
   providing a video movie for presentation;
   selecting at least one thumbnail image or picture of a frame of said video movie from which to start the playing of said video movie; and
   presenting on a screen said at least one thumbnail image or picture of said video movie from which to start the playing of said video movie.

2. The method as in claim 1, further comprising the step of:
   clicking said at least one thumbnail image or picture of said frame of said video movie; and
   playing said video movie starting from said frame represented by said thumbnail image or picture.
3. A system for compact disc presentation of a video movie, comprising:
   means for playing a video movie for presentation;
   means for selecting at least one thumbnail image or picture of a frame of said video movie from which to start the playing of said video movie; and
   means for presenting on a screen said at least one thumbnail image or picture of said video movie from which to start the playing of said video movie.
4. The system as in claim 3, further comprising:
   means for clicking said at least one thumbnail image or picture of said video movie, and playing said video movie starting from said frame represented by said thumbnail image or picture.
5. A system for playing a video movie stored in a compact disc, comprising:
   means for playing a video movie for presentation;
   means for selecting at least one thumbnail image or picture of a frame of said video movie from which to start the playing of said video movie; and
   means for presenting on a screen said at least one thumbnail image or picture of said video movie from which to start the playing of said video movie.
6. The system as in claim 5, further comprising:
   means for clicking said at least one thumbnail image or picture of said video movie, and playing said video movie starting from said frame represented by said thumbnail image or picture.
7. The method as in claim 1, wherein the selecting step includes the step of selecting at least one thumbnail or picture of a first frame of a desired video clip segment within said video movie, and wherein the presenting step includes the step of presenting on said screen said at least one thumbnail image or picture of said first frame of said desired video clip segment within said video movie.
8. The system as in claim 3, wherein the means for selecting includes the means for selecting at least one thumbnail or picture of a first frame of a desired video clip segment within said video movie, and wherein the means for presenting includes the means for presenting on said screen said at least one thumbnail image or picture of said first frame of said desired video clip segment within said video movie.
9. The system as in claim 5, wherein the means for selecting includes the means for selecting at least one thumbnail or picture of a first frame of a desired video clip segment within said video movie, and wherein the means for presenting includes the means for presenting on said screen said at least one thumbnail image or picture of said first frame of said desired video clip segment within said video movie.