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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	101488.0003US1
		Application Number	
Title of Invention	Loop Recording With Book Marking		
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Title of Invention	Loop Recording With Book Marking				
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Application Information:

Title of the Invention	Loop Recording With Book Marking				
Attorney Docket Number	101488.0003US1		Small Entity Status Claimed ☒		
Application Type	Nonprovisional				
Subject Matter	Utility				
Suggested Class (if any)			Sub Class (if any)		
Suggested Technology Center (if any)					
Total Number of Drawing Sheets (if any)	8		Suggested Figure for Publication (if any)		
Publication Information:					
☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)					
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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	101488.0003US1
		Application Number	
Title of Invention	Loop Recording With Book Marking		
Customer Number	24392		

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Prior Application Status		Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
	non provisional of	60/842097	2006-08-31
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		Application Number	
Title of Invention	Loop Recording With Book Marking		

Signature	/Mei Tsang/		Date (YYYY-MM-DD)	2007-06-29	
First Name	Mei	Last Name	Tsang	Registration Number	56122

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LOOP RECORDING WITH BOOK MARKING

This application claims the benefit of U.S. provisional patent application serial number 60/824097, filed August 31, 2006 which is incorporated by reference herein.

Field of The Invention

5 The field of the invention is in digital recording.

Background

Conventional camcorders use a variety of disk formats such as digital video cassettes, mini-DV cassettes and DVD-R discs that offer a limited amount of memory to store data. One of the major shortcomings of the existing camcorder technology is that the memory runs
10 out too soon. How many times does one hear, "I have no tape left" while recording? Once a portion of the memory has been recorded, there is less memory available for further recording. Then when the memory is full, users have to return to their home/work computer or media station to transfer the recorded data from the camera to free up the memory. This creates inconvenience and inflexibility for recording on the go.

15 One solution is the technology of loop recording in which the camera is constantly recording. When it reaches the end of the memory it records from the beginning, erasing the earliest recorded data. Such technology is often employed with surveillance cameras for long and continuous recording without much or any supervision. However, the problem with such loop recording is that it will not distinguish or differentiate any data that is of importance.
20 The user then will have to transfer the interested data to another storage media by stopping the recording and storing the interested data onto another medium, or risk having the interested data be recorded over during loop recording.

Many surveillance recordings employ larger memory units to solve this problem. This then creates unnecessary long recordings that are not relevant or present any interest to
25 the user. The portions of the interested data not only take up available memory for further recording but the entire loop has to be reviewed in order to select the most relevant portion. Again, this creates inconvenience and inflexibility for recording on the go.

Furthermore, users of the surveillance camera are not able to edit a given portion on the fly without stopping and replaying the image. The user must focus his or her attention on the viewfinder or display screen to keep the subject properly framed. This seriously hinders the operator's live enjoyment of the event being recorded since their attention is on the recording device and is not immersed in the sights and sounds of the event.

Thus, there is still a need for a camera that provides better recording and editing functions.

This and all other referenced extrinsic materials are incorporated herein by reference in their entirety. Where a definition or use of a term in an incorporated reference is inconsistent or contrary to the definition of that term provided herein, the definition of that term provided herein applies and the definition of that term in the reference does not apply.

Summary of The Invention

The present invention provides apparatus systems and methods in which a camera storing discrete segments of imaged data comprising, using a sensor in the camera to capture image data; using multiple portions of a memory as a loop in which to record the segments in approximately real time; and protecting the multiple portions from being overwritten by subsequent recording in the loop.

In preferred embodiments, the loop is sufficiently large enough to store at least five minutes of the image data and be stored as a single file. When the recorder stores the first and second multiple data portions, they can be stored as separate files or a common file separate from the loop single file.

In yet another preferred embodiment, the recorder continues to record the image data immediately after ending at least one of the segments or immediately after protecting at least one of the segments. It is preferred that the recorder designate a beginning of the first one of multiple portions in response to a start signal from a user of the camera and an end of the first one of the multiple portions in response to a stop signal from the user.

The recorder can be operated preferably using a switch in a clothing accessory. The switch can be manually operated. The start signal can be an audio signal. Preferably for the

first portion of multiple portions, a time span of the image data occurs prior to the start signal for at least 5 seconds, more preferably for at least 15 seconds.

In yet another preferred embodiment, the recorder can wirelessly transmit the first of the segments to a memory and release a corresponding one of the multiple portions of
5 memory from protection.

It is preferred that a system comprises of electronics that allow storing discrete segments of imaged data by using a sensor in the camera to capture image data; using multiple portions of a memory as a loop in which to record the segments in approximately real time; protecting the multiple portions from being overwritten by subsequent recording in
10 the loop; and a clothing accessory that supports the sensor. It is contemplated that the clothing accessory can be a pair of glasses in which a viewfinder is provided in the lens of the eye-glasses.

Various objects, features, aspects and advantages of the present invention will become more apparent from the following detailed description of preferred embodiments of the
15 invention, along with the accompanying drawings in which like numerals represent like components.

Brief Description of The Drawing

Fig. 1 is a block diagram illustrating the present inventive subject matter.
20 Fig. 2 is a camera embodying the present inventive subject matter.
Fig. 3 is a diagram illustrating the memory of the present inventive subject matter.
Fig. 4A is a front view of the camera recorder.
Fig. 4B is a back view of the camera recorder
Fig. 5 is another embodiment of the camera recorder.
25 Fig. 6 is yet another embodiment of the camera.

Fig. 7A is a close up view of a remote control device according to the present inventive subject matter.

Fig. 7B is another close up of the remote control device.

Fig. 8 is a side view of the camera recorder.

5 **Detailed Description**

 The present inventive subject matter comprises methods and systems of storing discrete segments of imaged data in a camera by using a sensor in the camera to capture image data; using multiple portions of a memory as a loop in which to record the segments in approximately real time; and protecting the multiple portions from being overwritten by
10 subsequent recording the loop.

Figure 1 is a block diagram generally includes the steps of a recorder 120 comprising a memory 140, storing image data onto the memory 150, recording and protecting image data onto memory 160, continuing to store new image data into available memory 170, overwriting new image data onto available memory 180, and transmitting protected data 190
15 to an external storage media 200.

 Recorder 120 comprises imager lens 220, memory 140, control buttons 230, microprocessor 240, power source 250, microphone 260, hard drive 270, transmitter 280 and optional display screen (not shown) as shown in **Figure 2**.

 Recorder 120 can be any recording device that records video and/or audio data.
20 Typically the recorder is a high performance digital video camera or camcorder but other formats, such as an analog recorder are contemplated. The recorder's electronics preferably are all on a unitary printed circuit board. The recorder preferably has at least one hard disk drive and audio and video input analog signal (from a source such as video camera or broadcast media) as well as a suitable monitor for receiving output audio and video analog
25 signals.

 Imager lens 220 is used to focus images for recorder 100. Conventional lenses allow one or more of the following adjustments: aperture (to control the amount of light), zoom (to control the field-of-view), and shutter speed (to capture continuous motion.). In preferred

embodiments, these adjustments are automatically controlled by the camcorder electronics, generally to maintain constant exposure onto the imager without the manual adjustment from a user. It is contemplated that the preferred embodiments offer direct user control of all major optical functions. As with most modern digital recorders and camcorders, an analog-
5 to-digital (ADC) converter is used to digitize the analog imager waveform output into a discrete digital-video signal. Thus, the recorder can be in both analog and digital format.

Contemplated memory 140 will vary depending on the particular configuration of the recorder. Particularly suitable memory include commercially available micro hard drives with a 1-inch disc (which may preferably have a capacity of more than 1 GB), flash memory
10 cards with a capacity of up to 128 MB and more, and other transient and/or permanent memory units. Likewise, suitable memory may include SDRAM, SIMM, DIMM, etc. with a capacity of at least 32 MB, more preferably at least 64 MB, and most preferably above 128 MB.

In preferred embodiments, memory 140 is a SDRAM capable of storing at least 1000
15 frames of data. Once received by memory 140, frames are compressed by employing conventional compression rates and methods to achieve at least a 50:1 ratio.

In preferred embodiments, image data received by the recorder is stored in memory. Once the recorder is turned on, image data is continuously stored in a loop memory for access. If no record or protect button is pushed, the recorder will loop back and store the
20 image data for a said length of time. Recording, book-marking and protecting are used synonymously herein. Recording, book-marking and protecting means that a portion of the imaged data is recorded/book-marked/protected for protection upon an activation of a signal by a user and becomes what is called the protected data. Consequently, protected data cannot be overwritten by newly stored imaged data in the loop.

25 The loop preferably is large enough to store at least 3 minutes of data, more preferably 5 minutes and most preferred 10 minutes of data. However, it is contemplated that depending on the size and capacity of the device, any length longer or shorter is possible. It is preferred when the recorder is turned on the entire loop is treated and stored as a single file. Thus, if no recording is protected or bookmarked, then the entire file will be erased and the
30 recording will start at the beginning of the loop.

In preferred embodiments, users can decide when to record or protect a portion of data being recorded by sending a signal. As shown in a diagram in **Figure 3**, image data 130 marked for protection becomes protected data 350 in loop 330. Protected data 350 is characterized as a predefined portion of the recording data. It is contemplated that the portion
5 of the loop that is marked as protected data cannot be overwritten once the recorder loops back to the beginning of the media. However, once protected data is transferred to an external storage media, the protected data then will go back to become image data that is available for loop recording.

User can activate a signal which will book-mark or protect the data on the loop. The
10 signal can be generated from pushing a switch. Conceivably, the switch can be of a manually operated switch in which the user will push a button located on the recorder or a remote device. The switch can be something that is integrated as an accessory and is wearable on an individual. It is contemplated that the switch can be something that is portable and can be hidden or attached to other devices such as a vehicle, furniture, etc.

15 Furthermore, the signal can be generated based on different types of input such as an audio input. The user can also program the signal to activate based on a particular sound that is audible to the switch.

Once signal is activated, protected data is marked or protected for a fixed period of time. When the user wants to stop protecting image data the signal can then be deactivated.
20 It is contemplated that even after the signal has been deactivated, image data can still be protected for an additional fixed period of time. Optionally, this fixed period of time can be configured for any suitable length. For example, the recorder might protect thirty seconds before the signal and thirty seconds after the signal; or it might protect fifteen seconds before the signal and two minutes after the signal.

25 Protected data 350, once marked, are stored separately from the loop. Various discrete segments of protected data can be stored as a common file or individual files, as long as it is separated from the loop. Following the next step in **Figure 1**, recorder 120 will continue to store new image data into available memory 170. The image data will continue to record in the loop after the protected data has been recorded and protected. For portions of
30 the memory that are not protected, new image data will overwrite it when it has reached its full capacity of memory. With a new cycle of recording, user can record and protect new

image data. Since the memory is in a loop, there will be a continuous image data streaming from the recorder. Instead of catching just a clip by clip portion, all the imaged data stored are on one continuous cycle.

5 In preferred embodiments, protected data can be stored in the recorder as is or transmitted to another storage media as shown in step 190. When protected data is stored and not transmitted to another storage device, the recorder will then store new image data on the remaining available unprotected memory in the loop. To save space in the loop, protected data 350 can be alternatively transmitted into a physically external storage media 200.

10 As shown in **Figures 2 and 4**, a recorder 120 has a transmitter 280 to transmit and receive the protected data to external storage media 200. When enabled, transmitter 280 transmits the protected data into an external storage media 200. Alternatively, recorder 120 can be connected to the external storage media 200 to download the protected data. External storage media 200 can be a host computer, flash memory card, portable memory car, a digital video recorder station, and other contemplated media storage devices. In preferred
15 embodiments, external storage media 200 writes the data received onto a DVD 380. It is contemplated that other memory storage formats are considered such as a CD-Rom, flash memory, etc. As is well known in the art, a transmitter can be built into the recorder exposed. The size and shape of transmitter are determined primarily by the frequency of the signal they are designed to receive. Recorder 120 can also comprise connector ports (not shown) that
20 are employed to communicate with an external storage media 200, wireless or by hardwire. Particularly preferred, wireless transmitter interface includes a radio transceiver (e.g., interface following the 'blue tooth' standard) or an opto-electronic transceiver (e.g., an IR-transceiver).

25 Microprocessor 240 is any component of recorder 120 which manipulates data. The processor receives and stores image data, mark protected data, and processes the protected data to match what the user has commanded. Microprocessors are advantageously included in at least the housing of the recorder to facilitate the communications of all data. The microprocessor may operate a RAM, ROM or other data storage device.

30 In a preferred embodiment of the present invention, the microprocessor is programmed to allow editing function upon receiving image data or protected data.

Similarly, the microprocessor is programmed to determine which portion of the loop protected data has been used and which portion is still available for further use.

Any data received by the microprocessor can be transmitted over the network. Data is preferably transmitted via the Internet but may be transmitted by telephone line, radio, pager, two-way pager, cable, and any other suitable communication mechanism.

It is generally contemplated that the microprocessor and the memory may vary considerably and that a particular configuration of such elements will predominantly depend on the type of computations employed.

Control buttons 230 allow a user to manipulate and control image data and to generate protected data. Particularly preferred recorders include control buttons, to record, delete, store, transmit, display, print and so forth. Control buttons can be located anywhere on the recorder preferably somewhere inconspicuous. Control buttons can be built in or used in lieu of a display screen (not shown) with touch-pad capabilities. In preferred aspects, control buttons further include an on/off switch, a execute button or a clear button. Control buttons can be of a different color than the housing and preferably be on the front of the recorder.

Whether embodied in control buttons or in some other manner, it is contemplated that recorder can include some sort of security control requiring a password and some sort of automatic turnoff feature that activates after a certain amount of inactivity.

Furthermore, depending on the particular configuration and size of the recorder, it is contemplated that the recorder is configured to have a power source 420. The power source may vary considerably. For example, when the recorder is relatively large, a suitable power source may include a rechargeable battery. On the other hand, when the recorder is relatively small, an appropriate power source may include an external power source (e.g., transformer for wall outlet or cigarette lighter adapter).

It is also preferred that recorder 120 has a microphone 260 that allows for the receiving of audio signal and an optional display screen that displays images being recorded. However, in preferred embodiments of the recorder no display screen is needed to for secured recording.

One purpose of the invention is to allow secret recording by a user. The user can integrate the recorder as part of his/her wardrobe or even as clothing accessories, such as a pin or a hat. Preferably, recorder will record video and audio as seen from the wearer's point of view without requiring the wearer to exert any special effort to operate the recorder. The
5 recorder operates for extended periods of time while remaining unobtrusive both to the wearer/operator and to the subject(s) being recorded.

This preferred embodiment is shown in **Figures 3-7** and comprises a miniature solid state recording device 400 coupled with a head-mounted camera 410. Other components of the head mounted camera 410 comprise a viewfinder image lens 420 integrated into a pair of
10 eyeglasses 430, a remote activating device 440 attached to the hand as a finger ring, a recorder 450 and a separate external copying device 460 .

Viewfinder image lens 420 is calibrated to have the same field of view as a camera. Preferably, viewfinder image lens 420 is embedded in between the two glass lenses 460 of the eyeglasses 430. Preferably viewfinder image lens 420 is a zoom lens with preferred
15 standard zoom ration of 3x in and out of the focal length of the camera. A more sophisticated viewfinder image lens 420 is contemplated to have a greater zoom range and also has nighttime vision and is able to render images under different light conditions. Conceivably, viewfinder image lens 420 may be permanently fixed to camera 410, or it may be interchangeable with lenses of different focal lengths and other properties depending on the
20 need and circumstances of use.

In an alternative embodiment as shown in **Figure 6**, the lenses 460 of eyeglasses 430 are viewfinder image lens 420. Thus, instead of having the viewfinder image lens 420 in between lenses 460, user can directly use the eyeglasses as the viewfinder lens. Within the lenses, viewfinder image lens 420 is outlined by tinted area or graticle and the outline graticle
25 is embedded with glowing fiber optic filament. Eye-glasses are made preferably from opaque, translucent, or possibly photo gray-type tint of glasses. Alternatively, glasses change color slightly when energized.

At any moment, the user may signal camera 410 to place a "bookmark" in the recording. This signal may be sent by pressing a button that will then transmit a signal
30 through wires 470 that attach to the glasses then to the recorder. The wires 470 can be fiber optic wires that are small and thin to avoid detection. Or more conveniently, the signal can

be sent by activating a remote control 440 as shown in **Figure 5**. For maximum ease, remote control 440 may be built into a ring worn on the wearer's finger. Likewise, the signal could be sent wirelessly. Control buttons 230 are built in or on the remote control 440 as shown in **Figure 7A**. User can control by turning the camera on and off, recording a portion of image data, stop the recording, zooming in and out of image data; and transmitting protected data into the recorder device 450. In the alternative, decorative symbols can be place in lieu of words of function onto the control buttons 230 of the ring remote control 440 for concealment as shown in **Figure 7B**.

In general, user manipulates the camera to record data by using the remote control. Protected data is sent wirelessly to the recorder device through fiber optics lanyard attached to the eyeglasses.

In preferred embodiments, camera 410 is connected to a recorder device 450 as shown in **Figure 5**. A wearer can clip recorder device 450 as a belt clip or a compact device (disguise as MP3 player) that can be put in purse or file without being recognized as recorder as shown in **Figures 4A, 4B, and 9**. Recorder device 450 has a belt 520 that can be clipped into place. Similar to the remote control, recorder device 450 has control buttons that allow users to: control the on and off switch of the camera, record portions of image data, stop recording, zoom in and out of image data and transmit protected data.

Protected data 350 is then sent to the recorder device by an image sensor that outputs data directly in "block" format typically converted in raster-to-block converter. Further compression is needed to transmit data. Either DCT or wavelet transformed data on native sensor format (Bayer codes).

Recorder device 450 also houses the memory and the microprocessor used for the device. When recorder device 450 is on, it will automatically store all image data received by the viewfinder image lens and then onto the built-in memory. As it receives new image data, the recorder device will then automatically loop record image data, overwriting oldest frames when full. Alternatively, when a user presses the control button to start recording, the recorder saves a predetermined amount of time before and after the activation of the control button, which will prevent later recording from overwriting this "bookmarked" section. User can then transmit the protected data by pushing the transmitting control button wirelessly.

Alternatively, after turning off the recorder device, user can plug the recorder device into an external source such as the external storage device 200 that contains a DVD burner. As shown in **Figure 2**, the user loads a blank DVD 380 into the external storage media 200, presses a button, and the device copies all of the bookmarked sections to the DVD creating a
5 new chapter for each bookmarked section. This allows the user to view only the portions of the recording that were bookmarked to seek easily from one highlight to the next.

In order for the device to be practical, physical size and weight are of primary importance. The recorder portion must be small and lightweight enough to be unobtrusive. Preferably, the size of the recorder is two inches by three inches by one-half inch and six
10 ounces in weight including battery. The camera or imaging component must be small and lightweight enough to be mounted on a pair of eyeglasses without conspicuous bulk or uncomfortable weight on the order of one-quarter inch by one-quarter inch by one inch or smaller and weighing one ounce or less. Further, the imaging component must be capable of sufficient resolution that the image quality of the resulting recording is comparable with
15 existing consumer camcorder products.

Since the recorder will be worn on the body and the wearer may move actively about when the device is in operation, it is important that the entire device be mechanically rugged and that all components, particularly the storage media, be impervious to the shocks resulting from such body movement. The device is also likely to be exposed to environmental stresses
20 such as dust and moisture so the components and packaging must accommodate this exposure. Solid state media such as compact flash memory is particularly suitable as the recorder's storage media since it meets these requirements.

Alternatively, the recorder device can be mounted on vehicles, planes or any other objects for ease of use. It is contemplated that the present invention can be used in military
25 or field intelligence operations.

Thus, specific embodiments and applications of a loop recording with book marking recorder have been disclosed. It should be apparent, however, to those skilled in the art that many more modifications besides those already described are possible without departing from the inventive concepts herein. The inventive subject matter, therefore, is not to be
30 restricted except in the spirit of the appended claims. Moreover, in interpreting both the specification and the claims, all terms should be interpreted in the broadest possible manner

consistent with the context. In particular, the terms “comprises” and “comprising” should be interpreted as referring to elements, components, or steps in a non-exclusive manner, indicating that the referenced elements, components, or steps may be present, or utilized, or combined with other elements, components, or steps that are not expressly referenced.

- 5 Where the specification claims refers to at least one of something selected from the group consisting of A, B, C and N, the text should be interpreted as requiring only one element from the group, not A plus N, or B plus N, etc.

CLAIMS

What is claimed is:

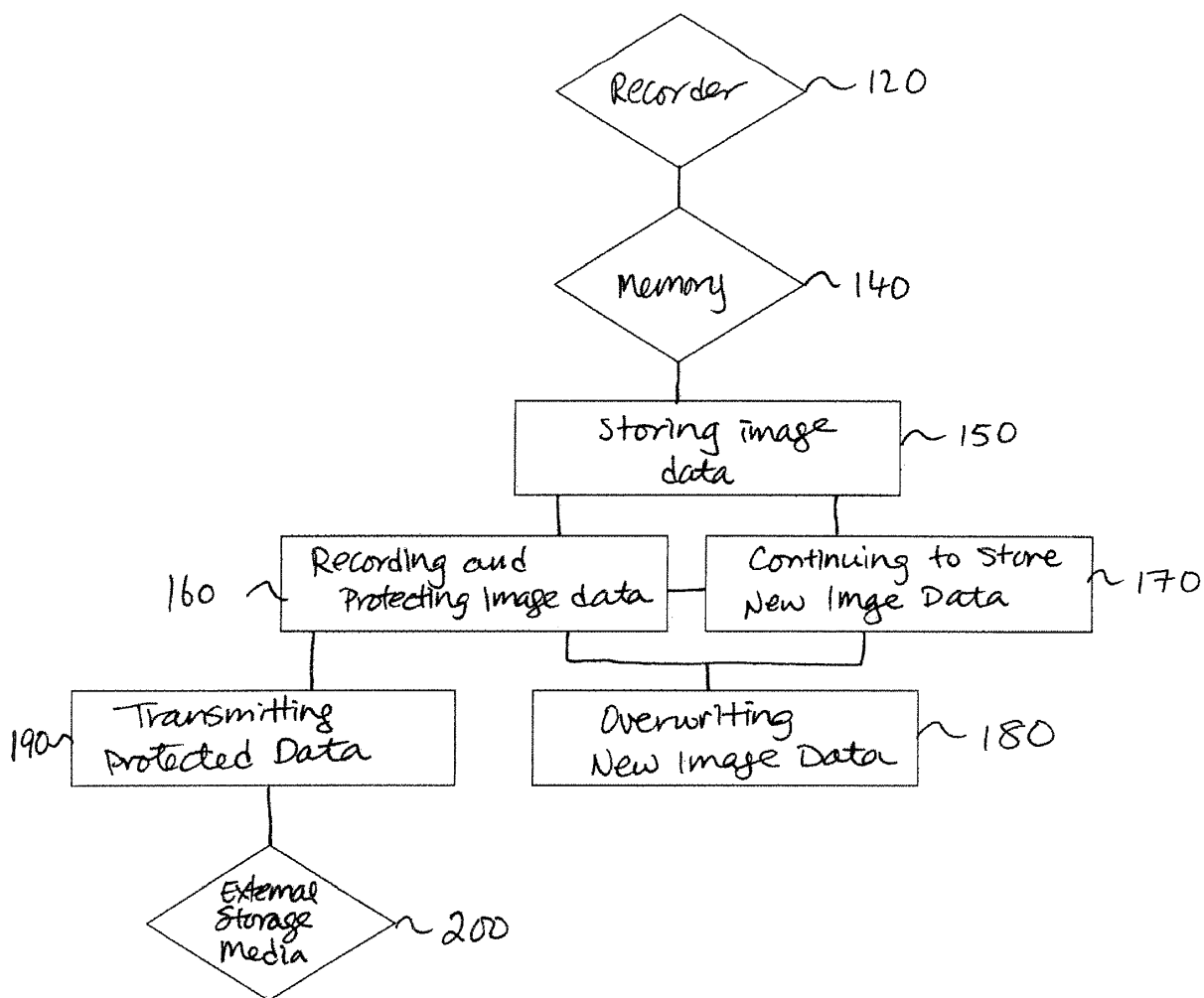
1. A method of storing discrete segments of imaged data in a camera, comprising:
 using a sensor in the camera to capture image data;
 using multiple portions of a memory as a loop in which to record the segments in
 approximately real time; and
 protecting the multiple portions from being overwritten by subsequent recording in
 the loop.
2. The method of claim 1, wherein the loop is sufficiently large to store at least five minutes of the image data.
3. The method of claim 1, further comprising treating the entire loop as a single file.
4. The method of claim 1, further comprising storing first and second ones of the multiple portions as separate files.
5. The method of claim 1, further comprising storing first and second ones of the multiple portions in a common file.
6. The method of claim 1, further comprising continuing to record the image data immediately after ending at least one of the segments.
7. The method of claim 1, further comprising continuing to record the image data immediately after protecting at least one of the segments.
8. The method of claim 1, further comprising designating a beginning of a first one of the multiple portions in response to a start signal from a user of the camera.
9. The system of claim 8, further comprising using a switch in a clothing accessory to operate an aspect of the method.
10. The method of claim 8, further comprising designating an end of the first one of the multiple portions in response to a stop signal from the user.
11. The method of claim 8, wherein the start signal comprises a manually operated switch.

12. The method of claim 8, wherein the start signal comprises an audio signal.
13. The method of claim 8, further comprising including in the first one of the multiple portions, a time span of the image data that occurred prior to the start signal.
14. The method of claim 13, wherein the time span comprising at least 5 seconds.
15. The method of claim 13, wherein the time span comprising at least 15 seconds.
16. The system of claim 1, further comprising wirelessly transmitting a first one of the segments to a memory, and releasing a corresponding one of the multiple portions of memory from protection.
17. A system comprising electronics that implements the method of claim 1, and a clothing accessory that supports the sensor.
18. The system of claim 17, wherein the clothing accessory comprises a pair of glasses.
19. The system of claim 18, further comprising providing a viewfinder in a lens of the glasses.

ABSTRACT

A methods in which a camera can store discrete segments of imaged data, using a sensor in the camera to capture image data, using multiple portions of a memory as a loop in
5 which to record the segments in approximately real time, and protecting the multiple portions
from being overwritten by subsequent recording in the loop. Recorder continues to record
the image data immediately after ending at least one of the segments or immediately after
protecting at least one of the segments. Protected data or segments can be wirelessly
transmitting a first one of the segments to a memory, and releasing a corresponding one of
10 the multiple portions of memory from protection. Recorder and signal switch are located or
as part of an accessory, such as a pair of glasses.

FIG. 1



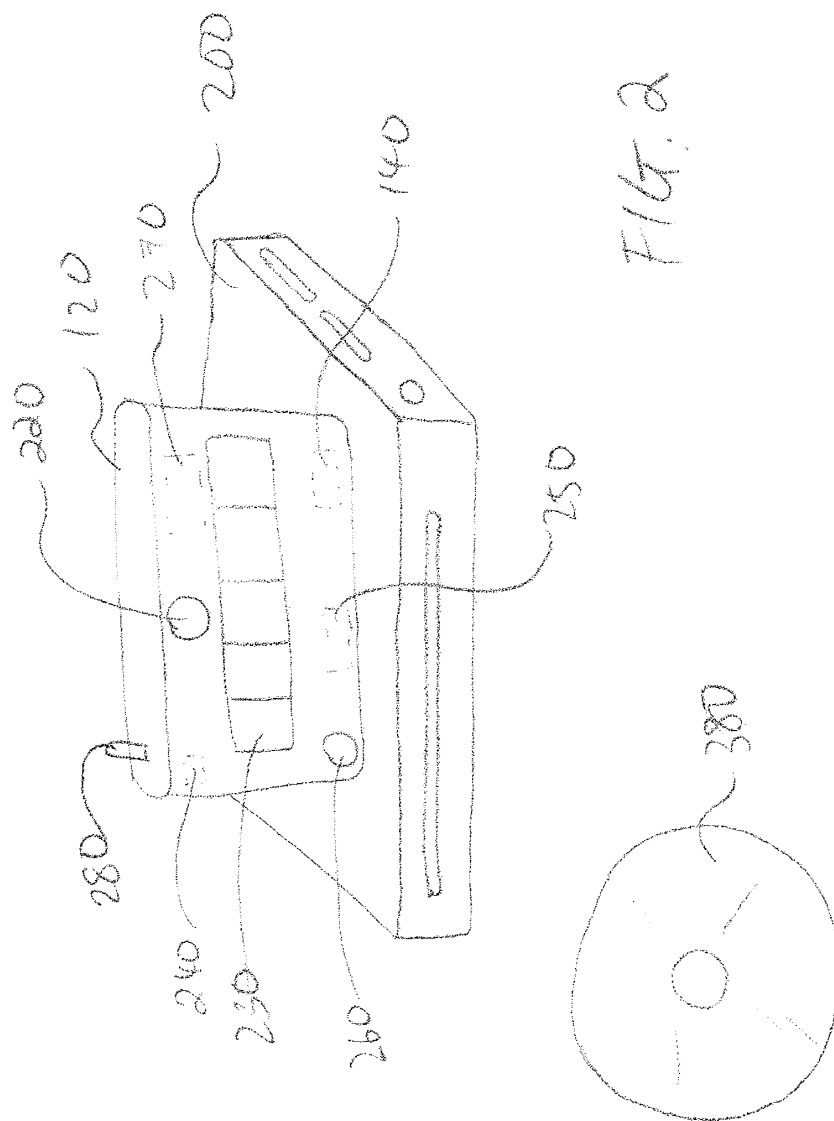


FIG. 2

FIG. 3

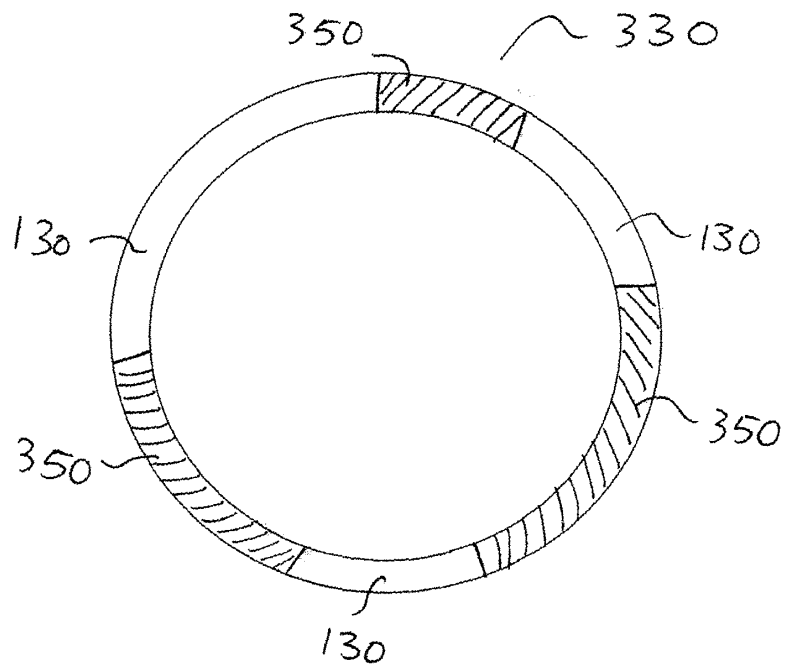


FIG. 4A

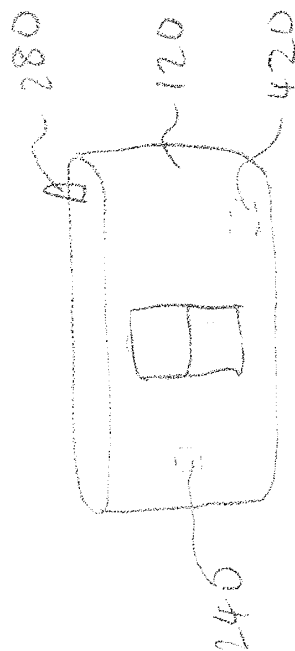
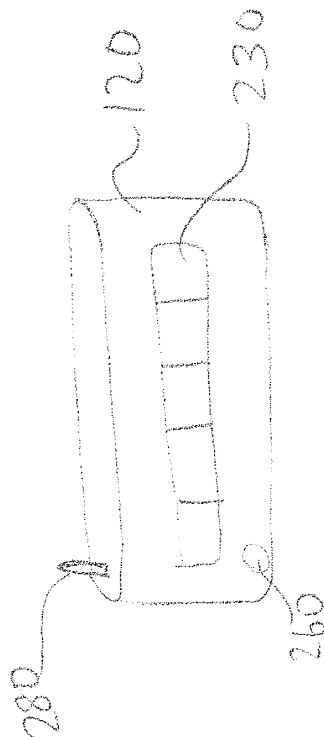


FIG. 4B

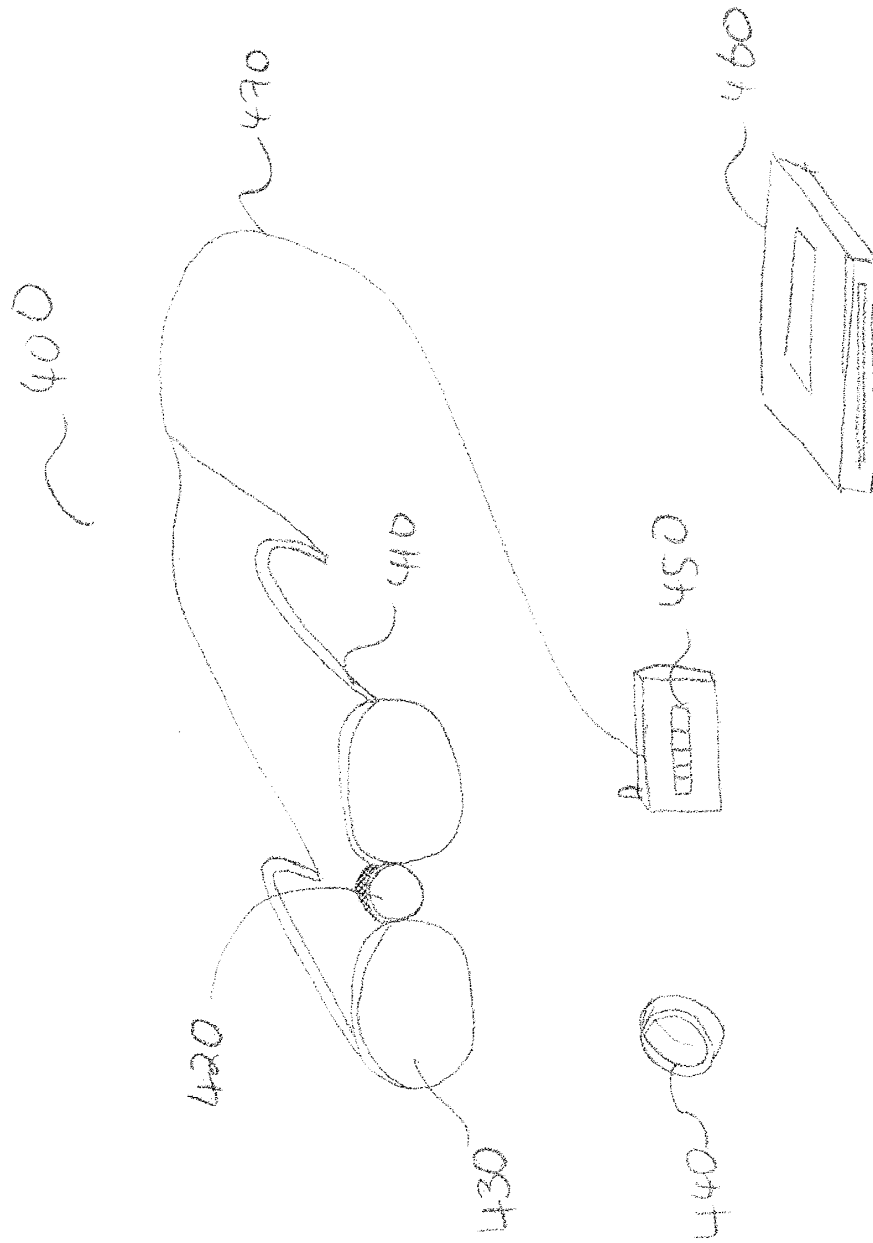


FIG. 5

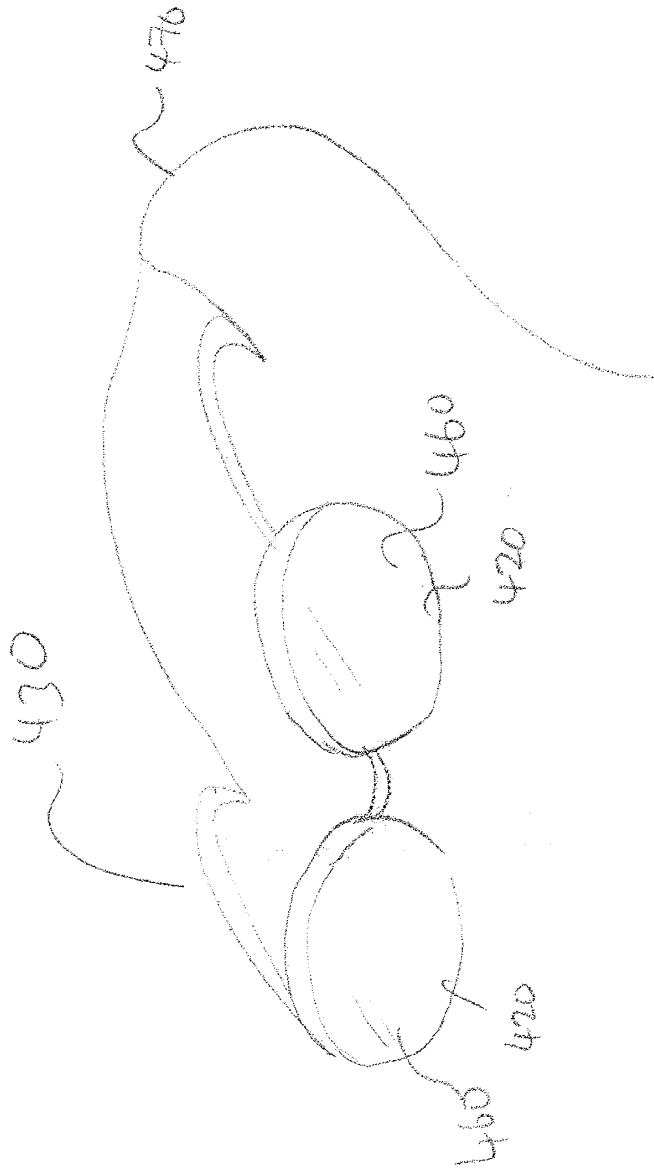


FIG. 6

FIG 7A

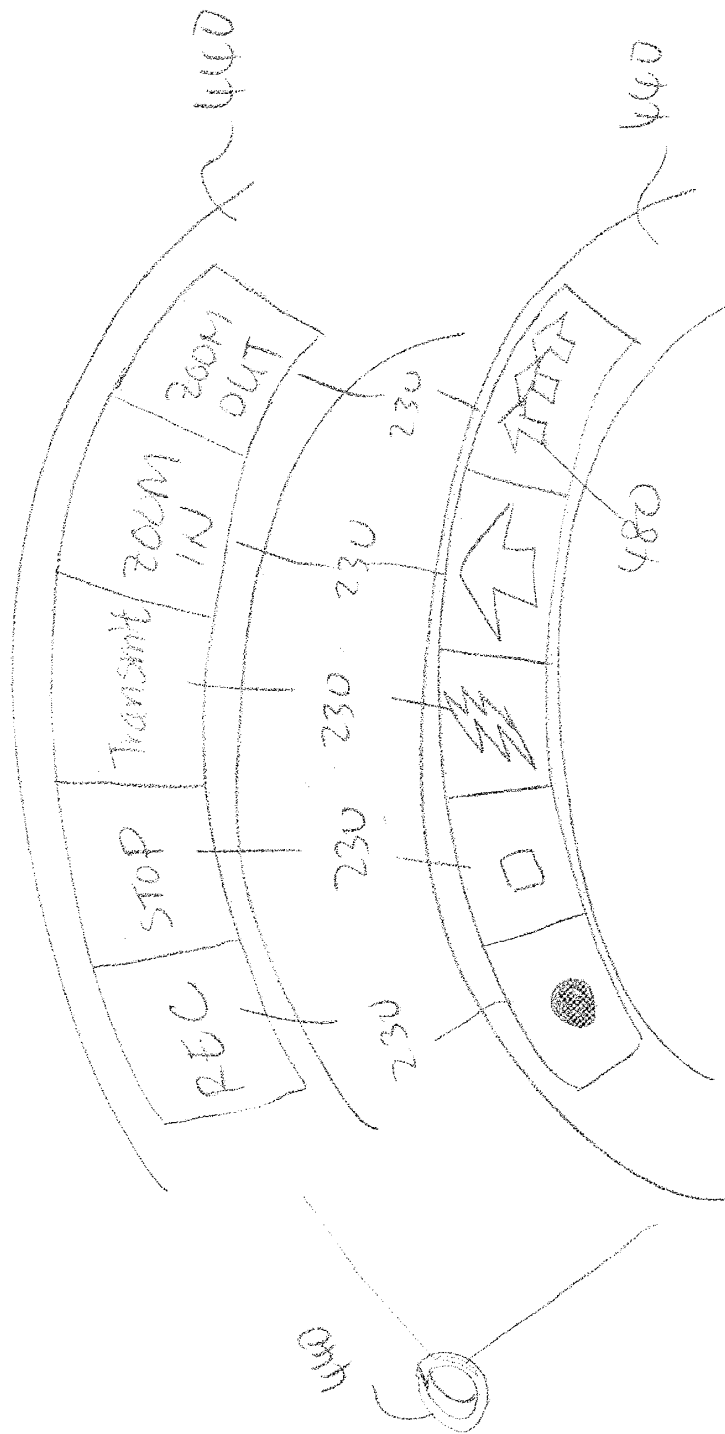
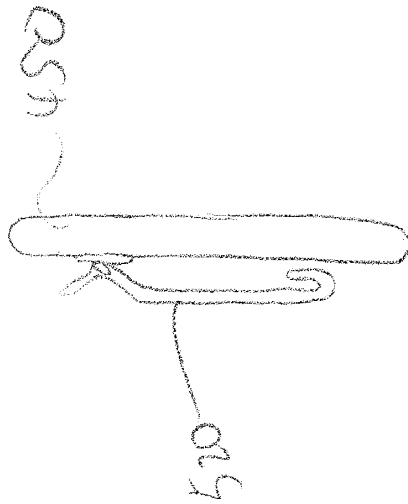


FIG 7B

FIG. 8



Electronic Patent Application Fee Transmittal				
Application Number:				
Filing Date:				
Title of Invention:		Loop Recording With Book Marking		
First Named Inventor/Applicant Name:		Paul DeKeyser		
Filer:		Martin Fessenmaier/Sara Geer		
Attorney Docket Number:		101488.0003US1		
Filed as Small Entity				
Utility Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Utility filing Fee (Electronic filing)	4011	1	75	75
Utility Search Fee	2111	1	250	250
Utility Examination Fee	2311	1	100	100
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				425

Electronic Acknowledgement Receipt	
EFS ID:	1924914
Application Number:	11770920
International Application Number:	
Confirmation Number:	7135
Title of Invention:	Loop Recording With Book Marking
First Named Inventor/Applicant Name:	Paul DeKeyser
Customer Number:	24392
Filer:	Martin Fessenmaier/Sara Geer
Filer Authorized By:	Martin Fessenmaier
Attorney Docket Number:	101488.0003US1
Receipt Date:	29-JUN-2007
Filing Date:	
Time Stamp:	12:07:19
Application Type:	Utility

Payment information:

Submitted with Payment	yes
Payment was successfully received in RAM	\$425
RAM confirmation Number	5702
Deposit Account	500341
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.16 and 1.17	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)	Multi Part /.zip	Pages (if appl.)
1	Application Data Sheet	US_ADS_Form_SB_14.pdf	1143202	no	5
Warnings:					
Information:					
2		Application_01.pdf	116434	yes	15
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Specification		1	12	
	Claims		13	14	
	Abstract		15	15	
Warnings:					
Information:					
3	Drawings	Drawings_01.pdf	121424	no	8
Warnings:					
Information:					
4	Fee Worksheet (PTO-06)	fee-info.pdf	8361	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			1389421		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

6/29/07

PTO/SB/06 (12-04)

Approved for use through 7/31/2006. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD					11/770,920	
Substitute for Form PTO-875						
APPLICATION AS FILED – PART I						
(Column 1)		(Column 2)		SMALL ENTITY		OTHER THAN SMALL ENTITY
FOR	NUMBER FILED	NUMBER EXTRA		RATE (\$)	FEE (\$)	
BASIC FEE (37 CFR 1.16(a), (b), or (c))					75	
SEARCH FEE (37 CFR 1.16(k), (l), or (m))					250	
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))					100	
TOTAL CLAIMS (37 CFR 1.16(i))	19	minus 20 =		X 25=		X 50=
INDEPENDENT CLAIMS (37 CFR 1.16(h))	1	minus 3 =		X 100=		X 200=
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).					
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				N/A		N/A
				TOTAL	425	TOTAL
* If the difference in column 1 is less than zero, enter "0" in column 2.						
APPLICATION AS AMENDED – PART II						
(Column 1)		(Column 2)		(Column 3)		
AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))	Minus **	=		X =	
	Independent (37 CFR 1.16(h))	Minus ***	=		X =	
	Application Size Fee (37 CFR 1.16(s))			N/A		N/A
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))			TOTAL ADD'T FEE		TOTAL ADD'T FEE
(Column 1)		(Column 2)		(Column 3)		
AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))	Minus **	=		X =	
	Independent (37 CFR 1.16(h))	Minus ***	=		X =	
	Application Size Fee (37 CFR 1.16(s))			N/A		N/A
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))			TOTAL ADD'T FEE		TOTAL ADD'T FEE
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3". The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.						

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO
11/770,920	06/29/2007	2621	425	101488.0003US1

CONFIRMATION NO. 7135

FILING RECEIPT

24392
FISH & ASSOCIATES, PC
ROBERT D. FISH
2603 Main Street
Suite 1050
Irvine, CA 92614-6232

Date Mailed: 07/19/2007

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Applicant(s)

Paul DeKeyser, Irvine, CA;
Michael H. Collender, Laguna Hills, CA;
Charles F. DeKeyser, Colorado Springs, CO;

Power of Attorney: None

Domestic Priority data as claimed by applicant

This appln claims benefit of 60/824,097 08/31/2006

Foreign Applications

If Required, Foreign Filing License Granted: 07/18/2007

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is
US11/770,920

Projected Publication Date: To Be Determined - pending completion of Missing Parts

Non-Publication Request: No

Early Publication Request: No

** SMALL ENTITY **

Title

Preliminary Class

386

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

LICENSE FOR FOREIGN FILING UNDER

Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).



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 Address: COMMISSIONER FOR PATENTS
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APPLICATION NUMBER	FILING OR 371 (c) DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
11/770,920	06/29/2007	Paul DeKeyser	101488.0003US1

24392
 FISH & ASSOCIATES, PC
 ROBERT D. FISH
 2603 Main Street
 Suite 1050
 Irvine, CA 92614-6232

CONFIRMATION NO. 7135
FORMALITIES
LETTER

Date Mailed: 07/19/2007

NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

Filing Date Granted

Items Required To Avoid Abandonment:

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given **TWO MONTHS** from the date of this Notice within which to file all required items and pay any fees required below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The oath or declaration is missing. *A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.*
Note: If a petition under 37 CFR 1.47 is being filed, an oath or declaration in compliance with 37 CFR 1.63 signed by all available joint inventors, or if no inventor is available by a party with sufficient proprietary interest, is required.

The application is informal since it does not comply with the regulations for the reason(s) indicated below.

The required item(s) identified below must be timely submitted to avoid abandonment:

- Replacement drawings in compliance with 37 CFR 1.84 and 37 CFR 1.121(d) are required. The drawings submitted are not acceptable because:
 - The drawings have a line quality that is too light to be reproduced (weight of all lines and letters must be heavy enough to permit adequate reproduction) or text that is illegible (reference characters, sheet numbers, and view numbers must be plain and legible) see 37 CFR 1.84(l) and (p)(1)); See Figure(s) 2,4A-B,5-6,7A-B,8.

Applicant is cautioned that correction of the above items may cause the specification and drawings page count to exceed 100 pages. If the specification and drawings exceed 100 pages, applicant will need to submit the required application size fee.

The applicant needs to satisfy supplemental fees problems indicated below.

The required item(s) identified below must be timely submitted to avoid abandonment:

- To avoid abandonment, a surcharge (for late submission of filing fee, search fee, examination fee, or oath or declaration) as set forth in 37 CFR 1.16(f) of \$65 for a small entity in compliance with 37 CFR 1.27, must be submitted with the missing items identified in this notice.

SUMMARY OF FEES DUE:

Total additional fee(s) required for this application is **\$65** for a small entity

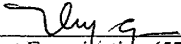
- **\$65** Surcharge.

Replies should be mailed to: Mail Stop Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web.
<https://sportal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html>

For more information about EFS-Web please call the USPTO Electronic Business Center at **1-866-217-9197** or visit our website at <http://www.uspto.gov/ebc>.

If you are not using EFS-Web to submit your reply, you must include a copy of this notice.


Office of Initial Patent Examination (571) 272-4000, or 1-800-PTO-9199
PART 3 - OFFICE COPY

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Paul DeKeyser

Application No.: 11/770920

Group No.: 2621

Filed: 06/29/2007

Examiner: Not Assigned

For: Loop Recording With Book Marking

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

REQUEST AND FEE TO DELETE AND/OR
ADD TO ORIGINAL ERRONEOUSLY NAMED OR NOT NAMED
INVENTOR(S) IN—NONPROVISIONAL APPLICATION—DECLARATION
(37 C.F.R. § 1.48(a))

1. This amendment and request is to correct the incorrect original naming of inventor(s) in the declaration under 37 C.F.R. § 1.48(a) as set forth and filed on June 29, 2007.

2. Addition and/or Deletion of Inventor(s)

Delete the following previously named person(s) as inventor(s) of this application: Michael H. Collender and Charles F. DeKeyser

3. Attachments

Attached is:

(a) A statement from each person being delete as an inventor that the error in inventorship occurred without deceptive intention on his or her part. 37 C.F.R. § 1.48(a)(1).

(b) A declaration by the actual inventor(s) as required by 37 C.F.R. § 1.63 (or as permitted by §§ 1.42, 1.43, OR 1.47). 37 C.F.R. § 1.48(a)(3).

4. Fee Payment (37 C.F.R. § 1.17(i))

The fee required by 37 C.F.R. § 1.17(i) is paid as follows:

Authorization is hereby made to charge the amount of \$130.00 to Deposit Account No. 500341.

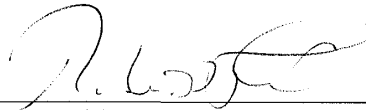
Charge any additional fees required by this paper or credit any overpayment in the manner authorized above.

A duplicate of this paper is attached.

in Declaration (37 C.F.R. § 1.48(a))--page 1 of 2

Date: _____

9/6/07



Robert D. Fish
Registration No. 33880
Fish & Associates, PC
2603 Main Street, Suite 1050
Irvine, CA 92614
949-253-0944
Customer No. 24392

Request and Fee to Delete and/or Add to Original Erroneously Named or Not Named Inventor(s)
in Declaration (37 C.F.R. § 1.48(a))--page 2 of 2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Paul DeKeyser
Application No.: 11/770920
Filed: 06/29/2007
For: Loop Recording With Book Marking

Group No.: 2621
Examiner: Not Assigned

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

STATEMENT OF ERROR WITHOUT DECEPTIVE INTENT
ON THE PART OF THE INVENTORS OMITTED
IN NONPROVISIONAL APPLICATION
(37 C.F.R. § 1.48(a)(2))

1. Identification of added inventors to which this statement is being made:

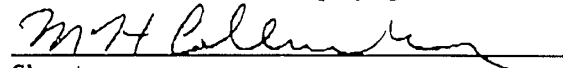
Michael H. Collender
Charles F. DeKeyser

2. I, a person signing below, hereby state that the error in adding the names of the inventors, as set forth in the foregoing petition under 37 C.F.R. § 1.48(a), occurred by error, without deceptive intent:

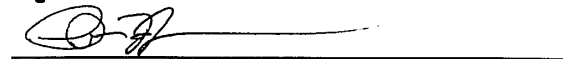
3. Signature(s)

A. This statement is made by all of the added inventors on the accompanying attachment.

Date: 8/8/2007 Michael H. Collender


Signature

Date: 8/8/2007 Charles F. DeKeyser


Signature

Electronic Patent Application Fee Transmittal				
Application Number:		11770920		
Filing Date:		29-Jun-2007		
Title of Invention:		Loop Recording With Book Marking		
First Named Inventor/Applicant Name:		Paul DeKeyser		
Filer:		Martin Fessenmaier/Sara Geer		
Attorney Docket Number:		101488.0003US1		
Filed as Small Entity				
Utility Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Late filing fee for oath or declaration	2051	1	65	65
Petition:				
Petition fee- 37 CFR 1.17(h) (Group III)	1464	1	130	130
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				195

Electronic Acknowledgement Receipt	
EFS ID:	2169456
Application Number:	11770920
International Application Number:	
Confirmation Number:	7135
Title of Invention:	Loop Recording With Book Marking
First Named Inventor/Applicant Name:	Paul DeKeyser
Customer Number:	24392
Filer:	Martin Fessenmaier/Sara Geer
Filer Authorized By:	Martin Fessenmaier
Attorney Docket Number:	101488.0003US1
Receipt Date:	07-SEP-2007
Filing Date:	29-JUN-2007
Time Stamp:	12:43:13
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment was successfully received in RAM	\$ 195
RAM confirmation Number	5893
Deposit Account	500341
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.16 and 1.17	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes) /Message Digest	Multi Part /.zip	Pages (if appl.)
1	Oath or Declaration filed	Missing_Parts_Reponse.pdf	132270	no	4
			4c1bd66809b7406282e0722c13cedd7393e3c902		
Warnings:					
Information:					
2	Drawings	Replacement_Drawings.pdf	102429	no	4
			3aa626d1e4ca6cfe09faae80e498d0572125908a		
Warnings:					
Information:					
3	Petition for review by the Office of Petitions.	Petition_to_Delete_Inventors .pdf	72986	no	3
			b48bff960ee83a2c3ea7a3f1ad12caf589980f01		
Warnings:					
Information:					
4	Fee Worksheet (PTO-06)	fee-info.pdf	8296	no	2
			b2c22bda9e59012cc1396a8d1f878094cf9e8e93		
Warnings:					
Information:					
Total Files Size (in bytes):			315981		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
 Address: COMMISSIONER FOR PATENTS
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 www.uspto.gov

APPLICATION NUMBER	FILING OR 371 (c) DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
11/770,920	06/29/2007	Paul DeKeyser	101488.0003US1

CONFIRMATION NO. 7135

FORMALITIES
 LETTER

24392
 FISH & ASSOCIATES, PC
 ROBERT D. FISH
 2603 Main Street
 Suite 1050
 Irvine, CA 92614-6232

Date Mailed: 07/19/2007

NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

*Filing Date Granted***Items Required To Avoid Abandonment:**

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given **TWO MONTHS** from the date of this Notice within which to file all required items and pay any fees required below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The oath or declaration is missing. *A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.*
Note: If a petition under 37 CFR 1.47 is being filed, an oath or declaration in compliance with 37 CFR 1.63 signed by all available joint inventors, or if no inventor is available by a party with sufficient proprietary interest, is required.

The application is informal since it does not comply with the regulations for the reason(s) indicated below.

The required item(s) identified below must be timely submitted to avoid abandonment:

- Replacement drawings in compliance with 37 CFR 1.84 and 37 CFR 1.121(d) are required. The drawings submitted are not acceptable because:
 - The drawings have a line quality that is too light to be reproduced (weight of all lines and letters must be heavy enough to permit adequate reproduction) or text that is illegible (reference characters, sheet numbers, and view numbers must be plain and legible) see 37 CFR 1.84(l) and (p)(1)); See Figure(s) 2, 4A-B, 5-6, 7A-B, 8.

Applicant is cautioned that correction of the above items may cause the specification and drawings page count to exceed 100 pages. If the specification and drawings exceed 100 pages, applicant will need to submit the required application size fee.

The applicant needs to satisfy supplemental fees problems indicated below.

The required item(s) identified below must be timely submitted to avoid abandonment:

- To avoid abandonment, a surcharge (for late submission of filing fee, search fee, examination fee, or oath or declaration) as set forth in 37 CFR 1.16(f) of \$65 for a small entity in compliance with 37 CFR 1.27, must be submitted with the missing items identified in this notice.

SUMMARY OF FEES DUE:

Total additional fee(s) required for this application is **\$65** for a small entity

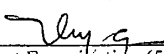
- **\$65** Surcharge.

Replies should be mailed to: Mail Stop Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web.
<https://portal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html>

For more information about EFS-Web please call the USPTO Electronic Business Center at **1-866-217-9197** or visit our website at <http://www.uspto.gov/ebc>.

If you are not using EFS-Web to submit your reply, you must include a copy of this notice.


Office of Initial Patent Examination (571) 272-4000, or 1-800-PTO-9199
PART 3 - OFFICE COPY

Practitioner's Docket No. 101488.0003US1**PATENT**

COMBINED DECLARATION AND POWER OF ATTORNEY

(ORIGINAL, DESIGN, NATIONAL STAGE OF PCT, SUPPLEMENTAL, DIVISIONAL,
CONTINUATION, OR C-I-P)

As a below named inventor, I hereby declare that:

TYPE OF DECLARATION

This declaration is for an original application.

INVENTORSHIP IDENTIFICATION

My residence, post office address and citizenship are as stated below, next to my name. I believe that I am an original, first and joint inventor of the subject matter that is claimed, and for which a patent is sought on the invention entitled:

TITLE OF INVENTION

Loop Recording With Book Marking

SPECIFICATION IDENTIFICATION

The specification was filed on June 29, 2007, as Serial No. 11/770,920.

ACKNOWLEDGMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information, which is material to patentability as defined in 37, Code of Federal Regulations, § 1.56.

CLAIM FOR BENEFIT OF PRIOR U.S. PROVISIONAL APPLICATION(S)
(35 U.S.C. § 119(e))

I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below:

PROVISIONAL APPLICATION NUMBER**FILING DATE**

60/842,097

August 31, 2006

POWER OF ATTORNEY

I hereby appoint the practitioner(s) associated with Customer Number 24392 to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.

**SEND CORRESPONDENCE TO
CUSTOMER NUMBER 24392**

Fish & Associates, PC
2603 Main Street, Suite 1050
Irvine, CA 92614
US

DIRECT TELEPHONE CALLS TO:

Mei Tsang
949-253-0944

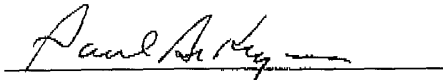
DECLARATION

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

SIGNATURE(S)

Paul DeKeyser

Inventor's signature

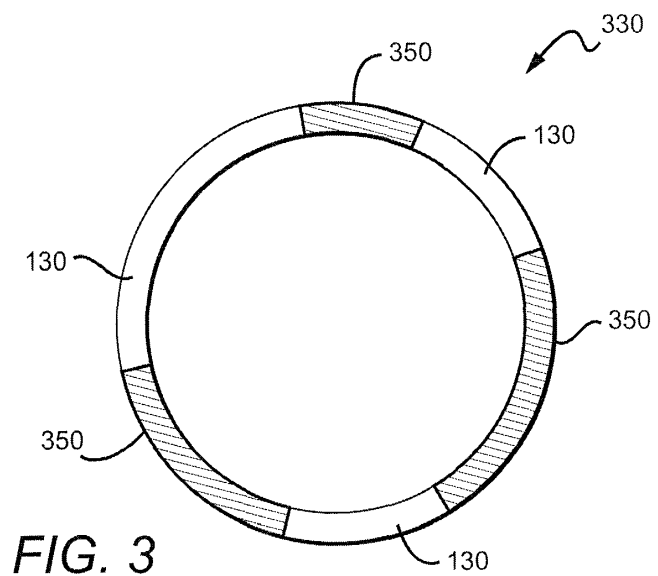
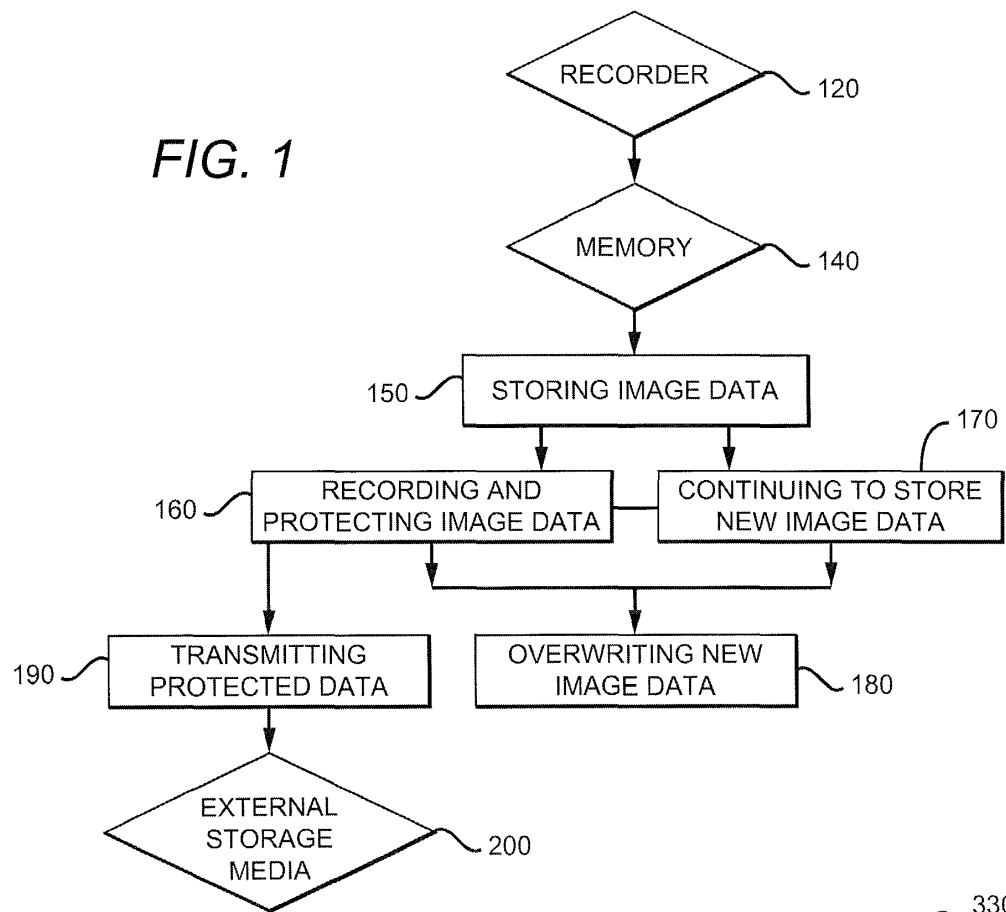


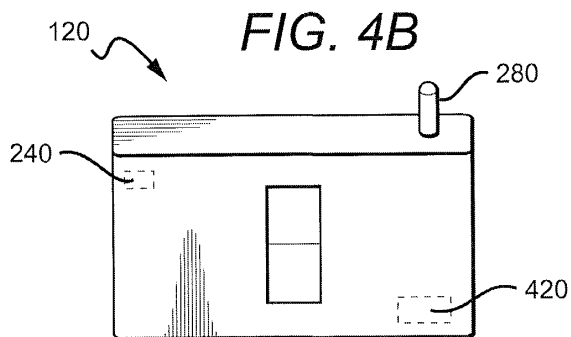
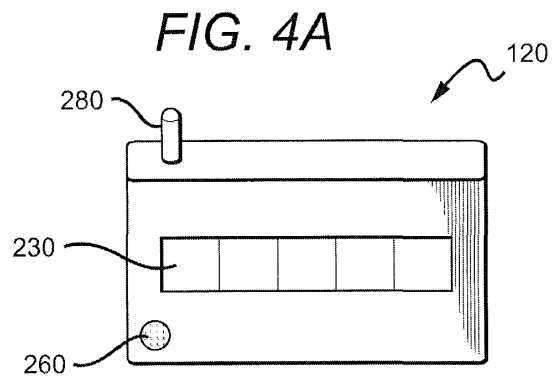
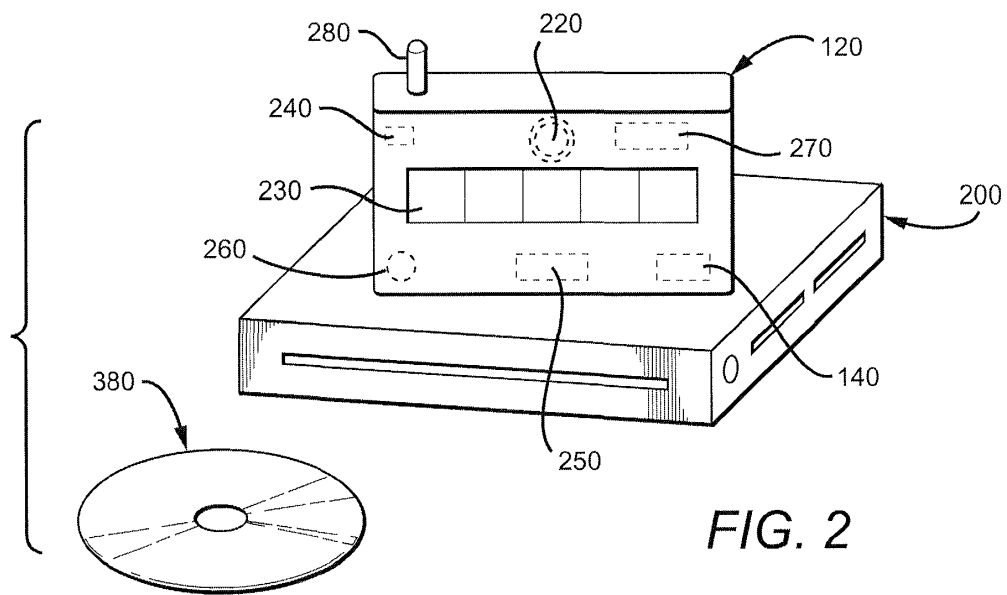
Date 8/28/07

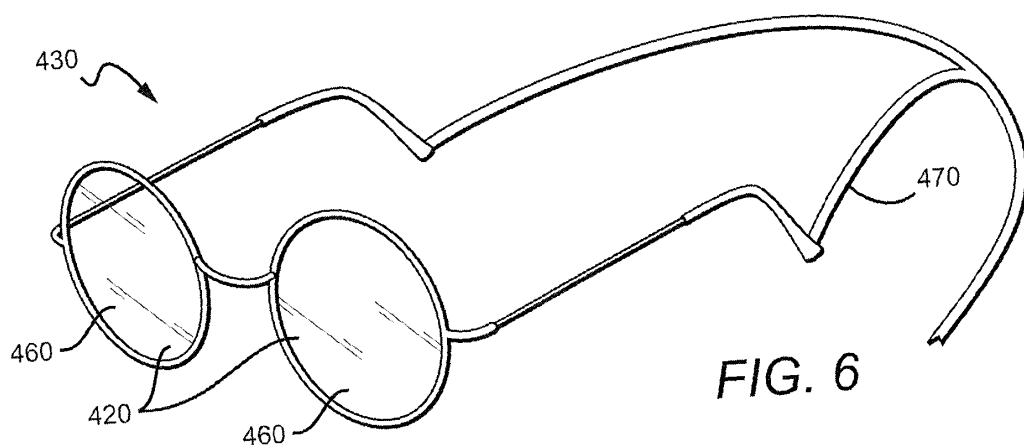
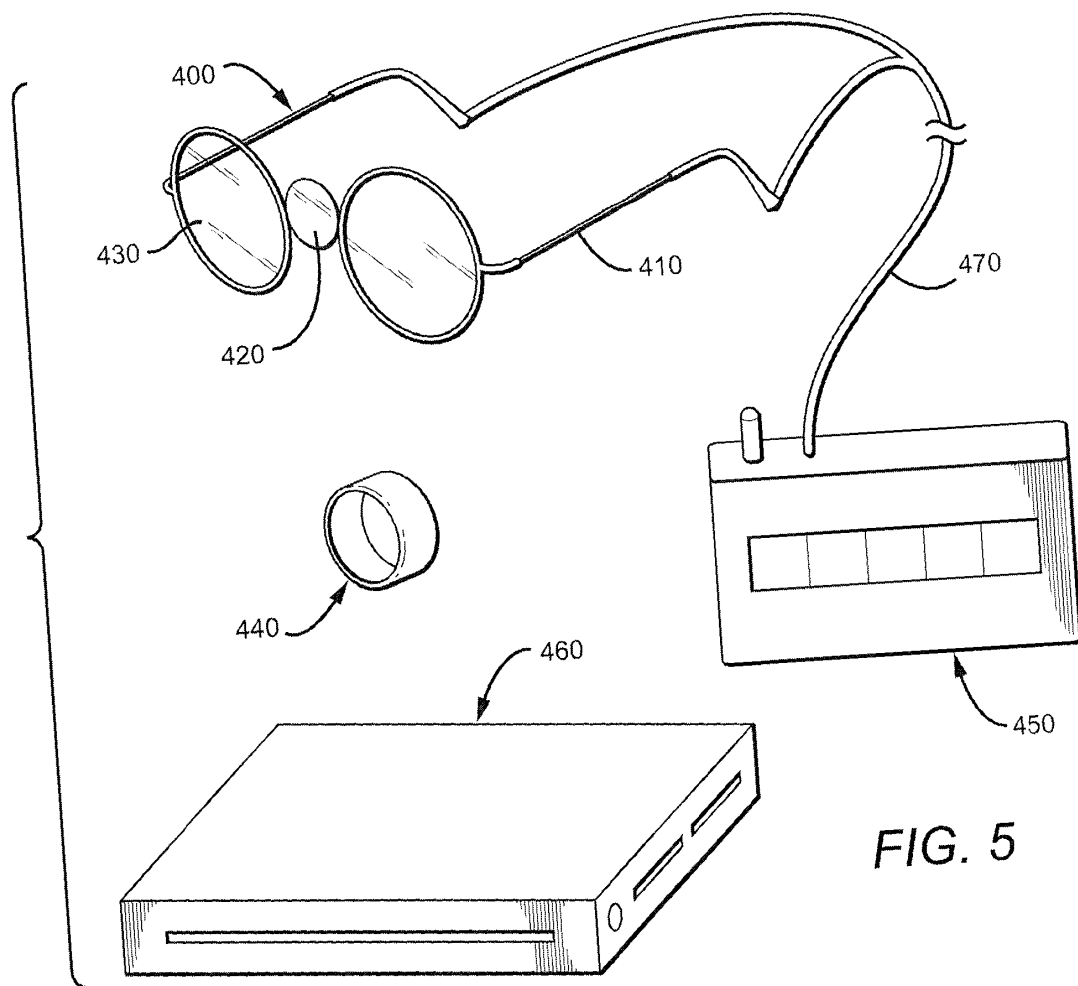
Country of Citizenship US

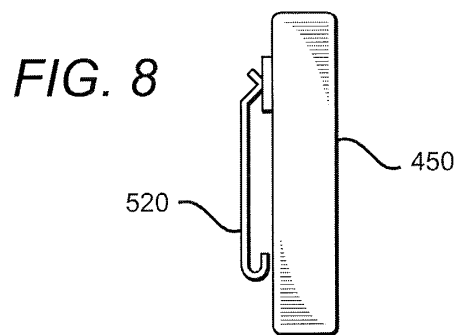
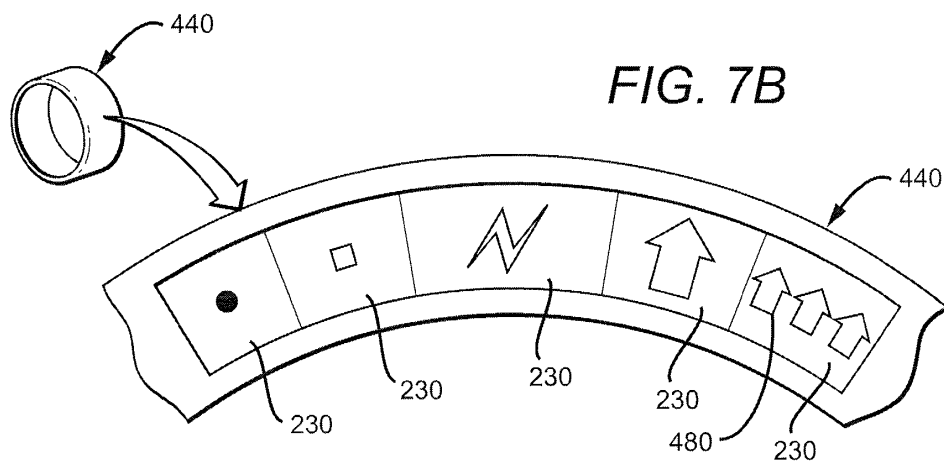
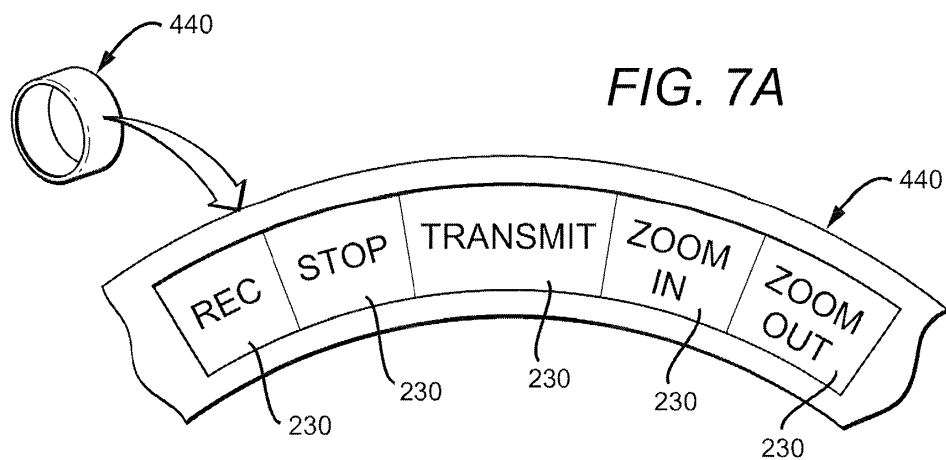
Residence Irvine, CA US

Post Office Address 55 Hidden Trail, Irvine, CA 92603











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United States Patent and Trademark Office
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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLAIMS	IND CLAIMS
11/770,920	06/29/2007	2621	490	101488.0003US1	19	1

CONFIRMATION NO. 7135

UPDATED FILING RECEIPT



24392
FISH & ASSOCIATES, PC
ROBERT D. FISH
2603 Main Street
Suite 1050
Irvine, CA 92614-6232

Date Mailed: 04/02/2008

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Applicant(s)

Paul DeKeyser, Irvine, CA;

Power of Attorney: The patent practitioners associated with Customer Number 24392

Domestic Priority data as claimed by applicant

This appln claims benefit of 60/824,097 08/31/2006

Foreign Applications

If Required, Foreign Filing License Granted: 07/18/2007

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 11/770,920**

Projected Publication Date: 07/10/2008

Non-Publication Request: No

Early Publication Request: No

**** SMALL ENTITY ****

Title

Loop Recording With Book Marking

Preliminary Class

386

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

LICENSE FOR FOREIGN FILING UNDER**Title 35, United States Code, Section 184****Title 37, Code of Federal Regulations, 5.11 & 5.15****GRANTED**

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as

page 2 of 3

set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).



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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
11/770,920	06/29/2007	Paul DeKeyser	101488.0003US1

CONFIRMATION NO. 7135

PUBLICATION NOTICE



OC000000030893234

24392
FISH & ASSOCIATES, PC
ROBERT D. FISH
2603 Main Street
Suite 1050
Irvine, CA 92614-6232

Date Mailed: 07/10/2008

Title: Loop Recording With Book Marking

Publication No. US-2008-0165249-A1

Publication Date: 07/10/2008

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently <http://www.uspto.gov/patft/>.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Office of Public Records. The Office of Public Records can be reached by telephone at (703) 308-9726 or (800) 972-6382, by facsimile at (703) 305-8759, by mail addressed to the United States Patent and Trademark Office, Office of Public Records, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently <http://pair.uspto.gov/>. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101



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United States Patent and Trademark Office
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/770,920	06/29/2007	Paul DeKeyser	101488.0003US1	7135
24392 7590 03/24/2009 FISH & ASSOCIATES, PC ROBERT D. FISH 2603 Main Street Suite 1000 Irvine, CA 92614-6232			EXAMINER DIEP, NHON THANH	
			ART UNIT 2621	PAPER NUMBER
			MAIL DATE 03/24/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 11/770,920	Applicant(s) DEKEYSER, PAUL	
	Examiner Nhon T. Diep	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 10 July 2008.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-19 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-19 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on 9/7/2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892) 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.	4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____. 5) ☐ Notice of Informal Patent Application 6) ☐ Other: _____.
--	--

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1, 4, 8, 10, 11-16 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 12-13 and 15-18 of copending Application No. 12/268,286. Although the conflicting claims are not identical, they are not patentably distinct from each other because 1, 4, 8, 10, 11-16 of this application are anticipated by claims 12-13 and 15-18 of Application No. 12/268,286.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3-8, 10-11, 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Hattori et al (US 5,523,799).

Hattori et al discloses an image storing device including an inhibiting function comprising the same method of storing discrete segments of imaged data in a camera, comprising:

using a sensor in the camera to capture image data (fig. 2, el. 30);

using multiple portions of a memory as a loop in which to record the segments in approximately real time (fig. 8); and

protecting the multiple portions from being overwritten by subsequent recording in the loop (fig. 8, el. 2 and 3) as specified in claim 1; further comprising treating the entire loop as a single file (fig. 3) as specified in claim 3; further comprising storing first and second ones of the multiple portions as separate files (fig. 8, col. 3, ln. 62 – col. 4, ln. 11) as specified in claim 4; further comprising storing first and second ones of the multiple portions in a common file (fig. 4) as specified in claim 5; comprising continuing to record the image data immediately after ending at least one of the segments (col. 3, ln. 62 – col. 4, ln. 11) as specified in claim 6; comprising continuing to record the image data immediately after protecting at least one of the segments (fig. 4, recording clockwise after point b) as specified in claim 7; further comprising designating a beginning of a first one of the multiple portions in response to a start signal from a user of the camera (col. 3, ln. 62-67) as specified in claim 8; further comprising designating an end of the first one of the multiple portions in response to a stop signal from the user (fig. 4) as specified in claim 10; wherein the start signal comprises a manually operated switch (fig. 2, el. 26) as specified in claim 11; further comprising including in the first one of the multiple portions, a time span of the image data that occurred prior to the start signal (fig. 2, col. 3, ln. 21-31) as specified in claim 13; wherein the time span comprising at least 5 seconds or at least 15 seconds (col. 3, ln. 28-31) as specified in claims 14-15.

Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hattori et al, in view of Washino (US 6,370,198 B1).

As applied to claim 1 above, it is noted that Hattori et al does not particularly disclose the loop is sufficiently large to store at least five minutes of the image data as specified in claim 2. Washino teaches currently available 10 GB disk drives will store more than 30 minutes of video. And, therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Hattori et al by using large storage device capable of storing more than 10 minutes of video as taught by Washino. Doing so would help to improve the effectiveness of the system of Hattori et al.

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hattori et al, in view of Cowan (US 5,204,909).

As applied to claim 8 above, it is noted that Hattori et al does not particularly disclose wherein the start signal comprises an audio signal as specified in claim 12. Cowan teaches an improved audio signal processing system for use in audio amplification and recording systems, and in the voice controlled activation of radio transmitters, recording devices, and other ancillary equipment. And, therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made

to modify the system of Hattori et al by using voice or audio signal to activate the recording as taught by Cowan. Doing so would help to improve the effectiveness of the system of Hattori et al.

8. Claim 9, 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hattori et al, in view of EP 1 064 783 B1 to Mann.

As applied to claim 8 above, it is noted that Hattori et al does not particularly disclose further comprising using a switch in a clothing accessory to operate an aspect of the method as specified in claim 9; comprising wirelessly transmitting a first one of the segments to a memory, and releasing a corresponding one of the multiple portions of memory from protection as specified in claim 16; electronics that implements the method of claim 1, and a clothing accessory that supports the sensor as specified in claim 17; wherein the clothing accessory comprises a pair of glasses as specified in claim 18; and further comprising providing a viewfinder in a lens of the glasses as specified in claim 19. Mann teaches using a switch in a clothing accessory to operate an aspect of the method (para. 0064); comprising wirelessly transmitting a first one of the segments to a memory (fig. 1, el. 186); electronics that implements the method of claim 1, and a clothing accessory that supports the sensor (fig. 1, el. 100, 110); wherein the clothing accessory comprises a pair of glasses (fig. 1, el. 130); and further comprising providing a viewfinder in a lens of the glasses (col. 15, ln. 39-43). And, therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Hattori et al by using the eyeglass of Mann as disguise to monitor without being notice. Further more, important portion of storage can be

wirelessly transmitted for safe-keeping and that the important portion, which is write-protected can be released for more storage space.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhon T. Diep whose telephone number is 571-272-7328. The examiner can normally be reached on m-f.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ND

/Nhon T Diep/
Primary Examiner, Art Unit 2621

Notice of References Cited	Application/Control No. 11/770,920		Applicant(s)/Patent Under Reexamination DEKEYSER, PAUL	
	Examiner Nhon T. Diep		Art Unit 2621	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-5,523,799	06-1996	Hattori et al.	348/715
*	B	US-2006/0158968	07-2006	Vanman et al.	369/027.01
*	C	US-6,370,198	04-2002	Washino, Kinya	375/240.26
*	D	US-5,204,909	04-1993	Cowan, John A.	381/106
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
*	N	EP 1064783 B1	06-2003	EP	Mann, Stephen G.	H04N 5/232
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	48	(processor same "200" same issues same memory same access same request) and indexes same address	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/15 20:46
L2	2712	index same file same address\$6 same (record\$5 or memory or buffer)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/15 20:49
L3	746	index same file same address\$6 same (record\$5 or memory or buffer) and write and protect\$6	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/15 20:49
L4	26	index same file same address\$6 same (record\$5 or memory or buffer) and write and protect\$6 and glass	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/15 20:50
L5	917	mobile same cell\$6 same phone same stor \$7 same image	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/15 20:51
L6	76	mobile same cell\$6 same phone same stor \$7 same image same PDA same digital adj1 camera	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/15 20:52
L8	251	dekeyser.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/15 21:13
L9	3	dekeyser.in. and write same protect\$6	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/15 21:14

L10	23	vanman.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/15 21:33
L13	2	"20080165249".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/15 21:36
L14	2	"20080165249".pn. and (min or minute or time or sec or second or stor\$6 or capacity)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/15 21:50
L15	2	"5523799".pn. and (min or minute or time or sec or second or stor\$6 or capacity)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/15 21:51
L16	9693	(RAM or random adj1 access adj1 memory) same stor\$6 and (min or minute) same capacity	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/15 21:53
L17	261	(RAM or random adj1 access adj1 memory) same stor\$6 and (min or minute) same capacity same "30" adj1 (minutes or min)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/15 21:54
L18	17	(RAM or random adj1 access adj1 memory) same stor\$6 same (min or minute) same capacity same "30" adj1 (minutes or min)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/15 21:54
L19	4987	record\$7 same voice same activat\$6	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/15 22:03
L20	1	"20080165249".pn. and audio adj1 signal	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/15 22:04

L21	895	record\$7 same audio adj1 signal same activat\$6	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/15 22:04
L22	45	record\$7 same audio adj1 signal same activat\$6 same recording adj1 device	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/15 22:05
L23	221	voice same activat\$6 same recording adj1 device	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/15 22:06
L24	20	22 and 23	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/15 22:07
L25	1	"5523799".pn. and (send\$6 or transmit\$6 or wireless\$6)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/15 22:14
L26	1	"20060158969".pn. and (send\$6 or transmit\$6 or wireless \$6)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/15 22:16

3/ 15/ 09 10:43:51 PM

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<i>Index of Claims</i> 	Application/Control No. 11770920	Applicant(s)/Patent Under Reexamination DEKEYSER, PAUL
	Examiner Nhon T Diep	Art Unit 2621

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47										
CLAIM		DATE								
Final	Original	03/15/2009								
	1	✓								
	2	✓								
	3	✓								
	4	✓								
	5	✓								
	6	✓								
	7	✓								
	8	✓								
	9	✓								
	10	✓								
	11	✓								
	12	✓								
	13	✓								
	14	✓								
	15	✓								
	16	✓								
	17	✓								
	18	✓								
	19	✓								

Search Notes 	Application/Control No. 11770920	Applicant(s)/Patent Under Reexamination DEKEYSER, PAUL
	Examiner Nhon T Diep	Art Unit 2621

SEARCHED			
Class	Subclass	Date	Examiner

SEARCH NOTES		
Search Notes	Date	Examiner
East Search	3/15/2009	ND

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
P.O. BOX 1450
ALEXANDRIA, VA 22313-1450**

Appl No.: **11/770,920**
Applicant: **DeKeyser, Paul**
Filing Date: **June 29, 2007**
Art Unit: **2621**
Examiner: **Diep, Nhon Thanh**
Attorney Docket No.: **101488.0003US1**

Title **Loop Recording with Book Marking**

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE TO OFFICE ACTION

Sir:

This paper responds to the Office Action dated March 24, 2009. The document is accompanied by a terminal disclaimer. Please enter the amendments shown herein.

- Claim amendments begin on page 2.
- Remarks begin on page 4.

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of storing discrete segments of imaged data in a camera, comprising:
 - using a sensor in the camera to capture image data;
 - ~~providing a recorder coupled to the camera and having a memory;~~
 - using multiple portions of ~~a the~~ memory as a loop in which to record ~~the segments of the~~
image data in approximately real time; ~~and~~
 - protecting the multiple portions from being overwritten by subsequent recording in the
loop; and
 - allowing the editing of the imaged data in protected multiple portions stored in the loop
via a recorder control while recording additional segments of the image data in
the loop.
2. (Original) The method of claim 1, wherein the loop is sufficiently large to store at least five minutes of the image data.
3. (Original) The method of claim 1, further comprising treating the entire loop as a single file.
4. (Original) The method of claim 1, further comprising storing first and second ones of the multiple portions as separate files.
5. (Original) The method of claim 1, further comprising storing first and second ones of the multiple portions in a common file.
6. (Original) The method of claim 1, further comprising continuing to record the image data immediately after ending at least one of the segments.
7. (Original) The method of claim 1, further comprising continuing to record the image data immediately after protecting at least one of the segments.
8. (Original) The method of claim 1, further comprising designating a beginning of a first one of the multiple portions in response to a start signal from a user of the camera.

9. (Original) The system of claim 8, further comprising using a switch in a clothing accessory to operate an aspect of the method.
10. (Original) The method of claim 8, further comprising designating an end of the first one of the multiple portions in response to a stop signal from the user.
11. (Original) The method of claim 8, wherein the start signal comprises a manually operated switch.
12. (Original) The method of claim 8, wherein the start signal comprises an audio signal.
13. (Original) The method of claim 8, further comprising including in the first one of the multiple portions, a time span of the image data that occurred prior to the start signal.
14. (Original) The method of claim 13, wherein the time span comprising at least 5 seconds.
15. (Original) The method of claim 13, wherein the time span comprising at least 15 seconds.
16. (Currently Amended) The ~~system-method~~ of claim 1, further comprising wirelessly transmitting a first one of the segments to a remote memory, and releasing a corresponding one of the multiple portions of memory from protection.
17. (Original) A system comprising electronics that implements the method of claim 1, and a clothing accessory that supports the sensor.
18. (Original) The system of claim 17, wherein the clothing accessory comprises a pair of glasses.
19. (Original) The system of claim 18, further comprising providing a viewfinder in a lens of the glasses.
20. (New) The method of claim 1, wherein the step of allowing the editing of the image data while recording additional segments in the loop includes an action selected from the group consisting of book-marking an additional portion of the loop memory, and releasing a protected portion of the memory from protection.

REMARKS/ARGUMENTS

The Office action dated March 24, 2009, has been received and carefully considered. By this amendment, claims 1 and 16 have been amended. New claim 20 has been added. After entry of this Amendment, claims 1 – 20 will be pending. In view of these amendments and the following remarks, Applicants respectfully request reconsideration.

Claim Amendments

Claim 1 has been amended to include the step of providing a recorder having a memory (see Figures 2, 5, and corresponding text) and the step of allowing the editing of the imaged data via a recorder control while recording additional segments of the image data (see page 6, lines 25 – 31; page 7, line 29 to page 8 line 2).

Claim 16 has been amended for clarity and to address an informal issue where claim 16 referred to a system of claim 1 as opposed to a method of claim 1.

Claim 20 has been newly added and includes the concept of book marking additional portion of the memory (see page 6, lines 20 – 21) even after a deactivation signal is sent, and releasing the memory (see page 3, lines 3 – 5).

No new matter has been added.

Double Patenting

The Office provisionally rejected claims 1, 4, 8, 10, and 11 – 16 on the ground of non-statutory obviousness type double patenting as being un-patentable over claims 12 – 13 and 15 – 18 of co-pending application having serial number 12/268,286. The Applicant has filed the accompanying terminal disclaimer to overcome the provisional double patenting rejection.

35 USC §102

The Office rejected claims 1, 3 – 8, 10 – 11, and 13 – 15 under 35 USC 102 as being anticipated by Hattori et al. (U.S. patent 5,523,799). The Applicant respectfully disagrees, especially in view of the amendments entered herein. Amended independent claim 1 provides for allowing a user to edit protected image data while a recorder is still recording image data in its looped memory. Hattori lacks any disclosure directed toward editing image data in a loop

memory let alone editing while still recording. Claim 1 is allowable above Hattori on the ground that Hattori fails to teach all the features of claim 1.

With respect to claims 3 – 5, the Examiner argues that Hattori discloses storing image data as files within the loop memory. The Applicant respectfully disagrees. Hattori lacks any disclosure directed toward files or a file system. In fact, Hattori lacks any reference to a file at all. Hattori merely provides for managing a memory where image data is stored (C3/L60 to C4/L11). One skilled in the art would not confuse a memory management circuit as discussed by Hattori as a means for storing files. One should also note in the claimed approach files are stored *within a loop memory* as opposed to a flat memory space (e.g., HDD, DVD, etc.) that would utilize a traditional file system with which one skilled in the art would be familiar. Traditional file systems are completely unsuitable for use within a circular buffer because they expect bounded extents, among other limitations. Therefore, having files within a circular buffer of the claimed method would be non-obvious, especially where a file could be created in the middle of another file while actively recording image data. The approach disclosed by the Applicant resolves such issues. In addition to their dependence on allowable claim 1, claims 3 – 5 are allowable on the ground that Hattori fails to disclose storing image data as files in the loop memory.

Claims 6 – 8, 10 – 11, and 13 – 15 are also considered allowable by virtue of their dependence on claim 1.

35 USC §103

Claim 2

The Office rejected claim 2 as being obvious over Hattori et al. (U.S. patent 5,523,799) in view of Washino (U.S. patent 6,370,198). The Applicant respectfully disagrees, especially in view of the amendments entered herein. Washino merely mentions editing offline via a work station (C4/L1 – 6) or at an editing facility (C11/L6 – 11; C11/L25). Washino lacks any disclosure directed toward editing image data in a loop memory while recording image data in the loop memory as claimed. Claim 1 is allowable over Hattori and Washino, alone or combined, on the ground that they fail to teach, suggest, or motivate all the features of claim 1. Claim 2 is also allowable by virtue of its dependence on claim 1.

Claims 12

The Office rejected claim 12 as being obvious over Hattori et al. (U.S. patent 5,523,799) in view of Cowan (U.S. patent 5,204,909). The Applicant respectfully disagrees, especially in view of the amendments entered herein. Cowan also fails to contribute to Hattori to arrive at the features of claim 1. More specifically Cowan lacks any referencing to editing at all. Claim 1 is also allowable over Hattori and Cowan, alone or combined, on the ground that they fail to teach, suggest, or motivate all the features of claim 1. Claim 12 is also allowable by virtue of its dependency on claim 1.

Claims 9, and 16 – 19

The Office rejected claims 9, and 16 – 19 as being obvious over Hattori et al. (U.S. patent 5,523,799) in view of Mann (European patent EP 1,064,783). The Applicant respectfully disagrees, especially in view of the amendments entered herein. Mann also lacks any reference to editing image data, let alone editing image data in a loop memory, and also fails to contribute to Hattori in a meaningful fashion. Claim 1 is allowable over Hattori and Mann, alone or combined, on the ground that they fail to teach, suggest, or motivate all the features of claim 1.

With respect to claim 9, the Examiner cites paragraph [0064] as disclosure directed toward a switch as a clothing accessory. However, the cited passage merely references a “wearer” of camera and makes no reference to a switch in a clothing accessory as claimed. Claim 9 is allowable over Hattori and Mann because they both fail to teach, suggest, or motive having a switch in a clothing accessory, and by claim 9’s dependence on allowable claim 1.

Claims 16 – 19 are also allowable by virtue of their dependence on claim 1.

New Claim 20

Newly added claim 20 is also allowable at least by its dependence on claim 1.

Request For Allowance

Claims 1 – 20 are pending in this application. The applicant requests allowance of all pending claims.

Respectfully submitted,
Fish & Associates, PC

Date: June 17, 2009

By: Nicholas J. Witchey/
Nicholas J. Witchey
Reg. No. 63481

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Electronic Patent Application Fee Transmittal				
Application Number:		11770920		
Filing Date:		29-Jun-2007		
Title of Invention:		Loop Recording With Book Marking		
First Named Inventor/Applicant Name:		Paul DeKeyser		
Filer:		Martin Fessenmaier/Sara Geer		
Attorney Docket Number:		101488.0003US1		
Filed as Small Entity				
Utility under 35 USC 111(a) Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
Statutory disclaimer	2814	1	70	70
Total in USD (\$)				70

Electronic Acknowledgement Receipt	
EFS ID:	5536375
Application Number:	11770920
International Application Number:	
Confirmation Number:	7135
Title of Invention:	Loop Recording With Book Marking
First Named Inventor/Applicant Name:	Paul DeKeyser
Customer Number:	24392
Filer:	Martin Fessenmaier/Sara Geer
Filer Authorized By:	Martin Fessenmaier
Attorney Docket Number:	101488.0003US1
Receipt Date:	17-JUN-2009
Filing Date:	29-JUN-2007
Time Stamp:	17:14:32
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$70
RAM confirmation Number	3535
Deposit Account	500341
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees) Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)	

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)					
Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)					
File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Terminal Disclaimer Filed	286_Terminal_Disclaimer.pdf	73351 e7b2b4b6e9bc8969b753fe63b7ae71d528a02298	no	1
Warnings:					
Information:					
2	Amendment/Req. Reconsideration-After Non-Final Reject	Response_01.pdf	113528 530b43136fe0b3e6ae4b5c19b9b807c9797642c4	no	7
Warnings:					
Information:					
3	Fee Worksheet (PTO-875)	fee-info.pdf	29856 306239ed98cce48181fe6d53d2ede5b12c054c0	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			216735		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					

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TERMINAL DISCLAIMER TO OBTAIN A PROVISIONAL DOUBLE PATENTING REJECTION OVER A PENDING "REFERENCE" APPLICATION		Docket Number (Optional) 101488.0003US1
In re Application of: Paul DeKeyser Application No.: 11/770,920 Filed: June 17, 2009 For: Loop Recording With Book Marking The owner*, <u>Paul DeKeyser</u>, of <u>100</u> percent interest in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of any patent granted on pending reference Application Number <u>12/268,286</u>, filed on <u>11/10/08</u>, as such term is defined in 35 U.S.C. 154 and 173, and as the term of any patent granted on said reference application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending reference application. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and any patent granted on the reference application are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns. In making the above disclaimer, the owner does not disclaim the terminal part of any patent granted on the instant application that would extend to the expiration date of the full statutory term as defined in 35 U.S.C. 154 and 173 of any patent granted on said reference application, "as the term of any patent granted on said reference application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending reference application," in the event that: any such patent: granted on the pending reference application: expires for failure to pay a maintenance fee, is held unenforceable, is found invalid by a court of competent jurisdiction, is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321, has all claims canceled by a reexamination certificate, is reissued, or is in any manner terminated prior to the expiration of its full statutory term as shortened by any terminal disclaimer filed prior to its grant. Check either box 1 or 2 below, if appropriate. 1. ☐ For submissions on behalf of a business/organization (e.g., corporation, partnership, university, government agency, etc.), the undersigned is empowered to act on behalf of the business/organization. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon. 2. ☒ The undersigned is an attorney or agent of record. Reg. No. <u>63481</u> <u>/Nicholas J. Witchey/</u> Signature <u>June 17, 2009</u> Date <u>Nicholas J. Witchey</u> Typed or printed name <u>(949) 943-8300</u> Telephone Number ☒ Terminal disclaimer fee under 37 CFR 1.20(d) is included. WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038. *Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner). Form PTO/SB/96 may be used for making this statement. See MPEP § 324.		

This collection of information is required by 37 CFR 1.321. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875					Application or Docket Number 11/770,920		Filing Date 06/29/2007		☐ To be Mailed		
APPLICATION AS FILED – PART I											
(Column 1)			(Column 2)			SMALL ENTITY ☒ OR		OTHER THAN SMALL ENTITY			
FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)	OR		RATE (\$)	FEE (\$)			
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A				N/A				
☐ SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A				N/A				
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A				N/A				
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X \$ =				X \$ =				
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X \$ =				X \$ =				
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))			If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).								
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))											
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL				TOTAL				
APPLICATION AS AMENDED – PART II											
(Column 1)			(Column 2)			SMALL ENTITY OR		OTHER THAN SMALL ENTITY			
AMENDMENT	06/17/2009	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR		RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0	X \$26 =	0			X \$ =	
	Independent (37 CFR 1.16(h))	* 1	Minus	*** 3	= 0	X \$110 =	0			X \$ =	
	☐ Application Size Fee (37 CFR 1.16(s))										
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))										
						TOTAL ADD'L FEE	0			TOTAL ADD'L FEE	
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR		RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X \$ =				X \$ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X \$ =				X \$ =	
	☐ Application Size Fee (37 CFR 1.16(s))										
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))										
						TOTAL ADD'L FEE				TOTAL ADD'L FEE	
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3". The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.											

Legal Instrument Examiner:
/SANDRA L. TUCKER SMITH/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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Application Number 	Application/Control No. 11/770,920	Applicant(s)/Patent under Reexamination DEKEYSER, PAUL	
Document Code - DISQ		Internal Document – DO NOT MAIL	

TERMINAL DISCLAIMER	☒ APPROVED	☐ DISAPPROVED
Date Filed : June 17, 2009	This patent is subject to a Terminal Disclaimer	

Approved/Disapproved by:
Henry D. Jefferson

U.S. Patent and Trademark Office



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/770,920	06/29/2007	Paul DeKeyser	101488.0003US1	7135
24392 7590 11/13/2009 FISH & ASSOCIATES, PC ROBERT D. FISH 2603 Main Street Suite 1000 Irvine, CA 92614-6232			EXAMINER DIEP, NHON THANH	
			ART UNIT 2621	PAPER NUMBER
			MAIL DATE 11/13/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 11/770,920	Applicant(s) DEKEYSER, PAUL	
	Examiner Nhon T. Diep	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 17 June 2009.

2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-20 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-20 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on 9/7/2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892) 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.	4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____. 5) ☐ Notice of Informal Patent Application 6) ☐ Other: _____.
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DETAILED ACTION

1. It is noted that the terminal disclaimer filed 6/17/2009 has been approved.

Response to Arguments

2. Applicant's arguments with respect to claims 1-19 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-8, 10-11, 13-15 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hattori et al (cited in the previous Office Action), in view of WO92/22983 (hereinafter Browne et al).

Hattori et al discloses an image storing device including an inhibiting function comprising the same method of storing discrete segments of imaged data in a camera, comprising:

using a sensor in the camera to capture image data (fig. 2, el. 30);

providing a recorder coupled to the camera and having a memory (fig. 7, el. 40, 14, 27);

using multiple portions of the memory as a loop in which to record segments of the image data in approximately real time (fig. 8)

protecting the multiple portions from being overwritten by subsequent recording in the loop (fig. 8, el. 2-3) as specified in claim 1; comprising continuing to record the image data immediately after ending at least one of the segments (col. 3, ln. 62 – col. 4, ln. 11) as specified in claim 6; comprising continuing to record the image data immediately after protecting at least one of the segments (fig. 4, recording clockwise after point b) as specified in claim 7; further comprising designating a beginning of a first one of the multiple portions in response to a start signal from a user of the camera (col. 3, ln. 62-67) as specified in claim 8; further comprising designating an end of the first one of the multiple portions in response to a stop signal from the user (fig. 4) as specified in claim 10; wherein the start signal comprises a manually operated switch (fig. 2, el. 26) as specified in claim 11; further comprising including in the first one of the multiple portions, a time span of the image data that occurred prior to the start signal (fig. 2, col. 3, ln. 21-31) as specified in claim 13; wherein the time span comprising at least 5 seconds or at least 15 seconds (col. 3, ln. 28-31) as specified in claims 14-15.

It is noted that Hattori et al does not particularly disclose allowing the editing of the imaged data in the protected multiple portions stored in the loop via a recorder control while recording additional segments of the image data in the loop as specified in claim 1; the loop is sufficiently large to store at least five minutes of the image data as specified in claim 2; treating the entire loop as a single file; storing first and second ones of the multiple portions as separate files; or storing first and second ones of the multiple portions in a common file as specified in claims 3-5; and allowing the editing of the image data while recording additional segments in the loop includes an action selected

from the group consisting of book-marking an additional portion of the loop memory, and releasing a protected portion of the memory from protection as specified in claim 20 (since only an action selected from the group consisting of two different actions, the examiner interprets the claim limitation as in an alternative mode).

Browne et al teaches a large capacity, random access, multi-source recording player which allowing the editing of the imaged data in the protected multiple portions stored in the loop via a recorder control while recording additional segments of the image data in the loop (page 2, lines 27-29; page 6, lines 9-12; page 7, line 9 - page 8, line 14; page 24, lines 18-32, special effects option, el. 205 of figure 2); the loop is sufficiently large to store at least five minutes of the image data (page 6, lines 13-16; page 19, lines 2-50; and treating the entire loop as a single file; storing first and second ones of the multiple portions as separate files; or storing first and second ones of the multiple portions in a common file (page 19, lines 2-18: file=program); and allowing the editing of the image data while recording additional segments in the loop includes the releasing a protected portion of the memory from protection (erasure section 301, figure 3, and page 19, lines 19-30).

Since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions and therefore, and the combination yielded nothing more than a predictable results to one ordinary skill in the art, and therefore, it would have been obvious to combine Hattori et al and Browne et al. Doing so would help to improve the storage functions of Hattori et al, save time by continuing the function of recording while

allowing the editing simultaneously and to simplify the editing process by storing programs as separate programs.

5. Claims 9, 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hattori et al, in view of EP 1 064 783 B1 to Mann.

As applied to claim 8 above, it is noted that Hattori et al does not particularly disclose further comprising using a switch in a clothing accessory to operate an aspect of the method as specified in claim 9; comprising wirelessly transmitting a first one of the segments to a memory, and releasing a corresponding one of the multiple portions of memory from protection as specified in claim 16; electronics that implements the method of claim 1, and a clothing accessory that supports the sensor as specified in claim 17; wherein the clothing accessory comprises a pair of glasses as specified in claim 18; and further comprising providing a viewfinder in a lens of the glasses as specified in claim 19. Mann teaches using a switch in a clothing accessory (notice that a pair of glasses is considered a clothing accessory) to operate an aspect of the method (para. 0064 and fig. 1, el. 110, 110); comprising wirelessly transmitting a first one of the segments to a memory (fig. 1, el. 186); electronics that implements the method of claim 1, and a clothing accessory that supports the sensor (fig. 1, el. 100, 110); wherein the clothing accessory comprises a pair of glasses (fig. 1, el. 130); and further comprising providing a viewfinder in a lens of the glasses (col. 15, ln. 39-43). And, therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Hattori et al by using the eyeglass of Mann as disguise to monitor without being notice. Further more, important portion of storage can be

Art Unit: 2621

wirelessly transmitted for safe-keeping and that the important portion, which is write-protected can be released for more storage space.

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hattori et al, in view of WO92/22983, and further in view of Cowan (US 5,204,909).

As applied to claim 8 above, it is noted that Hattori et al does not particularly disclose wherein the start signal comprises an audio signal as specified in claim 12. Cowan teaches an improved audio signal processing system for use in audio amplification and recording systems, and in the voice controlled activation of radio transmitters, recording devices, and other ancillary equipment. Since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions and therefore, and the combination yielded nothing more than a predictable results to one ordinary skill in the art, and therefore, it would have been obvious to combine Hattori et al, Browne et al and Cowan et al. Doing so would help to improve the effectiveness of the system of Hattori et al.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Matz et al (US 7,587,323 B2) discloses a system and method for developing tailored content.

b. Ichioka et al (US 6,618,546 B2) discloses a recording/playing apparatus and content managing method.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhon T. Diep whose telephone number is 571-272-7328. The examiner can normally be reached on m-f.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ND

/Nhon T Diep/
Primary Examiner, Art Unit 2621

Notice of References Cited	Application/Control No. 11/770,920		Applicant(s)/Patent Under Reexamination DEKEYSER, PAUL	
	Examiner Nhon T. Diep		Art Unit 2621	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-7,587,323	09-2009	Matz et al.	705/1
*	B	US-6,618,546	09-2003	Ichika et al.	386/46
*	C	US-5,418,529	05-1995	De Luigi et al.	340/7.52
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N	WO 92/22983	12-1992	EPO	Browne et al	H04N 5/781
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
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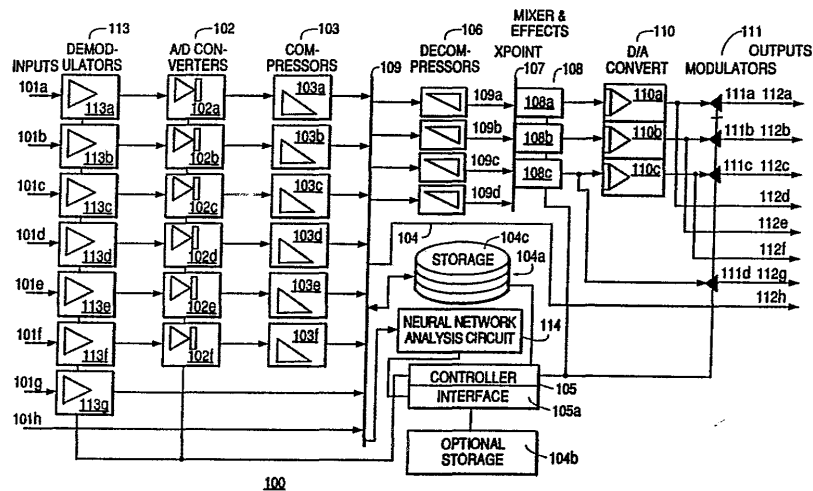
*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁵ : H04N 5/781, H04H 1/02, 7/00		A2	(11) International Publication Number: WO 92/22983
			(43) International Publication Date: 23 December 1992 (23.12.92)
(21) International Application Number: PCT/US92/04573		(81) Designated States: AT (European patent), BE (European patent), CA, CH (European patent), DE (European patent), DK (European patent), ES (European patent), FR (European patent), GB (European patent), GR (European patent), IT (European patent), JP, KR, LU (European patent), MC (European patent), NL (European patent), SE (European patent).	
(22) International Filing Date: 9 June 1992 (09.06.92)			
(30) Priority data: 713,142 11 June 1991 (11.06.91) US			
(71)(72) Applicants and Inventors: BROWNE, H., Lee [US/US]; Two Soundview Drive, Greenwich, CT 06830 (US). YURT, Paul [US/US]; 446 W 47th St., Apt. 5D, New York City, NY 10036-2337 (US).		Published <i>Without international search report and to be republished upon receipt of that report.</i>	
(74) Agents: TURNER, John, B. et al.; Finnegan, Henderson, Farabow, Garrett & Dunner, 1300 I Street, N.W., Washington, DC 20005-3315 (US).			

(54) Title: LARGE CAPACITY, RANDOM ACCESS, MULTI-SOURCE RECORDER PLAYER



(57) Abstract

An audio/video recorder system receives a plurality of transmission signals each containing program information and simultaneously stores the received transmission signals. The system can be controlled by user input to allow for automatic recording of selected programs simultaneously input from multiple sources, reconfiguration of stored programs, and routing of stored programs to selected outputs.

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- 1 -

LARGE CAPACITY, RANDOM ACCESS,
MULTI-SOURCE RECORDER PLAYER

Background of the Present Invention

The present invention relates generally to a large capacity, random access, multi-source audio and video recorder player which is capable of receiving a plurality of simultaneous input signals and which allows a user to view and/or to record selected ones of the plurality of input signals.

Currently, television viewers for the most part have little flexibility with regard to when broadcast programming may be viewed. The broadcaster's schedule is the user's schedule. The video cassette recorder (VCR) is the only device which allows a user to control the recording of programs and the time of viewing programs, by replaying recorded programs. The VCR allows the user to pre-set recording for a specific program by selecting the specific date, time, and channel that the program is broadcast. Such features allow the user to record without being present and to replay the recorded material at another time.

However, current VCRs have limited storage capacity and only single source capability and therefore do not provide the user with a great degree of flexibility and control over program recording. Moreover, conventional VCRs require constant attention for selection and recording of each program. Furthermore, a conventional VCR can only record one program at a time, while a typical household can receive many programs from multiple sources simultaneously.

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It is therefore an object of the present invention to provide large capacity multiple source recording with random access, thus affording the user greater flexibility and control over the recording and replaying of programs.

It is a further object of the present invention to provide a large capacity recorder player which allows continuous recording of a program with automatic erasure, such that the material recorded first is automatically erased first when the multi-source recorder player storage reaches capacity. This feature greatly reduces the need for constant user attention and provides multiple viewing options.

Another object of the present invention is to allow the user to record from multiple channels individually, serially, or simultaneously.

Another object of the present invention is to allow the user to view programs while simultaneously recording one or more other programs.

Yet another object of the present invention is to provide a multi-source recorder player whereby the user can modify stored programs.

Another object of the present invention is to allow the user to record from multiple channels and from multiple distribution sources simultaneously.

Still another object of the present invention is to allow the recorder to adapt to the viewing habits of the user by analyzing selected criteria.

A further object of the present invention is to record material continuously to allow random retention of chosen program segments.

Yet another object of the present invention is to permit the user to mix multiple stored programs into a composite form.

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Additional objects and advantages of the invention will be set forth in the description which follows, and in part will be obvious from the description, or may be learned by practice of the invention. The objects and advantages of the invention may be realized and obtained by means of the instrumentalities and combinations particularly pointed out in the appended claims.

Summary of the Invention

To achieve the objects in accordance with the purposes of the present invention, as embodied and described herein, the audio/video recorder system of the present invention comprises input port means for receiving a plurality of transmission signals each containing program information, and storage means, coupled to the input port means, for simultaneously storing the plurality of received transmission signals.

The present invention further comprises an audio/video recorder system comprising input port means for receiving a plurality of transmission signals each containing program information; storage processing means, coupled to the input port means, for storing the program information in the plurality of received transmission signals; and playback means, coupled to the storage means, for retrieving and playing desired program information from the stored received transmission signals, for playing program information simultaneously with the storing of program information by the storage processing means, and for playing different program information simultaneously.

The present invention further comprises an audio/video recording device for simultaneously storing information from a plurality of sources, the recorder comprising input

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port means for receiving a plurality of transmission signals, and storage means, coupled to the input port means, for simultaneously storing the received transmission signals.

The present invention additionally comprises an audio/video routing device comprising input port means for receiving a plurality of transmission signals; demodulator and a/d conversion means, coupled to the input port means, for transforming the received transmission signals into digital signals each corresponding to a different one of the received transmission signals; and routing means for controlling the forwarding of the digital signals.

Brief Description of the Drawings

The accompanying drawings, which are incorporated in and constitute a part of the specification, illustrate the presently preferred apparatus and method of the invention and, together with the general description given above and the detailed description of the preferred embodiment given below, serve to explain the principles of the invention. In the drawings:

Fig. 1 is a block diagram of a preferred embodiment of the multi-source recorder player of the present invention;

Fig. 2 is a diagram of the main menu control screen of the user control section of the multi-source recorder player;

Fig. 3 is a diagram of the setup page screen option selected from the main menu control screen;

Figs. 4A-4C are diagrams illustrating the calendar screen option selected from the main menu control screen;

Figs. 5A-5E are diagrams illustrating the program selection option screen selected from the main menu control screen;

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Fig. 6 is a diagram of the stored program list option screen selected from the main menu control screen;

Fig. 7 is a diagram of the routing controller option selected from the main menu control screen;

Fig. 8 is a diagram of the special effects screen option selected from the main menu control screen;

Fig. 9 is a diagram of the mix control screen selected from the special effects screen;

Fig. 10 is a diagram of the wipe control screen selected from the special effects screen;

Fig. 11 is a diagram of the database access option selected from the main menu control screen;

Fig. 12 is a block diagram of a preferred voice control system of the present invention;

Fig. 13 is a flowchart of a preferred method of recording of the present invention; and

Fig. 14 is a drawing of the remote control panel of the present invention.

Detailed Description of the Preferred Embodiments

Reference will now be made in detail to the construction and operation of preferred embodiments of the present invention which are illustrated in the accompanying drawings. In those drawings, like elements and operations are designated with the same reference characters.

In the following description, the preferred embodiments described are examples of the present invention. The present invention, however, is not limited to these examples, but may be realized in other embodiments.

Fig. 1 is a block diagram of a preferred embodiment of the multi-source recorder player 100 of the present invention. With the multi-source recorder player 100, a plurality of programs, consisting of audio and/or video signals, may be received simultaneously from a plurality of sources.

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The multi-source recorder player 100 preferably has multiple input connections, each of which may receive an input signal 101a-101f from air and ground based broadcast sources, cable feeds, or digital distribution sources. Further, the multi-source recorder player 100 can preferably receive and process compressed digital signals 101g and 101h. Receiving compressed signals expands the signal handling and storage capacity of the multi-source recorder player 100. Once signals are input, the multi-source recorder player 100 can simultaneously record, process, route, and display the plurality of input video and/or audio signals.

The multi-source recorder player 100 preferably includes enough storage such that twenty or more hours of video with audio programming may be stored in a storage section 104. If audio only or video only programming is being retained, the storage times will increase correspondingly. The storage of audio and video only programming will utilize less storage than combined video and audio programming. The number of hours of recording which may be recorded, however, is not critical to this invention. To output the recorded programs, the multi-source recorder player 100 preferably includes a plurality of output connections including multiple rf, and digital and analog video and audio for outputting output signals 112a-112h to receiving devices, such as televisions and video recorders. Additionally, some of the output signals 112a-112h may include control signals for recording and viewing control of external devices. These devices will be controlled by controller 105 via the corresponding output connection. Setup for the control output is achieved from the output setup section 302 of the setup page control screen 300.

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The multi-source recorder player 100 also preferably includes routing and compositing abilities affording a user control over the form and the destinations of the input signals 101a-101h. The multi-source recorder player 100 may optionally include signal analysis circuitry, preferably in the form of a neural network analysis circuit 114, for assisting the viewer in storing and retrieving desired programs and portions of desired programs.

Users of the multi-source recorder player 100 optionally have selectively filtered programming because a plurality of programs are received simultaneously, buffered in a temporary program FIFO buffer 104c, and scanned and selectively stored by the neural network analysis circuit 114. The system preferably filters the incoming programming by scanning the input programs on bus 109, overwriting undesired programs, and retaining only desired programs. Such a feature is particularly useful in this era of increased channel capacity from cable, satellite, and digital distribution channels.

Additionally, a portion of the storage section 104 of the multi-source recorder player 100 can be cycled. Memory is cycled when the multi-source recorder player 100 is set to operate a FIFO buffer for auto recording storage allocation 104c in the storage section 104. The auto recording storage allocation FIFO buffer 104c temporarily caches programs from a selection of channels on a FIFO basis and preferably retains certain of those programs as selected by the user, or as selected by the user's viewing patterns recognized by neural network analysis circuit 114. After user or neural network selection, the program is retained by being added to the stored program list 600. In this way data is retained by multi-source recorder-player into storage section 104. The memory is cycled because the FIFO

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buffer 104c causes only selected desired programming to be stored in storage section 104 and listed in the stored program list 600. Preferably, all unchosen programs are overwritten by the next auto recording storage allocation FIFO pass.

Programs are not actually moved from the FIFO buffer 104c to storage section 104 but rather the reference to them is added to the stored program list 600. The user or neural network decision determines the program starting point. When the first program buffered in the storage section 104 has been either stored or discarded, the next program becomes the first program. Additionally, programs may be erased from storage section 104 and new programs added from the FIFO buffer 104c.

With auto-recording storage allocation enabled, the selection of a program for storage listing and retention can be performed some time after the programs or portions of the programs are received. For example, a user can select a program for storage listing and retention after viewing the program, or the choice can be made while the program is being viewed. Alternatively, selection can be made automatically by the neural network analysis circuit 114.

The multi-source recorder player 100 can also preferably access databases of compressed and non-compressed audio and video data. The multi-source recorder player 100 can access databases through one or more of the input ports. For example, controller 105 can operate a communication session with a remote computer via signal path 101g of the multi-source recorder player 100. The remote computer can be connected via an ISDN network connection, for example. The selected remote program data can be input to the multi-source recorder player 100 and stored in the

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storage section 104. This transfer process can preferably occur concurrently with other activities in the multi-source recorder player 100.

In a preferred embodiment of the present invention, the multi-source recorder player 100 preferably includes input demodulator section 113. In the preferred embodiment, input demodulator section 113 includes a plurality of input demodulators 113a-113g. The number of input demodulators 113a-113g corresponds directly to the number of modulated input signals 101a-101g which are received by the multi-source recorder player 100 and which may be simultaneously demodulated. The number of input demodulators 113a-113g may vary but there should be at least two. The input demodulators 113a-113g are preferably chosen to receive signals from one or more of the following: a VHF antenna input, an FM antenna input, an AM antenna input, a cable television input, a Direct Broadcast Satellite input, a digital signal input, and an audio and video direct input.

The input demodulators 113a-113g demodulate signals from the following sources: VHF TV broadcasting, UHF TV broadcasting, FM radio broadcasting, AM radio broadcasting, cable television, satellite broadcasting, ISDN or other digital distribution sources and a VCR or audio recorder. Moreover, of the plurality of input demodulators 113a-113g, more than one may preferably receive the same type of signal. Thus, for example, a plurality of cable television input signals may be received simultaneously by the multi-source recorder player 100.

Each of the plurality of input demodulators 113a-113g respectively receives an input signal 101a-101g comprising audio and/or video information. The signals are received

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via an input connector located on the rear of the multi-source recorder player 100. Input signals 101a-101g are demodulated separately by each of the plurality of demodulators 113a-113g. After demodulation by input demodulators 113a-113g, the audio and video signals are separately converted to digital signals by analog to digital (a/d) conversion section 102. Conversion section 102 preferably comprises a plurality of a/d converters 102a-102f. In the preferred embodiment shown in Fig. 1, input signals 101a-101f are analog signals. Therefore, there is one a/d converter 102a-102f for each simultaneously viewable and recordable analog input signal 101a-101f.

Once the signals are a/d converted, they are passed to digital compression section 103 for data reduction. Digital compression section 103 preferably includes a plurality of compressors 103a-103f. There is one compressor 103a-103f for each non-compressed input signal 101a-101f which may be input to the multi-source recorder player 100. Compression may be performed simultaneously in each of the compressors 103a-103f. The data quantities in the converted signals are preferably reduced by a factor of approximately 200 for video signals, and a by factor of approximately 8 for audio signals. Compression performed by compressors 103a-103f increases the storage capacity and the signal handling capacity of the multi-source recorder player 100. By routing and storing signals in their compressed form, the multi-source recorder player 100 can store and distribute large quantities of programming simultaneously.

Once compressed in compression section 103, the data is preferably input to storage section 104 via bus 109. The storage section 104 preferably employs high speed,

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large capacity random access devices which may include optical and magnetic disks, RAM memory, and very high density floppy disks. The storage section 104 may also be configured to include a primary storage section 104a, and an optional storage section 104b, which may be connected to the multi-source recorder player 100 via a high speed digital connection using interface 105a. The optional storage section 104b may include removable media for long term storage of compressed data. With optional storage section 104b, users have control over the total amount of "on-line" storage capacity of the multi-source recorder player 100.

Alternatively, certain input signals, such as signals 101g and 101h, may be pre-compressed. For example, the multi-source recorder player 100 may receive digital ISDN data as input signal 101g, which is digitally modulated and distributed in a compressed format. The input signal 101g is passed directly to the demodulator section 113 and bypasses the converter section 102 and compression section 103. Multi-source recorder player 100 may also receive demodulated compressed data as input signal 101h, which is passed directly to storage section 104.

It is desirable to permit direct storage of pre-compressed data because compressed program distribution is becoming more common. Compression is especially desired when distributing high information content signals such as high definition television (HDTV) signals and improved definition television (IDTV).

Once an input signal reaches bus 109, certain predetermined criteria of the input signal may be assessed, if this option is chosen. Analysis is controlled by the user and will be discussed in greater detail below with respect to the user control section, shown and described with respect to Figs. 2-11. Such analysis is preferably performed

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by a neural network analysis circuit 114. The neural network analysis circuit 114 is connected by the bus 109 and the controller 105. The controller 105 selects which of the input signals 101a-101h are input to the neural network analysis circuit 114. With this configuration the neural network analysis circuit 114 may scan one or more of the input signals 101a-101h.

The neural network analysis circuit 114 is designed to "learn" the user's preferences for programs by analyzing the user's viewing patterns. Neural network analysis circuit 114 operates recognition processing operations on the compressed data output from compressors 103a-103f and is configured to recognize program segments of interest to users of the multi-source recorder player 100. To do so, a user, by viewing program segments, automatically "teaches" the neural network analysis circuit 114 program elements which are of interest to that user.

Additionally, a user may manually assist the neural network "learning" by selecting the "interesting" button 1411 or "uninteresting" button 1412 on the remote control panel 1400, shown in Fig. 14. The "interesting" button 1411 and "uninteresting" button 1412 aid the neural network analysis circuit 114 in quickly learning the viewing interests of a user. If the neural network analysis circuit 114 finds programing with patterns of interest to the user, the programing will be stored in storage section 104 for future playback. Thus, with the neural network analysis circuit 114, the user can maximize the storage capacity of storage section 104 by teaching the multi-source recorder player 100 which programs are of interest and which are not of interest so that only programs of interest are automatically retained for future viewing and scanning.

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Further, with automated recording, described below with respect to the user control section in Figs. 2-11, the neural network analysis circuit 114 can use the learned criteria to scan any number of channels and to retain any program which meets the learned criteria. This capability, combined with continuous FIFO buffering of incoming programming in FIFO buffer 104c, allows for retention of programs analyzed to be of interest after analysis is performed. The analysis performed by the neural network analysis circuit is optional.

Program viewing typically involves retrieving a program stored in the storage section 104 and/or viewing an incoming program from sources 101a-101h. The user of the multi-source recorder player 100 communicates with controller 105 in order to control the multi-source recorder player 100 and to retrieve data, stored as programs, in storage section 104.

Controller 105 is a microprocessor which preferably runs a user control program and allows a user to access and control the multi-source recorder player 100. The user control section, which is described in greater detail with respect to Figs. 2-11, preferably acts similarly to the graphical interface provided by the Windows product sold by Microsoft, Inc. Selections are made via a remote control with a cursor positioning device such as a mouse or trackball.

The controller 105 generates a virtual control screen which may be placed on any screen to control of any one or more playback or recording processes. If a user wishes to view programs on several monitors simultaneously, the controller 105 can either operate multiple virtual control screens, one or more for each output monitor, or for each program window. Alternatively, the user may control all

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screens from one controller, portions of which may be dragged between screens, such as in an Apple Macintosh computer with multiple screens. The user control program preferably includes a stored program list, shown in Fig. 6. The stored program list contains a index of programs stored in storage section 104, and held in the memory of the controller 105. The controller 105 can thereby address a desired program and output it to decompression section 106.

Decompression section 106 preferably comprises a plurality of decompressors 106a-106d wherein one of the decompressors 106a-106d decompresses a selected stored program. Storage section 104 can output a plurality of programs stored therein simultaneously, each to a respective one of decompressors 106a-106d. The number of decompressors corresponds to the number of simultaneously viewable programs. With four decompressors 106a-106d, it is possible to view four simultaneous programs at one or more of the outputs 112a-112h.

The decompressed data from decompressors 106a-106d is input to the digital crosspoint 107. The digital crosspoint 107 comprises a high speed data bus with decoding logic allowing any source to be connected to any destination. The digital crosspoint 107 routes the decompressed digital data to the mixing and effects processing section 108.

Mixing and effects processing section 108 preferably contains high speed video and audio processors which perform digital signal processing. Fig. 1 shows three separate processors 108a-108c corresponding to three possible separate output signals simultaneously available. Processors 108a-108c may preferably operate on one or more signals. The mixing and effects processing section 108 allows

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a plurality of input signals to be added, subtracted, dissolved, faded, zoomed, windowed, panned, tilted, and swept, for example. The mixing and effects processing performed in the mixing and effects processing section 108 is controlled by the user and will be discussed in greater detail below with respect to the user control section.

After data is processed in the mixing and effects processing section 108, the data is output to d/a converter section 110. The d/a converter section 110 preferably comprises d/a converters 110a-110c. The d/a converters 110a-110c preferably include audio and video converters and buffering amplifiers which follow the converters and are used for driving the modulators.

After d/a converting, the data is sent to modulation section 111. The modulation section 111 preferably includes modulators 111a-111d. Although Fig. 1 shows four modulators, there is preferably one modulator for each modulated output signal.

After modulation in the modulation section 111, signals may be output to various receivers. The multi-source recorder player 100 preferably has a plurality of outputs, shown as 112a-112h in Fig. 1. With multiple outputs 112a-112h, different users can be playing the same program from the multi-source recorder player 100 at different receivers. Multiple outputs also make it possible to off-load one program to a VCR, while other programs stored in storage section 104 are being scanned.

Each of outputs 112a-112h preferably includes a separate audio and video output. In Fig. 1, the multi-source recorder player 100 may have eight video and eight stereo audio outputs. In the preferred embodiment of the invention shown in Fig. 1, outputs 112a-112h preferably include analog baseband modulated and rf modulated outputs. Output

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112a is a rf modulated version of the same signal available at output 112d as a baseband signal, and baseband outputs 112b and 112c correspond to rf modulated outputs 112e and 112f, respectively, as shown in Fig. 1. There are two digital outputs 112g and 112h. Output 112g may be used for sending decompressed digital data, for example, to a digital television receiver. Output 112h may be used to output modulated or non-modulated compressed program data, for example, to a remote location via common carrier channels, such as the telephone or ISDN networks, or to any receiver with decompression circuitry. The three primary outputs include external device control connectors and signals, thus allowing controller 105 to control external devices such as VCRs.

Of the three analog outputs, output 112a may be set by default in the setup page 300, shown in Fig. 3, to receive the control screens which are described below with respect to the user control section shown in Figs. 2-11. Control screens are used to set the desired functions of the multi-source recorder player 100. The remaining analog outputs, output 112b and output 112c, may be set in the setup page 300 to receive programs from storage section 104 without overlapping control screens. Output 112a may preferably be sent to a primary monitor device, and outputs 112b and 112c are preferably connected to one or more audio/video recorders or secondary monitors. The control screen output may be changed by the user to output 112b or 112c.

Each video output from outputs 112a-112h is capable of outputting multiple programs simultaneously. In order to output multiple programs simultaneously, the user selects the format of the output. The output format is controlled by controller 105 and is performed in the mixing and effects processing section 108. For example, a plurality

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of programs may be output on output 112a in tiled or overlapping windows. Alternatively, multiple programs may be mixed into a composite image in the mixing and effects processing section 108 and output on a single output. The format of the output data is selected in the setup page 300, described with respect to Fig. 3.

Audio program data is handled in much the same way as video program data, except that effects, such as wipe and zoom, cannot be performed on audio data. However, the user can control the output of audio data via controller 105 in the mixing and effects processing section 108. Such control allows the user to perform audio fades, mixing, and routing. Voice control signals, also described below with respect to the user control section, may also be mixed with the audio data and output by default to output 112a.

In another embodiment of the present invention, the plurality of outputs 112a-112c of the multi-source recorder player 100 can each be connected to multiple televisions. With multiple televisions connected, it is possible to view several input programs at one or more locations simultaneously. The outputs 112a-112c of the multi-source recorder player 100 may also be used to send incoming programs to one or more destinations. The multi-source recorder player 100 can then be used for multi-user program distribution applications. In a multi-user application, multiple controllers 105 preferably respond to and interact with several users simultaneously via multiple control screens. Moreover, in an embodiment of the present invention which does not include storage section 104, the multi-source recorder play 100 can be used as a router and controller of the input signals and external recorders.

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As indicated above, the multi-source recorder player 100 is controlled by controller 105. Preferably, controller 105 is accessed by the user from the control screen output on output 112a and the remote control panel 1400 shown in Fig. 14. Figs. 2-11 are sample control screens used to control the multi-source recorder player 100. The user control section is available to the user as an option and makes it possible for a user of the multi-source recorder player 100 to select program source, channel, recording time, erasure, and output settings. If the user control screens shown in Figs. 2-11 are not desired, the user can operate the multi-source recorder player 100 with buttons, not shown, as in a conventional VCR.

Fig. 2 is a diagram illustrating a main menu control screen 200. Control screen 200 will preferably appear on at least a portion of the output monitor screen of the user, which may be attached to output 112a, when the user wants to implement a function of the multi-source recorder player 100. The user can preferably choose from a plurality of options appearing on the main menu control screen 200 including program recording option 202, stored program list option 203, database access option 206, routing control option 204, special effects option 205, and setup page option 201. User choice of the available options may be performed by an on-screen display with auditory prompts, a wired or wireless controller with a cursor positioning device, track ball, a voice sampler, or a plurality of front panel switches.

When the user selects the setup page option 201 from the main menu control screen 200, setup page screen 300, shown in Fig. 3, appears. The setup page screen 300 allows the user a plurality of control options including selection of program erasure section 301. Program erasure section

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301 allows a user to set how stored programs will be saved in the storage section 104. Preferably, programs are handled as continuous blocks of sequentially received data, for example, a one hour block of time or a ten second block of time.

Programs may be stored in storage section 104 and erased when storage capacity is reached in a first-in/first-out (FIFO) mode, if selection of FIFO option 301a is made from program erasure section 301. In the FIFO mode, if additional storage is required, then the oldest available program in storage section 104 is erased and a new program is stored in this storage space. If the locking option described below is selected, and if the oldest stored program is locked, the next oldest unlocked program is preferably overwritten when recording occurs. Thus, the FIFO mode causes the oldest stored program, or oldest stored unlocked program, to be automatically erased when the storage capacity of storage section 104 is reached.

Alternatively, program erasure may be selected by choosing erasure section 301. By selecting previously viewed option 301b, only programs which have been viewed will be automatically erased. The erasure of the stored viewed programs will preferably be performed on a FIFO basis. Thus, having selected this option, unviewed programs are automatically saved. And, alternatively, program erasure may be set in program erasure section 301 to be executed only at the command of the user by selecting the command erasure option 310c. In this mode, automatic erasure will not occur at all, and programs will only be erased at the command of the user.

Setup page screen 300 also preferably includes output setup section 302. Output setup section 302 allows the user to connect selected outputs, for example, outputs

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112a-112c shown in Fig. 1, to a desired receiving device. For example, as shown in Fig. 3, output 112a may be connected to a television 312, output 112b may be connected to a VCR 322, and output 112c may be connected to a third control device 332. The setting determines the control protocol. The user can thus send control signals for devices along with the programs to the receiving devices. This allows controller 104 to control the connected receiving device. Control signals are useful, for example, when choosing to download programs to remote video recorders. With control signals as well as video and audio signals available at each output, it is possible to automate the offloading of programs to an external VCR or other recording device. Output setup section 302 makes it possible to connect and control many different video and audio recorders.

Setup page screen 300 also preferably includes set recording criteria section 303. This allows the user to control the neural network analysis circuit 114. With selection of monitor viewer option 303a, the neural network analysis circuit 114 will learn desired programs from the viewing patterns of the user. With watch selection of buttons option 303b, the neural network analysis circuit 114 will be trained from "interesting" button 1411 and "uninteresting" button 1412 on the control panel 1400. With off selection option 303c, the neural network analysis network 114 will be disabled.

The auto recording storage allocation section 305 of setup page 300 allows the user to allocate a fixed portion of storage 104 for continuous FIFO buffering, as described above. The portion of storage allocated is designated as a percentage of all storage available in storage section 104,

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and as shown in bar 305a. The storage allocation section 305 also preferably displays the allocation numerically at 305b.

Setup page screen 300 also preferably includes display mode section 304. The display mode section 304 allows outputs 112a-112c to display multiple programs on one screen and also to display identical programs in different ways. If window option 304a is selected, the user can cause the output of selected ones of the outputs 112a-112c to be windowed. That is, the user can send a signal from one of the outputs 112a-112h to a receiver such that it appears as a window in another signal output to that receiver. Alternatively, the user can choose tiled windows, where the output appears as a series of equally sized windows, by selection of the tile window option 304b. Finally, the user can simply choose the full screen mode with the full screen option 304c.

As an example, after making a selection, output 112a can preferably output a single program on a full screen in a non-windowed mode. Output 112b could output the same program in a window located at the top left of the screen of the connected output device with selection of the window option 304a for output 112b. Output 112c could output four programs in four tiled, adjoining windows if the tile window option 304b is selected for this output.

The overlapping windows selected by window option 304a and the tiled windows selected by tile window option 304b can preferably be dynamically moved with the aid of a menu bar. Location of such a menu bar and control of the tiled or overlapping windows is preferably accomplished by the

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mixer and effects processing section 108. If the user activates the display mode option 304, the mixer and effects processing section 108 causes an overlap of a control window on top of the displayed program screen.

After the user selects the setup criteria from the setup page screen 300, the multi-source recorder player 100 can be set to record. To record desired programs, the user selects the program recording option 202 from the main menu control screen 200 shown in Fig. 2. After selection of program recording option 202, a Gregorian calendar screen 400, illustrated in Figs. 4A-4C, appears on the screen. The calendar screen 400 is used to set the record-time of a desired program.

The Gregorian calendar screen 400 includes a month screen 401 shown in Fig. 4A. The month screen 401 includes each month of the year. After the user selects the desired month, such as June, as shown in Fig. 4A, the date screen 402, shown in Fig. 4B, appears. The user then selects the desired date, shown in Fig. 4B as June 5. The time screen 403, shown in Fig. 4C, then appears and the user selects the time when the multi-source recorder player 100 should be set to record.

The series of calendar screens shown in Figs. 4A-4C, like the other control screens, is generated on screen by controller 105 and is mixed at the crosspoint 107 and mixer and effects processing section 108. The calendar is displayed on the control screen which preferably appears as a floating window on the selected output. Controller 105 retains data entered into the calendar program, from screens 4A-4C, in RAM memory for future control of the multi-source recorder player 100.

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After the user sets the time of recording, he or she preferably next selects what is to be recorded. Figs. 5A-5E show the control screens which appear on the output screen for selection of the program to be recorded.

Fig. 5A shows the enter channel screen 501 which prompts the user to enter the channel of the program to be recorded. Upon entering the channel, the user is prompted from source screen 502, shown in Fig. 5B, to enter the source from which the multi-source recorder player 100 should record the desired program. The user can select from, for example, cable, VHF antenna, UHF antenna, FM radio, AM radio, satellite, DBS, or ISDN digital from source screen 502. Next, frequency and title screen 507 appears as shown in Fig. 5C. From this screen, the user can optionally enter the program title into the title section 503. Although the source and channel comprise sufficient data for specifying a specific program to be recorded, the user may optionally enter the program title at this time.

Following the optional entry of the program name, the user can preferably enter the recording frequency from the recording frequency section 504, shown in Fig. 5D. The user can select from, for example, hourly, daily, weekly, bi-weekly, monthly, or other recording frequencies from frequency section 504. For example, if the user selects daily recording, the multi-source recorder player 100 will record the program which airs at the time and date selected in Figs. 4A-4C every day from the selected channel until it is programmed to stop recording. The "other" recording option will allow for recording special events on specific dates, for example.

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Alternatively, if program codes representing the program, the source, or the recording time are available, then these codes could be entered instead of entering the program name, data, time, etc. Program codes are numbers which are associated with a particular program. If program codes are available, for example, in the local newspaper and TV guide, the user can set the multi-source recorder player 100 for recording by entering only these codes in the program recording option 202. This makes programming much easier. If program codes are available, then a different version of the user interface will be available to the user.

After all required selections are made from screens 5A-5D, start screen 507 appears as shown in Fig. 5E. The multi-source recorder player 100 is set to record by selection of the OK option 505. Alternatively, the record operation can be aborted by pressing cancel option 506.

Recorded programs are stored in storage section 104. A list of the programs stored and set for storing in storage section 104 may be viewed by choosing the stored program list option 203 from the main user control menu 200 shown in Fig. 2. When this option is selected, a stored program list screen 600 is output by controller 105 to output 112a.

The stored program list screen 600, shown in Fig. 6, may preferably include a list of all stored programs. This list may also include information such as title, source, channel, time of recording, the length of the program, and the date the program was recorded or is set to be recorded. The user may optionally enter any notes to be associated with the program when the stored program list 600 is output. The stored program list 600 may also preferably indicate whether the listed program has been recorded or has

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previously been viewed, and may indicate how much, if any, storage space remains in storage section 104.

The stored program list 600 is linked to the program data in storage section 104. If data is removed from the storage section, then the stored program list 600 is updated to reflect this removal. If compressed data is reinstalled, for example when a removable media device is reinstalled, then the stored program list 600 will be updated by controller 105. The user may preferably update the stored program list 600. The user has a keypad on the control panel for text entry into the multi-source recorder player 100.

Alternatively, if titles or other information for programs are broadcast with the program or from a different source, then the controller 105 of the multi-source recorder-player 100 will automatically update the stored program list 600 from the broadcast information if this information is stored in storage section 104. The user thus only needs to input a minimum of information to setup a recording sequence. If more detailed notes and title information are desired, then they can be input by the user at any time, from the keypad when selecting the appropriate entry in the stored program list 600.

When the stored program list 600 is displayed, the user may lock certain of the listed stored programs. Locking a program involves selecting a program from the list and marking it as locked. A locked program will not be erased regardless of the program storage mode selected in the program storage option 301 selected in setup page 300, shown in Fig. 3. When inadequate unlocked storage in storage section 104 is reached, the multi-source recorder player 100 preferably alerts the user and presents a list of locked stored programs, preferably in a format similar

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to stored program list 600, which are causing the storage capacity condition. The user must unlock the necessary amount of storage in storage section 104 before further recording requests may be accommodated.

The user can also set a filter on the stored program list, for example, to restrict the list of programs output on the stored program list 600 to those of interest to a single viewer. If there are two users of the multi-source recorder player 100, it is possible for each to view only his or her own listings and not those of the other person. This can be performed by incorporating a user password. Users of the multi-source recorder player 100 who do not know available passwords will be unable to access programs which are password-protected. The multi-source recorder player 100 can preferably handle a plurality of passwords and support multiple stored program lists for multiple users.

The multi-source recorder player 100, when operated as a multi-user device, will ask the user his or her password before making any menus or screens available. Once the password is received the multi-source recorder player 100 will interface with the user in the same way as described above, the only difference being that the listings of programs retained for this user will not include any listings for other users unless they are considered "shared" programs. Secondly, the neural network analysis circuit 114 will perform analysis for each user individually. The resulting analysis determining desired programs will thus be appropriate for each user.

In addition to viewing a list of stored programs, the user may also preferably select the routing controller option 204 shown on the main menu control screen 200 shown in Fig. 2. If the user chooses the routing controller option

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204, the routing controller screen 700, shown in Fig. 7, is output from controller 105. When the routing controller screen 700 appears, the user first selects the output to which the signals are to be sent. The user selects, for example, one of outputs 112a-112c from the output selection 701. Output selection is not limited to outputs 112a-112c, but may be any of the outputs 112a-112h of the multi-source recorder player 100. The user then selects from the signal selection section 702 the types of signals which will be output by the output selected from output selection 701.

The routing controller option may be used to display signals without prior storage. With this option, the user sends incoming video and/or audio signals to the outputs, thus setting up connections between compression section 103 and decompression section 106, thereby bypassing the storage section 104.

In addition to routing the signals in the multi-source recorder player 100, the user can form composite images to be sent to the outputs. Composite images may be formed when the special effects option 205 is selected from the main menu control screen 200, shown in Fig. 2. With special effects screen 800, shown in Fig. 8, the user can select special video and audio effects. In a preferred embodiment of the present invention, composite images and programs can be formed since the multi-source recorder player 100 can output a plurality of programs on each of the outputs 112a-112h. This is useful, for example, for making original material from a collection of audio and video sources.

Special effects screen 800 includes effects section 801. With the effects section 801, the user can wipe or mix input signals. Particularly, mix option 802 may be selected which causes mix control screen to appear.

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Mix control screen 900 allows a user to set the levels for video and/or audio signals. To operate the mix control screen 900 the user selects the program of choice by positioning the cursor and clicking on its picture. Once selected the user moves the slider 901a. This controls the mixing and effects processing section 108 causing a corresponding change at output section 112. This in turn allows the user to combine images and sounds dynamically. Thus, production of original material from the material stored in storage section 104 is possible with the multi-source recorder player 100. By selecting one channel from channel selectors 902, the mixing and effects processing section 108 can be separately set for each channel, thus allowing mixing and panning of audio and video.

From special effects screen 800, the user can also preferably select wipe option 803, which will cause wipe control screen 1000, shown in Fig. 10, to appear. The wipe control screen 1000 displays a list of available effects in wipe effect section 1010. The individual wipe effects 1010a-1010f allow the user to perform transitions between individual programs and between programs and backgrounds. The user preferably selects a desired wipe effect by choosing one of the wipe effect options 1010a-1010f.

The wipe control section 1011 allows the user to choose which programs and the portions of selected programs that will be wiped. First, the user selects which program or programs will be wiped from program selection option 1014. The user selects the desired program by moving the cursor over the program window and pressing select to set the controller 105 for effecting that program. Mix control screen 900 represents a virtual mix controller. Slider 901a and 901b allow for setting levels of audio or video signals thus controlling the mixing and effects process.

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The user selects which program is being controlled by clicking on its picture, and then which of its channels are being effected by selecting one or more of the buttons for audio left or right 902a and 902b and video 902c.

If a particular wiping effect requires two programs, the user selects the first by selecting select program 1 option 1014a and then selects the second program by selecting select program 2 option 1014b. Program selections can be revised at any time simply by clicking on another program window.

The user can preferably choose to wipe between the two selected programs by selecting "wipe between programs" option 1013b from the wiping mix section 1013. Alternatively, the user can preferably choose to wipe between the program selected from select program 1 option 1014a and a background color by selecting "wipe to color" option 1013a. Selection of the "wipe to color" option will cause a screen with a list of colors to appear from which the user can preferably choose the background color.

The user preferably selects the portion of the selected program or programs to be wiped from frame section 1012. Program times are typically displayed in groups of frames each with a frame number. The beginning of the wipe is selected by entering the appropriate wipe start in the wipe start section 1012a. The end of the wipe may be indicated by entering the frame number where the wipe is to terminate in wipe end section 1012b.

Alternatively, if frame numbers are not known, the user can preferably mark the starting and ending times of wiping by using graphical display section 1015. The beginning point of the wipe is displayed as a graphical image in the graphical display section 1015a. The point where the wipe is to end is displayed as a graphical image in the

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graphical display section 1015b. This is very much like selecting points on a visual based editor such as from the Video F/X video editing system which runs on Macintosh computers sold by Apple Computers, Inc.

In addition to special effects, the user may also select database access from the main menu control screen 200 by choosing database option 206, shown in Fig. 2. Database access screen 1100, shown in Fig. 11, is displayed by controller 105 as a result of the user selecting this option.

The user can employ screen 1100 to search for desired programming by entering a search query. The user enters textual information via a keyboard which is preferably part of the controller 105. Searching is controlled by a database server working in conjunction with the multi-source recorder player 100. If the database server has a larger number of fields then the lookup screen may differ from that shown in Fig. 11. For example, the screen may contain more fields with labels or it may contain a series of questions to be answered for assisting the search.

The results of the search are output in output section 1120 as a series of pictures. The picture displayed for each result will be provided by the database server. Once downloaded from the database server to the multi-source recorder player 100, the programs found as a result of the search will be handled in the same way as other programs which are available from the stored program list 600 shown in Fig. 6.

User interaction, as described above with respect to Figs. 2-11, may preferably be accomplished by keys, or by vocalizing a command to a voice interactive control system. Key commands involve using a mouse and associated software. The user directs a pointer to a graphic display and clicks on desired options in the programming process. The voice

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interactive control system senses voiced commands and produces corresponding resulting control signals and responses. Both mouse and voice control can operate the user options shown on main menu control screen 200, shown in Fig. 2.

Fig. 12 is a block diagram of the voice control system 1200 of the present invention. The voice control system 1200 includes vocal interface 1201. Vocal interface 1201 may preferably be a microphone which receives and amplifies voice commands from the user. The voice signals amplified by vocal interface 1201 are input to analog to digital converter 1202. The converted signal is output to waveform monitor and pattern comparator 1203.

Voice recognition and control circuitry is currently commercially available and is preferably interfaced to control the multi-source recorder player 100. Voice recognition controllers allow a user to voice requests rather than pressing keystrokes and selecting menu options with a cursor controller. The combination of vocal interface 1201, a/d converter 1202, and waveform monitor and pattern comparator 1203 convert sound pressure into signals which control the recording and other processing performed by the multi-source recorder player 100.

In addition, a voice response output may be mixed with program data stored in program storage 104 in mixing and effects section 108, and output to the audio output of one of outputs 112a-112h of the multi-source recorder player 100. When using the voice control system, the user may preferably voice desired selections, hear previously stored voice segments, and hear synthesized voice messages.

By using the user controls described with respect to Figs. 2-11, a program or plurality of programs may be formatted and recorded. In order to perform recording, the

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user preferably follows the steps shown in the flowchart of Fig. 13.

The user first selects the record program mode (step 1310) to specify what to record and how often to record it. Once the decision is made, a Gregorian calendar is displayed and the user chooses the month (step 1320), day (step 1330) and then the time (step 1340) to record. The selection from the calendars corresponds with the calendar screens shown in Figs. 4A-4C.

The user next selects the program channel to be recorded (step 1350) and the source connection for the program (step 1360). In the source connection step 1360, the user selects the type of input signal which is to be recorded so that it is input correctly to the demodulator section 101 of the multi-source recorder player 100.

Next, the user provides the name of the program to be recorded (step 1370) in either textual or voiced format. The user then enters the frequency with which the program is to be recorded (step 1380). The program which was programmed to be recorded is recorded until the user indicates otherwise (step 1390).

Fig. 14 shows a remote control panel 1400 which can be for multi-source recorder player 100. While viewing live video, the user can press the record button on a control panel 1400 and immediate recording will take place. If the auto recording storage allocation section 305, shown in Fig. 3, is set, the material recorded can precede the record request of the user. In this way, an entire program can be retained when the choice to record the program is made after viewing it. The chosen program is then retained from the cycling FIFO.

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The user then selects the specific signals to be output to the selected output from select output section 703. After this selection, VHF Channel 2, VHF Channel 4, and Cable Channel 21 may be simultaneously output to output 112a, for example. Once selected, sliding the controllers 901a or 901b will set a level or balance for the chosen channels of audio and or video. If two programs are being effected then the user selects twice, once for each program before making the adjustments.

If a program is not currently on screen the user can select it for the program list. Once selecting the program the user may start the program by pressing the play button 1405c on the remote control panel 1400.

Remote control panel 1400 allows the user to position the cursor with section 1408. Once the cursor is positioned over a chosen program and select button 1408a is pressed, the user may use playback control section 1405 or routing section 1401-1403 to control the program.

When names and textual input are required, panel 1407 is used. The "interesting" and "uninteresting" buttons 1411 and 1412 are used to help teach the neural network analysis circuit 114 the user's preferences. The program list button 1403b is used to display the program list on the control monitor. The source and output buttons 1401 and 1402 are used in conjunction with the connect button 1403a to arrange program routing.

Accordingly, the multi-source recorder player of the present invention can receive a plurality of different types of input signals. The user has a great deal of control over the signals that are input and can output the signals to one or more receivers. Input signals may be stored in a storage section for later playback or manipulation.

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Other embodiments of the invention will be apparent to those skilled in the art from consideration of the specification and practice of the invention disclosed herein. It is intended that the specification and examples be considered as exemplary only, with the true scope and spirit of the invention being indicated by the following claims.

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WHAT IS CLAIMED IS:

1. An audio/video recorder system comprising:
input port means for receiving a plurality of transmission signals each containing program information;
and
storage means, coupled to the input port means, for simultaneously storing the plurality of received transmission signals.
2. The audio/video recorder system of claim 1 further including demodulator means, coupled to the input port means, for transforming the received signals into digital signals each corresponding to a different set of program information.
3. The audio/video recorder system of claim 2 wherein the demodulator means further includes:
receiver means for forming baseband signals each corresponding to a different one of the received signals;
and
analog/digital converter means, coupled to the receiver means, for forming the digital signals from the baseband signals.
4. The audio/video recorder system of claim 1 wherein the storage means includes data compression means for compressing each of the acceptable received signals prior to storage.
5. The audio/video recorder system of claim 1 further comprising analysis means, coupled to the input port means, for assessing predetermined criteria of each of the received signals to determine acceptable ones of the plurality of received transmission signals.
6. The audio/video recorder system of claim 5 further including means for causing the storage means to implement recurring recording.

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7. The audio/video recorder system of claim 1 further including a data manager, coupled to the storage means, for managing the stored program information.

8. The audio/video recorder system of claim 1 wherein the storage means includes means for erasing from the storage means stored program information according to a predetermined priority.

9. The audio/video recorder system of claim 8 wherein the means for erasing includes means for erasing stored program information in a first-in/first-out order.

10. The audio/video recorder system of claim 8 further including override means for disabling the means for erasing.

11. The audio/video recorder system of claim 10 wherein the override means includes means for disabling the means for erasing selected stored program information.

12. The audio/video recorder system of claim 8 further including means for retaining programs prior to selection on one or more channels of incoming programs.

13. An audio/video recorder system comprising:
input port means for receiving a plurality of transmission signals each containing program information;
storage processing means, coupled to the input port means, for storing the program information in the plurality of received transmission signals; and
playback means, coupled to the storage means, for retrieving and playing desired program information from the stored received transmission signals, for playing program information simultaneously with the storing of program information by the storage processing means, and for playing different program information simultaneously.

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14. The audio/video recorder system of claim 13 wherein the storage processing means includes:

data compression means for compressing each of the received transmission signals prior to storage; and

wherein the playback means includes:

data retrieval means for retrieving program information; and

decompression means for decompressing the retrieved program information.

15. The audio/video recorder system of claim 13 wherein the playback means includes a display device to display the retrieved program information.

16. The audio/video recorder/playback system of claim 13 wherein the playback means includes an audio amplifier to play the retrieved program information.

17. The audio/video recorder system of claim 13 wherein the input port means includes:

means for receiving a plurality of transmission signals; and

wherein the storage processing means includes means for simultaneously storing the received transmission signals.

18. The audio/video recorder system of claim 13 further including analysis means, coupled to the input port means, for assessing predetermined criteria of each of the received signals to determine acceptable ones of the received signals.

19. An audio/video recording device for simultaneously storing information from a plurality of sources, the recorder comprising:

input port means for receiving a plurality of transmission signals; and

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storage means, coupled to the input port means, for simultaneously storing the received transmission signals.

20. The audio/video recording device of claim 19 further including analysis means, coupled to the input port means, for assessing predetermined criteria of each of the received signals to determine acceptable ones of the received signals.

21. The audio/video recording device of claim 19 wherein the storage means includes data compression means for compressing, prior to storage, each of the acceptable received signals.

22. The audio/video recording device of claim 19 wherein the plurality of transmission signals may have different formats, and wherein the device further includes demodulator means, coupled to the input port means, for transforming the received transmission signals of each different format into digital signals each corresponding to a different one of the received transmission signals.

23. The audio/video recording device of claim 22 wherein the demodulator means further includes audio/video demodulator means for separately extracting the video and audio signals from each of the received transmission signals.

24. The audio/video recording device of claim 22 wherein the demodulator means further includes:

receiver means for forming baseband signals each corresponding to a different one of the received transmission signals; and

analog/digital converter means, coupled to the receiver means, for forming the digital signals from the baseband signals.

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25. The audio/video recording device of claim 23 wherein the audio/video demodulator means further includes:

video receiver means for forming baseband video signals for each of the received transmission signals;

audio receiver means for forming baseband audio signals for each of the received transmission signals;

video analog/digital converter means, coupled to the video receiver means, for forming video ones of the digital signals from the baseband video signals; and

audio analog/digital converter means, coupled to the audio receiver means, for forming audio ones of the digital signals from the baseband audio signals.

26. The audio/video recording device of claim 19 further including means for causing the storage means to implement periodic recording.

27. The audio/video recording device of claim 19 further including a data manager, coupled to the storage means, for managing the stored transmission signals.

28. The audio/video recording device of claim 27 wherein the data manager includes control means for outputting a list of predetermined ones of the received transmission signals stored in the storage means upon entry of a user password.

29. The audio/video recording device of claim 19 wherein the storage means includes means for erasing from the storage means stored transmission signals according to a predetermined priority.

30. The audio/video recording device of claim 29 wherein the means for erasing includes means for erasing stored transmission signals in a first in/first out order.

31. The audio/video recording device of claim 29 further including override means for disabling the means for erasing.

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32. The audio/video recording device of claim 31 wherein the override means includes means for disabling the means for erasing selected stored transmission signals.

33. An audio/video routing device comprising:
input port means for receiving a plurality of transmission signals;
demodulator means, coupled to the input port means, for transforming the received transmission signals into digital signals each corresponding to a different one of the received transmission signals; and
routing means for controlling the forwarding of the digital signals.

34. The audio/video routing device of claim 33 wherein the transmission signals include program information, and wherein the routing device further includes playback means, coupled to the routing means, for playing at least some of the program information in the received transmission signals.

35. The audio/video routing device of claim 34 wherein the playback means includes means for simultaneously playing a plurality of the program information in the received transmission signals.

36. The audio/video routing device of claim 33 further including remote control means for controlling the operation of said routing device from a position remote from the device.

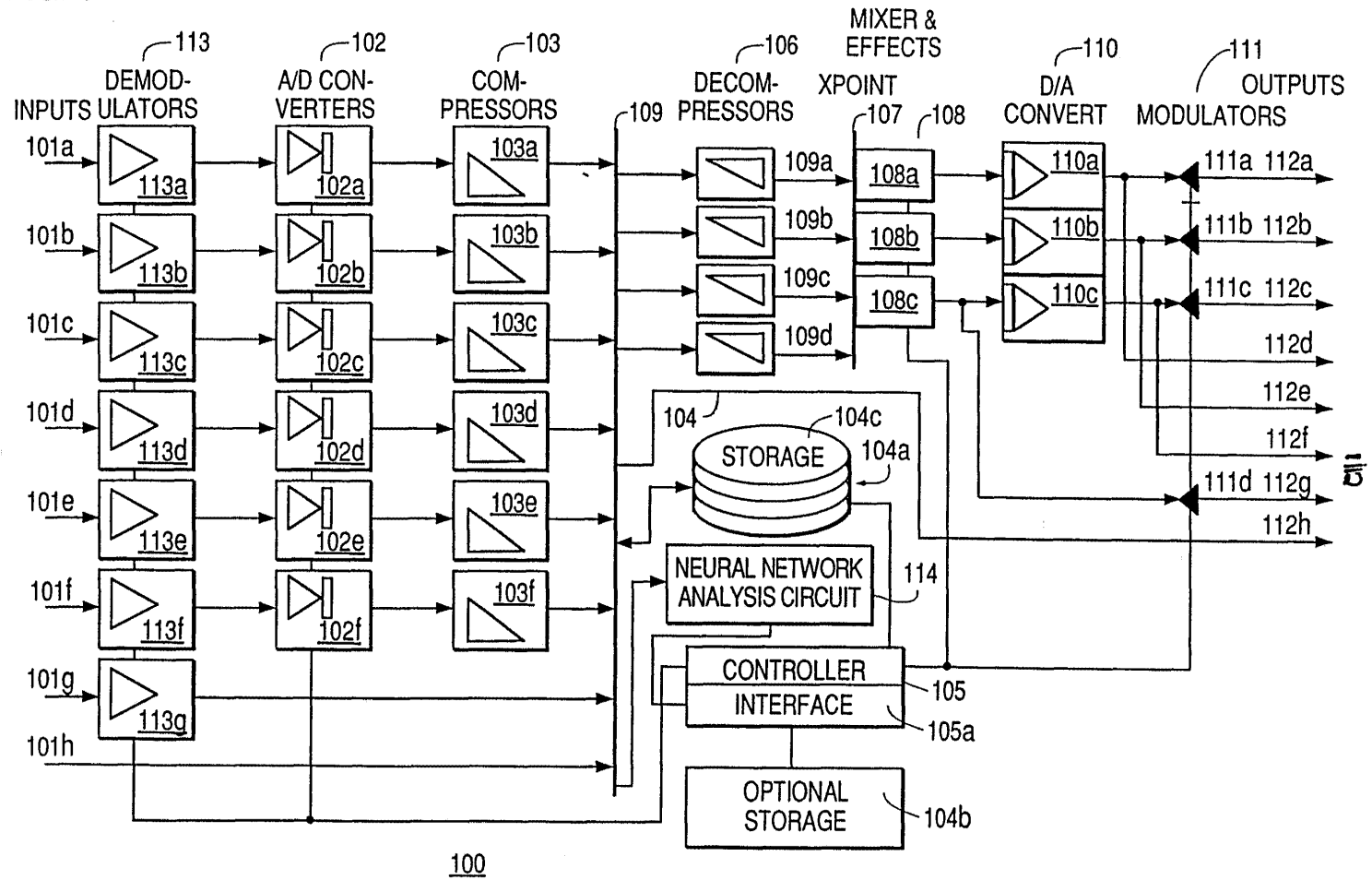
37. The audio/video routing device of claim 33 further including an output port, wherein the routing means includes means for routing the digital signals to the output port.

38. The audio/video routing device of claim 37 wherein the routing means includes voice activation means for controlling the routing means.

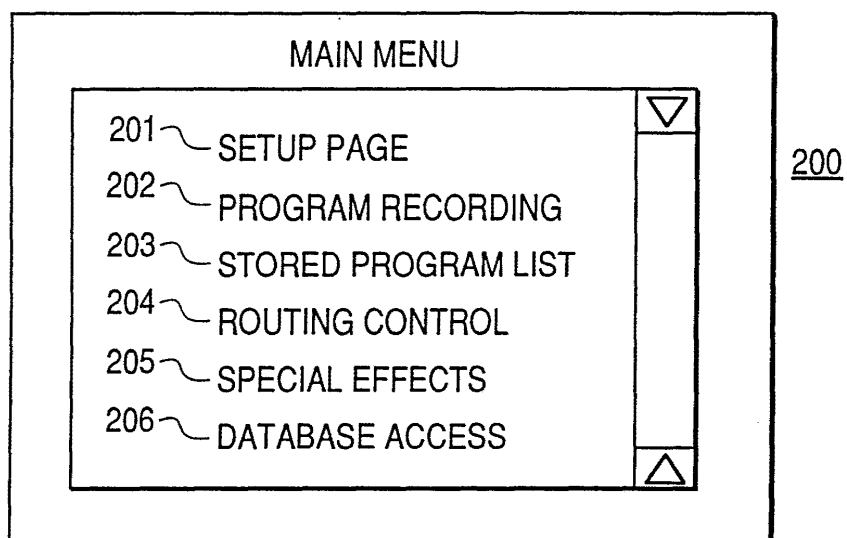
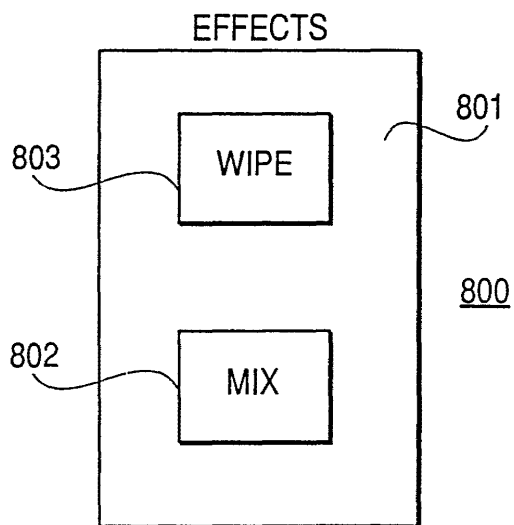
- 41 -

39. An audio/video recorder system comprising:
input port means for receiving a transmission
signal containing program information;
storage means, coupled to the input port means,
for simultaneously storing the plurality of received trans-
mission signals; and
analysis means, coupled to the input port means, for
assessing predetermined criteria of each of the received
signals to determine acceptable ones of the plurality of
received transmission signals.

FIG. 1



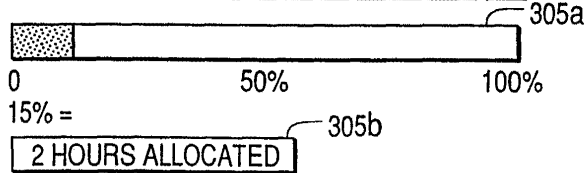
211a

FIG. 2**FIG. 8****SUBSTITUTE SHEET**

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FIG. 3

300

VIDEO CONTROL DISPLAY ON OUTPUTS 1 ☒ 2 ☐ 3 ☒	
AUDIO CONTROL VOICED ON OUTPUTS 1L ☒ 1R ☒ 2L ☐ 2R ☐ 3L ☐ 3R ☐	
<u>PROGRAM ERASURE</u> / 301 ☐ ERASE OLDEST PROGRAMS (FIFO) ☐ ERASE OLDEST VIEWED PROGRAMS ☐ ERASE ONLY SELECTED PROGRAMS	
<u>OUTPUT CONTROL SETUP</u> / 302 OUTPUT 1 TV WIRELESS ▾ 312 OUTPUT 2 PANASONIC VHS ▾ 322 OUTPUT 3 CONTROL L ▾ 332	<u>PROGRAM DISPLAY MODES</u> ☐ WINDOWED ~ 304a SELECT OUTPUT ☐ TILED ~ 304b ☐ 1 ~ 112a ☐ FULL SCREEN ~ 304c ☐ 2 ~ 112b ☐ 3 ~ 112c
<u>SET RECORDING CRITERIA</u> / 303 ☐ MONITOR VIEWER ~ 303a ☐ MONITOR "INTERESTING" + "UNINTERESTING" BUTTONS ~ 303b ☐ OFF ~ 303c	<u>AUTO RECORDING STORAGE ALLOCATION</u> 305 

311a

4/1a

FIG. 4B

JUNE							400
SUN	MON	TUE	WED	THU	FRI	SAT	402
	1	2	3	4	~~5~~	6	
7	8	9	10	11	12	13	
14	15	16	17	18	19	20	
21	22	23	24	25	26	27	
28	29	30					

FIG. 4C

FIG. 4A

1990				401
JAN	FEB	MAR		
APR	MAY	~~JUN~~		
JUL	AUG	SEP		

SAT JUNE 5th		403
AM		
1		
2		
3		
4		
5		
6		
7	~~X~~	
8		
9.0		
PM		
1		
2		
3		
4		
5		
6		
7		
8		

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5112

FIG. 5A

FIG. 5B

FIG. 5C

FIG. 5D

FIG. 5E

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FIG. 6

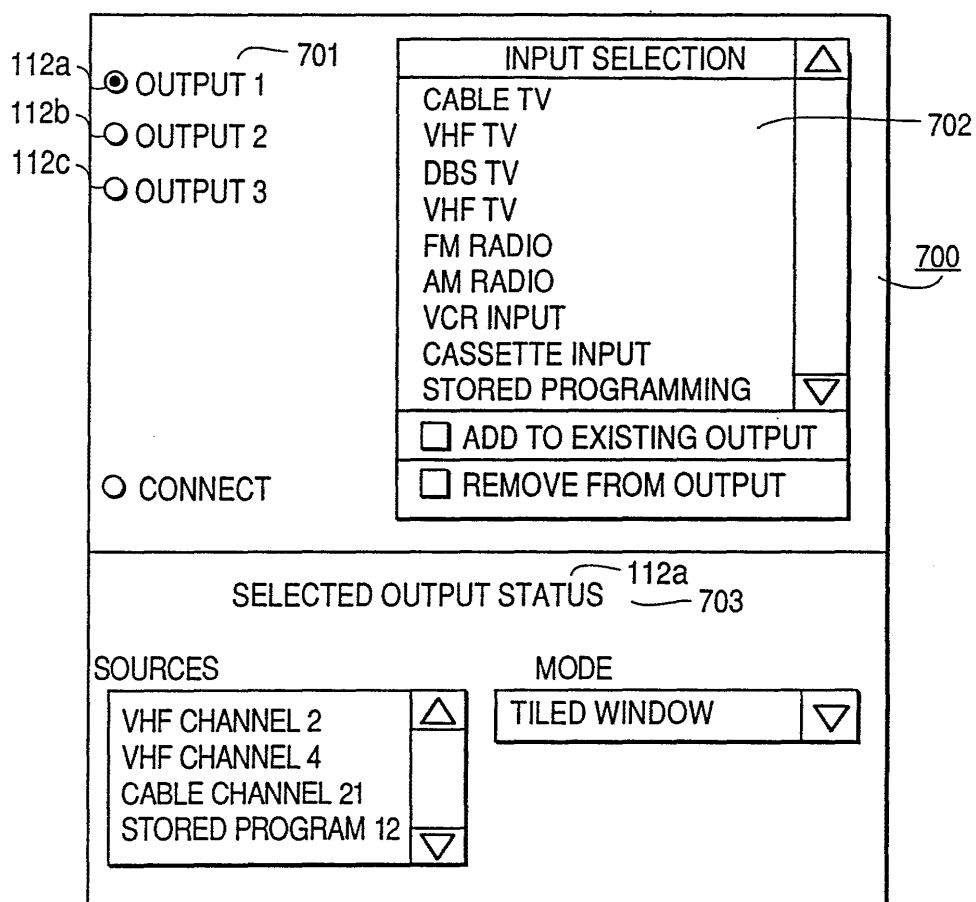
600

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								FREE PROGRAM MEMORY	4.75 HRS
#	LOCKED	TITLE	SOURCE	CHANNEL	TIME	DATE	LENGTH	NOTES	VIEWED
1	☐	-- NOT YET --	VHF	4	4:00 - 4:30	MAY 17, 1991	0.5	NOT YET RECORDED	☐
2	☐	--	FM	99.5	1:12 - 1:20	MAY 15, 1991	0.12	KEEP FOR WENDY	☒
3	☐	NIGHTLY NEWS	VHF #	4	6:00 - 8:00	MAY 13, 1991	2.0		☐
4	☒	BATMAN	CABLE	29	8:00 - 10:00	DEC 28, 1990	2.0		☐
5	☐	THE ASTRONOMERS	VHF	13	6:30 - 7:30	MAY 13, 1991	1.0		☐

711a

FIG. 7



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FIG. 9

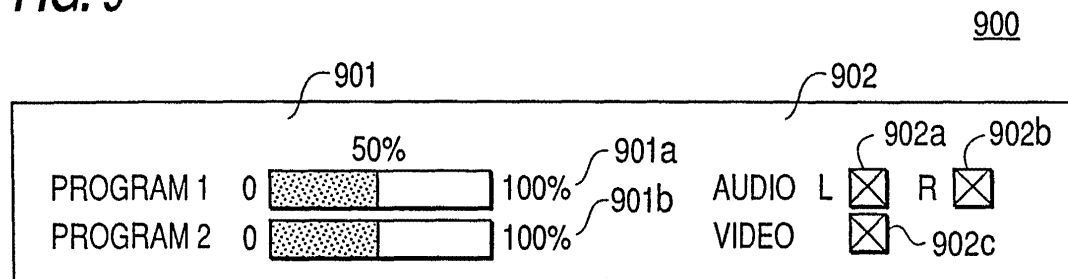
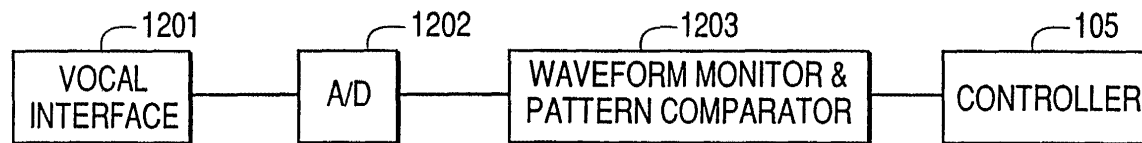


FIG. 12



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FIG. 10A

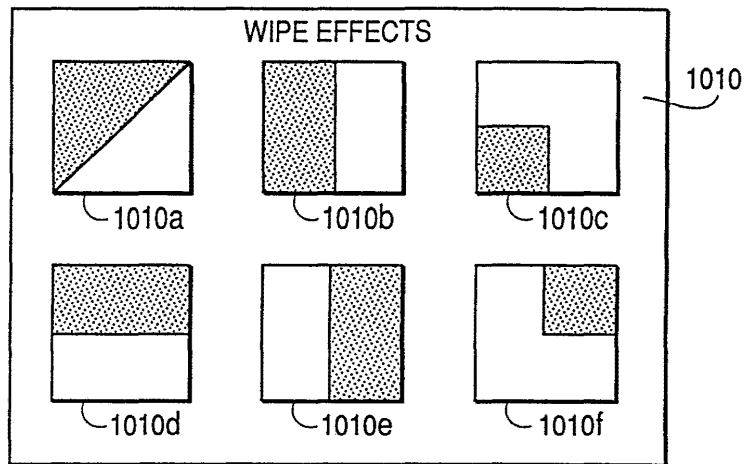


FIG. 10B

1000

1013		1011		1014	
1013a	WIPE TO COLOR	☐	WIPE PROGRAM SELECTION SELECT PROGRAM 1 ☒ 1014a SELECT PROGRAM 2 ☐ 1014b		
1013b	WIPE BETWEEN PROGRAMS	☒			
FRAME NUMBERS					
WIPE START 00001 1012a					
WIPE END 00100 1012b					
TOTAL 99					
1012			1015		

SUBSTITUTE SHEET

10/12

FIG. 11

WORD SEARCH

SEARCH FOR

EXCLUDE

SEARCH RESULTS 3 OF 13

	A 1 HOUR DOCUMENTARY ON LASHA THE CAPITAL OF TIBET PRIOR TO ITS OCCUPATION
THE LANGUAGE OF TIBET	AN INTERACTIVE TIBETIAN LANGUAGE COURSE LESSON 1 OF 5
THE LANGUAGE OF TIBET	AN INTERACTIVE TIBETIAN LANGUAGE COURSE LESSON 2 OF 5

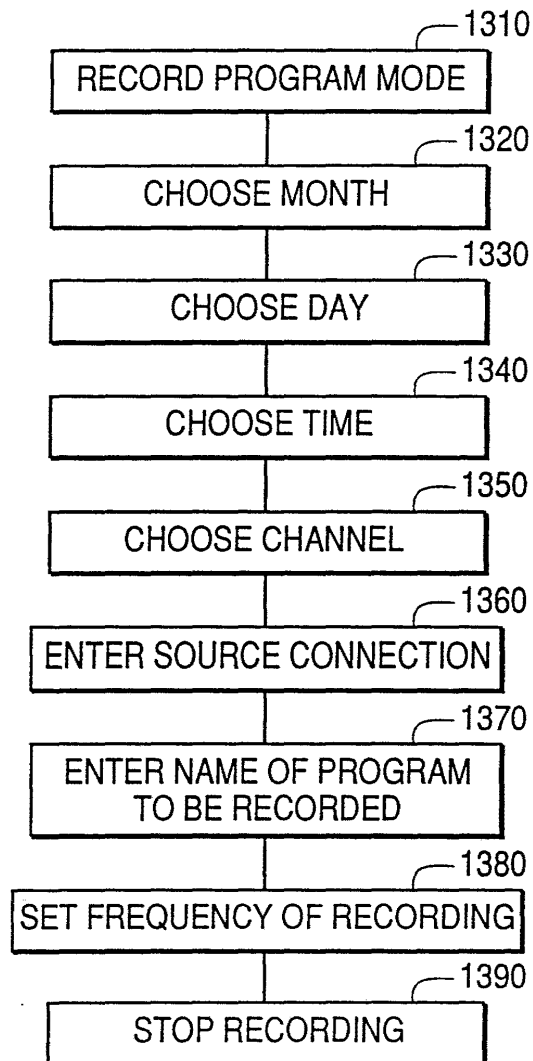
1110

1100

1120

SUBSTITUTE SHEET

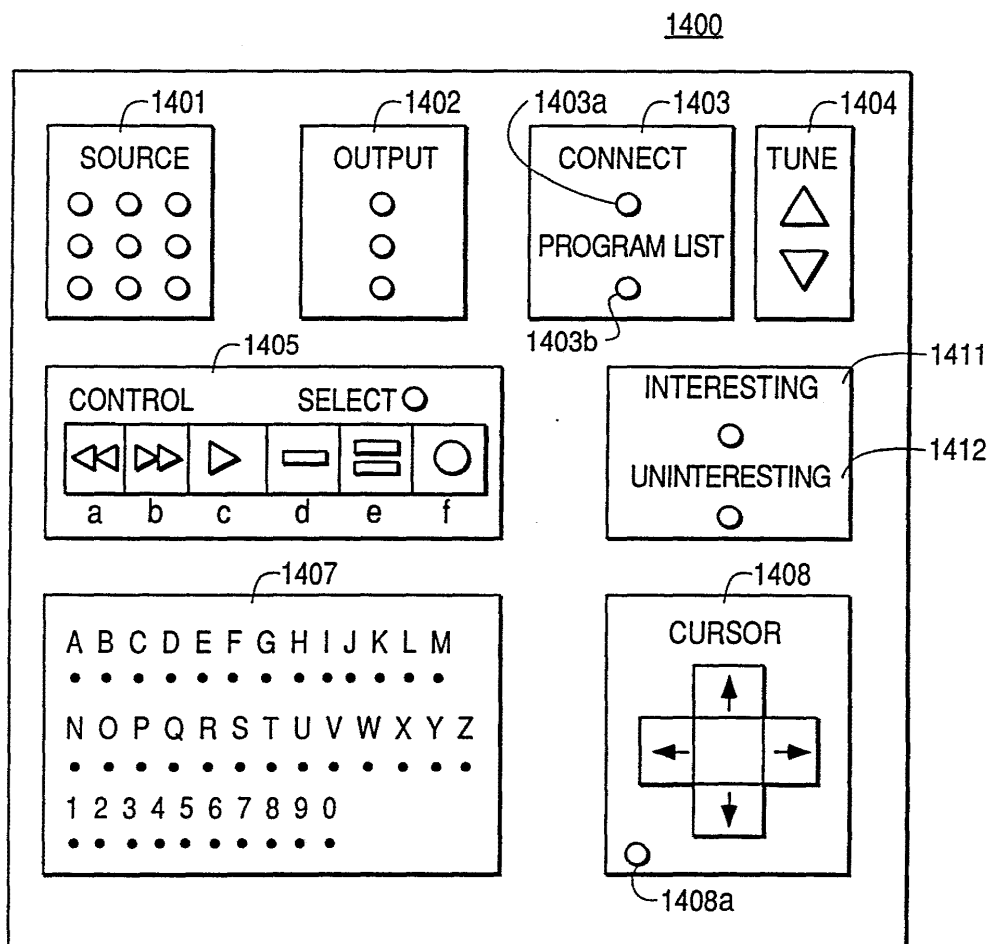
11/12

FIG. 13

SUBSTITUTE SHEET

12/12

FIG. 14



SUBSTITUTE SHEET

PUB-NO: WO009222983A2
DOCUMENT-IDENTIFIER: WO 9222983 A2
TITLE: LARGE CAPACITY, RANDOM ACCESS, MULTI-SOURCE RECORDER PLAYER
PUBN-DATE: December 23, 1992

INVENTOR-INFORMATION:

NAME	COUNTRY
BROWNE, H LEE	US
YURT, PAUL	US

ASSIGNEE-INFORMATION:

NAME	COUNTRY
BROWNE H LEE	US
YURT PAUL	US

APPL-NO: US09204573
APPL-DATE: June 9, 1992

PRIORITY-DATA: US71314291A (June 11, 1991)

INT-CL (IPC): H04H001/02 , H04H007/00 , H04N005/781

EUR-CL (EPC): H04H007/00 , H04N005/781 ,
G11B027/034 , G11B027/10 ,
G11B027/34 , H04H001/10

**US-CL-CURRENT: 386/E5.042 , G9B/27.012 ,
G9B/27.019 , G9B/27.051**

ABSTRACT:

CHG DATE=19990617 STATUS=O>An audio/video recorder system receives a plurality of transmission signals each containing program information and simultaneously stores the received transmission signals. The system can be controlled by user input to allow for automatic recording of selected programs simultaneously input from multiple sources, reconfiguration of stored programs, and routing of stored programs to selected outputs.

<i>Index of Claims</i> 	Application/Control No. 11770920	Applicant(s)/Patent Under Reexamination DEKEYSER, PAUL
	Examiner Nhon T Diep	Art Unit 2621

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant										☐ CPA										☐ T.D.										☐ R.1.47									
CLAIM		DATE																																					
Final	Original	03/15/2009	11/05/2009																																				
	1	✓	✓																																				
	2	✓	✓																																				
	3	✓	✓																																				
	4	✓	✓																																				
	5	✓	✓																																				
	6	✓	✓																																				
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Search Notes 	Application/Control No. 11770920	Applicant(s)/Patent Under Reexamination DEKEYSER, PAUL
	Examiner Nhon T Diep	Art Unit 2621

SEARCHED			
Class	Subclass	Date	Examiner

SEARCH NOTES		
Search Notes	Date	Examiner
East Search	3/15/2009	ND
Consulted w/ Nguyen, Huy; Tran Thai	11/4/2009	ND

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner

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EAST Search History**EAST Search History (Prior Art)**

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L13	14423	(circular or ring) adj1 (buffer or memory or storag\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/05 16:08
L14	8	(circular or ring) adj1 (buffer or memory or storag\$3) same protect \$7 adj1 (segment or part or portion)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/05 16:08
L15	5	dekeyser-paul \$.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/05 16:11
L16	4	(circular or ring) adj1 (buffer or memory or storag\$3) same protect \$7 adj1 (segment or part or portion) and (random adj1 access adj1 memory or RAM)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/05 16:14

L17	42	(circular or ring) adj1 (buffer or memory or storag\$3) and protect\$7 adj1 (segment or part or portion)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/05 16:15
L18	31	(circular or ring) adj1 (buffer or memory or storag\$3) and protect\$7 adj1 (segment or part or portion) and (random adj1 access adj1 memory or RAM)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/05 16:15
L19	26	(circular or ring) adj1 (buffer or memory or storag\$3) and protect\$7 adj1 (segment or part or portion) and (random adj1 access adj1 memory or RAM) and record\$6	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/05 16:18

EAST Search History (Interference)

<This search history is empty>

11/ 5/ 09 4:19:41 PM**C:\ Documents and Settings\ NDI EP\ My Documents\ EAST\ \ default.wsp**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
P.O. BOX 1450
ALEXANDRIA, VA 22313-1450**

Appl No.: **11/770,920**
Applicant: **DeKeyser, Paul**
Filing Date: **June 29, 2007**
Art Unit: **2621**
Examiner: **Diep, Nhon Thanh**
Attorney Docket No.: **101488.0003US1**

Title **Loop Recording with Book Marking**

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE AFTER FINAL OFFICE ACTION

Sir:

This paper responds to the Final Office Action dated November 13, 2009. Please enter the amendments shown herein.

- Claim amendments begin on page 2.
- Remarks begin on page 5.

REMARKS/ARGUMENTS

The final office action dated November 13, 2009, has been received and carefully considered. By this amendment, claim 1 has been amended. Claim 3 has been canceled. After entry of this Amendment, claims 1 – 2, and 4 – 20 will be pending. In view of these amendments and the following remarks, Applicants respectfully request reconsideration.

Claim Amendments

Claim 1 has been amended to include limitations of originally filed claim 3. Claim 1 has also been amended to clarify that the loop is a memory loop that is treated as a single file, and that the claimed operations take place within the single file.

No new matter has been added.

35 USC §103

The Office rejected claims 1 – 8, 10 – 11, 13 – 15, and 20 under 35 USC 103 as being obvious over Hattori et al. (U.S. patent 5,523,799) and in view of Browne et al. (International patent publication WO 1992/022983). The Applicant respectfully disagrees, especially in view of the amendments entered herein.

Claim 1 requires that steps of claim 1 occur within a single file. One should note the memory loop is treated as a single file rather than treating content as file. Browne merely discusses providing access to programs. The Applicant has appreciated that the entire memory loop can be a single file regardless of the contents of the memory loop (e.g., stored image data, empty, etc.) or protected state (e.g., bookmarked, etc.) of portions of the memory loop. Thus the memory loop can be a file before, during, and after recording (see paragraph [0034] of the instant application), even while the content of the loop, and the content of the file, changes. Browne discusses mixing programs and editing a program to include wipe sequences, but fails to contribute to Hattori to arrive at the claimed features and fails to motivate editing within a single file memory loop. Claim 1 is considered allowable on the ground that Hattori and Browne, alone or combined, fail to teach suggest or motive all the claimed features. Claims 2 – 8, 10 – 11, 13 – 15, and 20 are allowable by virtue of their dependence on claim 1.

Claims 9, and 16 – 19

The Office rejected claims 9, and 16 – 19 as being obvious over Hattori et al. (U.S. patent 5,523,799) in view of Mann (European patent EP 1,064,783). The Applicant respectfully disagrees, especially in view of the amendments entered herein. Mann fails to contribute to Hattori in a meaningful fashion with respect to the features of claim 1. Claim 1 is allowable over Hattori and Mann, alone or combined, on the ground that they fail to teach, suggest, or motivate all the features of claim 1. Claims 9 and 16 – 19 are considered allowable by virtue of their dependence on claim 1.

Claims 12

The Office rejected claim 12 as being obvious over Hattori et al. (U.S. patent 5,523,799) in view of Browne et al. (International patent publication WO 1992/022983) and in further view of Cowan (U.S. patent 5,204,909). The Applicant respectfully disagrees, especially in view of the amendments entered herein. Cowan also fails to contribute to Hattori and Browne to arrive at the features of claim 1. Claim 12 is also allowable by virtue of its dependency on claim 1.

Request For Allowance

Claims 1 – 2, and 4 – 20 are pending in this application. Claim 3 has been canceled. The applicant requests allowance of all pending claims.

Respectfully submitted,
Fish & Associates, PC

Date: January 11, 2010

By: Nicholas J. Witchey/
Nicholas J. Witchey
Reg. No. 63481

Fish & Associates, PC
2603 Main Street, Suite 1000
Irvine, CA 92614-4271
Telephone (949) 253-0944
Fax (949) 253-9069

Electronic Acknowledgement Receipt	
EFS ID:	6784577
Application Number:	11770920
International Application Number:	
Confirmation Number:	7135
Title of Invention:	Loop Recording With Book Marking
First Named Inventor/Applicant Name:	Paul DeKeyser
Customer Number:	24392
Filer:	Martin Fessenmaier/Sara Geer
Filer Authorized By:	Martin Fessenmaier
Attorney Docket Number:	101488.0003US1
Receipt Date:	11-JAN-2010
Filing Date:	29-JUN-2007
Time Stamp:	14:35:16
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Amendment/Req. Reconsideration-After Non-Final Reject	Response_02.pdf	108343 310da3ae786ccc5108d24b68ab67f270fd0be266	no	6

Warnings:

Information:

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of storing discrete segments of imaged data in a camera, comprising:
 - using a sensor in the camera to capture image data;
 - providing a recorder coupled to the camera and having a memory;
 - using multiple portions of the memory as a memory loop in which to record segments of the image data in approximately real time;
 - treating the memory loop as a single file;
 - protecting the multiple portions within the single file, from being overwritten by subsequent recording in the memory loop; and
 - allowing the editing of the imaged data in protected multiple portions stored in the memory loop within the single file via a recorder control while recording additional segments of the image data in the memory loop within the single file.
2. (Original) The method of claim 1, wherein the loop is sufficiently large to store at least five minutes of the image data.
3. (Canceled)
4. (Original) The method of claim 1, further comprising storing first and second ones of the multiple portions as separate files.
5. (Original) The method of claim 1, further comprising storing first and second ones of the multiple portions in a common file.
6. (Original) The method of claim 1, further comprising continuing to record the image data immediately after ending at least one of the segments.
7. (Original) The method of claim 1, further comprising continuing to record the image data immediately after protecting at least one of the segments.

8. (Original) The method of claim 1, further comprising designating a beginning of a first one of the multiple portions in response to a start signal from a user of the camera.
9. (Original) The system of claim 8, further comprising using a switch in a clothing accessory to operate an aspect of the method.
10. (Original) The method of claim 8, further comprising designating an end of the first one of the multiple portions in response to a stop signal from the user.
11. (Original) The method of claim 8, wherein the start signal comprises a manually operated switch.
12. (Original) The method of claim 8, wherein the start signal comprises an audio signal.
13. (Original) The method of claim 8, further comprising including in the first one of the multiple portions, a time span of the image data that occurred prior to the start signal.
14. (Original) The method of claim 13, wherein the time span comprising at least 5 seconds.
15. (Original) The method of claim 13, wherein the time span comprising at least 15 seconds.
16. (Previously Presented) The method of claim 1, further comprising wirelessly transmitting a first one of the segments to a remote memory, and releasing a corresponding one of the multiple portions of memory from protection.
17. (Original) A system comprising electronics that implements the method of claim 1, and a clothing accessory that supports the sensor.
18. (Original) The system of claim 17, wherein the clothing accessory comprises a pair of glasses.
19. (Original) The system of claim 18, further comprising providing a viewfinder in a lens of the glasses.
20. (Previously Presented) The method of claim 1, wherein the step of allowing the editing of the image data while recording additional segments in the loop includes an action selected from

the group consisting of book-marking an additional portion of the loop memory, and releasing a protected portion of the memory from protection.



UNITED STATES PATENT AND TRADEMARK OFFICE

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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/770,920	06/29/2007	Paul DeKeyser	101488.0003US1	7135
24392 7590 02/01/2010 FISH & ASSOCIATES, PC ROBERT D. FISH 2603 Main Street Suite 1000 Irvine, CA 92614-6232			EXAMINER DIEP, NHON THANH	
			ART UNIT 2621	PAPER NUMBER
			NOTIFICATION DATE 02/01/2010	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

rfish@fishiplaw.com
patents@fishiplaw.com

Advisory Action Before the Filing of an Appeal Brief	Application No. 11/770,920	Applicant(s) DEKEYSER, PAUL	
	Examiner Nhon T. Diep	Art Unit 2621	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 11 January 2010 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.

b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because

(a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);

(b) ☐ They raise the issue of new matter (see NOTE below);

(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: Proposed amendment to claim 1, In. 5, 7-9 and 11-12 raise new issues that would require further consideration and/or search. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): _____.

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____.

Claim(s) objected to: _____.

Claim(s) rejected: 1-20.

Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.

12. ☐ Note the attached Information *Disclosure Statement(s)*. (PTO/SB/08) Paper No(s). _____

13. ☐ Other: _____.

/Nhon T Diep/
 Primary Examiner, Art Unit 2621

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
P.O. BOX 1450
ALEXANDRIA, VA 22313-1450**

Appl No.: **11/770,920**
Applicant: **DeKeyser, Paul**
Filing Date: **June 29, 2007**
Art Unit: **2621**
Examiner: **Diep, Nhon Thanh**
Attorney Docket No.: **101488.0003US1**

Title **Loop Recording with Book Marking**

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Do not enter,
N.D.
1/28/2010:
Sir:

RESPONSE AFTER FINAL OFFICE ACTION

This paper responds to the Final Office Action dated November 13, 2009. Please enter the amendments shown herein.

- Claim amendments begin on page 2.
- Remarks begin on page 5.

REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL (Submitted Only via EFS-Web)							
Application Number	11770920	Filing Date	2007-06-29	Docket Number (if applicable)	101488.0003us1	Art Unit	2621
First Named Inventor	Paul H. DeKeyser			Examiner Name	Nohn Thanh Diep		
This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application. Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV							
SUBMISSION REQUIRED UNDER 37 CFR 1.114							
Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).							
☐ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.							
☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____							
☐ Other _____							
☒ Enclosed							
☒ Amendment/Reply							
☐ Information Disclosure Statement (IDS)							
☐ Affidavit(s)/ Declaration(s)							
☐ Other _____							
MISCELLANEOUS							
☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months _____. (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)							
☐ Other _____							
FEES							
The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed. ☒ The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to Deposit Account No 500341							
SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED							
☒ Patent Practitioner Signature							
☐ Applicant Signature							

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Signature of Registered U.S. Patent Practitioner			
Signature	/Nicholas J. Witchey/	Date (YYYY-MM-DD)	2010-02-12
Name	Nicholas J. Witchey	Registration Number	63481

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
P.O. BOX 1450
ALEXANDRIA, VA 22313-1450**

Appl No.: **11/770,920**
Applicant: **DeKeyser, Paul**
Filing Date: **June 29, 2007**
Art Unit: **2621**
Examiner: **Diep, Nhon Thanh**
Attorney Docket No.: **101488.0003US1**

Title **Loop Recording with Book Marking**

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT

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- Claim amendments begin on page 2.
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Claim 1 has been amended to include limitations of originally filed claim 3. Claim 1 has also been amended to clarify that the loop is a memory loop that is treated as a single file, and that the claimed operations take place within the single file.

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Claims 9, and 16 – 19

The Office rejected claims 9, and 16 – 19 as being obvious over Hattori et al. (U.S. patent 5,523,799) in view of Mann (European patent EP 1,064,783). The Applicant respectfully disagrees, especially in view of the amendments entered herein. Mann fails to contribute to Hattori in a meaningful fashion with respect to the features of claim 1. Claim 1 is allowable over Hattori and Mann, alone or combined, on the ground that they fail to teach, suggest, or motivate all the features of claim 1. Claims 9 and 16 – 19 are considered allowable by virtue of their dependence on claim 1.

Claims 12

The Office rejected claim 12 as being obvious over Hattori et al. (U.S. patent 5,523,799) in view of Browne et al. (International patent publication WO 1992/022983) and in further view of Cowan (U.S. patent 5,204,909). The Applicant respectfully disagrees, especially in view of the amendments entered herein. Cowan also fails to contribute to Hattori and Browne to arrive at the features of claim 1. Claim 12 is also allowable by virtue of its dependency on claim 1.

Request For Allowance

Claims 1 – 2, and 4 – 20 are pending in this application. Claim 3 has been canceled. The applicant requests allowance of all pending claims.

Respectfully submitted,
Fish & Associates, PC

Date: February 12, 2010

By: /Nicholas J. Witchey/
Nicholas J. Witchey
Reg. No. 63481

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Electronic Patent Application Fee Transmittal				
Application Number:		11770920		
Filing Date:		29-Jun-2007		
Title of Invention:		Loop Recording With Book Marking		
First Named Inventor/Applicant Name:		Paul DeKeyser		
Filer:		Martin Fessenmaier/Sara Geer		
Attorney Docket Number:		101488.0003US1		
Filed as Small Entity				
Utility under 35 USC 111(a) Filing Fees				
Description		Fee Code	Quantity	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
Request for continued examination	2801	1	405	405
Total in USD (\$)				405

Electronic Acknowledgement Receipt	
EFS ID:	7004794
Application Number:	11770920
International Application Number:	
Confirmation Number:	7135
Title of Invention:	Loop Recording With Book Marking
First Named Inventor/Applicant Name:	Paul DeKeyser
Customer Number:	24392
Filer:	Martin Fessenmaier/Sara Geer
Filer Authorized By:	Martin Fessenmaier
Attorney Docket Number:	101488.0003US1
Receipt Date:	12-FEB-2010
Filing Date:	29-JUN-2007
Time Stamp:	16:47:52
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$ 405
RAM confirmation Number	3880
Deposit Account	500341
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees) Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)	

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)					
Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)					
File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Request for Continued Examination (RCE)	US_RCE_Form_SB_30.pdf	642600 1fd98cdecc462b2f6636670de7274d2527b4498	no	3
Warnings:					
Information:					
2	Amendment Submitted/Entered with Filing of CPA/RCE	Response_03.pdf	108408 ab6bd92513152f6d10fea28681d80e53db7f55ca	no	6
Warnings:					
Information:					
3	Fee Worksheet (PTO-875)	fee-info.pdf	30237 cf25d3e4392d50626a1b6c6b15b4c95eeda518d	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			781245		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					

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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875					Application or Docket Number 11/770,920		Filing Date 06/29/2007		☐ To be Mailed		
APPLICATION AS FILED – PART I											
(Column 1)			(Column 2)			SMALL ENTITY ☒ OR		OTHER THAN SMALL ENTITY			
FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)	OR		RATE (\$)	FEE (\$)			
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A				N/A				
☐ SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A				N/A				
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A				N/A				
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X \$ =				X \$ =				
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X \$ =				X \$ =				
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).										
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))			TOTAL				TOTAL				
* If the difference in column 1 is less than zero, enter "0" in column 2.											
APPLICATION AS AMENDED – PART II											
(Column 1)			(Column 2)			SMALL ENTITY OR		OTHER THAN SMALL ENTITY			
AMENDMENT	02/12/2010	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR		RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))	* 19	Minus	** 20	= 0	X \$26 =	0			X \$ =	
	Independent (37 CFR 1.16(h))	* 1	Minus	*** 3	= 0	X \$110 =	0			X \$ =	
	☐ Application Size Fee (37 CFR 1.16(s))										
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))										
						TOTAL ADD'L FEE	0			TOTAL ADD'L FEE	
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR		RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X \$ =				X \$ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X \$ =				X \$ =	
	☐ Application Size Fee (37 CFR 1.16(s))										
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))										
						TOTAL ADD'L FEE				TOTAL ADD'L FEE	
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3". The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.											

Legal Instrument Examiner:
/DENISE HOPKINS/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of storing discrete segments of imaged data in a camera, comprising:
 - using a sensor in the camera to capture image data;
 - providing a recorder coupled to the camera and having a memory;
 - using multiple portions of the memory as a memory loop in which to record segments of the image data in approximately real time;
 - treating the memory loop as a single file;
 - protecting the multiple portions, within the single file, from being overwritten by subsequent recording in the memory loop; and
 - allowing the editing of the imaged data in protected multiple portions stored in the memory loop within the single file via a recorder control while recording additional segments of the image data in the memory loop within the single file.
2. (Original) The method of claim 1, wherein the loop is sufficiently large to store at least five minutes of the image data.
3. (Canceled)
4. (Original) The method of claim 1, further comprising storing first and second ones of the multiple portions as separate files.
5. (Original) The method of claim 1, further comprising storing first and second ones of the multiple portions in a common file.
6. (Original) The method of claim 1, further comprising continuing to record the image data immediately after ending at least one of the segments.
7. (Original) The method of claim 1, further comprising continuing to record the image data immediately after protecting at least one of the segments.

8. (Original) The method of claim 1, further comprising designating a beginning of a first one of the multiple portions in response to a start signal from a user of the camera.
9. (Original) The system of claim 8, further comprising using a switch in a clothing accessory to operate an aspect of the method.
10. (Original) The method of claim 8, further comprising designating an end of the first one of the multiple portions in response to a stop signal from the user.
11. (Original) The method of claim 8, wherein the start signal comprises a manually operated switch.
12. (Original) The method of claim 8, wherein the start signal comprises an audio signal.
13. (Original) The method of claim 8, further comprising including in the first one of the multiple portions, a time span of the image data that occurred prior to the start signal.
14. (Original) The method of claim 13, wherein the time span comprising at least 5 seconds.
15. (Original) The method of claim 13, wherein the time span comprising at least 15 seconds.
16. (Previously Presented) The method of claim 1, further comprising wirelessly transmitting a first one of the segments to a remote memory, and releasing a corresponding one of the multiple portions of memory from protection.
17. (Original) A system comprising electronics that implements the method of claim 1, and a clothing accessory that supports the sensor.
18. (Original) The system of claim 17, wherein the clothing accessory comprises a pair of glasses.
19. (Original) The system of claim 18, further comprising providing a viewfinder in a lens of the glasses.
20. (Previously Presented) The method of claim 1, wherein the step of allowing the editing of the image data while recording additional segments in the loop includes an action selected from

the group consisting of book-marking an additional portion of the loop memory, and releasing a protected portion of the memory from protection.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
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www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

24392 7590 07/20/2012
FISH & ASSOCIATES, PC
ROBERT D. FISH
2603 Main Street
Suite 1000
Irvine, CA 92614-6232

EXAMINER

DIEP, NHON THANH

ART UNIT

PAPER NUMBER

2487

DATE MAILED: 07/20/2012

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/770,920	06/29/2007	Paul DeKeyser	101488.0003US1	7135
TITLE OF INVENTION: LOOP RECORDING WITH BOOK MARKING				

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$870	\$300	\$0	\$1170	10/22/2012

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

24392 7590 07/20/2012
FISH & ASSOCIATES, PC
ROBERT D. FISH
2603 Main Street
Suite 1000
Irvine, CA 92614-6232

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/770,920	06/29/2007	Paul DeKeyser	101488.0003US1	7135

TITLE OF INVENTION: LOOP RECORDING WITH BOOK MARKING

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$870	\$300	\$0	\$1170	10/22/2012

EXAMINER	ART UNIT	CLASS-SUBCLASS
DIEP, NHON THANH	2487	348-143000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.563).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
☐ Publication Fee (No small entity discount permitted)
☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/770,920	06/29/2007	Paul DeKeyser	101488.0003US1	7135
24392 7590 07/20/2012 FISH & ASSOCIATES, PC ROBERT D. FISH 2603 Main Street Suite 1000 Irvine, CA 92614-6232			EXAMINER DIEP, NHON THANH	
			ART UNIT 2487	PAPER NUMBER

DATE MAILED: 07/20/2012

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 1003 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 1003 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No.	Applicant(s)	
	11/770,920	DEKEYSER, PAUL	
	Examiner	Art Unit	
	NHON DIEP	2487	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 2/12/2010.
2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
3. ☒ The allowed claim(s) is/are 1-2, 4-20, which were renumbered as 1-19, respectively.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892) 2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date ____ 4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material	5. ☐ Notice of Informal Patent Application 6. ☐ Interview Summary (PTO-413), Paper No./Mail Date ____ 7. ☐ Examiner's Amendment/Comment 8. ☐ Examiner's Statement of Reasons for Allowance 9. ☐ Other ____.
--	--

/Nhon T Diep/ Primary Examiner, Art Unit 2487	
--	--

Issue Classification 	Application/Control No. 11770920	Applicant(s)/Patent Under Reexamination DEKEYSER, PAUL
	Examiner NHON DIEP	Art Unit 2487

ORIGINAL						INTERNATIONAL CLASSIFICATION												
CLASS			SUBCLASS			CLAIMED					NON-CLAIMED							
348			143			H	0	4	N	9 / 47 (2006.01.01)								
CROSS REFERENCE(S)						H	0	4	N	7 / 18 (2006.01.01)								
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)																	

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☒ T.D. ☐ R.1.47															
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	1	16	17												
2	2	17	18												
-	3	18	19												
3	4	19	20												
4	5														
5	6														
6	7														
7	8														
8	9														
9	10														
10	11														
11	12														
12	13														
13	14														
14	15														
15	16														

NONE		Total Claims Allowed:	
		19	
(Assistant Examiner) /NHON DIEP/ Primary Examiner.Art Unit 2487	(Date)	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	7/16/2012 (Date)	1	1 & 3



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BIB DATA SHEET

CONFIRMATION NO. 7135

SERIAL NUMBER 11/770,920	FILING or 371(c) DATE 06/29/2007 RULE	CLASS 348	GROUP ART UNIT 2487	ATTORNEY DOCKET NO. 101488.0003US1		
APPLICANTS Paul DeKeyser, Irvine, CA; ** CONTINUING DATA ***** This appln claims benefit of 60/824,097 08/31/2006 ** FOREIGN APPLICATIONS ***** ** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** ** SMALL ENTITY ** 07/18/2007						
Foreign Priority claimed ☐ Yes ☒ No 35 USC 119(a-d) conditions met ☐ Yes ☒ No Verified and /NHON THANH DIEP/ Acknowledged Examiner's Signature		☐ Met after Allowance Initials	STATE OR COUNTRY CA	SHEETS DRAWINGS 8	TOTAL CLAIMS 19	INDEPENDENT CLAIMS 1
ADDRESS FISH & ASSOCIATES, PC ROBERT D. FISH 2603 Main Street Suite 1000 Irvine, CA 92614-6232 UNITED STATES						
TITLE LOOP RECORDING WITH BOOK MARKING						
FILING FEE RECEIVED 490	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:		☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit			

EAST Search History**EAST Search History (Prior Art)**

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1	"5523799".pn.	USPAT	OR	OFF	2012/07/16 09:40
L2	10	wo9222983	USPAT	OR	OFF	2012/07/16 09:40
L3	0	"20080165249" .pn.	USPAT	OR	OFF	2012/07/16 09:45
L4	2	"20080165249".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2012/07/16 09:45
L5	2	"20080165249".pn. and single and file and loop	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2012/07/16 09:45
L6	2	"20080165249".pn. and single and file and loop and memory	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2012/07/16 09:45
L7	2	"7593034".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2012/07/16 09:53
L12	4	memory and portions and loop and segments and single same file and protect\$5 same overwrit\$6 same allow\$5 same edit\$4	USPAT	OR	ON	2012/07/16 10:04
L13	2	dekeyser-paul\$.in.	USPAT	OR	ON	2012/07/16 10:06
L15	44607	wo9222983 and single file and memory and loop	USPAT	OR	OFF	2012/07/16 10:08
L16	0	wo9222983 and single adj1 file and memory and loop	USPAT	OR	OFF	2012/07/16 10:08
L17	0	"5523799".pn. and single adj1 file and memory and loop	USPAT	OR	OFF	2012/07/16 10:09

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L9	0	(memory and portions and loop and segments and single same file and protect\$5 and overwrit\$6 and allow\$5 and edit\$4).clm.	USPAT; UPAD	OR	ON	2012/07/16 10:01
L11	0	(memory and portions and loop and segments and single same file and protect\$5 same	USPAT; UPAD	OR	ON	2012/07/16 10:03

EAST Search History

		overwrit\$6 same allow\$5 same edit\$4).clm.				
L14	0	(memory and portions and loop and segments and single same file and protect\$5 and overwrit\$6 and allow\$5 and edit\$4).clm.	USPAT; UPAD	OR	ON	2012/07/16 10:07

7/ 16/ 2012 10:09:15 AM

C:\ Users\ ndiep\ Documents\ EAST\ Workspaces\ default.wsp

Search Notes 	Application/Control No. 11770920	Applicant(s)/Patent Under Reexamination DEKEYSER, PAUL
	Examiner Nhon T Diep	Art Unit 2621

SEARCHED			
Class	Subclass	Date	Examiner

SEARCH NOTES		
Search Notes	Date	Examiner
East Search	3/15/2009	ND
Consulted w/ Nguyen, Huy; Tran Thai	11/4/2009	ND
Update search, inventor's names search	7/16/2012	N.D.

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner
See attached		7/16/2012	N.D.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/770,920	06/29/2007	Paul DeKeyser	101488.0003US1	7135
24392 7590 09/18/2012 FISH & ASSOCIATES, PC ROBERT D. FISH 2603 Main Street Suite 1000 Irvine, CA 92614-6232			EXAMINER DIEP, NHON THANH	
			ART UNIT	PAPER NUMBER
			2487	
			NOTIFICATION DATE	DELIVERY MODE
			09/18/2012	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

rfish@fishiplaw.com
patents@fishiplaw.com



UNITED STATES DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office

Address : COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450

APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
11/770,920	29 June, 2007	DEKEYSER, PAUL	101488.0003US1

FISH & ASSOCIATES, PC ROBERT D. FISH 2603 Main Street Suite 1000 Irvine, CA 92614-6232		EXAMINER	
		NHON DIEP	
		ART UNIT	PAPER
		2487	20120912

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner for Patents

The R48.REQ filed 9/7/2007 has been approved.

/Nhon T Diep/
Primary Examiner, Art Unit 2487

PTO-90C (Rev.04-03)

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450**
or **Fax (571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

24392 7590 07/20/2012
FISH & ASSOCIATES, PC
ROBERT D. FISH
2603 Main Street
Suite 1000
Irvine, CA 92614-6232

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

Laryssa Weiland	(Depositor's name)
/Laryssa Weiland/	(Signature)
October 9, 2012	(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/770,920	06/29/2007	Paul DeKeyser	101488.0003US1	7135

TITLE OF INVENTION: LOOP RECORDING WITH BOOK MARKING

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$870	\$300	\$0	\$1170	10/22/2012

EXAMINER	ART UNIT	CLASS-SUBCLASS
DIEP, NHON THANH	2487	348-143000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.563).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 Fish & Associates, PC
2
3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

Stellar, LLC

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Irvine, CA

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☒ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☒ Issue Fee
☒ Publication Fee (No small entity discount permitted)
☐ Advance Order - # of Copies

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☒ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number 500341 (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature /Nicholas J. Witchey/

Date October 9, 2012

Typed or printed name Nicholas J. Witchey

Registration No. 63481

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Electronic Patent Application Fee Transmittal				
Application Number:		11770920		
Filing Date:		29-Jun-2007		
Title of Invention:		LOOP RECORDING WITH BOOK MARKING		
First Named Inventor/Applicant Name:		Paul DeKeyser		
Filer:		Martin Fessenmaier/Laryssa Weiland		
Attorney Docket Number:		101488.0003US1		
Filed as Small Entity				
Utility under 35 USC 111(a) Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Utility Appl issue fee	2501	1	885	885
Publ. Fee- early, voluntary, or normal	1504	1	300	300

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				1185

Electronic Acknowledgement Receipt	
EFS ID:	13938445
Application Number:	11770920
International Application Number:	
Confirmation Number:	7135
Title of Invention:	LOOP RECORDING WITH BOOK MARKING
First Named Inventor/Applicant Name:	Paul DeKeyser
Customer Number:	24392
Filer:	Martin Fessenmaier/Laryssa Weiland
Filer Authorized By:	Martin Fessenmaier
Attorney Docket Number:	101488.0003US1
Receipt Date:	09-OCT-2012
Filing Date:	29-JUN-2007
Time Stamp:	13:26:38
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$1185
RAM confirmation Number	25835
Deposit Account	500341
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees) Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)	

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)					
Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees)					
Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)					
File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Issue Fee Payment (PTO-85B)	Issue_Fee.pdf	115232 f8f34702fea79bee62610096cccd9e5074fa03a	no	1
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	31789 59e91946ea737a8981cd8cfc1d61fe4004f7c5	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			147021		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					



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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/770,920	11/13/2012	8310540	101488.0003US1	7135

24392 7590 10/24/2012
FISH & ASSOCIATES, PC
ROBERT D. FISH
2603 Main Street
Suite 1000
Irvine, CA 92614-6232

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment is 1003 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site <http://pair.uspto.gov> for additional applicants):

Paul DeKeyser, Irvine, CA;

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IR103 (Rev. 10/09)