Grounds 4 and 9: Kaplan and Bryant

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735/777 IPRs Grounds 4-5 and 9-10: Kaplan

Kaplan discloses a "multimedia management system for storing, manipulating, and displaying multimedia content."

[0004] The present invention is a multimedia management system for storing, manipulating, and displaying multimedia content. The system comprises a user interface, a plurality of predefined functions, a multimedia acquisition interface, and system controls. The system provides users with a simple and intuitive method and computer program for reviewing multimedia content, which can include digital video, digital audio and text, still images, animation, and MIDI.

EX1014 (Kaplan) at ¶ 4; 735 Petition at 11; 777 Petition at 66

[0038] Referring now to **FIG. 1, a** block diagram of a preferred embodiment of a multimedia management system **10** for storing, manipulating, and displaying multimedia content in accordance with the present invention is shown. The system **10** comprises a user interface **12**, a plurality of predefined functions **14**, a multimedia acquisition interface **16**, and system controls **18**. The system **10** provides users with a simple and intuitive method and computer program for reviewing their multimedia content, which can include digital video, digital audio and text, still images, animation, and MIDI. The various types of multimedia content are typically in the form of digital computer file formats. Today there are dozens of multimedia file formats such as JPEG, GIF, TIFF, MOV, WAV, AVI, and MP3.

EX1014 (Kaplan) at ¶ 38; 735 Petition at 66-67; 777 Petition at 61

735/777 IPRs Grounds 4-5 and 9-10: Kaplan

Kaplan discloses “uniquely indexed multimedia files” and “pointers”

is established. To facilitate the storage and subsequent retrieval of the multimedia data files, the multimedia management system user interface provides a plurality of predefined functions to uniquely index multimedia files, create an index database file, and create visual representations of the files for later retrieval. This function relates to a media library function of the media management system resident on a PC. The indexed file stores a pointer in the management system database to the physical file location, while providing a thumbnail image that can be used to represent the file in the management system user interface. This allows multiple pointers in the media management database, which relate to a single physical file stored on computer media. Thus, there is no need to store multiple physical files of the multimedia data, thereby saving storage space. Additionally, the media management system allows organization of the multimedia files into virtual albums of favorite multimedia files for easy access, while archiving the source material. The indexing system will automatically drop the indexing information into the library files for access.

EX1014 (Kaplan) at ¶ 44; 735 Petition at 11; 777 Petition at 68

735/777 IPRs Grounds 4-5 and 9-10: Kaplan

Kaplan discloses "options (e.g., favorites button" and "thumbnails")

[0040] Referring to **FIG. 3**, the functions associated with the user interface **12** are shown. These functions may be carried out via control buttons provided in association with an interface such as shown in **FIG. 2**, or on a further interface accessed by the user, such as shown in **FIG. 4**. As seen in **FIG. 3, a** primary set of options may be provided via an interface to a user. In an embodiment, the primary options include Desktop **22**, My Computer **24**, Favorites **26**, History **28**, and Catalog **30**. Each primary option may be represented on an interface as a "button." To select one of the primary options, the user typically will move and click a mouse pointer over the desired button. Selection of the primary options is not limited to input via a mouse. Other means of activating the primary options include keyboard entry, direct contact by the user to a touch screen display, and voice recognition devices. Because the most popular PC operating system available today is Microsoft Windows, the interface for controlling functions of the multimedia management system may include operational options that correspond to common features of the Windows operating system. For instance, as shown in **FIG. 5**, the Desktop **22** button will display each of the icons **46** that are normally displayed by the Windows operating system on its desktop **44** or default display. One of the advantages to the user interface **12** of the present invention is that all information and multimedia content is displayed through thumbnails **36**, which are small image representations of larger images. Generally, thumbnails **36** provide users with a more intuitive method of managing computer files, such as multimedia content, because users do not have to remember file names. The use of thumbnails **36** will subsequently be fully described. Other standard features of user interface **12** include horizontal and vertical screen scrolling actuators **38** and **40** respectively and control functions **42**. The horizontal and vertical screen scrolling actuators **38** and **40** allow the user to scroll the display to view additional thumbnails **36** that would not otherwise fit on a single sized display. The control functions **42** emulate the standard control functions of the Windows operating system and allow the display to be closed, opened fully, or fully shrunken from the Windows desktop **44**.

[0042] Referring now to **FIG. 7**, the Favorites **26** primary option button displays a plurality of thumbnails **36** that each represent and display a container **48**. Essentially, containers **48** are graphical representations of the albums or entries in the multimedia database which point to the actual physical file in the computer system. Each container **48** includes a graphical representation displayed in a thumbnail **36** that allows users to identify the contents of the container **48** based upon the graphical representation or image displayed. The containers **48** displayed by the Favorites **26** primary option button allow users to store their favorite multimedia content in a convenient and quick to find location. Any number of containers **48** can be set up by the user to represent various types or categories of multimedia content. Once a container **48** is designated the user then assigns it an image that will appear in the thumbnail **36** for that container **48**. The image assigned to the thumbnail **36** will be used to identify the contents of the particular container **48**. In one preferred embodiment of the present invention, a series of default containers **48** are set up to hold types of multimedia content for movies **56**, photos **50**, and songs **52**. Several examples of user designated categories of multimedia content include images of space **54** and pictures of kids **58**. Users can store their favorite movies in the "movie" container **56**, their favorite pictures of their children in the "pictures of kids" container **58**, and so on. Once the user's favorite multimedia content is stored in the appropriate container, to access the multimedia content the user only has to use the mouse to click (hereinafter referred to only as "click") on the Favorites **26** primary option button, then click on the appropriate container **48**.

EX1014 (Kaplan) at ¶¶ 40, 42;
735 Petition at 12-13;
777 Petition at 76-78

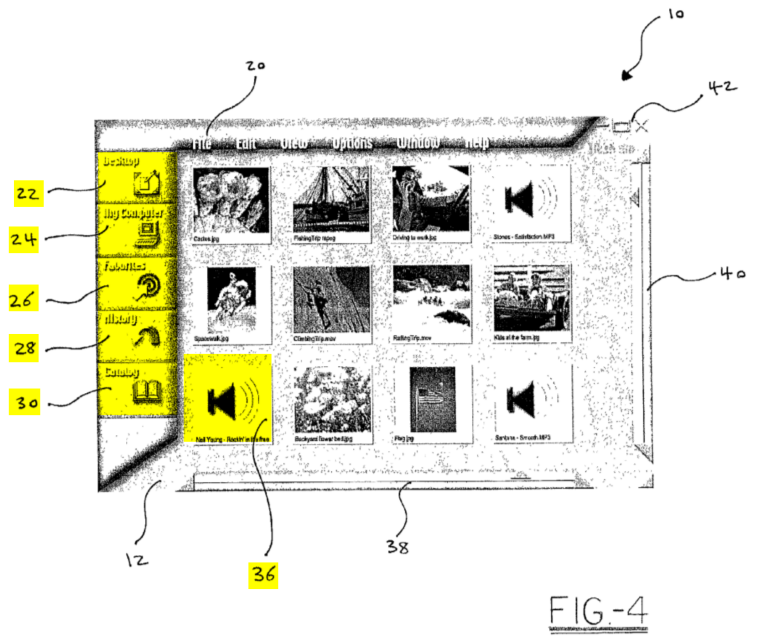


FIG-4

EX1014 (Kaplan) at Fig. 4; 735 Petition at 12

735/777 IPRs Grounds 4-5 and 9-10: Bryant

Bryant discloses "grouping and classifying digital still images and digital motion images captured using a handheld digital camera" storing grouping and classification data "in a database on a host computer"

[0029] The present invention defines methods for grouping and classifying digital still images and digital motion images captured using a handheld digital camera. The grouping can be done manually by the camera user, by pressing a "new group" button on the digital camera before capturing a group of digital images. The classification can be done manually by the camera user, for example, by identifying a "favorite" image within each group of captured images, using a control button on the digital camera as the user reviews the group of captured digital images on the camera's image display. A user identifier can also be stored along with the classification data, in order to identify the particular camera user for whom the classification was made. In one embodiment of the present invention, the grouping and classification data is stored in a database on a host computer, and can later be used in retrieving digital images and in producing hardcopy output, such as album pages. In a second embodiment, the grouping and classifi-

EX1015 (Bryant) at ¶ 29; 735 Petition at 13; 777 Petition at 61

735/777 IPRs Grounds 4-5 and 9-10

Bryant's classification provides "affective information," which is information that relates to the feelings or emotions of a person toward images. One example of "affective information" is the level of importance a user associates with an image, such as whether the image is a 'favorite'"

[0030] The classification provides "affective information," which is herein defined as information that relates to the feelings or emotions of a person toward images. This affective information usually describes or represents a person's subjective reaction to a given image. One very important type of affective information is the level of importance a user associates with an image, such as whether the image is a "favorite". For example, a user may take dozens of still photographs or video segments during an event, such as a wedding or Christmas celebration. Out of these many images, there are normally only a few that the user feels are particularly special, or "favorite" images.

EX1015 (Bryant) ¶ 30; 735 Petition at 13; 777 Petition at 61

735/777 IPRs Grounds 4-5 and 9-10

Bryant discloses that the database stores data image objects corresponding to various transferred image files

[0082] **FIG. 8** depicts information included in the local database stored on the hard drive **20**. The database includes a general assets table **600** that includes an image data object **632-652** for each transferred image. In particular, there are **11** data objects which correspond to the **11** image files **432-452**, named **100_1686** through **100_1696** shown in **FIG. 5**.

[0084] The "capdate" metadata in row **660** provides the date/time that the image was captured using the digital camera **300**. The "image caption" metadata in row **662** provides user entered caption. This metadata is null until the caption is optionally entered by the user using the keyboard **16** (see **FIG. 1**). The "clgdate" metadata in row **664** provides the date/time that the image was cataloged, in other words, the date/time that the object was committed to the database in block **126** of **FIG. 3B**. The "favlevel" metadata in row **666** indicates whether or not the image was selected as a favorite in block **114** of **FIG. 3A**. As described earlier, images are classified using a scale ranging between –10 and +10. If the image was not selected as a favorite in block **114**, it is given a value of 0, and if it was selected as a favorite, it is given a value of +7. The other values can be used to enable images to later be reclassified as "more favorite" or "less favorite".

[0085] The "filesize" metadata in row **668** and "format" metadata in row **670** of **FIG. 8** indicate the size and type of image file (e.g., JPEG, TIFF, etc.). The "group number" metadata in row **672** gives the number of the group of images (e.g. 1, 2, 3, etc.) that this particular image is part of. The group job information in the FAVGROUP.MRK file **416** is used to determine the group number. The "group name" metadata in row **672** gives an optional name for the group, as will be discussed later with reference to block **156**.

[0087] The "thmheight" and "thmwidth" metadata in rows **688-690** give the size of the thumbnail image (e.g., 160×120 pixels) and the "thmnail" metadata in row **692** is a data blob which holds a copy of the compressed thumbnail image that was stored by the digital camera **300** in each Exif image file. Providing a copy of each thumbnail image in the general assets table **600** of **FIG. 8** allows all of the thumbnails to be quickly retrieved from the hard drive **20** for display on the display monitor **14** (see **FIG. 1**).

EX1015 (Bryant) at ¶¶ 82, 84-85, 87;
735 Petition at 14-15; 777 Petition at 87-90

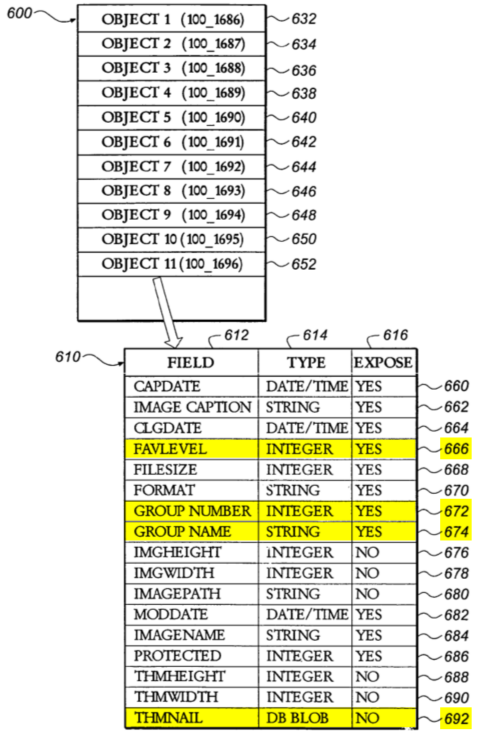


FIG. 8

EX1015 (Bryant) at Fig. 8;
735 Petition at 14; 777 Petition at 89

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735/777 IPRs Grounds 4-5 and 9-10: Bryant

Bryant also discloses thumbnails

[0089] **FIG. 9A** depicts an example of a computer user interface screen for displaying all of the transferred images. A GUI screen **800**A includes an area **820** for displaying the thumbnail images provided using the "thmnail" metadata **692** of each object in the general assets table **600** in **FIG. 8**. By moving a selector **842** within a display selection area **840**, the user can select a display of "All Images", a display of "All Favorites", or a display of a "Group" of images selected using a group number/name box **843**". In the example of **FIG. 9A**, the "All Images" display mode is selected.

EX1015 (Bryant) at ¶ 89; 735 Petition at 15; 777 Petition at 87-90

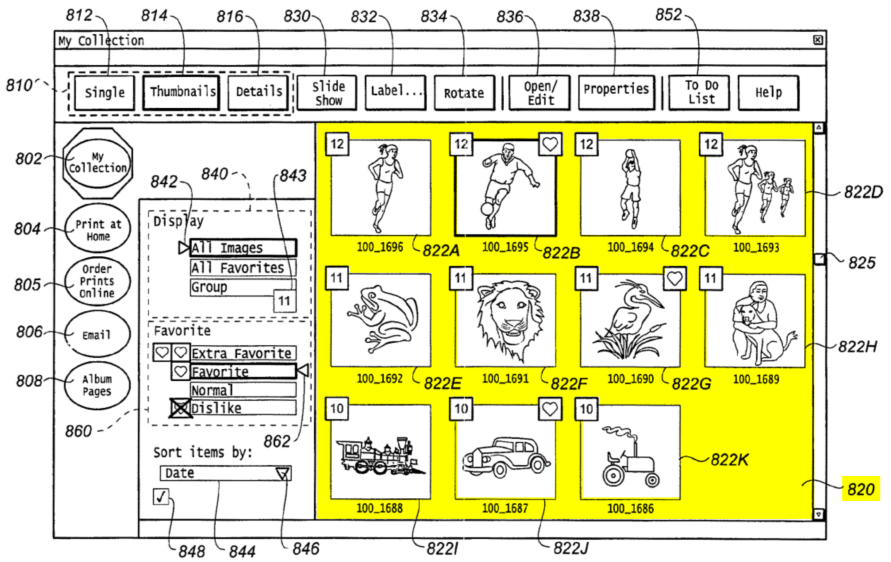


FIG. 9A

EX1015 (Bryant) at Fig. 9A; 735 Petition at 15; 777 Petition at 87

735/777 IPRs Grounds 4-5 and 9-10: Motivation to Combine Kaplan and Bryant

218. A POSITA would have been motivated to combine Kaplan and Bryant for at least two reasons.

219. First, a POSITA would have been motivated to supplement the teachings of Kaplan by using Bryant's teachings regarding image capture and obtaining video information with a user's camera. For instance, Kaplan discloses a

* * *

220. Second, a POSITA would have been motivated to use Bryant's robust disclosure of user-customizable metadata, such as "groups" (*e.g.*, Animals, Sports) and corresponding areas of the interface menu. *See* discussion regarding Claim 1 in

EX1003 (Bederson Declaration) at ¶¶ 218-220; 735 Petition at 67-68; 777 Petition at 61-63

735/777 IPRs Grounds 4-5 and 9-10: Motivation to Combine Kaplan and Bryant

Bryant's "affective information" and metadata allows more effective (e.g., more detailed or more personalized) organization and retrieval of multimedia information in Kaplan's system

See, e.g., EX1015, ¶¶3-5, 29. Moreover, Bryant explains that by using multimedia according to its systems and methods, a particular user's "affective information" can be captured, which can be stored with the still or video images. EX1015, ¶¶29-34. A POSITA would have recognized that inclusion of the richer metadata in Bryant would have improved the Kaplan system, allowing for more effective (*e.g.*, more detailed or more personalized) organization and retrieval of multimedia information. *See, e.g.*, EX1015, ¶¶29 ("can later be used in retrieving"), 30 ("One very important type of affective information is the level of importance a user associates with an image, such as whether the image is a 'favorite.'"), 32-33 ("Different users..."); *see also* EX1014, ¶¶42-49, FIG. 7. In this respect, the teachings of Bryant itself motivate the combination.

EX1003 (Bederson Declaration) at ¶ 219; 735 Petition at 67; 777 Petition at 61-62

735/777 IPRs Grounds 4-5 and 9-10: Motivation to Combine Kaplan and Bryant

Bryant's metadata would be useful with respect to the search functions in Kaplan's system

Section IX.B; *see also* EX1015, FIGS. 8, 9A-9C. For instance, a POSITA would have used the display arrangement and controls set forth in Bryant's FIGS. 9A-9C, which would allow for more effective (*e.g.*, more detailed or more personalized) organization and retrieval of multimedia information. *See, e.g.*, EX1015, ¶100 ("In block 146 of FIG. 3, the user optionally resets images that are no longer considered favorites. This is accomplished using the favorites level selection area 860. The user first selects one of the thumbnail images (*e.g.*, thumbnail image 822B), and the favorites level selection area 860 then displays the current favorites level. If the user has not previously modified the level, the images are either 'Normal' or 'Favorite'. Using the selector 862, the user can change the level of the selected image to be an 'Extra Favorite', a 'Favorite', a 'Normal' image, or a 'Dislike' image."). For instance, the metadata of Bryant would be useful with respect to the search functions in Kaplan. *See* EX1014, ¶¶65-66. With its emphasis on user-customization and control, Bryant itself motivates the combination.

EX1003 (Bederson Declaration) at ¶ 220; 735 Petition at 67-68; 777 Petition at 62

735/777 IPRs Grounds 4-5 and 9-10: Motivation to Combine Kaplan and Bryant

Petitioners' motivation to combine arguments have already been found to be sufficient and PO's arguments are a repeat of those failed arguments

> Patent Owner contends that Petitioner's reasons for the combination are conclusory and vaguely stated. Prelim. Resp. 48–51. We view the combination as adequately stated, and determine at this stage that the reasons justify the combination. Should Patent Owner believe that Petitioner has not justified an aspect of the combination asserted against a particular limitation, we will address such arguments made during trial.

735 Institution Decision at 26; 735 Reply at 23

> Patent Owner contends that Petitioner's reasons for the combination are conclusory and vaguely stated, and further asserts that Petitioner shows what Kaplan, Bryant, Wong, and Candelore teach individually, but fails to adequately articulate how the references' teachings may be combined. Prelim. Resp. 52–61. We view the combination as adequately stated, and determine at this stage that the reasons justify the combination. Should Patent Owner believe that Petitioner has not justified an aspect of the combination asserted against a particular limitation, we will address such arguments made during trial.

777 Institution Decision at 29-30; 777 Reply at 26

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735 IPR Grounds 4-5: Claims 1-15 Are Obvious Over Kaplan-Bryant

Limitations and claims not disputed on the merits

PO HAS NOT DISPUTED	
Limitations	**Claims**
[1pre] , [1a], [1d]-[1f], [1h]-[1k], [1m], [9pre], [9c], [9d], [9f]-[9i], and [9k]-[9m]	2-8

- PO repeats verbatim the failed arguments from the POPR on limitations [1b]/[9a], [1g]/[9e], [1l]/[9j], [1m]/[9k].

735 Reply at 23-29 (citing ID at 27-30)

777 IPR Grounds 9 and 10: Claims 16-19, 21-25 Are Obvious Over Kaplan-Bryant-Wong-Candelore and Claims 20, 26 and 27 Are Obvious Over Kaplan-Bryant-Wong-Candelore-WinTV

Limitations and claims not disputed on the merits

PO HAS NOT DISPUTED	
Limitations	**Claims**
[16pre], [16c], [16d], [21pre], [21c], and [21d],	17, 19-20, 22-23, 25-27

- PO repeats verbatim the failed arguments from the POPR on limitations [16a]/[21a].

777 Reply at 26 (citing ID at 32)

Grounds 9 and 10: Wong Is Prior Art

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777 IPR Grounds 9 and 10: Limitations [16b]/[21b] Are Obvious Over Kaplan-Bryant-Wong-Candelore

- PO's argument for limitations [16b]/[21b] is that Wong is not prior art.

777 POR at 62

- Wong is prior art because there is no written description support in any application filed prior to 11/19/2017 for either.
  - (i) the "first video information being received including second video information that is encrypted" requirement in limitations 16[a] and 21[a] ("Term 1"), or
  - (ii) the "upon the one video information being removed from the first group of video information, the one video information continues to be included in the second group of video information for the second user profile and the second group of thumbnails continues to display a thumbnail corresponding to the one video information when the second character is selected" requirement in limitations 16[k] and 21[k] ("Term 2").

777 Reply at 26-27

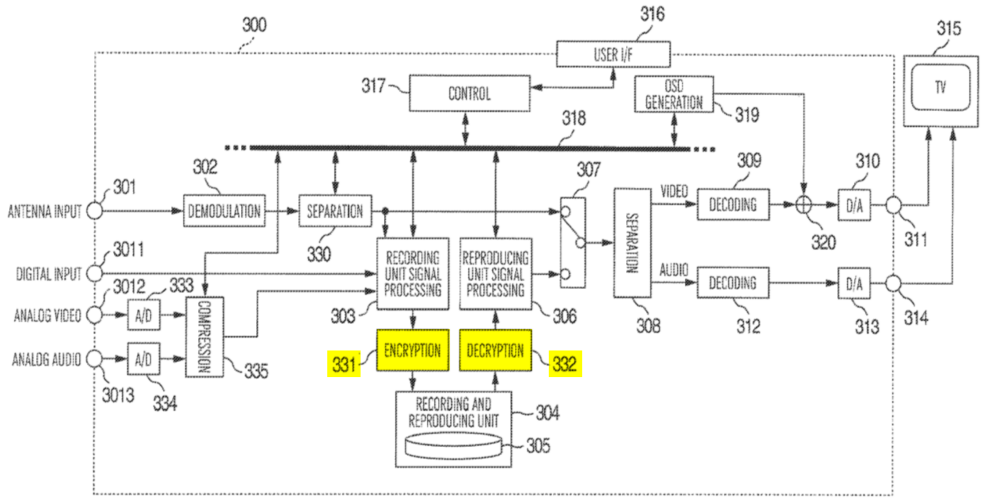
777 IPR Grounds 9 and 10: Limitations [16b]/[21b] Are Obvious Over Kaplan-Bryant-Wong-Candelore

No written description support for "term 1" – the encrypted limitation

86. For Term 1, the only disclosure of any kind regarding encryption I see in the specifications of these Four Applications, which are identical to the '815 patent,[6] is in connection with Fig. 3. The description of Fig. 3 discloses that video information is received at the information processing apparatus of Fig. 3 and only after it has been received it is encrypted by the encryption circuit 331 and stored in a recording and reproducing unit 304. EX1001, 4:43-5:6 and Fig. 3. recording and reproducing unit 304 which is not itself an information *processing* apparatus and is not disclosed in the '815 patent as being wirelessly connected to encryption circuit 331.

87. This description does not disclose the wireless receipt of video information that is in encrypted form when received as required by Term 1. As shown in Fig. 3 and described in the '815 patent, video may be input to the recording and reproducing device 300 in one of three ways: via an antenna input at terminal 301, as part of a "Digital Input" signal including compressed audio and video input from another device at terminal 3011, and in an analog video signal input via terminal 3012. '815 patent at 4:48-55. None of these video inputs are encrypted as received.

FIG.3



EX1003 (Bederson Declaration) at ¶¶ 86-87; 777 Petition at 11-12