PORTABLE CUSTOM MEDIA SERVER

An abstract for a portable storage media (30) is configured to deliver audio content to a consumer of audio content by custom configuring the audio content on the portable storage media as well as including an interface adapted to facilitate efficient search and retrieval of the content in accordance with the custom storage attributes (26). The search interface is provided as part of the portable storage media to serve as a front end interface for identification and retrieval of desired content, stored on the portable media. The provision of customized content is associated with a corresponding search interface enhances the operational efficiency of a production platform (40) during the content editing and creation stages. A search tool allows for convenient searching by employing unconventional search terms. The terms are from descriptor files, which are preferably provided by the multimedia content supplier who is familiar with the content. A user constructs a search query by selecting terms from groups of terms in categories. The user controls the search tool to display terms from various categories. The search results are displayed, along with the unconventional search terms to provide enhanced information relating to the retrieved content. The search tool further allows for the efficient export of cue sheet information for audio tracks.
Portable Custom Media Server

FIELD OF THE INVENTION

The present invention relates to data delivery systems, and more particularly, the invention relates to musical content delivery systems.

BACKGROUND

Musical content is incorporated into audio and video programs, which are provided to the public, as TV programs, Promotional spots, films, advertisements, live events, and radio programs. The musical content is usually added to the primary content to enhance the primary content by creating an effect or a mood. For example, a romantic scene in a film may include soft musical content to enhance the mood and feel of the film. Recently, musical content has been added to Websites to provide a produced mood and feel to the primary content.

The musical content is usually added to the visual or audio content during a production process at a production facility. This musical content is generally referred to as "production music." Production music is generally available from stock music houses, which carry a vast catalogue of content. The production music is usually provided to the producer as CD format music. The producer reviews the content and transfers desired tracks of the production music to a local storage media, which is used by the production facility.

Often times, the transfer of tracks requires conversion to a usable format. The manual review and content transfer process can be time consuming and frustrating.
Presently, there is no efficient and convenient method for identifying, retrieving, and employing desired production music by a producer at a production facility.

SUMMARY

Accordingly, the present invention provides a method and apparatus for providing production music to a producer. The invention provides the producer with an instantly available collection of musical content stored on a portable storage media. The producer can easily locate and preview desirable content from a portable storage media, which is coupled to the production equipment.

In one embodiment, the invention facilitates a method for providing production-ready media for use by a production facility. The method stores a plurality of media items on a portable data storage device in a format specific to the production platform employed by the production facility. The method associates each media item with a plurality of information tags. The method associates each media item with search information.

Finally, the method associates each media item with a unique identifier.

In another embodiment, the invention provides a musical content delivery system, which includes a portable storage media adapted to store digital data. The portable storage media includes an interface for communicating with a host computer system.

A plurality of musical content files are stored in the portable storage media. A plurality of information files are stored on the portable storage media. Each information file is associated with an information category and each information file stores at least one attribute for each musical content file in the system. The attribute are selected from predetermined attributes associated with the information category. Finally, a search and retrieval interface program is stored on the portable media. The search and retrieval
interface program is adapted to employ attributes from said information files to retrieve files in accordance with queries provided to the program.

In another embodiment of the invention, a search tool is provided which allows for convenient searching by employing unconventional search terms. The terms are from descriptor files, which are preferably provided by the multimedia content supplier who is familiar with the content. A user constructs a search query by selecting terms from groups of terms in categories. The user controls the search tool to display terms from various categories. Regardless of the displayed category, the search terms are displayed in search term boxes, each associated with a category. Search results are provided in a results window. The search terms from the query can be modified by a selection of a corresponding search category box from the search term boxes.

In yet another embodiment, the invention provides a method for searching for content from a content database. The method provides a content database storing a plurality of content items, where each content item is stored in an identified location. The method also provides a plurality of search term files, each search term file associated with a search term category. Each search term file stores a plurality of pointers to the identified locations in the content database and a corresponding search term for each pointer. The method receives a plurality of search terms in a query. The method searches for pointers that are associated with search terms from the query in a first search term file to provide a first set of pointers. The method searches for pointers that are associated with search terms from the query and that are also included in the first set of pointers, in at least a second search term file. Finally, the method provides content
identifiers, as result content, for content associated with the pointers from at least the second search term file.

In another embodiment, the invention provides a search engine screen for searching for multimedia content. The screen includes a terms display window, search term boxes, each associated with a search category, a Search button for facilitating the submission of a search query, a Clear Genre button for removing search terms of the genre currently associated with the terms display window, and a Clear All button for removing search terms of any category from a constructed query.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 illustrates a processing flow for facilitating the provision of a collection of musical content in accordance with the invention;

Figure 2 illustrates an arrangement of components employed in a production process employing a musical content delivery apparatus of the invention; and

Figure 3 illustrates the logical arrangement of components in the musical content delivery apparatus from Figure 2.

Figure 4 illustrates a logical arrangement of modules of a search tool in accordance with the invention;

Figure 5 illustrates a New Search screen of a search tool of the invention;

Figure 6 illustrates a Results screen of a search tool of the invention;

Figure 7 illustrates a Favorites screen of a search tool of the invention;

Figure 8 illustrates a Cue Sheet Export screen of a search tool of the invention;

Figure 9 illustrates a Moods term listing of the New Search screen;

Figure 10 illustrates a Tempos term listing of the New Search screen;
Figure 11 illustrates an Instruments term listing of the New Search screen;
Figure 12 illustrates the Results screen of Figure 6 in an expanded detail mode;
Figure 13 illustrates the Results screen of Figure 6, when displaying track
information in the information window;
Figure 14 illustrates the Results screen of Figure 6, when displaying a folder
selection in the information window;
Figure 15 illustrates a Save As window;
Figure 16 illustrates a save Cue sheet info window; and
Figure 17 illustrates a cue sheet information text file.

DETAILED DESCRIPTION

Figure 1 illustrates the operation of a processing system for providing a portable
production media in accordance with an embodiment of the invention. Musical content is
generally received from various sources and in various formats. For example, content is
received from audio tapes 10, CDs 12, and floppy discs 16. Content may also be
received over a communication link such as the Internet 14. The system initially converts
all content to a uniform format which is most convenient for manipulation by the
processing system (step 18). In one embodiment, this uniform format is an OMFI format,
which is employed by AVID audio processing platforms and software. As may be
appreciated, in other embodiments, the content format may be a non-OMFI format as
may be applicable to the processing platform employed to process the received content.

Upon receiving the content, an agent associated with a system of the invention
employs the system to ensure that each track is associated with standard information tags
such as length, name, artist, etc. (step 20). In another embodiment, the agent listens to
each received track to determine whether the track is of minimum fidelity quality. In this embodiment, if a track is not of at least the minimum fidelity quality, the track is removed from the system and placed in a queue of tracks, which require further processing. The system preferably automatically assigns a unique identifier to each track so as to globally identify the track as between all tracks in the system. This identifier allows for the search engine to store search information for the track in a database table 24. The system proceeds to associate search information with each track (step 22). The search information is selected by the agent from a lexicon of terms identifying musical traits that are informative to producers. The lexicon is preferably constructed with input and effective terms, which are received from producers or other potential recipients of the musical content. Example lexicon term categories include genre, mood, and tempo, featured instrument, vocal type, lyrical content.

Select tracks are then stored on a portable storage media 30, along with the corresponding basic track data and search information (step 26). In one embodiment, the portable storage 30 is a hard-disk drive that complies with either the Firewire, USB or SCSI standard, depending on the production facility's requirements.

As is illustrated by Figure 1, the system references production platform information 28 associated with the production facility for which the content is prepared. In one embodiment, the production platform information includes platform identifier, file formats, preferred tag information, media interface, and bit rate. Accordingly, the production-ready content stored on the portable storage media 30 is stored such that it is in the most efficient and convenient form for retrieve and use by the particular production facility.
Figure 2 illustrates some of the components associated with a production facility employing the portable storage media provided in accordance with the invention. The facility includes a production board 40. The production board 40 preferably includes components for editing audio and video to provide a produced look and feel. The production board is associated with video storage 36. The video storage is used to store video content, prior to, and after, processing by the production facility. Data storage 38 is also associated with the production board to store application programs, which are used in the video or audio editing process. In one embodiment, the production board includes a processor adapted to execute program code. Input devices 32 are associated with the production board. Examples of input devices 32 include CD-Rom, floppy drives, video camera, hard drives for video data storage, tape machines. The production board also includes output devices such as speakers and a video screen. A control panel 34, such as a keyboard, is preferably associated with the production board 40.

The music content is provided on the portable media 30 with corresponding search information and in an appropriate format for the production facility, as discussed with reference to Figure 1. Accordingly, the content is formatted for immediate use by the production board 40 without the required conversion of prior systems. The production board 40 executes a search-engine and browsing front-end program, associated with the provided media 30, to search and retrieve desired content by reference to search information associated the content. For example, a producer can employ the search engine to request a fast, dramatic track, containing string instruments. In one embodiment, producers can initiate a search based on any combination of genre, mood, tempo, and featured instrument.
Figure 3 illustrates logical components and data associated with the portable storage media 30 of Figure 2. Each unit of musical content 46, or track, is associated with two groups of data. First, standard track data 48 is associated with the track such as length, title, and media identification number. Second, detailed content identifiers from the identification lexicon 50 are associated with the track for searching. A search engine program 42 is executed for searching and retrieving content. The search engine serves as an interface for the production platform 40 to employ the content in the production process. In one embodiment, the search engine 42 is included on the portable storage media. In another embodiment, the search engine 42 is part of the production platform.

In one embodiment, specifically employed when the portable media is used by the AVID software, when the user initiates the search engine interface 42, the screen presents several bins, each including tracks associated with a particular music type, or genre. The bins are preferably folders within the AVID project window on the user's screen, with each track stored according to a corresponding genre. The streamlined presentation allows a producer to instantly preview and select audio tracks, without wasting time changing physical CDs and importing tracks into the production platform. Information regarding song title, mood, tempo, and speed as well as the relevant cue sheet information for each track including names of writers, publishers and performing rights affiliations is preferably included with each track. This cue sheet information can be easily exported to or integrated with tracking applications and databases for identifying songs used in the produced material. As is known, cue sheet information is necessary for the ultimate broadcaster or performer to comply with the requirements of the performing rights societies (e.g., ASCAP, BMI). From the perspective of the producer, the entire
process is self contained and instantly accessible. Furthermore, new tracks can be added to those contained in a particular portable media with ease. The portable media can be easily unplugged, tucked in an attaché case, and taken to another production platform.

With respect to audio production, the portable media 30 can store tracks in either Wave or AIFF format for use with a proprietary video/audio platform, such as Fairlight or AVID. The portable media 30 is also adapted to be easily used in connection with ProTools, the prevalent audio editing system in the music recording industry. Once a track is identified in responses to the search, the client can preview the selection by replaying the track directly from the portable media 30. With one click, the producer can copy the track to a local drive. The producer can also add the track to a "favorites list" so as to have the track available for future use. In this manner, tracks may be collected in a single folder for use at a later date. When the time comes to begin work on a future production, the producer exports the entire contents of any folder to a desired destination on a local network to allow for use at the applicable production platform. In this manner, a music supervisor or producer can search and mark tracks for multiple productions and later retrieve the tracks when needed. The producer is able to easily forward the tracks to destination production platforms on the network in accordance with the previous selection operation.

In the illustrated embodiment that follows, the search tool is provided by the content supplier. However, as may be appreciated, the search tool may be provided by third parties not associated with the content, as long as sufficient data regarding the content is available to the third party so as to provide the search terms, as discussed below. The illustrated search tool is preferably generated by the Macromedia Director.
development tool. However, as may be appreciated, other application development tools are equally effective for generating a search tool in accordance with the invention.

Figure 4 illustrates a logical arrangement of components which facilitate a search tools of the invention. The components include a main control engine 22, a search routine 24, a plurality of search term files 26, and a content repository 28. The main control engine 22 facilitates the user interaction with the search tool by providing user interaction screens and responding to user commands generated by selecting controls and entering data. The main control engine 22 invokes internal functions to implement user requests. Some of the invoked functions are selecting and reviewing details, replaying, storing a list, exporting a copy of a track, and exporting cue sheet information.

Each of the search term files 26 stores search terms for a particular category associated with the content in the content database. Example search term categories include genres, moods, tempos, and instruments. Each of the search term files 26 preferably includes a plurality of entries, each referring to specific content from the content database and an associated search term. The search terms corresponding to each specific content are presently chosen by an agent of the content provider that reviews the content. Moreover, the possible search terms associated with each category are adopted to provide meaningful and streamlined information relating to the content. In one embodiment, the search terms are part of a standard lexicon created for consumers of the content. Search terms provide a streamlined searching methodology for an organization consuming content. In one embodiment, the search terms are approved by supervisors for use by indexers. Absent such uniform lexicon, each indexer may have its own
characterization of content, thus hindering the sharing of content between several consumer users.

The content repository 28 stores data media assets associated with each multimedia content available to the system. In one embodiment, all content data are stored in the same directory location on a storage media. In another embodiment, content data are stored in various directory locations on a single or on a plurality of storage media. In some embodiments, content data are stored by several storage media, including storage media of various types, such as removable, permanent, magnetic, and optical storage.

The search routine 24 receives a search query and executes a corresponding search by reference to data in the search term files 26. The search result provides references to content in the content repository 28. In one embodiment, the references correspond to pointers in a storage table (not shown), which designate the physical storage location of the content data.

Figure 5 illustrates a New Search screen of a search tool of the invention. User screens of the exemplary search tool, regardless of associated function, include several common operative and communicative features. These common features include a series of navigation buttons 30, 32, 34, 36, 38, 40, which are provided near the top portion of the screen, arranged across the screen. The navigation buttons include buttons adapted to navigate the search tool to a New Search screen 30, a Results screen 32, a Favorites screen 34, a Cue Sheet Export screen 36, as well as Information 38 and Help 40 screens.
The present discussion does not illustrate the Information 38 and Help 40 screens. However, the structure and operation of such screens will be apparent to one skilled in the art in view of the description herein.

A plurality of search term display boxes 42, 44, 46, 48 are arranged across the screen, below the navigation buttons. The search term boxes include a Genre box 42, a Mood box 44, a Tempo box 46, and an Instrument box 48. Each search term box 42, 44, 46, 48 displays, in the corresponding category, search terms which were selected by the user as part of a current search query. As may be appreciated, in other embodiments of the search tool, where different search term categories are employed, different search term boxes are provided. Furthermore, where the search tool employs additional search term categories, whereby the number of search term boxes would not reasonably fit across the screen, a second level of search boxes, below the illustrated level, is employed.

A search term window 58 is provided by the Search screen, which results from the user selection of the New Search navigation button 30. Figure 5 illustrates the Search screen after the user has selected a Genre term category by selecting the Genre button 30 adjacent to the Genre term box 42. In this embodiment, the search term window 58 displays the available search terms in the Genre category for content, which is currently available to the search tool. The user selects search terms from the search terms listed in the search term window 58 by clicking one or more terms. The selected terms are added to the user query and are each displayed in a corresponding search term box. In the illustrated screen, when the user selects terms from the search term window 58 displaying Genre terms, the Genre term box 42 displays the selected terms. In one embodiment, the user is allowed to select up to three search terms from each category.
A Search button 60, is provided to facilitate the submission of a search query from the search screen. Once a user has entered all desired search terms, the Search button 60 is selected to indicate that a search query including the selected terms should be submitted to the search routine 24 of the search tool. A Clear Category button, shown as a Clear Genre button 62 in Figure 5, is provided to clear the selection of terms in the active term category for which terms are displayed in the search term window 58. A Clear All 64 button is provided to facilitate the clearing of all selected search terms, from all categories.

A Search by Catalog number interface 66 includes an entry box for entering catalog number associated with desired content. At times, the user may have available a reference number for content from the content database. This reference number is usually called a catalog number. The catalog number is often assigned to content by the content provider when adding the content to other content generally available to users. In other embodiments, the catalog number is a unique number assigned to the content by a publishing rights group.

Figure 6 illustrates a Results screen of the search tool, provided in response to a user selection of the View Results navigation button 32. This screen is provided automatically in response to a selection of the Search button. A Results window 68 provides a listing of content from the database that matches the submitted query, which includes the search terms displayed in the search term boxes 42, 44, 46, 48. An information area of the Results window 68 indicated the number of tracks which comply with the submitted search query. The title 71, catalog number 70, and duration 72 of each track is displayed in the Results window 68.
A set of control buttons 73, 74, 75 allow for controlling the level of detail provided for each listed track. The control buttons 73, 74, 75 preferably include a detail selection button for each term category available to the search tool. The selection of any of the detail selection buttons 73, 74, 75 modifies the track result display to include search term information from the selected category. For example, by selecting the Genre detail button 73, the Genre term associated with each track in the results list is displayed along with the track title 71, catalog number 70, and duration 72, which are already displayed in the compact view.

A Player window 76 is provided to facilitate the replaying of selected tracks from the Results window 68. The Player window 76 provides the usual replay controls including next track, previous track, play, stop, and rewind. Such replay controls are known to a person of skill in the art. The Player window further includes an Info button 77, a Recent button 78, an Add to Favorites button 79, and a Save button 80. The Info button 77 is associated with providing additional information regarding the track loaded in the Player window 76. The track information is preferably displayed in a Track Information window 81. The Recent button 78 shows the track titles of all the tracks that were recently reviewed by the user. The Add to Favorites button 79 is associated with adding the track loaded in the Player window 76 to a favorite tracks folder (discussed below). The Save button 80 is associated with storing a copy of the track loaded in the Player window 76 in a directory location, and under a title, as specified by the user. A Track Information window 81 displays information corresponding to the track loaded in the Player window 76. The track information preferably includes search term data associated with the loaded track. The search term data is preferably from each category
available to the search tool. A Cue Sheet Information button 82 is provided at the bottom portion of the Track Information window 81 to allow the user to toggle the Track Information window to display Cue sheet Info instead of Track Information, as is illustrated in Figure 12 (discussed below).

Figure 7 illustrates the Favorites screen of the search tool, which is provided in response to a user selection of the View Favorites button 34 or the Add to Favorites control 79. The View Favorites button 34 navigates the application to a list of the tracks that have been placed in a favorites folder. The Add to Favorites control 79 allows users to view the favorites folders they have previously created (Figure 14). By selecting a folder from this view, the user can add the track then playing to the folder.

A Favorites window 83 displays the content of the user selected folder. Specifically, the Favorites window 83 displays the tracks associated with the selected folder. The title and catalog number of each track is preferably displayed as part of the track listing. A Current Folder title box 85 displays the title of the currently selected folder. The Favorites screen also includes a Player window 76 and a Track Information window 81 substantially identical to those provided in the Results screen of Figure 6.

Figure 8 illustrates a Cue Sheet Export screen of the search tool, which is provided in response to a user selection of the Cue Sheet Export navigation button 36. A Cue Sheet window 87 is provided below the search term boxes. The Cue Sheet window displays cue sheet information for tracks in the current listing, provided by either a favorites folder listing or a results listing, depending on the sequence of operation leading to arriving at the Cue Sheet Export screen. The cue sheet information preferably includes the track title, artist, writer, publisher, and associated Performing Rights Society (PRS), if
any. A search box 88 is provided to search for cue sheet information in accordance with a track's catalog number. An Export Cue Sheet button 89 is provided to allow the user to initiate an export of the cue sheet information in the Cue Sheet window to a text file or another form so as to provide a record of the tracks employed by the user. As is known in the art, submission of cue sheet information is required, for example, when employing track content during a radio broadcast or in an advertisement. Generally, any public broadcast on any media requires cue sheets. Such broadcasts included radio, TV – programming, promos, or commercials, as well as Internet use.

The operation of the search tool will now be illustrated by reference to an exemplary interaction between a user and the search tool screens. As may be appreciated, the exemplary interaction is intended to highlight some but not all aspects of the search tool and is not intended to limit the scope of the invention to the discussed features or modes of operation.

In the example interaction, a user is searching for a particular audio track to synchronize with video images that have been filmed for a television production. The user's computer is coupled to a portable content database. One example of such database is the portable storage media discussed in commonly owned co-pending United States patent application, number 10/295,201 incorporated by reference herein. In one embodiment, the search tool application and associated modules are stored on the same portable media providing the content database. The user launches the search tool application by submitting a corresponding request to the operating system.

The initial search tool screen provided to the user is the Search screen illustrated in Figure 5. The Search screen defaults to displaying the first search category in the
search term window 58. In the illustrated example interaction, the first category is Genre. Hence, the search tool provides the Genre search terms in the search term window 58. The user decides to search for ACOUSTIC BLUES music. Therefore, the user selects the ACOUSTIC BLUES search term from the search term window 58. Having chosen a genre, the user decides that the search should also indicate a particular mood, which is most appropriate for the production. To display the Mood search terms in the search term window 58, the user selects the Moods control button 52, located at the top of the Moods term box 44. Figure 9 illustrates the search tool screen presented to the user in response to selecting the Moods control button 52. The user is presented with several Moods category terms 90 to choose from and selects the term LAID BACK/GROOVY.

Having selected Genre and Mood terms the user decides that a medium tempo would best suit the LAID BACK/GROOVY, ACOUSTIC BLUES track. The user accordingly selects the Tempo control button 54, located at the top of the Tempo term box 46. The search tool responds to the selection by displaying Tempo category search terms in the search term window 92, as is shown in Figure 10. The user selects MEDIUM TEMPO from the available search terms 92. Having selected terms from the Genre, Tempo, and Mood categories, the user decides a guitar should be in the track. The user selects the Instrument control button 56, which is located at the top of the Instrument term box 48. The search tool responds to the selection by displaying Instrument category search terms in the search term window 94, as is shown in Figure 11. The user selects the term CLEAN GUITARS from the displayed Instrument terms window 94.

The search tool is now ready to search for content that matches ACOUSTIC BLUES, LAID BACK/GROOVY, MEDIUM TEMPO and CLEAN GUITARS. As may
be appreciated, the search term boxes 42, 44, 46, 48 display the selected terms regardless of the search term category or search tool screen presented to the user. The user selects the Search button 60 to execute a search query by the search tool. The search tool responds by displaying the Results screen, which is illustrated in Figure 6. As may be appreciated, the submitted query provides six matching tracks. Information corresponding to each track is displayed in each row of the Results window 68, as discussed above with respect to Figure 6. Figure 13 illustrates the Results window with expanded track detail. Figure 12 illustrates the Results window with cue sheet information, which is provided in response to selecting the cue sheet information button 82.

After verifying the track detail, the user selects a track to preview by selecting the corresponding title from the Results window 68. The player window 76 loads the track data and starts providing audio to the output device. Additional track data is provided in the Track Information window 81, such as other instruments that are used in the song, and other genres that the song might fall into, as is illustrated in Figure 13. As may be appreciated, by moving the cursor and selecting the sound wave displayed in the player window 76, the user can alter the replaying to proceed from any portion of the track, as is known in the art.

After listening to the track, the user decides that the track is not quite what they want and therefore previews several other tracks. When the user hears a track that might be appropriate, the user decides to create a favorites folder to collect tracks for the current project. From the screen where the track is selected in the Results window 68, the user selects the Add to Favorites control button 79 to save the track into an unused folder.
selected from a folder list 81, which is illustrated in Figure 14. The user selects the View Favorite navigation button to cause the search tool to display the Favorites screen, which is illustrated in Figure 7. The user then creates a folder with the title of the current project, by selecting the Rename button 21.

The chosen songs are saved in the renamed folder by selecting a track and folder location in the screen of Figure 7. The user simply selects the Add To Favorites control 79 from the Results screen and then selects the previously created folder they wish to add the song to from the folder window illustrated in Figure 13. The selected songs can be reviewed at any subsequent time by selecting the View Favorites navigation button 34 and selecting the desired folder. The user can further remove tracks from a favorite folder by selecting the small “x” button adjacent to the track title, as shown in Figure 7.

Upon further review with other colleagues, the user decides that one of the tracks placed in the favorites folder will be usable in their production. The user would like to create a copy of the track for export to the video editing equipment, where the music is synchronized with the picture. From the Results screen, the user selects a track so as to load the track onto the Player window 76. The user then selects the Save As control 80 to save a copy of the track to a local drive. The track saving dialog box is illustrated by Figure 15. The user can now generate a CD copy of the track or internally distribute the track to the video editing unit.

Having added the track into the production, the user is aware of the obligation to create and submit cue sheets to the appropriate performing rights societies. Broadcasters are required to pay dues to the performing rights societies. Those societies monitor all music performances from the cues sheets submitted by the broadcasters and then allocate
the dues to the musicians based on the uses. There is a set format to a cue sheet which must be used when submitting the information. Accordingly, the user selects the Cue Sheet Export navigation button 36. The search tool responds to the selection by displaying the Cue Sheet export screen, which is illustrated in Figure 16. The user selects the Export Cue Sheet control button 89 from the Cue Sheet window 87 to save a copy of the relevant writer and publisher information onto the local drive in text form, which is illustrated in Figure 17. This information can then be easily compiled into a cue sheet form for submission to the performing rights society.

In other embodiments, the search engine additionally provides a radio player feature (not shown). In one embodiment, this feature allows the user to preview individual tracks either randomly and/or according to genre. The previewing allows the user to become familiar with content without executing specific searches after listening to a track so as to retrieve additional desired tracks. The radio player preferably displays the track identifier, song title, and the search information associated with both the current track and the last track played, when replaying a particular track.

In one embodiment, the system allows the producer to launch a new search for "more tracks like this one" based on the genre, mood, tempo, and other search terms associated with the current track.

An internet link will eventually provide the user with access to technical help, provide the client with the ability to report use of particular content to, and provide the ability to automatically track uses of content.

Although the present invention was discussed in terms of certain preferred embodiments, the invention is not limited to such embodiments. A person of ordinary
skill in the art will appreciate that numerous variations and combinations of the features set forth above can be utilized without departing from the present invention as set forth in the claims. Thus, the scope of the invention should not be limited by the preceding description but should be ascertained by reference to claims that follow.
CLAIMS

1. A method for providing production-ready media for use by a production facility, comprising:
   storing a plurality of media items on a portable data storage device in a format specific to the production platform employed by the production facility;
   associating each media item with a plurality of information tags;
   associating each media item with search information; and
   associating each media item with a unique identifier.

2. The method of Claim 1, further comprising storing a search engine front-end program on the portable data storage device, the search engine front-end program adapted to employ the search information to provide search results.

3. The method of Claim 2, wherein the search engine allows a user to search for media items in accordance with search information categories.

4. The method of Claim 2, wherein the search engine facilitates adding a media item to a collection list corresponding to a specific user.

5. A musical content delivery system, comprising:
   a portable storage media adapted to store digital data, the portable storage media including an interface for communicating with a host computer system;
   a plurality of musical content files stored in the portable storage media;
   a plurality of information files stored on the portable storage media, each information file associated with an information category, each information file storing at least one attribute for each musical content file system, the attribute
selected from predetermined attributes associated with the information category; and

a search and retrieval interface program stored on the portable media, the search and retrieval interface program adapted to employ attributes from said information files to retrieve files in accordance with queries provided to the program.

6. The system of Claim 5, wherein the storage media is a SCSI interface disk drive.

7. The system of Claim 5, wherein the storage media is a USB interface disk drive.

8. The system of Claim 5, wherein the content is in AIFF format.

9. The system of Claim 5, wherein the content is in WAV format.

10. The system of Claim 5, wherein the content format is determined by reference to attributes of the host computer system.

11. The system of Claim 5, wherein the information categories are selected from the group consisting of genre, mood, tempo, and featured instrument.

12. The system of Claim 5, wherein the search and retrieval interface program is stored in an executable format.

13. A method for searching for content from a content database, comprising:

   providing a content database storing a plurality of content items, each content item is stored in an identified location;

   providing a plurality of search term files, each search term file associated with a search term category, each search term file storing a plurality of pointers to said identified locations in said content database and a corresponding search term for each pointer;
receiving a plurality of search terms in a query;
searching for pointers in a first search term file that are associated with
search terms from said query to provide a first set of pointers;
searching for pointers in at least a second search term file that are
associated with search terms from said query and are also included in the first set of
pointers; and
providing content identifiers for content associated with the pointers from
at least said second search term file as result content.

14. The Method of Claim 13, wherein the search categories and search terms are
determined by the provider of the content in the content database.

15. The Method of Claim 13, wherein the search categories and search terms are
determined by a third party and are assigned to the content by the content
provider.

16. The Method of Claim 13, wherein the content is audio tracks.

17. The Method of Claim 13, wherein the categories include genre, instrument,
tempo, and mood.

18. The Method of Claim 13, wherein the search terms are stored in a separate file for
each category.

19. A method for creating a search query by employing a search tool, comprising:
   (a) receiving a user selection of a search category;
   (b) retrieving available search terms from a search term file associated with
        the category;
   (c) displaying the available search terms in a user display screen;
(d) providing an interface for selecting search terms from the displayed search terms;

(e) adding the selected terms to a search query; and

(f) submitting the search query to a search engine if the user selects to submit the query or returning to step (b) if the user selects to change search categories.

20. A method for compiling search terms for a search query, comprising:

   providing tabs for controlling the selection of categories;

   displaying search terms of a selected category;

   allowing for the selection of search terms from the displayed search terms;

   providing a display box for selected terms of each category;

   continuously displaying selected terms from each category in a corresponding display box; and

   changing the selection category in response to selection of a category control tab.

21. A method for compiling cue sheet info, comprising:

   searching for content;

   reviewing content, each content associated with a unique ID;

   retrieving cue sheet information from cue sheet database corresponding to the unique ID; and

   exporting the cue sheet information as data.
22. The method of Claim 21, further comprising adding said content to a favorite folder list, and further wherein said cue sheet information is exported for content in said favorites folder list.

23. A search engine screen, comprising:
   a terms display window;
   search term boxes, each search term box associated with a search category;
   a Search button for facilitating the submission of a search query;
   a Clear Genre button for removing search terms of the genre currently associated with the terms display window; and
   a Clear All button for removing search terms of any category from a constructed query.

24. A results screen in a search tool, comprising:
   a track listing providing at least track title information;
   detail level selectors for adjusting the level of track information detail provided in the track listing;
   a Player window for replaying audio content data associated with a selected track from the track listing; and
   a Track information window for displaying detailed information relating to said audio content data in said player window.
MOODS

CLICK TO SELECT A MOOD. CLICK AGAIN TO Deselect.

DOWN/DARK/MELANCHOLIC
EXCITED/UP
AGGRESSIVE/EDGY
AMBIENT/SPACIOUS
LAID BACK/GROOVY
SENTIMENTAL/BALLAD
WACKY/SILLY
INSPIRATIONAL
DRAMATIC
FIG. 15

SAVE TRACK TO...
SAVE IN:
DATA
PUMPBOX101
DIALOG_CHANGEFOLDER.DIR
DIALOG_COPYTOOLTIP.DIR
DIALOG_DELETE.DIR
DIALOG_NEWFOLDER.DIR
DIALOG_REMOVEFOLDER.DIR

FILE NAME:
15798_MY_BABY_122.AIF

SAVE AS TYPE:
ALL FILES [*.]

CANCEL
SAVE
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER
IPC(7) : G06F 7/00; G06F 15/173; G06F 15/00
US CL. : 707/5, 1, 3, 7, 10, 101, 102, 104.1; 709/224; 715/501.1
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
Minimum documentation searched (classification system followed by classification symbols)
U.S. : 707/5, 1, 3, 7, 10, 101, 102, 104.1; 709/224

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EAST

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>US 6,425,018 B1 (KAGANAS et al.) 23 July 2002 (23.07.2002), column 1, line 54 to column 2, line 54, column 3, column 4 to column 4, line 61.</td>
<td>1-24</td>
</tr>
<tr>
<td>Y, P</td>
<td>US 6,545,209 B1 (FLANNERY et al.) 08 April 2003 (08.04.2003), column column 5, column 6, column 7, column 8, column 9.</td>
<td>1-24</td>
</tr>
<tr>
<td>Y, P</td>
<td>US 6,484,199 B2 (EVAL) 19 November 2002 (19.11.2002), column 3, column 4, column 8, column 9, column 11, column 12, column 16, column 17, column 18, column 23, column 24, column 31, column 32, column 33, column 35, column 36, column 38.</td>
<td>1-24</td>
</tr>
<tr>
<td>Y</td>
<td>US 6,072,480 A (GORBET et al.) 06 June 2000 (06.06.2000), column 6, lines 16-31, column 8, lines 6-48.</td>
<td>1-24</td>
</tr>
</tbody>
</table>

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:
  *A* document defining the general state of the art which is not considered to be of particular relevance
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"X" document member of the same patent family

Date of the actual completion of the international search 05 March 2004 (05.03.2004)
Date of mailing of the international search report 09 APR 2004

Name and mailing address of the ISA/US
Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Authorized officer
Greta Robinson
Telephone No. 703-308-7565

Form PCT/ISA/210 (second sheet) (July 1998)