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APPLICATION NUMBER: ***60/155,404***
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By Authority of the
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PROVISIONAL APPLICATION FOR PATENT COVER SHEET

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53 (c).

INVENTOR(S)

Given Name (first and middle [if any])	Family Name or Surname	Residence (City and either State or Foreign Country)
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☐ *Additional inventors are being named on the ___ separately numbered sheets attached hereto*

TITLE OF THE INVENTION (280 characters max)

APPARATUS AND METHOD FOR PRODUCING ENHANCED VIDEO IMAGES AND/OR VIDEO FILES

CORRESPONDENCE ADDRESS

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ENCLOSED APPLICATION PARTS *(check all that apply)*

[X] Specification *Number of Pages*	29	[X] Small Entity Statement	
[X] Drawing(s) *Number of Sheets*	4	[X] Other (specify)	Power of Attorney

METHOD OF PAYMENT OF FILING FEES FOR THIS PROVISIONAL APPLICATION FOR PATENT *(check one)*

[X] A check or money order is enclosed to cover the filing fees

FILING FEE AMOUNT ($): 75.00

☐ The Commissioner is hereby authorized to charge filing fees or credit any overpayment to Deposit Account Number: ____

The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.

[X] No.

☐ Yes, the name of the U.S. Government agency and the Government contract number are: ____

Respectfully submitted,

SIGNATURE Raymond A. Joao

Date 9/22/99

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REGISTRATION NO. *(if appropriate)* 35,907

TELEPHONE 516-747-0300, xtn-240

Docket Number: 5865-7

USE ONLY FOR FILING A PROVISIONAL APPLICATION FOR PATENT

This collection of information is required by 37 CFR 1.51. The information is used by the public to file (and by the PTO to process) a provisional application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 8 hours to complete, including gathering, preparing, and submitting the complete provisional application to the PTO. 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, Washington, D.C., 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Box Provisional Application, Assistant Commissioner for Patents, Washington, D.C., 20231.

Attorney Docket No.: 5865-7

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	:	**Eliot I. Bernstein**
Serial No.	:	**Please assign**
Filed	:	**Concurrently herewith**
Title	:	**APPARATUS AND METHOD FOR PRODUCING ENHANCED VIDEO IMAGES AND/OR VIDEO FILES**

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I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated below and is addressed to: Box Provisional Application, Assistant Commissioner for Patents, Washington, D.C. 20231

Date of Deposit: September 22, 1999

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Nicole Eliseo-Pinou

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PROVISIONAL PATENT APPLICATION TRANSMITTAL LETTER

Sir:

Please find transmitted herewith for filing the following:

(1) Provisional Application for Patent Cover Sheet;

(2) Provisional Patent Application including Specification, Claims and Abstract - 29 pages, and Drawings - 4 sheets.

(3) Verified Statement Claiming Small Entity Status;

(4) Check in the amount of $75.00 for the filing fee;

(5) Power of Attorney form; and

(6) Return Receipt Postcard.

It is respectfully requested that the above papers be filed as a Provisional Patent Application.

Respectfully submitted,
MELTZER, LIPPE, GOLDSTEIN
& SCHLISSEL, P.C.

By: _____
Raymond A. Joao
Reg. No. 35,907

September 22, 1999

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FROM : VERIFIED STATEMENT CLAIMING SMALL ENTITY STATUS
(37 CFR 1.9(f) & 1.27(b))--INDEPENDENT INVENTOR

Attorney Docket No.: 5865-7

Applicant or Patentee: Eliot I. Bernstein

Serial or Patent No.: Please assign

Filed or Issued: Concurrently herewith

Title: APPARATUS AND METHOD FOR PRODUCING ENHANCED VIDEO IMAGES AND/OR VIDEO FILES

As a below named inventor, I hereby declare that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees to the Patent and Trademark Office described in:

X the specification filed herewith with title as listed above.
___ the application identified above.
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9/20/99
DATE

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Attorney Docket No. 5865-7

APPARATUS AND METHOD FOR PRODUCING ENHANCED VIDEO IMAGES AND/OR VIDEO FILES

FIELD OF THE INVENTION

The present invention is directed to an apparatus and a method for producing enhanced images and/or video files and, in particular, to an apparatus and a method for producing enhanced resolution digital images and/or digital video files obtained via digital and/or film video cameras and/or recording devices.

BACKGROUND OF THE INVENTION

The fields of telecommunications, multimedia, and related areas, are growing at increasing rates. With this continued growth, the need for high resolution digital imagery, for utilization in conjunction with the corresponding technologies, is becoming greater. Current technologies utilize film cameras and recorders as well as digital cameras and recorders.

Conventional video and image technologies typically have very low zoom quality and low image size restrictions or limitations associated therewith. Generally speaking, enlarged images produce a higher resolution image, and an associated higher resolution scanning quality, which further facilitates an improved enlargement or reduction of the image for different

sizes and different depths, without pixel distortion. Photographs, negatives, and associated images, utilize pixels which typically have a certain size. When enlarged or reduced, these pixels of the image become distorted, a feature which typically results in the image being fixed to an original size, or being available at very low magnifications, such as, for example, magnifications of from 200 times to 300 times. These images are also difficult to enlarge to a full screen size without a tremendous amount of distortion present in the end product.

Currently, panoramic imaging techniques utilize non-enlarged images as their starting point. With such associated limitations, the ability to provide enhanced resolution digital images and, especially, an enhanced resolution digital panoramic image, such as those utilized on, or over, the Internet and/or the World Wide Web, has been greatly compromised.

Another major drawback in the current technology lies in the fact that conventional processes often utilize panoramic lenses in order to capture an image. This practice has been criticized as creating distortions in the image immediately upon the image's enlargement or reduction. The conventional techniques associated with the use of panoramic lenses are known to result in image "bending", which further curtails one's ability to obtain realistic views, especially upon performing any associated

cropping and/or editing processes. In such instances, the upper end and the lower end of the image must be either erased, or covered, in order to prevent the flaw from being exposed. This typically results in the resulting image having a "fishbowl-type" distortion.

In some instances, wide angle lenses have been utilized in order to obtain enhanced floor to ceiling images without experiencing image bending. In these applications, however, the ability of the lens to capture optimal images varies depending upon the scene or image being photographed.

As a result, the ability to obtain enhanced video images and/or video files from film cameras and film recorders, from negatives and from digital cameras and recorders, has been limited.

SUMMARY OF THE INVENTION

The present invention provides an apparatus and a method for providing enhanced digital video images and/or digital video files which overcomes the shortcomings of the prior art. The digital images and/or digital files produced by utilizing the present invention can be easily managed, when displayed, projected, and/or posted on any viewing device and/or entity such

as, but not limited to, an Internet Web server, Web site or Web page, television, etc.

The present invention provides an apparatus and a method for producing enhanced digital video images and video files from video which may be recorded as print film image or file, a negative image or file, and/or a digital video image and/or file. The video images and/or files may be obtained via a digital camera, a digital recording device, a digital recorder, a digital camcorder, a film video camera, recorder, and/or camcorder, a VHS video camera, recorder, and/or camcorder, a beta video camera, recorder, and/or camcorder, and/or any other suitable video recording device.

The video images and/or video files which are produced by the apparatus and method of the present invention have improved and enhanced resolution and require far less effort in the associated maintenance and management of same. The video images and/or files, which are produced by the apparatus and method of the present invention, can be utilized and displayed on computers, projection devices, televisions, and, as noted above, can be posted to an Internet Web server, a Web site, and/or a Web page. The video images and/or files can be transmitted over a communication network and/or in computer-to-computer applications.

The present invention, in a preferred embodiment, is utilized to produce enhanced video images and/or files for posting and/or for downloading, to a digital display medium, which in the preferred embodiment, is an Internet and/or a World Wide Web server, a Web site, and/or Web page. In this manner, enhanced video images and/or video files can be produced from video images and/or video files which can be recorded using any video recording device and recording medium such as, but not limited to, digital cameras, digital recorders, film cameras, film recorders, etc. The video images and/or files obtained are thereafter processed in accordance with the apparatus and method of the present invention in order to produce enhanced video images and/or video files.

These resulting video images and/or video files have enhanced resolution which is unaffected by the typical resolution limiting and degrading parameters and phenomena which are associated with conventional digital and/or film video cameras, recorders and corresponding processing equipment, methods and/or techniques.

The apparatus can include a video camera or recorder which can be any one of an analog camera and/or a digital camera, an analog and/or digital recording device, an analog and/or digital camcorder, a film camera, a film recording device, and/or a film camcorder. For full motion video, a 3CCD chip, and/or any other

appropriate and/or suitable motion capture recording device, can be utilized in conjunction with the present invention. The camera can also be a hand-held camera, a fixed camera, and/or a camera which is mountable, such as on a tripod or on a stand. The camera can be utilized to obtain the video image and/or video file which will be processed in accordance with the present invention.

The present invention preserves image integrity from the point of capture of the image through and including any final compression or compressions of same. The apparatus can also include a developing device, which can be utilized for developing video images and/or files which are obtained on film. In the case of video images and/or files which are obtained digitally, no developing device would be needed. The apparatus can also include an enlarging device which can be utilized to enlarge the video images obtained. An enlarger can be utilized for enlarging either film images and/or digital images.

The apparatus can also include a computer, for performing the various processing routines during operation of the apparatus and method of the present invention. The computer may be a personal computer, a laptop computer, a mini-computer, a microcomputer, a mainframe computer, a network computer, a server computer, and/or any other suitable computer or computer system.

The computer can include a central processing unit (CPU), a read only memory (ROM), a random access memory (RAM), a display device, an input device and an output device. The input device may include a keyboard, a mouse, or other pointing device, and/or any other data and/or command input device, for allowing for data and/or command input by a user. The output device may include a printer and, in the preferred embodiment, the printer may be a color laser printer or a color inkjet printer. The computer can also include a receiver for receiving data and/or information over a communication network and a transmitter for transmitting data and/or information over the communication network.

The computer can also include a video capture device, which may or may not be an integral component of the computer. The video capture can also be an external peripheral device. Video data and/or information can be fed into, and/or played through, the video capture device, thereby digitizing the video data and/or information. The present invention preserves the integrity of any and/or all data and/or information upon conversion to digital formats. If full motion video is captured, any conversion can utilize full motion capture software and/or hardware. The video data and/or information can be fed into, and/or through, the video capture card, in real-time, thereby facilitating real-time video transmissions.

The computer can also include any other hardware device or peripheral device and/or software which is, or which may be, needed and/or desired in order to perform any of the functions and/or operation described herein. The computer can also include a video data capture device for capturing and processing the video images and/or files processed by the present invention.

The apparatus can also include a scanning device, for scanning video images or files, if needed, whether they be of a digital or of a print film type, in order to obtain a digital image representation of same.

The apparatus and method of the present invention provides video images and/or files which have enhanced resolution and quality while requiring less file management efforts.

The resulting video images and/or files which are obtained via the apparatus and method of the present invention are characterized by a high definition resolution and are suitable for high definition television, Web television, and large, full screen, panoramic Internet applications, including video playback and/or video transmission, which preserving resolution upon image and/or video file magnification or reduction.

The present invention also facilitates high speed file transfers of high resolution video images and/or video files,

thereby dispensing with the need to engage in long and slow conventional file downloads and/or file transfers.

The apparatus and method of the present invention can also be utilized in conjunction with three-dimensional images and video files in order to produce high resolution, three-dimensional video images and/or video files.

Accordingly, it is an object of the present invention to provide an apparatus and a method for producing enhanced resolution digital images and/or digital video files from files obtained via digital and/or film video cameras and/or a recording devices.

It is another object of the present invention to provide an apparatus and a method for producing enhanced resolution digital images and/or digital video files from files obtained via digital and/or film video cameras and/or a recording devices, which have improved and enhanced resolution.

It is still another object of the present invention to provide an apparatus and a method for producing enhanced resolution digital images and/or digital video files, from files obtained via digital and/or film video cameras and/or a recording

devices digital images, which are suitable for display and/or for downloading to a digital computer, a television, and/or any other communication device utilized in a telecommunication environment and/or communications environment.

It is still another object of the present invention to provide an apparatus and a method for producing enhanced resolution digital images and/or digital video files, from files obtained via digital and/or film video cameras and/or a recording devices, which are characterized by image compression and/or minimal image compression thereby avoiding any dramatic loss in image quality.

It is another object of the present invention to provide an apparatus and a method for producing enhanced resolution digital images and/or digital video files, from files obtained via digital and/or film video cameras and/or a recording devices, which may dispense with the need to compress the image data.

It is yet another object of the present invention to provide an apparatus and a method for producing enhanced resolution digital images and/or digital video files, from files obtained via digital and/or film video cameras and/or a recording devices, which are characterized by high definition resolution, and which are suitable for high definition television, Web television and

large, full screen, panoramic internet applications, without loss of resolution upon image magnification or reduction.

It is another object of the present invention to provide an apparatus and a method for producing enhanced resolution digital images and/or digital video files, from files obtained via digital and/or film video cameras and/or a recording devices, which can be transmitted in a network environment.

It is still another object of the present invention to provide an apparatus and a method for producing enhanced resolution digital images and/or digital video files, from files obtained via digital and/or film video cameras and/or a recording devices, which facilitates high speed file transfer in a network environment and/or in a computer environment.

It is another object of the present invention to provide an apparatus and a method for producing enhanced resolution digital images and/or digital video files, which preserves image integrity from the point of capture of the image through and including final compression or compressions.

It is still another object of the present invention to provide an apparatus and a method for producing enhanced resolution digital images and/or digital video files, which

preserves the integrity of any and/or all data and/or information upon conversion to digital formats.

Other objects and advantages of the present invention will be apparent to those skilled in the art upon a review of the Description of the Preferred Embodiment taken in conjunction with the Drawings which follow.

BRIEF DESCRIPTION OF THE DRAWINGS

In the Drawings:

Figure 1 illustrates the apparatus of the present invention, in block diagram form; and

Figures 2A, 2B and 2C illustrate the method of the present invention, in flow diagram form.

DESCRIPTION OF THE PREFERRED EMBODIMENT

The present invention provides an apparatus and a method for providing enhanced digital video images and/or digital video files which can be utilized and which can be easily managed, when displayed, projected, and/or posted on any viewing device and/or entity such as, but not limited to, an Internet Web server, Web site or Web page, television, etc. In particular, the present

invention provides an apparatus and a method for producing enhanced digital video images and video files from video which may be recorded as a digital video image and/or files and/or as a film video image and/or file a print film image.

The video images and/or files may be obtained via a digital camera, a digital recording device, a digital recorder, a digital camcorder, a film video camera, recorder, and/or camcorder, a VHS video camera, recorder, and/or camcorder, a beta video camera, recorder, and/or camcorder, and/or any other suitable video recording device. The video images and/or video files which are produced by the apparatus and method of the present invention have improved and enhanced resolution and require far less effort in the associated maintenance and management of same. The video images and/or files, which are produced by the apparatus and method of the present invention, can be utilized and displayed on computers, projection devices, televisions, and, as noted above, can be posted to an Internet Web server, a Web site, and/or a Web page. The video images and/or files can be transmitted over a communication network and/or in computer-to-computer applications.

The present invention, in a preferred embodiment, is utilized to produce enhanced video images and/or files for posting and/or for downloading, to a digital display medium, which in the preferred embodiment, is an Internet and/or a World

Wide Web server, a Web site, and/or Web page. In this manner, enhanced video images and/or video files can be produced from video images and/or video files which can be recorded using any video recording device and recording medium such as, but not limited to, digital cameras, digital recorders, film cameras, film recorders, etc. The video images and/or files obtained are thereafter processed in accordance with the apparatus and method of the present invention in order to produce enhanced video images and/or video files.

These resulting video images and/or video files have enhanced resolution which is unaffected by the typical resolution limiting parameters and phenomena which are associated with conventional digital and film video cameras, recorders and corresponding processing equipment, methods and/or techniques.

Figure 1 illustrates the apparatus of the present invention which is denoted generally by the reference numeral 100, in block diagram form. With reference to Figure 1, the apparatus 100 includes a video camera or recorder 105 which, in the preferred embodiment, can be any one of a digital camera, a digital recording device, digital camcorder, a film camera, a film recording device, and/or a film camcorder. In the preferred embodiment, the camera 105 may be a hand-held camera, a fixed camera, and/or a camera which is mountable, such as on a tripod or on a stand. The camera 105 is utilized to obtain the video

image and/or video file which will be processed as described herein.

For full motion video, a 3CCD chip, and/or any other appropriate and/or suitable motion capture recording device, can be utilized in conjunction with the present invention.

The present invention can also be utilized in conjunction with any imaging and/or any video recording device and/or equipment, such as, but not limited to, those devices and equipment utilized in, or in conjunction with, medical imaging equipment, devices and/or instruments, motion picture production equipment, devices and/or instruments and/or in any other equipment, device, and/or instrument, which is, or which can be, utilized in conjunction with imaging and/or video applications and/or uses.

The apparatus 100 also includes a developing device 115, which would be utilized for developing video images and/or files which are obtained on film. In the case of video images and/or files which are obtained digitally, no developing device. The apparatus also includes an enlarging device which can be utilized to enlarge the video images obtained. The apparatus can include an enlarger for both film images as well as for digital images.

The apparatus 100 also includes a computer 120, for performing the various processing routines during operation of the apparatus and method of the present invention. The computer 120 may be a personal computer, a laptop computer, a mini-computer, a microcomputer, a mainframe computer, a network computer, a server computer, and/or any other suitable computer or computer system.

The computer 120 includes a central processing unit (CPU), a read only memory (ROM), a random access memory (RAM), a display device, an input device and an output device. The input device may include a keyboard, a mouse, or other pointing device, and/or any other data and/or command input device, for allowing for data and/or command input by a user. The output device may include a printer and, in the preferred embodiment, the printer may be a color laser printer or a color inkjet printer. The computer 120 also includes a receiver for receiving data and/or information over a communication network and a transmitter for transmitting data and/or information over the communication network.

The computer 120 also includes a video capture device 121 which, in the preferred embodiment, is an integral component of the computer 120. The video capture device 121, in the preferred embodiment, is a video capture card 121 which is located internal to the computer 120. The video computer device 121 may also be an external peripheral device. As described

herein, the video data and/or information is fed into, and/or played through, the video capture device 121, thereby digitizing the video data and/or information. The video data and/or information can be fed into, and/or through, the video capture card 121, in real-time, thereby facilitating real-time video transmissions.

The computer 120 may also include any other hardware device or peripheral device and/or software which is, or which may be needed and/or desired in order to perform any of the functions and/or operation described herein. In particular, the computer 120 will also include a video data capture device for capturing and processing the video images and/or files processed by the present invention.

The apparatus 100 also includes a scanning device 125, for scanning video images or files, if needed, whether they be digital or of a print film type, in order to obtain a digital image representation of same. Any suitable computer or scanner, and any suitable scanning software, may be utilized in conjunction with the present invention. In a preferred embodiment, any suitable scanning device can be utilized in conjunction with any appropriate software.

Figures 2A, 2B and 2C illustrate the method of the present invention, in flow diagram form. With reference to Figures 2A, 2B and 2C, the method of the present invention commences at step 200. At step 201, the video images and/or files are recorded with the video camera 105. The video can be recorded in any format, such as, but not limited to, i.e., beta, VHS, digital, and/or any of the standard file formats, including, but not limited to, *.AVI, *.MOV, *.MPEG, etc., by utilizing the video recording device 105. The video recording device 105 may also be a reel-to-reel recording device and/or a live video recording device.

At step 202, the video images and/or files are converted to a converted to digital files, if necessary, by utilizing the scanner 110. At step 203, digital video image files are loaded into the computer 120 for processing. At step 204, the video image files are fed into, or through, the capture device 121 of the computer 120. The video capture operation, which is performed by the video capture device 121, in the preferred embodiment, can be performed without compression and/or encoding operations being performed on the video image files and/or with only minimal compression and/or encoding operations being performed on the video image files.

The video capture device, in the preferred embodiment, can be any suitable video capture device or card and/or any other

appropriate and/or suitable video capture hardware. The capture software utilized can be any appropriate and/or suitable video capture software.

At step 205, the video images and/or files are edited, if necessary, by using any standard video editing tools, such as, for example, any editing software. At step 206, the video image files are then converted to any suitable real video format such as, for example, a *.RM format. At step 207, the size of the video within the file code is set either manually or automatically. In the preferred embodiment, the size of the video is set within the file code, which may or may not be the HTML file code to a 640 x 480 frame resolution, or any other suitable resolution, such as, but not limited to, 800 x 600, 1024 x 768, 1280 x 1024, 1600 x 1200 or other sizes.

At step 208, the obtained video image file or files is then posted to the computer 120 and/or to another hosting computer. If the posting is to an computer other than the computer 120, the posting is performed by transmitting the video file or files over a communication network to the hosting computer. In the preferred embodiment, the video file or files are posted via the Internet, and/or the World Wide Web, and can posted to a Web Page, a Web site, and/or any other network device. The posting operation is performed by utilizing any suitable posting software.

At step 209, the computer 120 or other hosting computer generates or writes a file or script, such as an ASCII file which calls the video to stream or to download. This results in video which will stream or "streaming" video for a full screen application which will be characterized by a good clarity and quality. At step 210, a separate file or script, such as an ASCII file is written and saved to an appropriately formatted file, such as an *.RPM file, or other suitable file format, which will call the original video file. This script can be typically included in any suitable code, such as an HTML code.

In the case of MPEG videos, Steps 201 through 203 are followed as described above. At step 204, however, the video file is converted, if not previously converted, to an MPEG format. Thereafter, the video is inserted into the appropriate file which may contain suitable coding, such as HTML codes. Thereafter, the file can be sized to any of herein-described resolutions. Thereafter, the video file is uploaded to the hosting computer, if utilized. Thereafter, the MPEG file is played from the computer 120 or the hosting computer, the Web page, and/or the Web site, depending upon the application, by first downloading a small portion of the file and by playing the file through a suitable device such as a player which supports any suitable video formats, such as AVI, MPEG-type, etc., and/or other suitable formats.

Thereafter, operation of the apparatus ceases at step 210.

The processing steps described herein provide for the production of video images and/or video files which have enhanced resolution and which can be easily and effectively managed in applications involving the display of same, the posting of same, to a host computer, a Web server, a Web site, a Web page, a computer display, a full screen projection display and/or a video presentation and/or playback of same, respectively. Further, the method of the present invention provides for image processing, including various image and/or file processing techniques, which may or may not include image compression and/or encoding operations.

The apparatus and method of the present invention provides video images and/or files which have enhanced resolution and quality while requiring less file management efforts.

The resulting video images and/or files which are obtained via the apparatus and method of the present invention are characterized by a high definition resolution and are suitable for high definition television, Web television, and large, full screen, panoramic Internet applications, including video playback and/or video transmission, which preserving resolution upon image and/or video file magnification or reduction. The present invention also dispenses with the need for plug-in software

during download and/or file transfer operations. The present invention also facilitates high speed file transfers of high resolution video images and/or video files, thereby dispensing with the need to engage in long and slow conventional file downloads and/or file transfers.

The apparatus and method of the present invention can also be utilized in conjunction with three-dimensional images and video files in order to produce high resolution, three-dimensional video images and/or video files.

The present invention preserves image integrity from the point of capture of the image through, and including, any final compression or compressions of same.

The present invention also preserves the integrity of any and/or all data and/or all information upon conversion to digital formats. If full motion video is captured, any conversion can utilize full motion capture software and/or hardware.

The resulting video images and/or files, which are obtained via the apparatus and method of the present invention, can be utilized, in any and/or all of the embodiments described herein, in conjunction with data and/or information which can be provided by any other and/or any external information source. The data and/or information may contain, but is not limited to, data

and/or information of and for sound and/or audio files, text files, video files, image files, and/or graphics files, and/or any other information source, data, information and/or file, which can be, and/or which may be linked to or with, and/or which can be operated and/or utilized in conjunction with, any video and/or image data and/or information. For example, any image and/or video data, information, or file, obtained via the present invention, can be utilized in conjunction with any sound file, audio file, text file, video file, image file, and/or graphics file, and/or any other data, information and/or file utilized in a multimedia environment, thereby providing for the utilization of enhanced images and/or video in conjunction with the respective file.

While the present invention has been described and illustrated in various preferred embodiments, such descriptions are merely illustrative of the present invention and are not to be construed to be limitations thereof. In this regard, the present invention encompasses any and all modifications, variations, and/or alternate embodiments, with the scope of the present invention being limited only by the claims which follow.

CLAIMS

What Is Claimed Is:

1. An apparatus for producing a digital image, comprising:

a device for generating a digital signal file from an image; and

a processor for processing said digital signal file and for generating an image file,

wherein said processor generates a first signal file from said digital signal file, and further wherein said processor processes said first signal file and generates said image file.

2. The apparatus of claim 1, further comprising:

one of a camera and a recording device for obtaining one of a photographic representation of an image, a film image, a negative image and a digital image.

3. The apparatus of claim 2, further comprising:

a developing device for developing one of said photographic representation of an image, a film image and a negative image.

4. The apparatus of claim 3, further comprising:

an enlarging device for enlarging said image.

5. The apparatus of claim 4, further comprising:

a scanning device for generating said digital signal file from said one of photographic representation of an image, a film image and a negative image.

6. The apparatus of claim 1, further comprising:

a video capture device for one capturing and processing said digital signal file.

7. The apparatus of claim 1, wherein said first signal file is an image file.

8. An apparatus for producing a digital image, comprising:

means for generating a digital signal file from an image file; and

means for processing said digital signal file and for generating an image file,

wherein said processing means generates a first signal file from said digital signal file, and further wherein said processing means processes said first signal file and generates said image file.

9. The apparatus of claim 8, further comprising:

means for obtaining said one of a photographic representation of an image, a film image, a negative image and a digital image.

10. The apparatus of claim 8, further comprising:

means for developing said one of photographic representation of an image, a film image and a negative image.

11. The apparatus of claim 8, further comprising:

means for enlarging said image.

12. The apparatus of claim 8, further comprising:

means for generating said digital signal file from said image.

13. The apparatus of claim 8, further comprising:

means for one of capturing and processing said digital signal file.

14. A method for producing a digital image, comprising:

generating a digital signal file from an image;

processing said digital signal file; and

generating an image file, wherein said processing operation further comprises:

generating a first signal file from said digital signal file; and

processing said first signal file and generating said image file.

15. The method of claim 14, further comprising:

obtaining one of a photographic representation of an image, a film image, a negative image and a digital image..

16. The method of claim 14, further comprising:

developing said one of photographic representation of an image, a film image, and a negative image; and

generating said image.

17. The method of claim 14, further comprising:

enlarging said image.

19. The method of claim 14, further comprising:

generating said digital signal file from said image.

20. The method of claim 14, further comprising:

one of capturing and processing said digital signal file.

21. The apparatus of any one of claims 1 to 13, wherein said image file is utilized in conjunction with at least one of a sound file, an audio file, a text file, a video file, an image file, and a graphics file.

22. The method of any one of claims 14 to 20, wherein said image file is utilized in conjunction with at least one of a sound

file, an audio file, a text file, a video file, an image file, and a graphics file.

ABSTRACT OF THE DISCLOSURE

An apparatus and method for producing a digital image, including a device for generating a digital signal file from an image and a processor for processing said digital signal file and for generating an image file. The processor generates a first signal file from the digital signal file. The processor processes the first signal file and generates the image file.

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Attorney Docket No.: 5865-7

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

POWER OF ATTORNEY

Application of:	Eliot I. Bernstein
Serial No.:	Please assign
Filed on:	Concurrently herewith
Title:	APPARATUS AND METHOD FOR PRODUCING ENHANCED DIGITAL VIDEO IMAGES AND/OR VIDEO FILES

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

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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.

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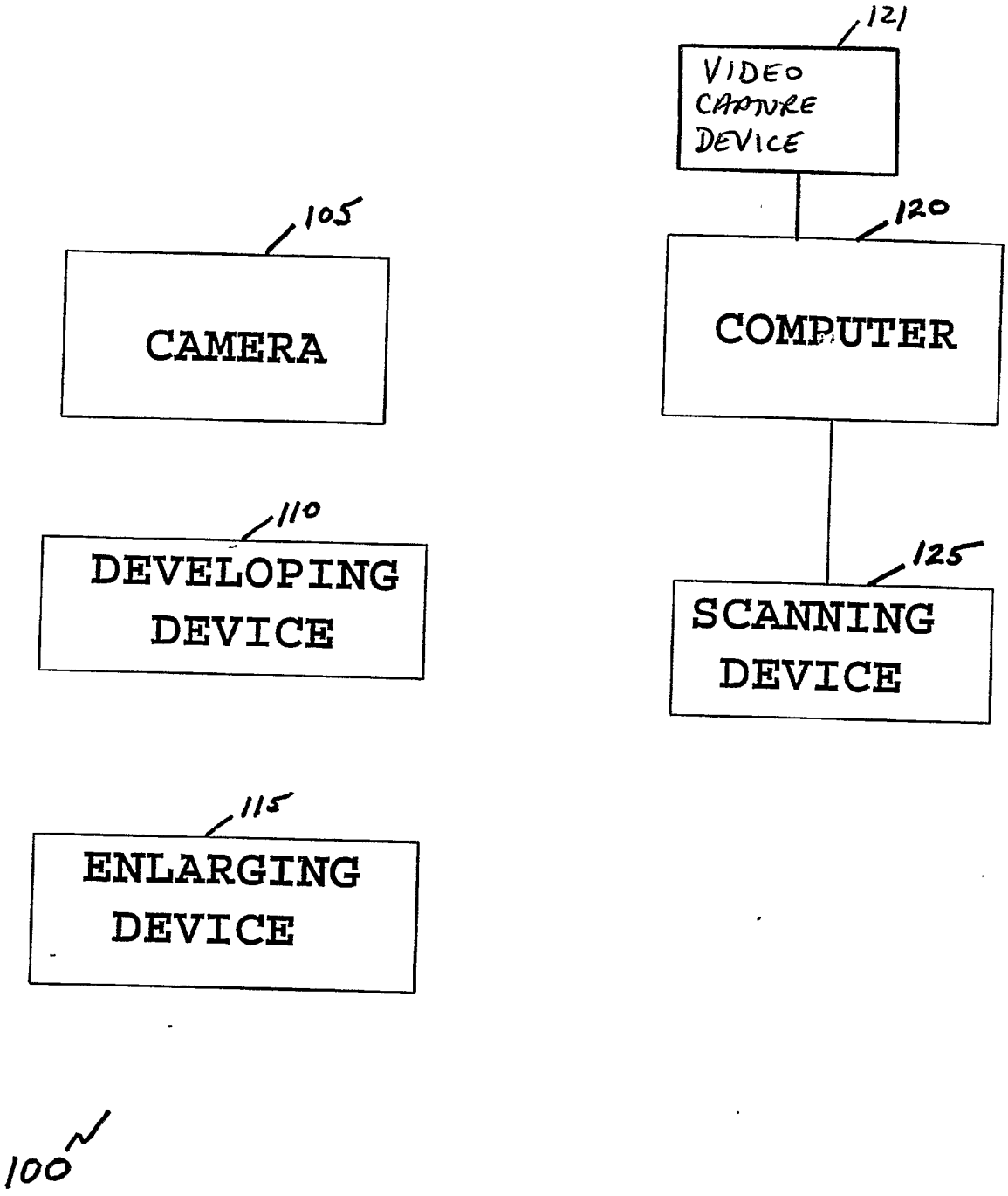
121
VIDEO CAPTURE DEVICE
105
CAMERA
120
COMPUTER
110
DEVELOPING DEVICE
125
SCANNING DEVICE
115
ENLARGING DEVICE
100

FIG. 1

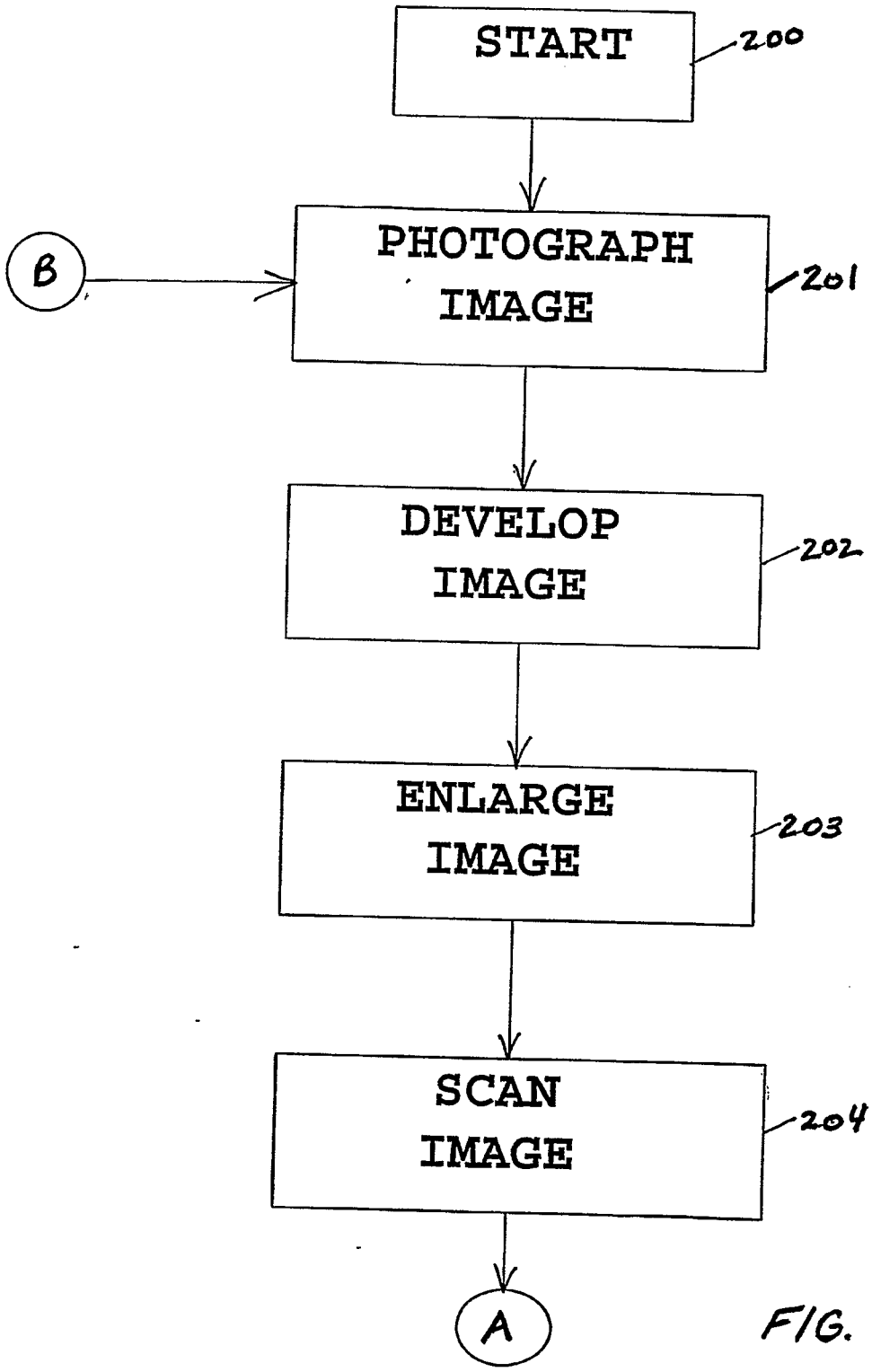
START
200
PHOTOGRAPH IMAGE
201
B
DEVELOP IMAGE
202
ENLARGE IMAGE
203
SCAN IMAGE
204
A

FIG. 2A

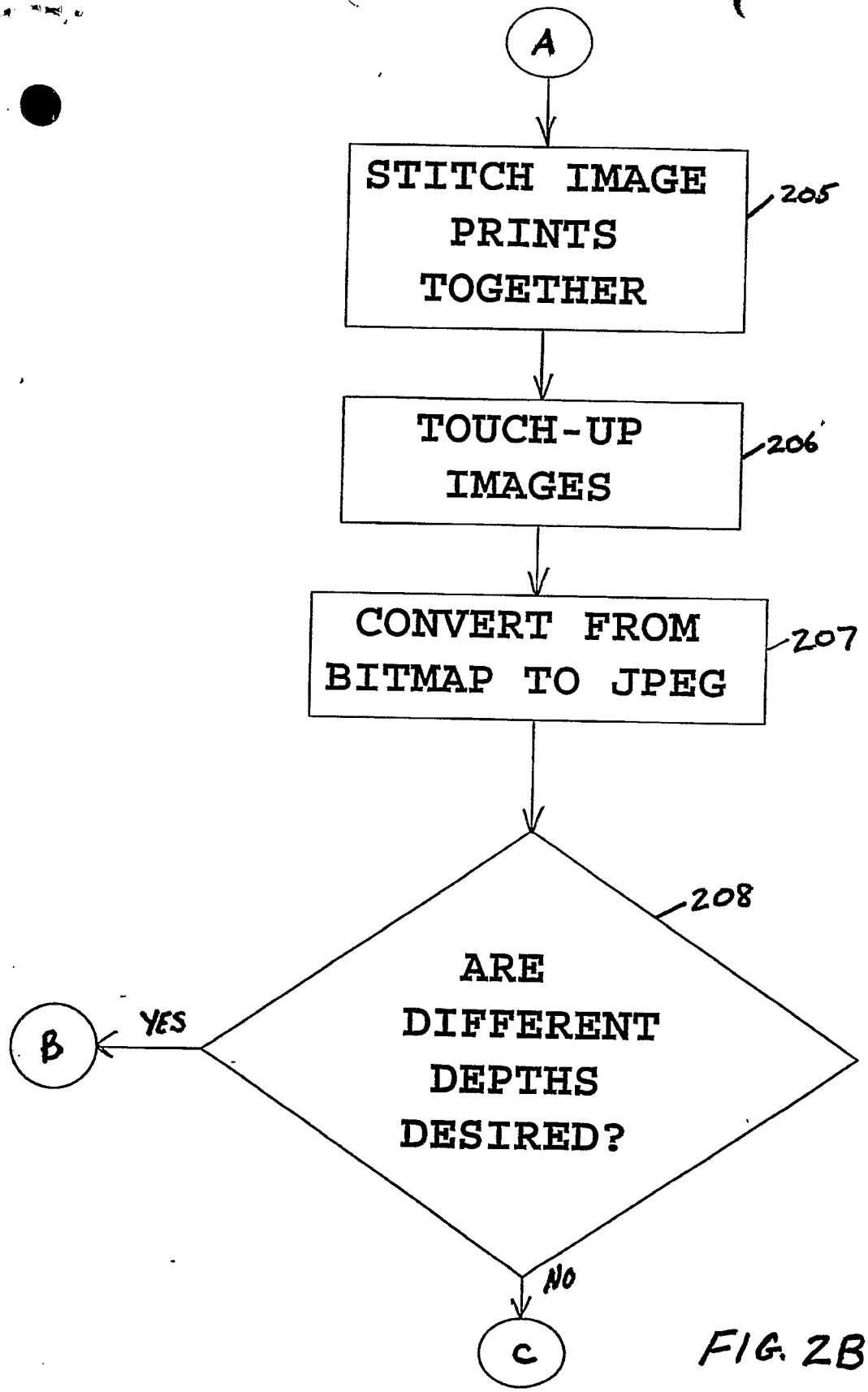
A
STITCH IMAGE PRINTS TOGETHER
205
TOUCH-UP IMAGES
206
CONVERT FROM BITMAP TO JPEG
207
ARE DIFFERENT DEPTHS DESIRED?
208
YES
B
NO
C

FIG. 2B

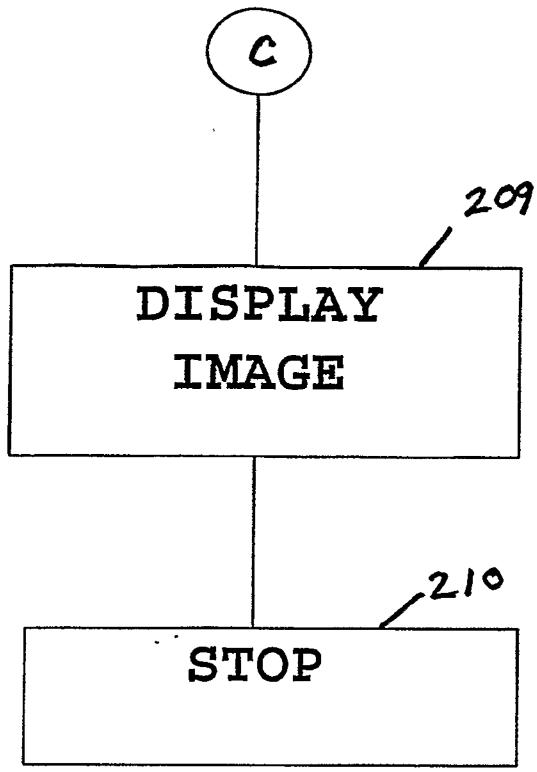

FIG. 2C