UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : 7,613,383 B2
APPLICATION NO. : 11/203457
DATED : November 3, 2009
INVENTOR(S) : Yoshida et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the Title Page:

The first or sole Notice should read --

Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 1098 days.

Signed and Sealed this

Fourteenth Day of December, 2010

David J. Kappos

David J. Kappos
Director of the United States Patent and Trademark Office

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

TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

Mail Date: 05/18/2010

Applicant : Susumu Yoshida
Patent Number : 7613383
Issue Date : 11/03/2009
Application No : 11/203,457
Filed : 08/11/2005

: NOTICE CONCERNING IMPROPER
: CALCULATION OF PATENT TERM
: ADJUSTMENT BASED UPON USPTO
: IMPROPERLY MEASURING REDUCTION
: PERIOD UNDER 37 CFR 1.704(c)(10).

The United States Patent and Trademark Office (USPTO) discovered that in processing the recent recalculation decisions mailed in response to patentee's filed Request for Recalculation of Patent Term Adjustment in view of Wyeth, the USPTO improperly measured the reduction period for reductions under 37 CFR 1.704(c)(10). Pursuant to 37 CFR 1.704(c)(10), patentee's reduction begins on the date of filing the amendment under 37 CFR 1.312 ("1.312 amendment") or other related paper and ends on the date that the Office mails a response to the filing of the 1.312 amendment or other paper. It has been discovered that during the recalculation, the calculation failed to the limit the reduction to the mail date of the response to the 1.312 amendment or other paper. Accordingly, patentee's reductions were greater than warranted.

This notice **VACATES** the previous GRANTED request for recalculation and provides patentee with a revised GRANTED recalculation.

The patent term adjustment has been determined to be **1098** days. The USPTO will *sua sponte* issue a certificate of correction reflecting the amount of patent term adjustment (PTA) days determined by the recalculation.

Prior to the issuance of the certificate of correction, the USPTO will afford patentee an opportunity to be heard and request reconsideration. Accordingly, patentee has **one month or thirty (30) days** from the mail date of this notice, whichever is longer, to file a request for reconsideration of this PTA calculation. See 35 U.S.C. § 154(b)(3)(B)(ii) and 37 CFR 1.322(a)(4).

Patentee should use document code PET.OP if electronically filing a request for reconsideration of this PTA calculation. The patentee must also include the information required by 37 CFR 1.705(b)(2), and the fee required by 37 CFR 1.18(e). If patentee does not file a timely request for reconsideration of this PTA calculation, including the information required by 37 CFR 1.705(b)(2) and the fee required by 37 CFR 1.18(e), the USPTO will issue a certificate of correction reflecting the PTA determination noted above.

Patentee should be aware that in order to preserve the right of review of the USPTO's PTA determination in the United States District Court for the District of Columbia, patentee must ensure that the steps required under 35 U.S.C. § 154 (b)(4) are taken in a timely manner. Nothing in the request for recalculation should be construed as providing an alternative time frame for commencing a civil action under 35 U.S.C. § 154(b)(4).

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

TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

Mail Date: 04/21/2010

Applicant	: Susumu Yoshida	: DECISION ON REQUEST FOR
Patent Number	: 7613383	: RECALCULATION of PATENT
Issue Date	: 11/03/2009	: TERM ADJUSTMENT IN VIEW
Appliction No	: 11/203,457	: OF WYETH AND NOTICE OF INTENT TO
Filed	: 08/11/2005	: ISSUE CERTIFICATE OF CORRECTION
		:

The Request for Recalculation is **GRANTED** to the extent indicated.

The patent term adjustment has been determined to be **1020** days. The USPTO will *sua sponte* issue a certificate of correction reflecting the amount of PTA days determined by the recalculation.

Prior to the issuance of the certificate of correction, the USPTO will afford patentee an opportunity to be heard and request reconsideration. Accordingly, patentee has **one month or thirty (30) days**, whichever is longer, to file a request for reconsideration of this patent term adjustment calculation. See 35 U.S.C. 154(b)(3)(B)(ii) and 37 CFR 1.322(a)(4). No extensions of time will be granted under 37 CFR 1.136.

Patentee should use document code PET.OP if electronically filing a request for reconsideration of this patent term adjustment calculation. The patentee must also include the information required by 37 CFR 1.705(b)(2) and the fee required by 37 CFR 1.18(e). If patentee does not file a timely request for reconsideration of this patent term adjustment calculation including the information required by 37 CFR 1.705(b)(2) and the fee required by 37 CFR 1.18(e), the USPTO will issue a certificate of correction reflecting the PTA determination noted above.

Patentee should be aware that in order to preserve the right to review in the United States District Court for the District of Columbia of the USPTO patent term adjustment determination, patentee must ensure that he or she also take the steps required under 35 U.S.C. 154(b)(4)(A) in a timely manner. Nothing in the request for recalculation should be construed as providing an alternative time frame for commencing a civil action under 35 U.S.C. 154(b)(4)(A).

Any questions concerning this decision should be directed to the Office of Patent Legal Administration at 571-272-7702.

Doc Code: PET.PTA.RCAL
Document Description: Request for Recalculation in view of Wyeth

PTO/SB/131 (01-10)
Approved for use through 02/28/2011. OMB 0651-0020
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.

REQUEST FOR RECALCULATION OF PATENT TERM ADJUSTMENT IN VIEW OF *WYETH**

Attorney Docket Number: 16869S-161000US	Patent Number: 7,613,383
Filing Date (or 371(b) or (f) Date): August 11, 2005	Issue Date: November 3, 2009
First Named Inventor: Susumu Yoshida	
Title: Editing Method and Recording and Reproducing Apparatus	

PATENTEE HEREBY REQUESTS RECALCULATION OF THE PATENT TERM ADJUSTMENT (PTA) UNDER 35 USC 154(b) INDICATED ON THE ABOVE-IDENTIFIED PATENT. THE PATENTEE'S SOLE BASIS FOR REQUESTING THE RECALCULATION IS THE USPTO'S PRE-*WYETH* INTERPRETATION OF 35 U.S.C. 154(b)(2)(A).

Note: This form is only for requesting a recalculation of PTA for patents issued before March 2, 2010, if the sole basis for requesting the recalculation is the USPTO's pre-*Wyeth* interpretation of 35 U.S.C. 154(b)(2)(A). See Instruction Sheet on page 2 for more information.

Patentees are reminded that to preserve the right to review in the United States District Court for the District of Columbia of the USPTO's patent term adjustment determination, a patentee must ensure that he or she also takes the steps required under 35 U.S.C. 154(b)(3) and (b)(4) and 37 CFR 1.705 in a timely manner.

**Wyeth v. Kappos*, No. 2009-1120 (Fed. Cir., Jan. 7, 2010).

Signature	Date 4/5, 2010
Name (Print/Typed) George B. F. Yee	Registration Number 37,478

Note: *Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required in accordance with 37 CFR 1.33 and 11.18. Please see 37 CFR 1.4(d) for the form of the signature. If necessary, submit multiple forms for more than one signature, see below**.*

☐ *Total of _____ forms are submitted.

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 hours 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.

Electronic Acknowledgement Receipt

EFS ID:	7358739
Application Number:	11203457
International Application Number:	
Confirmation Number:	8838
Title of Invention:	EDITING METHOD AND RECORDING AND REPRODUCING DEVICE
First Named Inventor/Applicant Name:	Susumu Yoshida
Customer Number:	20350
Filer:	George B. F. Yee/Roger Hylton
Filer Authorized By:	George B. F. Yee
Attorney Docket Number:	16869S-161000US
Receipt Date:	06-APR-2010
Filing Date:	11-AUG-2005
Time Stamp:	13:12:21
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Request for PTA recalculation in view of Wyeth	2010_04_06_REQWYETH_16869S-161000US.pdf	69605 c181ab00fe56cd9a144dbc85385b30dae18857db	no	1

Warnings:

Information:

Total Files Size (in bytes):	69605

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.

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 NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/203,457	11/03/2009	7613383	16869S-161000US	8838

20350 7590 10/14/2009
TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

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 817 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):

Susumu Yoshida, Kawasaki, JAPAN;
Junji Shiokawa, Chigasaki, JAPAN;
Hiroo Okamoto, Yokohama, JAPAN;

IR103 (Rev. 10/09)

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)

20350 7590 06/26/2009

TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

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.
11/203,457	08/11/2005	Susumu Yoshida	16869S-161000US	8838

TITLE OF INVENTION: EDITING METHOD AND RECORDING AND REPRODUCING DEVICE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	$1510	$300	$0	$1810	09/28/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
ZHAO, DAQUAN	2621	386-052000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
☐ 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 Townsend and Townsend and Crew LLP
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: Hitachi, Ltd.
(B) RESIDENCE: (CITY and STATE OR COUNTRY): Tokyo, Japan

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 5

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 201430 (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 /George B.F. Yee/ Date September 17, 2009

Typed or printed name George B.F. Yee Registration No. 37,478

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:	11203457
Filing Date:	11-Aug-2005
Title of Invention:	EDITING METHOD AND RECORDING AND REPRODUCING DEVICE
First Named Inventor/Applicant Name:	Susumu Yoshida
Filer:	George B. F. Yee/Margaret Stephan
Attorney Docket Number:	16869S-161000US

Filed as Large 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	1501	1	1510	1510
Publ. Fee- early, voluntary, or normal	1504	1	300	300

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
Printed copy of patent - no color	8001	5	3	15
		Total in USD ($)		**1825**

Electronic Acknowledgement Receipt

EFS ID:	6095722
Application Number:	11203457
International Application Number:	
Confirmation Number:	8838
Title of Invention:	EDITING METHOD AND RECORDING AND REPRODUCING DEVICE
First Named Inventor/Applicant Name:	Susumu Yoshida
Customer Number:	20350
Filer:	George B. F. Yee
Filer Authorized By:	
Attorney Docket Number:	16869S-161000US
Receipt Date:	18-SEP-2009
Filing Date:	11-AUG-2005
Time Stamp:	01:30:10
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

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_16869S-161000US.pdf	136975 4ef29e9f094d715f0e6fd4f41063735d546e92a2	no	1

Warnings:

Information:

2	Fee Worksheet (PTO-875)	fee-info.pdf	33759 69069b44ad0108dd499a3fbc7580aa0b63e44b5c	no	2
Warnings:					
Information:					
			Total Files Size (in bytes):	170734	

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.

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)

20350 7590 06/26/2009

TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

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.
11/203,457	08/11/2005	Susumu Yoshida	16869S-161000US	8838

TITLE OF INVENTION: EDITING METHOD AND RECORDING AND REPRODUCING DEVICE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	$1510	$300	$0	$1810	09/28/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
ZHAO, DAQUAN	2621	386-052000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
☐ 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 Townsend and Townsend and Crew LLP
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: Hitachi, Ltd.
(B) RESIDENCE: (CITY and STATE OR COUNTRY): Tokyo, Japan

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 5

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 201430 (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 /George B.F. Yee/ Date September 17, 2009

Typed or printed name George B.F. Yee Registration No. 37,478

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:	11203457
Filing Date:	11-Aug-2005
Title of Invention:	EDITING METHOD AND RECORDING AND REPRODUCING DEVICE
First Named Inventor/Applicant Name:	Susumu Yoshida
Filer:	George B. F. Yee/Margaret Stephan
Attorney Docket Number:	16869S-161000US

Filed as Large 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	1501	1	1510	1510
Publ. Fee- early, voluntary, or normal	1504	1	300	300

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
Printed copy of patent - no color	8001	5	3	15
		Total in USD ($)		**1825**

Electronic Acknowledgement Receipt	
EFS ID:	6099424
Application Number:	11203457
International Application Number:	
Confirmation Number:	8838
Title of Invention:	EDITING METHOD AND RECORDING AND REPRODUCING DEVICE
First Named Inventor/Applicant Name:	Susumu Yoshida
Customer Number:	20350
Filer:	George B. F. Yee
Filer Authorized By:	
Attorney Docket Number:	16869S-161000US
Receipt Date:	18-SEP-2009
Filing Date:	11-AUG-2005
Time Stamp:	13:24:50
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$1825
RAM confirmation Number	8541
Deposit Account	201430
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_16869S-161000US.pdf	136975 4ef29e9f094d715f0e6fd4f41063735d546e92a2	no	1
Warnings:					
Information:					
2	Fee Worksheet (PTO-875)	fee-info.pdf	33758 53a35e94983d038b1de4aff3cfe867a3ed5a05c3	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	170733		

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.

OIPE
SEP 18 2009
PATENT & TRADEMARK OFFICE

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)

20350 7590 06/26/2009

TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

09/18/2009 INTEFSW 00008541 11203457

01 FC:1501 1510.00 DA
02 FC:1504 300.00 DA
03 FC:8001 15.00 DA

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.
11/203,457	08/11/2005	Susumu Yoshida	16869S-161000US	8838

TITLE OF INVENTION: EDITING METHOD AND RECORDING AND REPRODUCING DEVICE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	$1510	$300	$0	$1810	09/28/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
ZHAO, DAQUAN	2621	386-052000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
☐ 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 Townsend and Townsend and Crew LLP
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: Hitachi, Ltd.
(B) RESIDENCE: (CITY and STATE OR COUNTRY): Tokyo, Japan

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 5

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 201430 (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 /George B.F. Yee/ Date September 17, 2009

Typed or printed name George B.F. Yee Registration No. 37,478

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.

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 NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/203,457	08/11/2005	Susumu Yoshida	16869S-161000US	8838

20350 7590 08/17/2009
TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER
ZHAO, DAQUAN

ART UNIT	PAPER NUMBER
2621	

MAIL DATE	DELIVERY MODE
08/17/2009	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.

PTOL-90A (Rev. 04/07)

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.
11203457	8/11/2005	YOSHIDA ET AL.	16869S-161000US

TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER
DAQUAN ZHAO

ART UNIT	PAPER
2621	20090813

DATE MAILED:

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

Commissioner for Patents

IDS filed on 7/31/2009 has been considered

/Thai Tran/
Supervisory Patent Examiner, Art Unit 2621

PTO-90C (Rev.04-03)

Receipt date: 07/31/2009

PTO/SB/08a (06-09)

Substitute for form 1449/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application Number	11/203,457
				Filing Date	August 11, 2005
				First Named Inventor	Susumu Yoshida
				Art Unit	2621
(Use as many sheets as necessary)				Examiner Name	D. Zhao
Sheet	1	of	2	Attorney Docket Number	16869S-161000US

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3]	Number[4]	Kind Code[5] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures	T[6]
	1	JP	2004-192779	A	07-08-2004	Hitachi Ltd.		Abstract only
	2	JP	2003-36652	A	02-07-2003	Toshiba Corp.		Abstract only
	3	JP	11-32301	A	02-02-1999	Sony Corp.		Abstract only

Examiner Signature	/Daquan Zhao/	Date Considered	08/13/2009

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. [1] Applicant's unique citation designation number (optional). [2] See Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. [3] Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. [6] Applicant is to place a check mark here if English language Translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /DZ/

62146860 v1

Receipt date: 07/31/2009

PTO/SB/08b (06-09)

Substitute for form 1449/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				**Application Number**	11/203,457
				Filing Date	August 11, 2005
				First Named Inventor	Susumu Yoshida
				Art Unit	2621
(Use as many sheets as necessary)				Examiner Name	D. Zhao
Sheet	2	of	2	Attorney Docket Number	16869S-161000US

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
	4	Japan Patent Office (JPO) office action for JPO patent application JP2008-268104 (June 12, 2009).	☐

Examiner Signature	/Daquan Zhao/	Date Considered	08/13/2009

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.
[1] Applicant's unique citation designation number (optional). [2] Applicant is to place a check mark here if English language Translation is attached.

62146860 v1

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /DZ/

Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet	1	of	2

Complete if Known	
Application Number	11/203,457
Filing Date	August 11, 2005
First Named Inventor	Susumu Yoshida
Art Unit	2621
Examiner Name	D. Zhao
Attorney Docket Number	16869S-161000US

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3]	Number[4]	Kind Code[5] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures	T[6]
	1	JP	2004-192779	A	07-08-2004	Hitachi Ltd.		Abstract only
	2	JP	2003-36652	A	02-07-2003	Toshiba Corp.		Abstract only
	3	JP	11-32301	A	02-02-1999	Sony Corp.		Abstract only

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. [1] Applicant's unique citation designation number (optional). [2] See Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. [3] Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. [6] Applicant is to place a check mark here if English language Translation is attached.

62146860 v1

Substitute for form 1449/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				**Application Number**	11/203,457
				Filing Date	August 11, 2005
				First Named Inventor	Susumu Yoshida
				Art Unit	2621
(Use as many sheets as necessary)				Examiner Name	D. Zhao
Sheet	2	of	2	Attorney Docket Number	16869S-161000US

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
	4	Japan Patent Office (JPO) office action for JPO patent application JP2008-268104 (June 12, 2009).	☐

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.
[1] Applicant's unique citation designation number (optional). [2] Applicant is to place a check mark here if English language Translation is attached.

62146860 v1

Electronic Patent Application Fee Transmittal	
Application Number:	11203457
Filing Date:	11-Aug-2005
Title of Invention:	EDITING METHOD AND RECORDING AND REPRODUCING DEVICE
First Named Inventor/Applicant Name:	Susumu Yoshida
Filer:	George B. F. Yee/Roger Hylton
Attorney Docket Number:	16869S-161000US
Filed as Large 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($)
Miscellaneous:				
Submission- Information Disclosure Stmt	1806	1	180	180
Total in USD ($)				**180**

Electronic Acknowledgement Receipt	
EFS ID:	5810583
Application Number:	11203457
International Application Number:	
Confirmation Number:	8838
Title of Invention:	EDITING METHOD AND RECORDING AND REPRODUCING DEVICE
First Named Inventor/Applicant Name:	Susumu Yoshida
Customer Number:	20350
Filer:	George B. F. Yee/Roger Hylton
Filer Authorized By:	George B. F. Yee
Attorney Docket Number:	16869S-161000US
Receipt Date:	31-JUL-2009
Filing Date:	11-AUG-2005
Time Stamp:	16:44:32
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$180
RAM confirmation Number	2874
Deposit Account	201430
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 1.17 (Patent application and reexamination processing 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		2009_07_31_SIDS_16869S-161000US.pdf	158037 72a099ba685bb02f30830732fe0c36fe49c69480	yes	4
	Multipart Description/PDF files in .zip description				
	Document Description		**Start**	**End**	
	Transmittal Letter		1	2	
	Information Disclosure Statement (IDS) Filed (SB/08)		3	4	
Warnings:					
Information:					
2	Foreign Reference	JPO_OA_2008_268104.pdf	112077 548b4fd4c3db2c35f65f3f2abc3b39ef7693df8c	no	2
Warnings:					
Information:					
3	Foreign Reference	JP2004_192779.pdf	455650 d19d617d4389d34d58aeaa11fbff707e5d7b1767	no	7
Warnings:					
Information:					
4	Foreign Reference	JP2003_036652.pdf	444838 548d008b5423c0869d127035938592 24a9544045	no	7
Warnings:					
Information:					
5	Foreign Reference	JP11_032301.pdf	2179876 b74f2f6a675f1aba29f38a06a535686cba8c41e6	no	20
Warnings:					
Information:					
6	Fee Worksheet (PTO-875)	fee-info.pdf	30497 43bc02c00bfcb2b1577712fcb9954a30afd60e91	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	3380975		

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.

I hereby certify that this correspondence is being filed via EFS-Web with the United States Patent and Trademark Office

on July 30, 2009.

TOWNSEND and TOWNSEND and CREW LLP

By: Roger Hylton

PATENT
Attorney Docket No.: 16869S-161000US
Client Reference No.: W2496-01ET

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Susumu YOSHIDA, et al.

Application No.: 11/203,457

Filed: August 11, 2005

For: EDITING METHOD AND RECORDING AND REPRODUCING DEVICE

Group Director: 2621

Customer No.: 20350

Confirmation No.: 8838

Examiner: D. Zhao

Art Unit: 2621

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §1.97 and §1.98

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

Commissioner:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. Copies of the references are enclosed.

Also enclosed is a copy of a Japan Patent Office (JPO) office action dated June 12, 2009 for the corresponding JPO patent application JP2008-268104 which cites the disclosed references.

It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR §1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

This IDS is being filed on or before payment of the issue fee.

CERTIFICATION

I hereby certify that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.

Please charge the IDS fee of $180 to Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,

George B. F. Yee
Reg. No. 37,478

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 650-326-2400
Fax: 650-326-2422
GBFY:r1h
62146860 v1

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

NOTICE OF ALLOWANCE AND FEE(S) DUE

20350 7590 06/26/2009

TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER	
ZHAO, DAQUAN	
ART UNIT	PAPER NUMBER
2621	

DATE MAILED: 06/26/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/203,457	08/11/2005	Susumu Yoshida	16869S-161000US	8838

TITLE OF INVENTION: EDITING METHOD AND RECORDING AND REPRODUCING DEVICE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	$1510	$300	$0	$1810	09/28/2009

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.

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.

Maxell, Ltd.
Ex. 2016
Page 32 of 182

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)

20350 7590 06/26/2009

TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

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.
11/203,457	08/11/2005	Susumu Yoshida	16869S-161000US	8838

TITLE OF INVENTION: EDITING METHOD AND RECORDING AND REPRODUCING DEVICE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	$1510	$300	$0	$1810	09/28/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
ZHAO, DAQUAN	2621	386-052000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

❑ 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_____
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. _____

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.

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 NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/203,457	08/11/2005	Susumu Yoshida	16869S-161000US	8838

20350 7590 06/26/2009

TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER
ZHAO, DAQUAN

ART UNIT	PAPER NUMBER
2621	

DATE MAILED: 06/26/2009

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 835 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 835 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.

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.

Notice of Allowability	Application No.	Applicant(s)	
	11/203,457	YOSHIDA ET AL.	
	Examiner	Art Unit	
	DAQUAN ZHAO	2621	

-- 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 *4/29/2009*.

2. ☒ The allowed claim(s) is/are *2-3 and 5-6*.

3. ☒ 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.

4. ☐ 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.

5. ☐ 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).

6. ☐ 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 Draftperson'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 _____.

/Thai Tran/
Supervisory Patent Examiner, Art Unit 2621

1. The following is an examiner's statement of reasons for allowance:

2. For claims 2, there's no teaching or suggestion in the prior art for "the original unified information and the play list information are placed on a first management hierarchical level, the play list information is placed on a second management hierarchical level, and the program information paired with the AV data and the user-defined program information are placed on a third management hierarchical level."

3. For claim 3, there's no teaching or suggestion in the prior for "the original unified information, the play list unified information, and the user-defined unified information are placed on a first management hierarchical level, the play list information is placed on a second management hierarchical level, the program information paired with the AV data and the user-defined program information are placed on a third management hierarchical level, and AV data of recorded programs are placed on a lowest management hierarchical level."

4. For claim 5, there's no teaching or suggestion in the prior art for "the original unified information and the play list unified information are placed on a first management hierarchical level, the play list information is placed on a second management hierarchical level, and the program information paired with the AV data and the user-defined program information are placed on a third management hierarchical level."

5. For claim 6, there's no teaching or suggestion in the prior art for "the original unified information, the play list unified information and the user-defined unified information are placed on a first management hierarchical level, the play list information

is placed on a second management hierarchical level, and the program information paired with the AV data and the user-defined program information are placed on a third management hierarchical level."

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daquan Zhao whose telephone number is (571) 270-1119. The examiner can normally be reached on M-Fri. 7:30 -5, alt Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tran Thai Q, can be reached on (571)272-7382. 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.

/Daquan Zhao/
Examiner, Art Unit 2621

/Thai Tran/
Supervisory Patent Examiner, Art Unit 2621

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1	("20060171674").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/06/18 16:12
L2	1	1 and medium	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/06/18 16:13
L3	6131	(386/125-126,95).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/06/18 16:16
L4	1310	3 and hierarch$5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/06/18 16:17
L5	30	3 and hierarch$5 same user near5 defin$3	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/06/18 16:17
L6	33	3 and hierarch$5 same user near5 defin$5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/06/18 16:17
L7	2	unified.CLM. and history. CLM. and hierarchical. CLM.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/06/18 16:31
L8	2	unified.CLM. and history. CLM. and hierarchical. CLM.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/18 16:31
L9	1	hierarchical same (play adj list or playlist) same history	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/18 16:32
L10	327	hierarchical same (play adj list or playlist)	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/18 16:33
L11	67	3 and 10	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/18 16:33

L12	1	hierarchical same (play adj list or playlist) same history	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/18 16:34
S1	33	daquan.xa.	US-PGPUB; USPAT	OR	ON	2009/01/09 12:12
S2	1	("6181870").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/01/09 12:18
S3	2	jp-2003100055-$.did.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/01/09 12:26
S4	2	jp-2002150503-$.did.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/01/09 12:29
S5	1	("20030063897").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/01/09 12:31
S6	2	jp-2000152180-$.did.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/01/09 12:35
S7	5892	(386/125-126,95).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/01/09 12:39
S8	7	S7 and history same (playlist or play adj list)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/01/09 12:39
S9	1	history same unified near3 original same user near3 defin$3	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/01/09 13:03
S10	17	history same original same user near3 defin$3 same (AV or dvd)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/01/09 13:03

6/18/2009 4:34:57 PM
C:\Documents and Settings\dzhao1\My Documents\EAST\Workspaces\11203457.wsp

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11203457	YOSHIDA ET AL.
	Examiner	**Art Unit**
	DAQUAN ZHAO	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	01/09/2009	06/18/2009							
	1	✓	-							
1	2	O	=							
2	3	O	=							
	4	✓	-							
3	5	O	=							
4	6	O	=							
	7	✓	-							
	8	✓	-							
	9	✓	-							
	10	✓	-							
	11	✓	-							
	12	✓	-							
	13	✓	-							
	14	✓	-							

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11203457	YOSHIDA ET AL.
	Examiner	**Art Unit**
	DAQUAN ZHAO	2621

ORIGINAL		INTERNATIONAL CLASSIFICATION									
CLASS	SUBCLASS	CLAIMED					NON-CLAIMED				
386	125	H	0	4	N	5 / 00 (2006.01.01)	H	0	4	N	7 / 00 (2006.01.01)

CROSS REFERENCE(S)

CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)				
386	95	126			

☐ 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	2														
2	3														
	4														
3	5														
4	6														
	7														
	8														
	9														
	10														
	11														
	12														
	13														
	14														

/DAQUAN ZHAO/ Examiner.Art Unit 2621 (Assistant Examiner)	6/18/2009 (Date)	**Total Claims Allowed:** 4	
/THAI TRAN/ Supervisory Patent Examiner.Art Unit 2621 (Primary Examiner)	06/21/2009 (Date)	O.G. Print Claim(s) 2	O.G. Print Figure 9

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11203457	YOSHIDA ET AL.
	Examiner	**Art Unit**
	DAQUAN ZHAO	2621

SEARCHED			
Class	**Subclass**	**Date**	**Examiner**
386	95, 125-126	6/18/2009	dz

SEARCH NOTES		
Search Notes	**Date**	**Examiner**
USPAT; USPGPUB; USOCR; EPO; JPO; DERWENT; IBM_TDB	6/18/2009	DZ
consult with Thai Tran for searching, 101 and allowable subject matter	6/18/2009	dz

INTERFERENCE SEARCH			
Class	**Subclass**	**Date**	**Examiner**
386	95, 125-126	6/18/2009	dz

I hereby certify that this correspondence is being filed via EFS-Web with the United States Patent and Trademark Office on April 29, 2009.

TOWNSEND and TOWNSEND and CREW LLP

By: /George B. F. Yee/

PATENT
Attorney Docket No.: 16869S-161000US
Client Ref. No.: W2496-01ET

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	Confirmation No. 8838
Susumu YOSHIDA, et al.	Examiner: D. Zhao
Application No.: 11/203,457	Technology Center/Art Unit: 2621
Filed: August 11, 2005	AMENDMENT
For: EDITING METHOD AND RECORDING AND REPRODUCING DEVICE	
Customer No.: 20350	

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

Commissioner:

In response to the Office Action mailed January 26, 2009, please enter the following amendments and remarks:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 7 of this paper.

Maxell, Ltd.
Ex. 2016
Page 43 of 182

Amendments to the Claims:

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

Listing of Claims:

1. (Canceled)

2. (Currently amended) ~~A recording method according to claim 1,~~ A recording method including a recording step for recording on a recording medium AV data and management information used to manage the AV data,

the management information comprising:

program information paired with the AV data;

original unified information for managing history of the program information;

user-defined program information which is arbitrarily defined by a user to manage reproduction positions of the AV data;

play list information for managing a reproduction sequence of the user-defined program information or the program information paired with the AV data; and

play list unified information for managing history of the play list information,

wherein as for the management information,

the original unified information and the play list unified information are placed on a first management hierarchical level,

the play list information is placed on a second management hierarchical level, and

the program information paired with the AV data and the user-defined program information are placed on a third management hierarchical level.

3. (Currently amended) ~~A recording method according to claim 1,~~ A recording method including a recording step for recording on a recording medium AV data and management information used to manage the AV data,

the management information comprising:

program information paired with the AV data;

original unified information for managing history of the program information;

user-defined program information which is arbitrarily defined by a user to manage reproduction positions of the AV data;

play list information for managing a reproduction sequence of the user-defined program information or the program information paired with the AV data; and

play list unified information for managing history of the play list information,

wherein

the original unified information, the play list unified information, and the user-defined unified information are placed on a first management hierarchical level,

the play list information is placed on a second management hierarchical level,

the program information paired with the AV data and the user-defined program information are placed on a third management hierarchical level, and

AV data of recorded programs are placed on a lowest management hierarchical level.

4. (Canceled)

5. (Currently amended) ~~A recording and reproducing device according to claim 4,~~ A recording and reproducing device comprising:

a receiving circuit for receiving input AV data;

a recording unit signal processing circuit for recording AV data received by the receiving circuit on a recording medium;

a reproducing unit signal processing circuit for reproducing the AV data from the recording medium;

output unit for outputting AV data read out from the reproducing unit signal processing circuit;

user interface unit manipulated by a user; and

control unit for controlling each of the circuits in response to input from the user interface means,

wherein at time of recording, the AV data and management information for managing the AV data are recorded by the control unit and the recording unit signal processing circuit, and

wherein the management information comprises:

program information paired with the AV data and original unified information for managing history of the program information;

user-defined program information which is arbitrarily defined by the user to manage reproduction positions of the AV data;

play list information for managing a reproduction sequence of the user-defined program information or the original program information; and

play list unified information for managing history of the play list information,

wherein as for the management information,

the original unified information and the play list unified information are placed on a first management hierarchical level,

the play list information is placed on a second management hierarchical level, and

the program information paired with the AV data and the user-defined program information are placed on a third management hierarchical level.

6. (Currently amended) ~~A recording and reproducing device according to claim 4,~~ A recording and reproducing device comprising:

a receiving circuit for receiving input AV data;

a recording unit signal processing circuit for recording AV data received by the receiving circuit on a recording medium;

a reproducing unit signal processing circuit for reproducing the AV data from the recording medium;

output unit for outputting AV data read out from the reproducing unit signal processing circuit;

user interface unit manipulated by a user; and

control unit for controlling each of the circuits in response to input from the user interface means,

wherein at time of recording, the AV data and management information for managing the AV data are recorded by the control unit and the recording unit signal processing circuit, and

wherein the management information comprises:

program information paired with the AV data and original unified information for managing history of the program information;

user-defined program information which is arbitrarily defined by the user to manage reproduction positions of the AV data;

play list information for managing a reproduction sequence of the user-defined program information or the original program information; and

play list unified information for managing history of the play list information,

wherein

the original unified information, the play list unified information and the user-defined unified information are placed on a first management hierarchical level,

the play list information is placed on a second management hierarchical level, and

the program information paired with the AV data and the user-defined program information are placed on a third management hierarchical level.

7-14. (Canceled)

REMARKS/ARGUMENTS

Claims 2, 3, 5 and 6 are pending.

It is noted with appreciation that claims 2, 3,5, and 6 were deemed allowable. The claims have been rewritten in proper independent form and are believed to be in condition for allowance.

The claim rejections are moot in view of the foregoing amendment.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

/George B. F. Yee/

George B. F. Yee
Reg. No. 37,478

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 650-326-2400
Fax: 415-576-0300
GBFY:gbfy
61925987 v1

Electronic Patent Application Fee Transmittal

Application Number:	11203457
Filing Date:	11-Aug-2005
Title of Invention:	Editing method and recording and reproducing device
First Named Inventor/Applicant Name:	Susumu Yoshida
Filer:	George B. F. Yee
Attorney Docket Number:	16869S-161000US

Filed as Large 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:				
Extension - 1 month with $0 paid	1251	1	130	130

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
			Total in USD ($)	**130**

Electronic Acknowledgement Receipt	
EFS ID:	5244800
Application Number:	11203457
International Application Number:	
Confirmation Number:	8838
Title of Invention:	Editing method and recording and reproducing device
First Named Inventor/Applicant Name:	Susumu Yoshida
Customer Number:	20350
Filer:	George B. F. Yee
Filer Authorized By:	
Attorney Docket Number:	16869S-161000US
Receipt Date:	29-APR-2009
Filing Date:	11-AUG-2005
Time Stamp:	16:59:12
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$130
RAM confirmation Number	3286
Deposit Account	201430
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		16869S-161000US-response.pdf	100097 da07583d759865e488e594ad4b8f212eaf1c1b47	yes	7

Multipart Description/PDF files in .zip description

Document Description	Start	End
Amendment/Req. Reconsideration-After Non-Final Reject	1	1
Claims	2	6
Applicant Arguments/Remarks Made in an Amendment	7	7

Warnings:

Information:

2	Fee Worksheet (PTO-875)	fee-info.pdf	29849 0ada5ef689d209c4768bb407fed67649e6256c01	no	2

Warnings:

Information:

Total Files Size (in bytes):	129946

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.

PTO/SB/06 (07-06)
Approved for use through 1/31/2007. 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

Substitute for Form PTO-875

Application or Docket Number	Filing Date	☐ To be Mailed
11/203,457	08/11/2005	

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY ☐ RATE ($)	SMALL ENTITY FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY FEE ($)
☐ 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), (i), 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 $ =		OR	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

AMENDMENT 04/29/2009

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE ($)	SMALL ENTITY ADDITIONAL FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 4	Minus	** 20	= 0	X $ =		OR	X $52=	0
Independent (37 CFR 1.16(h))	* 4	Minus	***9	= 0	X $ =		OR	X $220=	0
☐ Application Size Fee (37 CFR 1.16(s))									
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	0

AMENDMENT

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)		RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =		OR	X $ =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =		OR	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))									
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
					TOTAL ADD'L FEE		OR	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:
//REGINA D. BALTIMORE//

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.

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 NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/203,457	08/11/2005	Susumu Yoshida	16869S-161000US	8838

20350 7590 01/26/2009
TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER
ZHAO, DAQUAN

ART UNIT	PAPER NUMBER
2621	

MAIL DATE	DELIVERY MODE
01/26/2009	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.

PTOL-90A (Rev. 04/07)

Office Action Summary	Application No.	Applicant(s)	
	11/203,457	YOSHIDA ET AL.	
	Examiner	Art Unit	
	DAQUAN ZHAO	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 *11 August 2005*.

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) *1-14* 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) *1,4 and 7-14* is/are rejected.

7)☒ Claim(s) *2-3, 5-6* 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 *11 August 2005* 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 *11/21/2008; 8/11/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Maxell, Ltd.
Ex. 2016
Page 56 of 182

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 8, and 10-11 provide for the use of a recording method, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 8, and 10-11 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd.* v. *Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim14 is rejected under 35 U.S.C. 101 because claim is directed to non-functional descriptive material recorded on a recording medium.

When nonfunctional descriptive material is recorded on some computer-readable medium, in a computer or on an electromagnetic carrier signal, it is not statutory since no requisite functionality is present to satisfy the practical application requirement. Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a computer- readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See >Diamond v.< Diehr, 450 U.S. *>175,< 185-86, 209 USPQ *>1,< 8 (noting that the claims for an algorithm in Benson were unpatentable as abstract ideas because "[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer."). Such a result would exalt form over substance. In re Sarkar, 588 F.2d 1330, 1333, 200 USPQ 132, 137 (CCPA 1978) ("[E]ach invention must be evaluated as claimed; yet semantogenic considerations preclude a determination based solely on words appearing in the claims. In the final analysis under § 101, the claimed invention, as a whole, must be evaluated for what it is.") (quoted with approval in Abele, 684 F.2d at 907, 214 USPQ at 687). See also In re Johnson, 589 F.2d 1070, 1077, 200 USPQ 199, 206 (CCPA 1978) ("form of the claim is often an exercise in drafting"). Thus, nonstatutory music is not a computer component, and it does not become statutory by merely recording it on a compact disk. Protection for this type of work is provided under the copyright law."

Claim Rejections - 35 USC § 102

4. 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.

5. Claims 1, 4, 7, 8, 9, 10, 12, 13 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Okada et al (US 6,181,870), hereinafter referenced as Okada.

For claim 1, Okada teach a recording method including a recording step for recording on a recording medium AV data and management information used to manage the AV data, the management information comprising: program information paired with the AV data (e.g. figure 35, RTRW is pared with AV data: "Movie2. and Movie3."); original unified information for managing history of the program information (e.g. figure 70, “original PGC information table); user-defined program information which is arbitrarily defined by a user to manage reproduction positions of the AV data (e.g. figure 70, user-defined PGC information table, and figure 72); play list information for managing a reproduction sequence of the user-defined program information or the program information paired with the AV data (the PGC corresponds a play list since the PGC defines the playback sequence of the Cells); and play list unified information for managing history of the play list information (the PGC corresponds to a play list, figure 70D shows the title recording history for the PGCs. Figure 76 shows the detail of the original PGC information table, which includes the title record history).

Claim 4 is rejected for the same reasons as set forth in claim 1 above, wherein Okada also teach a recording and reproducing device comprising: a receiving circuit for receiving input AV data (figure 16, device 73); a recording unit signal processing circuit for recording AV data received by the receiving circuit on a recording medium (e.g.

figure 16, device 70); a reproducing unit signal processing circuit for reproducing the AV data from the recording medium (e.g. figure 16, device 70); output unit for outputting AV data read out from the reproducing unit signal processing circuit (e.g. figure 16, AV signal is display on the TV 72); user interface unit manipulated by a user (e.g. figure 16, remote 71); and control unit for controlling each of the circuits in response to input from the user interface means (e.g. figure 17, control unit 17), wherein at time of recording, the AV data and management information for managing the AV data are recorded by the control unit and the recording unit signal processing circuit (e.g. column 34, lines 60-67);

Claim 7 is rejected for the same reasons as set forth in claim 4 above.

Claim 8 is rejected for the same reasons as set forth in claim 1 above, wherein okada also teach a display sequence in a play list catalogue is altered by rewriting history of the play list unified information (e.g. column 4, lines 22-29).

Claim 9 is rejected for the same reasons as set forth in claims 1 and 8.

Claims 10 and 14 are rejected for the same reasons as set forth in claim 1 above.

Claims 12 and 13 are rejected for the same reasons as set forth in claim 4 above.

Allowable Subject Matter

6. Claims 2-3, 5-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nakanishi et al (US 2004/0,027,890).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daquan Zhao whose telephone number is (571) 270-1119. The examiner can normally be reached on M-Fri. 7:30 -5, alt Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tran Thai Q, can be reached on (571)272-7382. 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.

Daquan Zhao

/Thai Tran/
Supervisory Patent Examiner, Art Unit 2621

Notice of References Cited	Application/Control No. 11/203,457	Applicant(s)/Patent Under Reexamination YOSHIDA ET AL.	
	Examiner DAQUAN ZHAO	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-6,181,870	01-2001	Okada et al.	386/95
	B	US-			
	C	US-			
	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					
	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.

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11203457	YOSHIDA ET AL.
	Examiner	**Art Unit**
	DAQUAN ZHAO	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	01/09/2009								
	1	✓								
	2	O								
	3	O								
	4	✓								
	5	O								
	6	O								
	7	✓								
	8	✓								
	9	✓								
	10	✓								
	11	✓								
	12	✓								
	13	✓								
	14	✓								

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11203457	YOSHIDA ET AL.
	Examiner	**Art Unit**
	DAQUAN ZHAO	2621

SEARCHED			
Class	**Subclass**	**Date**	**Examiner**
386	95, 125-126	1/9/2009	dz

SEARCH NOTES		
Search Notes	**Date**	**Examiner**
USPAT; USPGPUB; USOCR; EPO; JPO; DERWENT; IBM_TDB	1/9/2009	DZ

INTERFERENCE SEARCH			
Class	**Subclass**	**Date**	**Examiner**

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

BIB DATA SHEET

CONFIRMATION NO. 8838

SERIAL NUMBER	FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
11/203,457	08/11/2005 **RULE**	386	2621	16869S-161000US

APPLICANTS

Susumu Yoshida, Kawasaki, JAPAN;
Junji Shiokawa, Chigasaki, JAPAN;
Hiroo Okamoto, Yokohama, JAPAN;

**** CONTINUING DATA ***************************

**** FOREIGN APPLICATIONS ***************************

JAPAN 2004-349264 12/02/2004
JAPAN 2004-378768 12/28/2004
JAPAN 2004-378767 12/28/2004

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ****

08/30/2005

Foreign Priority claimed ☑ Yes ☐ No 35 USC 119(a-d) conditions met ☑ Yes ☐ No Verified and Acknowledged /DAQUAN ZHAO/ Examiner's Signature	☐ Met after Allowance Initials	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
		JAPAN	9	14	9

ADDRESS

TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834
UNITED STATES

TITLE

Editing method and recording and reproducing device

FILING FEE RECEIVED		
2330	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

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	33	daquan.xa.	US-PGPUB; USPAT	OR	ON	2009/01/09 12:12
L2	1	("6181870").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/01/09 12:18
L3	2	jp-2003100055-$.did.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/01/09 12:26
L4	2	jp-2002150503-$.did.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/01/09 12:29
L5	1	("20030063897").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/01/09 12:31
L6	2	jp-2000152180-$.did.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/01/09 12:35
L7	5892	(386/125-126,95).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/01/09 12:39
L8	7	7 and history same (playlist or play adj list)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/01/09 12:39
L9	1	history same unified near3 original same user near3 defin$3	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/01/09 13:03
L10	17	history same original same user near3 defin$3 same (AV or dvd)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/01/09 13:03

1/9/2009 3:51:43 PM
C:\Documents and Settings\dzhao1\My Documents\EAST\Workspaces\11203457.wsp

Receipt date: 08/11/2005

PTO/SB/08A (08-03)

Substitute for form 1449A/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application Number	
				Filing Date	
				First Named Inventor	YOSHIDA, Susumu
				Art Unit	
(use as many sheets as necessary)				Examiner Name	
Sheet	1	of	1	Attorney Docket Number	16869S-161000US

U.S. PATENT DOCUMENTS+

Examiner Initials*	Cite No.[1]	Document Number Number Kind Code[2] (*if known*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	0001	US-2003/0063897	04-03-2003	Heo, Jung-Kwon	
	0002	US-			
	0003	US-			
	0004	US-			
	0005	US-			
	0006	US-			
	0007	US-			
	0008	US-			
	0009	US-			
	0010	US-			
	0011	US-			
	0012	US-			
	0013	US-			
	0014	US-			
	0015	US-			
	0016	US-			
	0017	US-			
	0018	US-			
	0019	US-			
	0020	US-			

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3]	Number[4]	Kind Code[5] (*if known*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
	0021	JP	2000-152180		05-30-2000	MATSUSHITA ELE		☒
	0022							☐
	0023							☐
	0024							☐
	0025							☐
	0026							☐
	0027							☐
	0028							☐

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /DZ/

Examiner Signature	/Daquan Zhao/	Date Considered	01/09/2009

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. [1] **Applicant's** unique citation designation number **(optional)**. [2] Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. [3] Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. [6] Applicant is to place a check mark here if English language Translation is attached.

60561108 v1

Receipt date: 11/21/2008

PTO/SB/08A (09-08)

Substitute for form 1449A/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application Number	11/203,457
				Filing Date	August 11, 2005
				First Named Inventor	Susumu Yoshida
(Use as many sheets as necessary)				Art Unit	2621
				Examiner Name	D. Zhao
Sheet	1	of	2	Attorney Docket Number	16869S-161000US

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	1	US-6,181,870	01-30-2001	Okada et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3]	Number[4]	Kind Code[5] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures	T[6]
	2	JP	2003-100055	A	04-04-2003	Matsushita Electric		Abstract only
	3	JP	2002-150503	A	05-24-2002	Pioneer Electronic Corp.		Abstract only
	4	CN	1243596	A	02-02-2000	Matsushita Electric		☐

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /DZ/

Examiner Signature	/Daquan Zhao/	Date Considered	01/09/2009

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. [1] Applicant's unique citation designation number (optional). [2] Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. [3] Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. [6] Applicant is to place a check mark here if English language Translation is attached.

61694724 v1

Receipt date: 11/21/2008

PTO/SB/08B (09-08)

Substitute for form 1449B/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				*Application Number*	11/203,457
				Filing Date	August 11, 2005
				First Named Inventor	Susumu Yoshida
				Art Unit	2621
(Use as many sheets as necessary)				*Examiner Name*	D. Zhao
Sheet	2	of	2	*Attorney Docket Number*	16869S-161000US

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T [2]
	5	Japan Patent Office (JPO) office action for JPO patent application JP2004-349264 (August 6, 2008).	☐
	6	China Intellectual Property Office (SIPO) office action for SIPO patent application CN2005-100935522 (May 26, 2008).	☒

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.
[1] Applicant's unique citation designation number (optional). [2] Applicant is to place a check mark here if English language Translation is attached.

61694724 v1

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /DZ/

I hereby certify that this correspondence is being filed via EFS-Web with the United States Patent and Trademark Office on Nov 21, 2008.

TOWNSEND and TOWNSEND and CREW LLP

By: Roger Hylton

PATENT
Attorney Docket No.: 16869S-161000US
Client Reference No.: W2496-01ET

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Susumu YOSHIDA, et al.

Application No.: 11/203,457

Filed: August 11, 2005

For: EDITING METHOD AND RECORDING AND REPRODUCING DEVICE

Customer No.: 20350

Confirmation No.: 8838

Examiner: D. Zhao

Art Unit: 2621

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §1.97 and §1.98

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

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. Copies of the cited foreign patent references are enclosed. It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

The disclosed references were recently cited in a Japan Patent Office (JPO) office action dated August 6, 2008 for the corresponding JPO patent application JP2004-349264 and

China Intellectual Property Office (SIPO) office action dated May 26, 2008 for the corresponding SIPO patent application CN2005-100935522. Please note that the SIPO examiner has cited SIPO patent application publication CN1243596 which corresponds to US Pat. No. 6, 181,870 cited herein.

As provided for by 37 CFR §1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that no fee is required for submission of this statement. However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,

George B. F. Yee
Reg. No. 37,478

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 650-326-2400
Fax: 650-326-2422
GBFY:r1h
61694724 v1

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet	1	of	2

Complete if Known	
Application Number	11/203,457
Filing Date	August 11, 2005
First Named Inventor	Susumu Yoshida
Art Unit	2621
Examiner Name	D. Zhao
Attorney Docket Number	16869S-161000US

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number: Number Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	1	US-6,181,870	01-30-2001	Okada et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document: Country Code[3]	Number[4]	Kind Code[5] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures	T[6]
	2	JP	2003-100055	A	04-04-2003	Matsushita Electric		Abstract only
	3	JP	2002-150503	A	05-24-2002	Pioneer Electronic Corp.		Abstract only
	4	CN	1243596	A	02-02-2000	Matsushita Electric		☐

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. [1] Applicant's unique citation designation number (optional). [2] Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. [3] Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. [6] Applicant is to place a check mark here if English language Translation is attached.

61694724 v1

Substitute for form 1449B/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				*Application Number*	11/203,457
				Filing Date	August 11, 2005
				First Named Inventor	Susumu Yoshida
				Art Unit	2621
(Use as many sheets as necessary)				*Examiner Name*	D. Zhao
Sheet	2	of	2	*Attorney Docket Number*	16869S-161000US

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T [2]
	5	Japan Patent Office (JPO) office action for JPO patent application JP2004-349264 (August 6, 2008).	☐
	6	China Intellectual Property Office (SIPO) office action for SIPO patent application CN2005-100935522 (May 26, 2008).	☒

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.
[1] Applicant's unique citation designation number (optional). [2] Applicant is to place a check mark here if English language Translation is attached.

61694724 v1

Electronic Acknowledgement Receipt

EFS ID:	4336284
Application Number:	11203457
International Application Number:	
Confirmation Number:	8838
Title of Invention:	Editing method and recording and reproducing device
First Named Inventor/Applicant Name:	Susumu Yoshida
Customer Number:	20350
Filer:	George B. F. Yee/Roger Hylton
Filer Authorized By:	George B. F. Yee
Attorney Docket Number:	16869S-161000US
Receipt Date:	21-NOV-2008
Filing Date:	11-AUG-2005
Time Stamp:	17:13:52
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		2008_11_21_SIDS_16869S-161000US.pdf	125255 1f0c7770e6e54c37a673069101023a5b4b71f0d7	yes	4

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Information Disclosure Statement Letter	1	2
	Information Disclosure Statement (IDS) Filed (SB/08)	3	4

Warnings:					
Information:					
2	Foreign Reference	JPO_OA_2004_349264.pdf	197764 eaa0e9a6f1df4ca67d95eab1e85833f310498934	no	4
Warnings:					
Information:					
3	Foreign Reference	SIPO_OA_2005_100935522.pdf	453543 659783698937877296 3d140f252d33cb1c11c4a0	no	7
Warnings:					
Information:					
4	Foreign Reference	JP2003_100055.pdf	2661943 3020e902f292b126588016e7527effb9fb883849	no	35
Warnings:					
Information:					
5	Foreign Reference	JP2003_150503.pdf	1203217 cedc4061d201d1cfa6f2bf49ef0f5dbe87ac752c	no	25
Warnings:					
Information:					
6	Foreign Reference	CN1243596.pdf	11979606 3c9cc216baf5318f2aa56d2be326bba10775cfd5	no	226
Warnings:					
Information:					
		Total Files Size (in bytes):	16621328		

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.

OIPE IAP64 OCT 12 2005 PATENT & TRADEMARK OFFICE

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
11/203,457	08/11/2005	Susumu Yoshida	16869S-161000US

CONFIRMATION NO. 8838

FORMALITIES LETTER

20350
TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

COPY

Date Mailed: 08/30/2005

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 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 $130 for a non-small entity, must be submitted with the missing items identified in this letter.

SUMMARY OF FEES DUE:

Total additional fee(s) required for this application is **$130** for a Large Entity

- **$130** Surcharge.

Replies should be mailed to: Mail Stop Missing Parts

10/13/2005 CCHAU1 00000002 201430 11203457
01 FC:1051 130.00 DA

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

A copy of this notice MUST be returned with the reply.

BZ

Office of Initial Patent Examination (571) 272-4000, or 1-800-PTO-9199, or 1-800-972-6382
PART 1 - ATTORNEY/APPLICANT COPY

OIPE IAP64 OCT 12 2005 PATENT & TRADEMARK OFFICE

IFW

PTO/SB/21 (09-04)

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

Application Number	11/203,457
Filing Date	August 11, 2005
First Named Inventor	Susumu Yoshida
Art Unit	2615
Examiner Name	Unassigned
Attorney Docket Number	16869S-161000US

ENCLOSURES *(Check all that apply)*

- ☐ Fee Transmittal Form
  - ☐ Fee Attached
- ☐ Amendment/Reply
  - ☐ After Final
  - ☐ Affidavits/declaration(s)
- ☐ Extension of Time Request
- ☐ Express Abandonment Request
- ☐ Information Disclosure Statement
- ☒ Certified Copy of Priority Document(s)
- ☒ Reply to Missing Parts/ Incomplete Application
  - ☒ Reply to Missing Parts under 37 CFR 1.52 or 1.53
- ☐ Drawing(s)
- ☐ Licensing-related Papers
- ☐ Petition
- ☐ Petition to Convert to a Provisional Application
- ☐ Power of Attorney, Revocation Change of Correspondence Address
- ☐ Terminal Disclaimer
- ☐ Request for Refund
- ☐ CD, Number of CD(s) _____
  - ☐ Landscape Table on CD
- ☐ After Allowance Communication to TC
- ☐ Appeal Communication to Board of Appeals and Interferences
- ☐ Appeal Communication to TC **(Appeal Notice, Brief, Reply Brief)**
- ☐ Proprietary Information
- ☐ Status Letter
- ☒ Other Enclosure(s) (please identify below):
  1. Declaration/Power of Attorney attached to COPY of specifications
  2. Copy of Notice
  3. Supplemental ADS
  4. Assignment Papers
  5. Return Postcard

Remarks The Commissioner is authorized to charge any additional fees to Deposit Account 20-1430.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Townsend and Townsend and Crew LLP		
Signature	Rob Colwell		
Printed name	Robert C. Colwell		
Date	10/7/05	Reg. No.	27,431

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Signature			
Typed or printed name	Roger Hylton	Date	10/10/05

60603028 v1

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to:

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

On OCT 10, 2005

TOWNSEND and TOWNSEND and CREW LLP

By: Roger Hamon

OIPE
OCT 12 2005
PATENT & TRADEMARK OFFICE

PATENT
Attorney Docket No.: 16869S-161000US
Client Reference No.: W2496-01ET

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Susumu YOSHIDA, et al. Application No.: 11/203,457 Filed: August 11, 2005 For: EDITING METHOD AND RECORDING AND REPRODUCING DEVICE Customer No.: 20350	Confirmation No.: 8838 Examiner: Unassigned Art Unit: 2615 TRANSMITTAL LETTER – RESPONSE TO NOTICE OF MISSING PARTS

Attn: Mail Stop Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Pursuant to the Notice to File Missing Parts of Nonprovisional Application, dated August 30, 2005, enclosed are the following to be made of record in the above-identified application:

1) Executed Declaration and Power of Attorney
2) Copy of Notice of Missing Parts

Please charge Deposit Account No. 20-1430 for the following fees:

Missing Parts Surcharge	$130
TOTAL FEES TO BE CHARGED	$130

PATENT

The Commissioner is hereby authorized to charge any additional fees associated with this paper or during the pendency of this application, or credit any overpayment, to Deposit Account No. 20-1430. This Transmittal Letter is submitted in duplicate.

Respectfully submitted,

Robert C. Colwell
Reg. No. 27,431

Customer No. 20350

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 650-326-2400
Fax: 415 576-0300
RCC:rnh

60603080 v1

OIPE IAP64
OCT 12 2005
PATENT & TRADEMARK OFFICE

Supplemental Application Data Sheet

Application Information

Application number::	11/203,457
Filing Date::	08/11/05
Application Type::	Regular
Subject Matter::	Utility
Suggested classification::	
Suggested Group Art Unit::	
CD-ROM or CD-R??::	
Number of CD disks::	
Number of copies of CDs::	
Sequence Submission::	
Computer Readable Form (CRF)?::	
Number of copies of CRF::	
Title::	Editing Method and Recording and Reproducing Device
Attorney Docket Number::	16869S-161000US
Request for Early Publication::	No
Request for Non-Publication::	No
Suggested Drawing Figure::	
Total Drawing Sheets::	9
Small Entity?::	No
Latin name::	
Variety denomination name::	
Petition included?::	No
Petition Type::	
Licensed US Govt. Agency::	
Contract or Grant Numbers One::	
Secrecy Order in Parent Appl.::	No

Applicant Information

Applicant Authority Type::	Inventor
Primary Citizenship Country::	Japan
Status::	Full Capacity
Given Name::	Susumu
Middle Name::	
Family Name::	YOSHIDA
Name Suffix::	
City of Residence::	Kawasaki
State or Province of Residence::	
Country of Residence::	Japan
Street of Mailing Address::	c/o Hitachi, Ltd.
Postal Address Line Two::	Intellectual Property Group
Postal Address Line Three::	6-1, Marunouchi 1-chome
Postal Address Line Four::	Chiyoda-ku
City of Mailing Address::	Tokyo
State or Province of mailing address::	
Country of mailing address::	Japan
Postal or Zip Code of mailing address::	100-8220

Applicant Authority Type::	Inventor
Primary Citizenship Country::	Japan
Status::	Full Capacity
Given Name::	Junji
Middle Name::	
Family Name::	SHIOKAWA
Name Suffix::	
City of Residence::	Chigasaki
State or Province of Residence::	
Country of Residence::	Japan
Street of Mailing Address::	c/o Hitachi, Ltd.
Postal Address Line Two::	Intellectual Property Group
Postal Address Line Three::	6-1, Marunouchi 1-chome

Postal Address Line Four::	Chiyoda-ku
City of Mailing Address::	Tokyo
State or Province of mailing address::	
Country of mailing address::	Japan
Postal or Zip Code of mailing address::	100-8220

Applicant Authority Type::	Inventor
Primary Citizenship Country::	Japan
Status::	Full Capacity
Given Name::	Hiroo
Middle Name::	
Family Name::	OKAMOTO
Name Suffix::	
City of Residence::	Yokohama
State or Province of Residence::	
Country of Residence::	Japan
Street of Mailing Address::	c/o Hitachi, Ltd.
Postal Address Line Two::	Intellectual Property Group
Postal Address Line Three::	6-1, Marunouchi 1-chome
Postal Address Line Four::	Chiyoda-ku
City of Mailing Address::	Tokyo
State or Province of mailing address::	
Country of mailing address::	Japan
Postal or Zip Code of mailing address::	100-8220

Correspondence Information

Correspondence Customer Number::	20350

Representative Information

Representative Designation::	Representative Number::	Representative Name::
Primary	27,431	Robert C. Colwell

Domestic Priority Information

Application::	Continuity Type::	Parent Application::	Parent Filing Date::

Foreign Priority Information

Country::	Application number::	Filing Date::
Japan	2004-349264	12/02/04
Japan	2004-378767	12/28/04
Japan	2004-378768	12/28/04

Assignee Information

Assignee Name:: Hitachi, Ltd.

Street of mailing address:: 6-6, Marunouchi 1-chome, Chiyoda-ku

City of mailing address:: Tokyo

State or Province of mailing address::

Country of mailing address:: Japan

Postal or Zip Code of mailing address::

Maxell, Ltd.
Ex. 2016
Page 86 of 182

11/203,457

W2496
32/14

OIPE IAP64
OCT 12 2005
PATENT & TRADEMARK OFFICE

EDITING METHOD AND RECORDING AND REPRODUCING DEVICE

COPY

INCORPORATION BY REFERENCE

The present application claims priorities from Japanese applications JP2004-349264 filed on December 2, 2004, JP2004-378768 filed on December 28, 2004, and JP2004-378767 filed on December 28, 2004 the contents of which are hereby incorporated by reference into this application.

BACKGROUND OF THE INVENTION

Field of the Invention

The present invention relates to a recording and reproducing device which records data onto a recording medium and reproduces data from the recording medium.

Description of the Related Art

As the high-efficiency coding technique advances, it has become possible to handle AV data such as video data and audio data as digital data, conduct code rate compression, and record resultant data on a large-capacity recording medium such as a hard disk or a recording type optical disk in real time. When digital data already compressed in code rate is inputted to a recording and reproducing device having

such a recording medium from outside by broadcasting or communication, it is also possible to record the digital data on the recording medium intact.

In these recording and reproducing devices, management information for managing digital data to be recorded is generated and recorded together onto the same recording medium. When a rewritable recording medium is used, the user can conduct editing work on the recording and reproducing device by rewriting the management information and generating and manipulating a list indicating the reproduction sequence (hereafter referred to as play list) (see, for example, JP-A-2000-152180).

SUMMARY OF THE INVENTION

In the above-described conventional technique, it is mentioned that the play list indicates the reproduction sequence by linking portions of AV data together. As an example, a management state of AV data on a recording medium in the above-described conventional technique is shown in Fig. 2.

Reference numeral 201 designates AV data themselves on the recording medium. The case where a program #1 to a program #3 are present as recording units is shown. Reference numeral 202 designates a second management hierarchical level (management level 2) in management information. Original cell information #1 to original cell information #3 indicate

the whole reproduction range of program units, i.e., a program #1 to a program #3, respectively. Each of user-defined cell information #1 to user-defined information #2 indicates a reproduction range of the whole or a part of a program arbitrarily specified by the user. The number of the user-defined cell information #1 to user-defined information #2 is increased or decreased by the user's editing manipulation. Reference numeral 203 designates a first management hierarchical level (management level 1). Program information contains all of the original cell information #1 to original cell information #3. By conducting reproduction on the basis of the program set information, the user can reproduce all AV data recorded on the recording medium. Play list information #1 to play list information #k indicate a reproduction sequence of the user-defined cell information arbitrarily specified by the user. It is possible to have a plurality of reproduction sequences. Inside of a frame 204 becomes original information for managing the whole AV data in the management information. Inside of a frame 205 becomes user-defined information for managing the play list obtained by the user's editing manipulation.

In Fig. 2, the play list information is placed on the same level with the program set information and managed as the management level 1. Therefore, the sequence of a plurality of play list

information pieces themselves is determined uniquely. For example, as for a catalog of the play lists, it is impossible on the user's interface to alter the display sequence. In view of the problem, the present invention has been achieved. An object of the present invention is to provide a recording scheme and device in which the user can conduct manipulation of arbitrarily rearranging the display sequence of the play lists in the play list catalog on the user interface.

Furthermore, in the conventional technique example, attention is not paid to that a plurality of users generate, select and manage favorite play list information. For example, even when a plurality of users desire to generate, select and manage respective favorite play list information pieces, it cannot be implemented. Furthermore, attention is not especially paid to that a user select some arbitrary play lists from among a plurality of play lists and manage them.

In view of these problems, the present invention has been achieved. An object of the present invention is to provide a recording and reproducing device in which the user can select and manage arbitrary play lists.

In order to achieve the objects, in accordance with the present invention, a unit of management for managing all registered play list information and an upper management hierarchical level

are added. The unit of management is adapted to be handled on the same level with unified information that indicates a reproduction range of all AV data. User-defined unified information is adapted to be handled on the added management hierarchical level. The user-defined unified information is formed to allow arbitrary reproduction ranges contained on a lower hierarchical level to be registered.

In a recording and reproducing device according to the present invention, it becomes possible for the user to select arbitrary play lists or reproduction ranges and conduct management. Even in the case where a plurality of users share a single recording medium, therefore, each user can manage favorite reproduction contents, resulting in improved usage. Since the play lists are subject to unified management, it becomes possible for the user to arbitrarily alter the display sequence of play lists.

According to the present invention, a recording and reproducing device improved in usage can be provided.

Other objects, features and advantages of the invention will become apparent from the following description of the embodiments of the invention taken in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 shows a management state of AV data in

a recording and reproducing device according to an embodiment of this invention;

Fig. 2 shows a management state of AV data in a conventional technique example;

Fig. 3 shows a block diagram of a recording and reproducing device according to an embodiment of this invention;

Fig. 4 shows a display output example of original unified information;

Fig. 5 shows a display output example of play list unified information;

Fig. 6 shows a first output example of user-defined unified information;

Fig. 7 shows a second output example of user-defined unified information;

Fig. 8 shows an example of a file structure of original unified information, play list unified information, user-defined unified information, play list information, program information, and AV data (program);

Fig. 9 shows an example of a management table structure of original unified information, play list unified information, and user-defined unified information;

Fig. 10 shows an example of a management table of play list information;

Fig. 11 shows an example of a management table of program list information;

Fig. 12 shows a display output example of play list unified information; and

Fig. 13 shows an example of a table indicating contents of user-defined information #m.

DESCRIPTION OF THE EMBODIMENTS

Hereafter, embodiments of the present invention will be described with reference to the drawings. Fig. 1 shows a management state of AV data on a recording medium in a recording and reproducing device according to the present invention. In the same way as the reference numeral 201 in Fig. 2, reference numeral 101 designates AV data themselves on the recording medium. The case where programs #1 to #3 are present as recording units is shown.

Reference numeral 102 corresponds to 202 in Fig. 2. However, reference numeral 102 designates a third management hierarchical level (management level 3) in management information. Program information #1 to program information #3 indicate the whole reproduction ranges of program units, i.e., program #1 to program #3, respectively. Each of program information #2a to program information #3a indicates a reproduction range of the whole or a part of a program arbitrarily specified by the user. The program information #2a to program information #3a indicate a part of the program #2 and a part of the program #3, respectively. In places corresponding to the program

information #1 to program information #3, information is also added, as AV data is added, i.e., with an increase in programs. In places corresponding to the program information #2a to the program information #3a, the number of information pieces increases or decreases due to the editing manipulation of the user.

Reference numeral 103 corresponds to the management level 1 in Fig. 2. However, numeral 103 designates a second management hierarchical level (management level 2), which includes only play list information #1 to play list information #n. Each play list information indicates a reproduction sequence of arbitrary program information pieces on the management level 3. It is possible to have a plurality of reproduction sequences.

Reference numeral 104 designates a newly added first management hierarchical level (management level 1) in the management information as a feature point of the present invention. The management level 1 includes a plurality of unified information pieces. Original unified information corresponds to the program set information shown in Fig. 2. The original unified information contains all of the program information #1 to program information #3 on the management level 3. By conducting reproduction on the basis of all of the program information #1 to program information #3, it becomes possible for the user to reproduce all AV data recorded on the recording medium. Play list unified

information contains all of the play list information #1 to play list information #n on the management level 2. By conducting reproduction on the basis of all of the play list information #1 to play list information #n on the management level 2, it becomes possible for the user to successively reproduce all registered play lists. User-defined unified information #1 to user-defined unified information #m contain arbitrary one or more from among play list information pieces on the management level 2 and program information pieces on the management level 3. For example, when a plurality of users use a single recording medium, it becomes possible to manage reproduced contents that meet respective users' tastes by using one user-defined unified information every user.

An embodiment of a recording and reproducing device according to the present invention will be described more specifically by using another drawing.

Fig. 3 is a block diagram showing an example of a recording and reproducing device according to the present invention. A recording and reproducing device capable of receiving digital broadcast, recording the digital broadcast on a recording medium, reproducing recorded data, and obtaining a reproduced output is shown. Reference numeral 300 designates a recording and reproducing device, 301 an input terminal supplied with a received wave from an antenna, 3011 an input terminal supplied with compressed video and audio data

from another device, 3012 an analog video input terminal supplied with an analog video signal, 3013 an analog audio input terminal supplied with an analog audio input terminal, 333 and 334 analog/digital (A/D) conversion circuits each of which converts an analog signal to a digital signal, 302 a demodulation circuit, 330 a separation circuit which separates the demodulated digital signal into audio, video and other data, 335 a compression circuit which compresses digitized video and audio signals, 303 a recording unit signal processing circuit, 331 an encryption circuit which encrypts data to be recorded, 304 a recording and reproducing unit including a drive function of a recording medium, 305 a recording medium, 332 a decryption circuit which decrypts data encrypted and recorded on the recording medium, 306 a reproducing unit signal processing circuit, 307 a switchover circuit, 308 a separation circuit, 309 a video decoding circuit, 310 a digital/analog (D/A) conversion circuit, 311 a video output terminal, 312 an audio decoding circuit, 313 a D/A conversion circuit, 314 an audio output terminal, 315 a TV set, 316 a user I/F, 317 a control unit, 318 a system bus, 319 an OSD generation unit, and 320 an addition circuit.

At the time of recording, a signal transmitted by digital broadcast or the like and received is demodulated in the demodulation circuit 302 by using a predetermined scheme, subjected to necessary

signal processing such as timing adjusting data addition and modulation in the recording unit signal processing circuit 303, encrypted in the encryption circuit 331, and then recorded on the recording medium 305 by the recording and reproducing unit 304. A digital signal input from the digital input terminal 3011 is subjected to necessary signal processing such as timing adjusting data addition and modulation in the recording unit signal processing circuit 303, encrypted in the encryption circuit 331, and then recorded on the recording medium 305 by the recording and reproducing unit 304. An analog video signal input from the analog video input terminal 3012 and an analog audio signal input from the analog audio input terminal 3013 are subjected to compression processing in the compression circuit 335, encrypted in the encryption circuit 331 via the recording unit signal processing circuit 303, and then recorded on the recording medium 305 by the recording and reproducing unit 304.

At the time of reproducing, encrypted digital data read out from the recording medium 305 via the recording and reproducing unit 304 in accordance with the user's order is decrypted in the decryption circuit 332, subjected to signal processing required for reproduction such as demodulation in a form based on a predetermined modulation scheme in the reproducing unit signal processing circuit 103, and sent to the separation circuit 308 via the switchover circuit 307.

Resultant video digital data is subjected to predetermined video decoding processing in the video decoding circuit 309, converted to an analog signal in the D/A conversion circuit 310, and then displayed as a monitor output on the TV set 315 via the video output terminal 311. Audio digital data obtained from the separation circuit 308 is subjected to predetermined audio decoding processing in the audio decoding circuit 312, converted to an analog signal in the D/A conversion circuit 313, and then outputted by an audio output mechanism in the TV set 315 via the audio output terminal 314.

The control unit 317 controls various components in the recording and reproducing device 300 via the system bus 318. Furthermore, the control unit 317 controls the whole device to cause operation based on the user's order input which is inputted via the user I/F 316 to be conducted. By the way, an order input request to the user or necessary OSD display for the user is implemented by preparing it in the OSD generation unit 319, adding it to an output of the video decoding circuit 309 on a suitable level, and finally outputting it to a monitor screen on the TV set 315.

The case where each unified information on the management level 1 is used for menu display of recording data will now be described as a specific use example of the management information configuration in

Fig. 1.

Fig. 4 shows an example in which menu display is conducted by using the original unified information shown in Fig. 1. Reference numeral 315 designates the TV set shown in Fig. 3, 401 a tag for displaying all programs, 402 a thumbnail indicating program information #1, 403 a thumbnail indicating program information #2, and 404 a thumbnail indicating program information #3. The user moves a cursor position on the screen to a desired thumbnail and conducts selection and determination by using a remote controller or the like. As a result, the user can reproduce arbitrary programs or all programs.

Fig. 5 shows an example in which menu display is conducted by using the play list unified information shown in Fig. 1. Reference numeral 501 designates a tag for displaying all play lists, 502 a thumbnail indicating play list information #1, and 503 a thumbnail indicating play list information #2. In the same way as the above-described case, the user moves a cursor position on the screen to a desired thumbnail and conducts selection and determination by using a remote controller or the like. As a result, the user can reproduce arbitrary play lists or all play lists. By the way, display switching from the all program display tag 401 to all play list display tag can be implemented by, for example, movement of the cursor in tag character positions conducted by the user.

Fig. 6 shows an example in which menu display is conducted by using the user-defined unified information #1 shown in Fig. 1. Reference numeral 601 designates a menu display tag for user #1 (who is supposed to be "mother" here). As appreciated from Fig. 1, reference numerals 402 and 502 designate thumbnails indicating the program information #1 and the play list information #1, respectively. The "mother" can use the menu display tag for mother 601 as a folder dedicated to herself, and freely register and delete data to be reproduced. In the same way, Fig. 7 shows an example in which menu display is conducted by using the user-defined unified information #2 shown in Fig. 1. Reference numeral 701 designates a menu display tag for user #2 (who is supposed to be "father" here). As appreciated from Fig. 1, reference numerals 503 and 502 designate thumbnails indicating the play list information #2 and the play list information #1, respectively. In this case, the "father" selects two play lists. However, the reproduction sequence of them can be altered. In the same way as the "mother," the "father" can use the menu display tag for father 701 as a folder dedicated to himself, and freely register and delete data to be reproduced.

As heretofore described, in the embodiment of the present invention, a unit of management for managing all registered play list information and an upper management hierarchical level are added. The

unit of management is adapted to be handled on the same level with unified information that indicates a reproduction range of all AV data. User-defined unified information is adapted to be handled on the added management hierarchical level. The user-defined unified information is formed to allow arbitrary reproduction ranges contained on a lower hierarchical level to be registered therein. As a result, it becomes possible for the user to select arbitrary play lists or reproduction ranges and conduct management. Even in the case where a plurality of users share a single recording medium, therefore, each user can manage favorite reproduction contents, resulting in improved usage.

In the embodiment heretofore described, the case where digital broadcast is received and digital data is recorded intact has been described. However, this is not restrictive. A configuration having a network I/F to acquire AV data from an external network or having coding unit to conduct recording onto the recording medium while coding analog data may also be used. In other words, the present embodiment refers to data management on the recording medium, and its input route is not especially restricted.

Fig. 8 shows an example of file configurations used to actually record the program, program information, play list information, original unified information, play list unified information, and

user-defined information on the recording medium 305 (Fig. 3). The recording medium is a medium on which digital recording and reproducing are conducted. Files on the medium are managed by a file system similar to that used to manage a recording medium in the so-called personal computer or the like. In Fig. 8, "ROOT" 800 represents a highest hierarchical level of a file directory. "TV_REC" 801 is a directory under the highest hierarchical level. "TVREC.MAN" 802, "PGRG.IFO" 803, "PGR.IFO" 804, "PROG0001.TS" 805, ··· of files which implement the management structure shown in Fig. 1 according to the present invention are recorded in the "TV_REC" 801. In the "TVREC.MAN" 802, the original unified information, the play list unified information, and the user-defined unified information #1 to #m on the management level 1 shown in Fig. 1 are described as management tables. In the "PGRG.IFO" 803, the play list information #1 to the play list information #n on the management level 2 shown in Fig. 1 are recorded as management tables. In the "PGR.IFO" 804, the program information #1 to the program information #3a on the management level 3 shown in Fig. 1 are recorded as management tables. "PROG0001.TS" 805, "PROG0002.TS" 806 and "PROG0003.TS" 807 are entity files of AV data in each program. For example, AV data between recording start and recording end of one time is recorded in the "PROG0001.TS." AV data between recording start and recording end of the next time is

recorded in the "PROG0002.TS." In this way, the file name is updated and recording is conducted. Thereafter, the management files 802 to 804 are updated.

The file structure and the configuration of management tables themselves concerning the management structure "TVREC.MAN" 802, "PGRG.IFO" 803, "PGR.IFO" 804, "PROG0001.TS" 805, ··· of files may be formed by using any method. However, an example of how to implement the management configuration in the case of Fig. 1 using the files will now be described.

Fig. 9 shows a configuration of management tables of the "TVREC.MAN" 802 (Fig. 8). As original unified information 901, the number of AV data recorded as the number of program information pieces 9011, i.e., the total number (three in this case) of entity files ("PROG0001.TS" 805, "PROG0002.TS" 806 and "PROG0003.TS" 807) of the AV data is described. Under the original unified information 901, location tables 9012 of respective original program information pieces are recorded. As play list unified information 902, play list location information tables are recorded in 9021 and subsequent tables. In 9031, the number of user-defined unified information pieces is recorded. After that, contents of #1 to #m of the user-defined information are recorded.

Fig. 13 shows contents of the user-defined information #m described above. The user-defines

information #m has combinations of original program information and play list information as a table.

Fig. 10 shows a management table of the "PGRG.IFO" 803 (Fig. 8), which corresponds to the management level 2 shown in Fig. 1. As play list information 1001, the total number of the play list information pieces is first described as designated by 10011. (In this case, the total number of the play list information pieces is n.) Beginning with 10012 indicated under the reference numeral 10011, locations in which contents of the play list information #1 to #n are described are recorded as tables. Beginning with 10013, contents of the play list information #1 to #n (contents of the reproduction sequence, which are management tables having combinations of program information indicating the reproduction start location and reproduction end location of AV data described later) are recorded.

Fig. 11 shows a management table of the "PGR.IFO" 804 (Fig. 8), which corresponds to the management level 3 shown in Fig. 1. As program information 1101, the total number of the program information pieces including all of the program information pieces paired with the original information program #1, #2 and #3 (Fig. 1) and the user-defined program information #2a and #3a (Fig. 1) is recorded as designated by 11011. Beginning with 11012 indicated under the reference numeral 11011, tables indicating

locations in which contents of the program information #1 to #3a are described are recorded. Beginning with 11013, contents of the program information #1 to #3a (describing the reproduction start location and reproduction end location of the "PROG0001.TS" 805, "PROG0002.TS" 806 and "PROG0003.TS" 807 (Fig. 8)) are recorded.

By conducting the management as heretofore described, it becomes possible to sort the location information, for example, in the play list location table 9021 and alter the sequence of displaying play lists on a GUI view from the state shown in Fig. 5 to the state shown in Fig. 12. In the case where the number of play lists has become very large, a play list that is high in user's use frequency can be displayed in the first place in the GUI view. As a result, it is possible to implement a usable recording and reproducing device, reproducing device, or recording method. For example, a plurality of users can set play lists that they want to view and recorded original contents freely and individually. Even when the number of recorded programs is very large, the user can rapidly find out a program that the user wants to view, because the user can refer to a folder defined by the user.

In the present embodiment, a clear distinction is made between the user-defined play list unified information and the user-defined unified

information #1 to #m. The user-defined play list unified information may be defined as user-defined play list unified information having no link to the original program information of the user-defined unified information.

It should be further understood by those skilled in the art that although the foregoing description has been made on embodiments of the invention, the invention is not limited thereto and various changes and modifications may be made without departing from the spirit of the invention and the scope of the appended claims.

CLAIMS:

1. A recording method including a recording step for recording on a recording medium AV data and management information used to manage the AV data, the management information comprising:

program information paired with the AV data;

original unified information for managing history of the program information;

user-defined program information which is arbitrarily defined by a user to manage reproduction positions of the AV data;

play list information for managing a reproduction sequence of the user-defined program information or the program information paired with the AV data; and

play list unified information for managing history of the play list information.

2. A recording method according to claim 1, wherein as for the management information,

the original unified information and the play list unified information are placed on a first management hierarchical level,

the play list information is placed on a second management hierarchical level, and

the program information paired with the AV data and the user-defined program information are placed on a third management hierarchical level.

3. A recording method according to claim 1,

wherein

the original unified information, the play list unified information, and the user-defined unified information are placed on a first management hierarchical level,

the play list information is placed on a second management hierarchical level,

the program information paired with the AV data and the user-defined program information are placed on a third management hierarchical level, and

AV data of recorded programs are placed on a lowest management hierarchical level.

4. A recording and reproducing device comprising:

a receiving circuit for receiving input AV data;

a recording unit signal processing circuit for recording AV data received by the receiving circuit on a recording medium;

a reproducing unit signal processing circuit for reproducing the AV data from the recording medium;

output unit for outputting AV data read out from the reproducing unit signal processing circuit;

user interface unit manipulated by a user; and

control unit for controlling each of the circuits in response to input from the user interface means,

wherein at time of recording, the AV data and management information for managing the AV data are recorded by the control unit and the recording unit signal processing circuit, and

wherein the management information comprises:

program information paired with the AV data and original unified information for managing history of the program information;

user-defined program information which is arbitrarily defined by the user to manage reproduction positions of the AV data;

play list information for managing a reproduction sequence of the user-defined program information or the original program information; and

play list unified information for managing history of the play list information.

5. A recording and reproducing device according to claim 4, wherein as for the management information,

the original unified information and the play list unified information are placed on a first management hierarchical level,

the play list information is placed on a second management hierarchical level, and

the program information paired with the AV data and the user-defined program information are placed on a third management hierarchical level.

6. A recording and reproducing device according to claim 4, wherein

the original unified information, the play list unified information and the user-defined unified information are placed on a first management hierarchical level,

the play list information is placed on a second management hierarchical level, and

the program information paired with the AV data and the user-defined program information are placed on a third management hierarchical level.

7. A reproducing device for reproducing AV data recorded on a recording medium, the reproducing device comprising:

a reproducing unit signal processing circuit for reproducing the AV data and management information for the AV data recorded on the recording medium;

output unit for outputting AV data reproduced by the reproducing unit signal processing circuit;

user interface unit manipulated by a user; and

control unit for controlling each of the circuits according to input from the user interface means and according to the management information reproduced by the reproducing unit signal processing circuit;

wherein the management information comprises:

program information paired with the AV data and original unified information for managing history of the program information;

user-defined program information recorded on the recording medium, which is arbitrarily defined by the user to manage reproduction positions of the AV data;

play list information for managing a reproduction sequence of the user-defined program information or the program information paired with the AV data; and

play list unified information for managing history of the play list information, and

wherein the control unit exercises reproduction control according to the user's manipulation on the basis of the play list unified information used to manage history of the play list information.

8. An editing method for editing AV data and management information for the AV data recorded on a recording medium,

wherein the management information comprises:

program information paired with the AV data;

original unified information for managing history of the program information;

user-defined program information which is arbitrarily defined by a user to manage reproduction positions of the AV data;

play list information for managing a reproduction sequence of the user-defined program information or the program information paired with the

AV data; and

play list unified information for managing history of the play list information, and

wherein a display sequence in a play list catalogue is altered by rewriting history of the play list unified information.

9. A recording and reproducing device comprising:

a receiving circuit for receiving input AV data;

a recording unit signal processing circuit for recording AV data received by the receiving circuit on a recording medium;

a reproducing unit signal processing circuit for reproducing the AV data from the recording medium;

output means for outputting AV data read out from the reproducing unit signal processing circuit;

user interface unit manipulated by a user; and

control unit for controlling each of the circuits in response to input from the user interface unit,

wherein at time of recording, the AV data and management information for managing the AV data are recorded by the control unit and the recording unit signal processing circuit, and

wherein the management information comprises:

program information paired with the AV data

and original unified information for managing history of the program information;

user-defined program information which is arbitrarily defined by the user to manage reproduction positions of the AV data;

play list information for managing a reproduction sequence of the user-defined program information or the original program information; and

play list unified information for managing history of the play list information, and

wherein in response to an order given from the user interface unit, the control unit alters a display sequence of a play list catalogue by rewriting a registration sequence of history of the play list unified information.

10. A recording method for recording AV data and management information used to manage the AV data, wherein the management information comprising:

program information paired with the AV data;

original unified information for managing history of the program information;

user-defined program information which is arbitrarily defined by a user to manage reproduction positions of the AV data;

play list information for managing a reproduction sequence of the user-defined program information or the program information paired with the AV data;

play list unified information for managing history of the play list information; and

user-defined unified information which groups the program information paired with the AV data or the play list information.

11. A recording method according to claim 10, wherein

the original unified information, the play list unified information, and the user-defined unified information are placed on a first management hierarchical level,

the play list information is placed on a second management hierarchical level,

the program information paired with the AV data and the user-defined program information are placed on a third management hierarchical level, and

AV data of recorded programs are placed on a lowest management hierarchical level.

12. A recording and reproducing device comprising:

a receiving circuit for receiving input AV data;

a recording unit signal processing circuit for recording AV data received by the receiving circuit on a recording medium;

a reproducing unit signal processing circuit for reproducing the AV data from the recording medium;

output unit for outputting AV data read out

from the reproducing unit signal processing circuit;

user interface unit manipulated by a user; and

control unit for controlling each of the circuits in response to input from the user interface unit,

wherein at time of recording, the AV data and management information for managing the AV data are recorded by the control unit and the recording unit signal processing circuit, and

wherein the management information comprises:

program information paired with the AV data and original unified information for managing history of the program information;

user-defined program information which is arbitrarily defined by the user to manage reproduction positions of the AV data;

play list information for managing a reproduction sequence of the user-defined program information or the original program information;

play list unified information for managing history of the play list information; and

user-defined unified information which is defined by the user to group the original program information or the play list information.

13. A reproducing device for reproducing AV data on a recording medium, the reproducing device comprising:

a reproducing unit signal processing circuit for reproducing the AV data and management information for the AV data recorded on the recording medium;

output unit for outputting AV data reproduced by the reproducing unit signal processing circuit;

user interface unit manipulated by a user; and

control unit for controlling each of the circuits according to input from the user interface unit and according to the management information reproduced by the reproducing unit signal processing circuit,

wherein the management information comprises:

program information paired with the AV data and original unified information for managing history of the program information;

user-defined program information recorded on the recording medium, which is arbitrarily defined by the user to manage reproduction positions of the AV data;

play list information for managing a reproduction sequence of the user-defined program information or the program information paired with the AV data; and

play list unified information for managing history of the play list information, and

wherein the control unit exercises reproduction control according to the user's

manipulation on the basis of management information obtained by recording user-defined unified information for grouping the program information paired with the AV data or the play list information.

14. A recording medium for recording AV data and management information used to manage the AV data, wherein the management information comprising:

program information paired with the AV data;

original unified information for managing history of the program information;

user-defined program information which is arbitrarily defined by a user to manage reproduction positions of the AV data;

play list information for managing a reproduction sequence of the user-defined program information or the program information paired with the AV data; and

play list unified information for managing history of the play list information.

ABSTRACT OF THE DISCLOSURE

In order to provide a recording and reproducing device that allows a user to select and manage arbitrary play lists, a unit of management for managing all registered play list information and an upper management hierarchical level are added. The unit of management is adapted to be handled on the same level with unified information that indicates a reproduction range of all AV data. User-defined unified information is adapted to be handled on the added management hierarchical level. The user-defined unified information is formed to allow arbitrary reproduction ranges contained on a lower hierarchical level to be registered.

11/203,457

W2496-01
(米)

PTO/SB/106(5-00)
Approved for use through 10/31/02. OMB 0651-0032
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.

Declaration and Power of Attorney for Patent Application

特許出願宣言書及び委任状

Japanese Language Declaration

日本語宣言書

私は、以下に記名された発明者として、ここに下記の通り宣言する ：

As a below named inventor, I hereby declare that:

私の住所、郵便の宛先そして国籍は、私の氏名の後に記載された通りである。

My residence, post office address and citizenship are as stated next to my name.

下記の名称の発明について、特許請求範囲に記載され、且つ特許が求められている発明主題に関して、私は、最初、最先且つ唯一の発明者である（唯一の氏名が記載されている場合）か、或いは最初、最先且つ共同発明者である（複数の氏名が記載されている場合）と信じている。

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

EDITING METHOD AND RECORDING AND REPRODUCING DEVICE

上記発明の明細書はここに添付されているが、下記の欄がチェックされている場合は、この限りでない ：

The specification of which is attached hereto unless the following box is checked:

☐ _____ に日に出願され、
この出願の米国出願番号またはＰＣＴ国際出願番号は、
_____ であり、且つ
_____ の日に補正された出願（該当する場合）

☐ was filed on _____
as United States Application Number or
PCT International Application Number
_____ and was amended on
_____ (if applicable).

私は、上記の補正書によって補正された、特許請求範囲を含む上記明細書を検討し、且つ内容を理解していることをここに表明する。

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.

私は、連邦規則法典第３７編規則１．５６に定義されている、特許性について重量な情報を開示する義務があることを認める。

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

Burden Hour Statement: This form is estimated to take 0.4 hours to complete. Time will vary depending upon the need of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner of Patents and Trademarks, Washington, DC

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.

Japanese Language Declaration
（日本語宣言書）

私は、ここに、以下に記載した外国での特許出願または発明者証の出願、或いは米国以外の少なくとも一国を指定している米国法典第３５編題３６５条(a)によるＰＣＴ国際出願について、同第１１９条(a)-(d)項又は第３６５条(b)項に基づいて優先権を主張するとともに、優先権を主張する本出願の出願日よりも前の出願日を有する外国での特許出願または発明者証の出願、或いはＰＣＴ国際出願については、いかなる出願も、下記の枠内をチェックすることにより示した。

I hereby claim foreign priority under Title 35, United States Code, Section 119 (a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT International application which designated at least one country other than the United States listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or PCT International application having a filing date before that of the application for which priority is claimed.

Prior Foreign Application(s)
外国での先行出願

(Number) (番号)	(Country) (国名)	(Day/Month/Year Filed) (出願日／月／年)	Priority Not Claimed 優先権主張なし
2004-349264	Japan	2/December/2004	☐
2004-378768	Japan	28/December/2004	☐
2004-378767	Japan	28/December/2004	☐

私は、ここに、下記のいかなる米国仮特許出願についても、その米国法典第３５編１１９条(e)項の利益を主張する。

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

(Application No.) 号)	(Filing Date) (出願日)	(Application No.) (出願番号)	(Filing Date) (出願日)

私は、ここに、下記のいかなる米国出願についても、その米国法典第３５編第１２０条に基づく利益を主張し、又米国を指定するいかなるＰＣＴ国際出願についても、その同第３６５条 (c)に基づく利益を主張する。また、本出願の各特許請求の範囲の主題が、米国法典第３５編第１１２条第１段に規定された態様で、先行する米国出願又はＰＣＴ国際出願に開示されていない場合においては、その先行出願の出願日と本国内出願日またはＰＣＴ国際出願日との間の期間中に入手された情報で、連邦規則法典第３７編規則１．５６に定義された特許性に関わる重要な情報について開示義務があることを承認する。

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s), or 365(c) of any PCT international application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of Title 35, United States Code Section 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of application.

(Application No.) 号)	(Filing Date) (出願日)	(Status: Patented, Pending, Abandoned) (現況 ： 特許許可、係属中、放棄)
(Application No.) 号)	(Filing Date) (出願日)	(Status: Patented, Pending, Abandoned) (現況 ： 特許許可、係属中、放棄)

私は、ここに表明された私自身の知識に係わる陳述が真実であり、且つ情報と信ずることに基づく陳述が、真実であると信じられることを宣言し、さらに、故意に虚偽の陳述などを行った場合は、米国法典第１８編第１００１条に基づき、罰金または拘禁、若しくはその両方により処罰され、またそのような故意による虚偽の陳述は、本出願またはそれに対して発行されるいかなる特許も、その有効性に問題が生ずることを理解した上で陳述が行われたことを、ここに宣言する。

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.

PTO/SB/106(5-00)
Approved for use through 10/31/02. OMB 0651-0032
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.

Japanese Language Declaration
（日本語宣言書）

委任状 ： 私は本出願を審査する手続を行い、且つ米国特許商標庁との全ての業務を遂行するために、記名された発明者として、下記の弁護士及び／または弁理士を任命する。（氏名及び登録番号を記載すること）	POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith (list name and registration number). The Patent practitioners associated with Customer Number 20350
書類送付先	Send Correspondence to: Robert C. Colwell TOWNSEND and TOWNSEND and CREW LLP Two Embarcadero Center, 8th Floor San Francisco, California 94111-3834
直通電話連絡先 ：（氏名及び電話番号）	Direct Telephone Calls to: (name and telephone number) Telephone: (650) 326-2400 Fax: (650) 326-2422

唯一または第一発明者氏名		Full name of sole or first inventor Susumu YOSHIDA	
発明者の署名	日付	Inventor's signature Susumu Yoshida	Date Aug. 5, 2005
住所		Residence Kawasaki, Japan	
国籍		Citizenship Japan	
郵便の宛先		Post office Address c/o Hitachi, Ltd., Intellectual Property Group, 6-1,Marunouchi 1-chome,Chiyoda-ku,Tokyo 100-8220 ,Japan	
第二共同発明者がいる場合、その氏名		Full name of second joint inventor, if any Junji SHIOKAWA	
第二共同発明者の署名	日付	Second inventor's signature Junji Shiokawa	Date Aug. 5, 2005
住所		Residence Chigasaki, Japan	
国籍		Citizenship Japan	
郵便の宛先		Post office Address c/o Hitachi, Ltd., Intellectual Property Group, 6-1,Marunouchi 1-chome,Chiyoda-ku,Tokyo 100-8220 ,Japan	

（第三以下の共同発明者についても同様に記載し、署名をすること）

(Supply similar information and signature for third and subsequent joint unventors.)

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.

第三共同発明者がいる場合、その氏名		Full name of third joint inventor, if any Hiroo OKAMOTO	
第三共同発明者の署名	日付	Third inventor's signature Hiroo Okamoto	Date Aug. 5, 2005
住所		Residence Yokohama, Japan	
国籍		Citizenship Japan	
郵便の宛先		Post office Address c/o Hitachi, Ltd., Intellectual Property Group, 6-1,Marunouchi 1-chome,Chiyoda-ku,Tokyo 100-8220 ,Japan	
第四共同発明者がいる場合、その氏名		Full name of fourth joint inventor, if any	
第四共同発明者の署名	日付	Fourth inventor's signature	Date
住所		Residence	
国籍		Citizenship	
郵便の宛先		Post office Address	
第五共同発明者がいる場合、その氏名		Full name of fifth joint inventor, if any	
第五共同発明者の署名	日付	Fifth inventor's signature	Date
住所		Residence	
国籍		Citizenship	
郵便の宛先		Post office Address	
第六共同発明者がいる場合、その氏名		Full name of sixth joint inventor, if any	
第六共同発明者の署名	日付	Sixth inventor's signature	Date
住所		Residence	
国籍		Citizenship	
郵便の宛先		Post office Address	

Attorney Docket No. 16869S-161000US

Form PTO-1595 (Rev. 03/05)
OMB No. 0651-0027 (exp. 6/30/2005)

U.S. DEPARTMENT OF COMMERCE
United States Patent and Trademark Office

RECORDATION FORM COVER SHEET

PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies)

Susumu YOSHIDA

Additional name(s) of conveying party(ies) attached? ☒ Yes ☐ No

2. Name and address of receiving party(ies)

Name: Hitachi, Ltd.

Internal Address:

Street Address: 6-6, Marunouchi 1-chome, Chiyoda-ku

City: Tokyo

State:

Country: Japan Zip:

Additional name(s) & address(es) attached? ☐ Yes ☒ No

3. Nature of conveyance/Execution Date(s):

Execution Date(s) August 5, 2005

☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Joint Research Agreement
☐ Government Interest Assignment
☐ Executive Order 9424, Confirmatory License
☐ Other

4. Application or patent number(s): ☐ This document is being filed together with a new application.

A. Patent Application No.(s)
11/203,457

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

5. Name and address to whom correspondence concerning document should be mailed:

Name: Robert C. Colwell

Internal Address:

TOWNSEND AND TOWNSEND AND CREW LLP

Street Address: Two Embarcadero Center, Eighth Floor

City: San Francisco

State: California Zip: 94111-3834

Phone Number: (415) 576-0200

Fax Number: (415) 576-0300

Email Address: rcc@townsend.com

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 1.21(h) & 3.41) $ 40.00

☐ Authorized to be charged by credit card
☒ Authorized to be charged to deposit account
☐ Enclosed
☐ None required (government interest not affecting title)

8. Payment Information

a. Credit Card Last 4 numbers
Expiration Date

b. Deposit Account Number **20-1430**

Authorized User Name Townsend and Townsend and Crew LLP

9. Signature: Robert C. Colwell 10/7/05

Signature Date

Robert C. Colwell

Name of Person Signing Atty. Reg. No. 27,431

Total number of pages including cover sheet, attachments, and documents:

Documents to be recorded (including cover sheet) should be faxed to (703) 306-5995, or mailed to:
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, VA 22313-1450

1. Additional name(s) of conveying party(ies):
   (Continued from Page 1)

   Junji SHIOKAWA
   Hiroo OKAMOTO

2. Additional name(s) and address(es) of receiving party(ies):
   (Continued from Page 1)

3. Additional application number(s) or patent number(s):
   (Continued from Page 1)

   A. Patent Application No.(s)

   B. Patent No.(s)

60603102 v1

11/203,457

W2496-01 (*)

ASSIGNMENT
（譲渡証）

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar ($1.00) or the equivalent thereof, and other good and valuable consideration paid to me citizen of Japan by Hitachi, Ltd.,
a corporation organized under the laws of Japan,
located at 6-6, Marunouchi 1-chome, Chiyoda-ku, Tokyo, Japan,
receipt of which is hereby acknowledged I do hereby sell and assign to said Hitachi, Ltd.,
its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

EDITING METHOD AND RECORDING AND REPRODUCING DEVICE

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted,
to be held and enjoyed by said Hitachi, Ltd.,
its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said Hitachi, Ltd.,

Signed on the date(s) indicated aside our signatures:

INVENTOR(S) （発明者フルネームサイン）	Date Signed （署名日）
1) Susumu Yoshida	Aug. 5, 2005
2) Junji Shigeura	Aug 5 2005
3) Hiroo Okamoto	Aug. 5, 2005
4)	
5)	
6)	
7)	
8)	
9)	
10)	

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
11/203,457	08/11/2005	Susumu Yoshida	16869S-161000US

CONFIRMATION NO. 8838

FORMALITIES LETTER

20350
TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

Date Mailed: 08/30/2005

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 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 $130 for a non-small entity, must be submitted with the missing items identified in this letter.

SUMMARY OF FEES DUE:

Total additional fee(s) required for this application is **$130** for a Large Entity

- **$130** Surcharge.

Replies should be mailed to: Mail Stop Missing Parts

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

A copy of this notice MUST be returned with the reply.

BZ

Office of Initial Patent Examination (571) 272-4000, or 1-800-PTO-9199, or 1-800-972-6382
PART 3 - OFFICE COPY

15866 U.S. PTO
081105

PTO/SB/05 (05-05)

UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	16869S-161000US
First Inventor	YOSHIDA, Susumu
Title	EDITING METHOD AND RECORDING AND REPRODUCING DEVICE
Express Mail Label No.	EV300741062US

113262 U.S. PTO
11/203457
081105

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. ☒ **Fee Transmittal Form** (e.g., PTO/SB/17)
   (Submit an original and a duplicate for fee processing)
2. ☐ **Applicant claims small entity status.** See 37 CFR 1.27.
3. ☒ **Specification** [*Total Pages* 32]
   Both the claims and abstract must start on a new page
   (For information on the preferred arrangement, see MPEP 608.01(a))
4. ☒ **Drawing(s)** *(35 U.S.C.113)* [*Total Sheets* 9]
5. **Oath or Declaration** [*Total Sheets* _____]
   a. ☐ Newly executed (original or copy)
   b. ☐ A copy from a prior application (37 CFR 1.63 (d))
   (for a continuation/divisional with Box 18 completed)
   i. ☐ DELETION OF INVENTOR(S)
   Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6. ☒ **Application Data Sheet.** See 37 CFR 1.76
7. ☐ **CD-ROM** or **CD-R** in duplicate, large table or Computer Program *(Appendix)*
   ☐ Landscape Table on CD
8. **Nucleotide and/or Amino Acid Sequence Submission**
   (if applicable, items a. - c. are required)
   a. Computer Readable Form (CRF)
   i. ☐ Computer Readable Form (CRF)
   ii. ☐ Transfer Request (37 CFR 1.821(e))
   b. Specification Sequence Listing on:
   i. ☐ CD-ROM or CD-R (2 copies); or
   ii. ☐ Paper
   c. ☐ Statements verifying identity of above copies

ADDRESS TO: **Commissioner for Patents**
P.O. Box 1450
Alexandria, VA 22313-1450

ACCOMPANYING APPLICATION PARTS

9. ☐ **Assignment Papers** (cover sheet & document(s))
   Name of Assignee _____
10. ☐ **37 CFR 3.73(b) Statement** *(when there is an assignee)* ☐ **Power of Attorney**
11. ☐ **English Translation Document** *(if applicable)*
12. ☒ **Information Disclosure Statement** (PTO/SB/08 or PTO-1449)
    ☒ Copies of foreign patent documents, publications, & other information
13. ☐ **Preliminary Amendment**
14. ☒ **Return Receipt Postcard** (MPEP 503)
    (Should be specifically itemized)
15. ☐ **Certified Copy of Priority Document(s)**
    (if foreign priority is claimed)
16. ☐ **Nonpublication Request** under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17. ☐ Other: _____

18. If a CONTINUING APPLICATION, *check appropriate box, and supply the requisite information below and in the first sentence of the specification following the title, or in an Application Data Sheet under 37 CFR 1.76:*

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No: _____

Prior application information: *Examiner* _____ *Art Unit:* _____

19. CORRESPONDENCE ADDRESS

☒ The address associated with Customer Number: **20350** *OR* ☐ Correspondence address below

Name					
Address					
City		State		Zip Code	
Country		Telephone		Email Address	

Signature		Date	August 11, 2005
Name (Print/Type)	Chun-Pok Leung	Registration No. (Attorney/Agent)	41,405

60560503 v1

PTO/SB/17 (12-04)

Effective on 12/08/2004.
Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL
For FY 2005

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT ($) 2200

Complete if Known	
Application Number	
Filing Date	
First Named Inventor	YOSHIDA, Susumu
Examiner Name	
Art Unit	
Attorney Docket No.	16869S-161000US

METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____

☒ Deposit Account Deposit Account Number: 20-1430 Deposit Account Name: Townsend and Townsend and Crew LLP

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, **except for the filing fee**

☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayments

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

FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

Application Type	FILING FEES Fee ($)	FILING FEES Small Entity Fee ($)	SEARCH FEES Fee ($)	SEARCH FEES Small Entity Fee ($)	EXAMINATION FEES Fee ($)	EXAMINATION FEES Small Entity Fee ($)	Fees Paid ($)
Utility	300	150	500	250	200	100	1000
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee ($)	Small Entity Fee ($)
Each claim over 20 or, for Reissues, each claim over 20 and more than in the original patent	50	25
Each independent claim over 3 or, for Reissues, each independent claim more than in the original patent	200	100
Multiple dependent claims	360	180

Total Claims		Extra Claims		Fee ($)		Fee Paid ($)
14	-20 or HP =	0	x	$50	=	$0

HP = highest number of total claims paid for, if greater than 20

Multiple Dependent Claims Fee ($)	Fee Paid ($)

Indep. Claims		Extra Claims		Fee ($)		Fee Paid ($)
9	-3 or HP =	6	x	$200	=	$1,200

HP = highest number of independent claims paid for, if greater than 3

3. APPLICATION SIZE FEE

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).

Total Sheets		Extra Sheets		Number of each additional 50 or fraction thereof		Fee ($)		Fee Paid ($)
_____	- 100 =	_____	/ 50 =	_____	(round up to a whole number) x	_____	=	_____

4. OTHER FEE(S) Fees Paid ($)

Non-English Specification, $130 fee (no small entity discount) _____

Other: _____ _____

SUBMITTED BY

Signature		Registration No. (Attorney/Agent) 41,405	Telephone 650-326-2400
Name (Print/Type)	Chun-Pok Leung		Date August 11, 2005

60560547 v1

15866 U.S. PTO
081105

PTO/SB/05 (05-05)

UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	16869S-161000US
First Inventor	YOSHIDA, Susumu
Title	EDITING METHOD AND RECORDING AND REPRODUCING DEVICE
Express Mail Label No.	EV300741062US

113262 U.S. PTO
11/203457
081105

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. ☒ **Fee Transmittal Form** (e.g., PTO/SB/17)
   (Submit an original and a duplicate for fee processing)
2. ☐ **Applicant claims small entity status.** See 37 CFR 1.27.
3. ☒ **Specification** [*Total Pages* 32]
   Both the claims and abstract must start on a new page
   (For information on the preferred arrangement, see MPEP 608.01(a))
4. ☒ **Drawing(s)** *(35 U.S.C.113)* [*Total Sheets* 9]
5. **Oath or Declaration** [*Total Sheets* _____]
   a. ☐ Newly executed (original or copy)
   b. ☐ A copy from a prior application (37 CFR 1.63 (d))
   (for a continuation/divisional with Box 18 completed)
   i. ☐ DELETION OF INVENTOR(S)
   Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6. ☒ **Application Data Sheet.** See 37 CFR 1.76
7. ☐ **CD-ROM** or **CD-R** in duplicate, large table or Computer Program *(Appendix)*
   ☐ Landscape Table on CD
8. **Nucleotide and/or Amino Acid Sequence Submission**
   (if applicable, items a. - c. are required)
   a. Computer Readable Form (CRF)
   i. ☐ Computer Readable Form (CRF)
   ii. ☐ Transfer Request (37 CFR 1.821(e))
   b. Specification Sequence Listing on:
   i. ☐ CD-ROM or CD-R (2 copies); or
   ii. ☐ Paper
   c. ☐ Statements verifying identity of above copies

ADDRESS TO: **Commissioner for Patents**
P.O. Box 1450
Alexandria, VA 22313-1450

ACCOMPANYING APPLICATION PARTS

9. ☐ **Assignment Papers** (cover sheet & document(s))
   Name of Assignee _____
10. ☐ **37 CFR 3.73(b) Statement** *(when there is an assignee)* ☐ **Power of Attorney**
11. ☐ **English Translation Document** *(if applicable)*
12. ☒ **Information Disclosure Statement** (PTO/SB/08 or PTO-1449)
    ☒ Copies of foreign patent documents, publications, & other information
13. ☐ **Preliminary Amendment**
14. ☒ **Return Receipt Postcard** (MPEP 503)
    (Should be specifically itemized)
15. ☐ **Certified Copy of Priority Document(s)**
    (if foreign priority is claimed)
16. ☐ **Nonpublication Request** under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17. ☐ Other: _____

18. If a CONTINUING APPLICATION, *check appropriate box, and supply the requisite information below and in the first sentence of the specification following the title, or in an Application Data Sheet under 37 CFR 1.76:*

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No: _____

Prior application information: *Examiner* _____ *Art Unit:* _____

19. CORRESPONDENCE ADDRESS

☒ The address associated with Customer Number: **20350** *OR* ☐ Correspondence address below

Name					
Address					
City		State		Zip Code	
Country		Telephone		Email Address	

Signature		Date	August 11, 2005
Name (Print/Type)	Chun-Pok Leung	Registration No. (Attorney/Agent)	41,405

60560503 v1

PTO/SB/17 (12-04)

Effective on 12/08/2004.
Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL
For FY 2005

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT ($) 2200

Complete if Known	
Application Number	
Filing Date	
First Named Inventor	YOSHIDA, Susumu
Examiner Name	
Art Unit	
Attorney Docket No.	16869S-161000US

METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____

☒ Deposit Account Deposit Account Number: 20-1430 Deposit Account Name: Townsend and Townsend and Crew LLP

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, **except for the filing fee**

☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayments

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

FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

Application Type	FILING FEES Fee ($)	FILING FEES Small Entity Fee ($)	SEARCH FEES Fee ($)	SEARCH FEES Small Entity Fee ($)	EXAMINATION FEES Fee ($)	EXAMINATION FEES Small Entity Fee ($)	Fees Paid ($)
Utility	300	150	500	250	200	100	1000
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee ($)	Small Entity Fee ($)
Each claim over 20 or, for Reissues, each claim over 20 and more than in the original patent	50	25
Each independent claim over 3 or, for Reissues, each independent claim more than in the original patent	200	100
Multiple dependent claims	360	180

Total Claims		Extra Claims		Fee ($)		Fee Paid ($)
14	-20 or HP =	0	x	$50	=	$0

HP = highest number of total claims paid for, if greater than 20

Multiple Dependent Claims Fee ($)	Fee Paid ($)

Indep. Claims		Extra Claims		Fee ($)		Fee Paid ($)
9	-3 or HP =	6	x	$200	=	$1,200

HP = highest number of independent claims paid for, if greater than 3

3. APPLICATION SIZE FEE

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).

Total Sheets		Extra Sheets		Number of each additional 50 or fraction thereof		Fee ($)		Fee Paid ($)
_____	- 100 =	_____	/ 50 =	_____	(round up to a whole number) x	_____	=	_____

4. OTHER FEE(S) Fees Paid ($)

Non-English Specification, $130 fee (no small entity discount) _____

Other: _____ _____

SUBMITTED BY

Signature		Registration No. (Attorney/Agent) 41,405	Telephone 650-326-2400
Name (Print/Type)	Chun-Pok Leung		Date August 11, 2005

60560547 v1

Attorney Docket No. 16869S-161000US
Client Ref. No. W2496-01ET

PATENT APPLICATION

Editing Method and Recording and Reproducing Device

Inventors: **Susumu YOSHIDA**
Citizenship: Japan

Junji SHIOKAWA
Citizenship: Japan

Hiroo OKAMOTO
Citizenship: Japan

Assignee: **Hitachi, Ltd.**
6-6, Marunouchi 1-chome
Chiyoda-ku, Tokyo, Japan
Incorporation: Japan

Entity: Large

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, 8th Floor
San Francisco, California 94111-3834
(415) 576-0200

EDITING METHOD AND RECORDING AND REPRODUCING DEVICE

INCORPORATION BY REFERENCE

The present application claims priorities from Japanese applications JP2004-349264 filed on December 2, 2004, JP2004-378768 filed on December 28, 2004, and JP2004-378767 filed on December 28, 2004 the contents of which are hereby incorporated by reference into this application.

BACKGROUND OF THE INVENTION

Field of the Invention

The present invention relates to a recording and reproducing device which records data onto a recording medium and reproduces data from the recording medium.

Description of the Related Art

As the high-efficiency coding technique advances, it has become possible to handle AV data such as video data and audio data as digital data, conduct code rate compression, and record resultant data on a large-capacity recording medium such as a hard disk or a recording type optical disk in real time. When digital data already compressed in code rate is inputted to a recording and reproducing device having

such a recording medium from outside by broadcasting or communication, it is also possible to record the digital data on the recording medium intact.

In these recording and reproducing devices, management information for managing digital data to be recorded is generated and recorded together onto the same recording medium. When a rewritable recording medium is used, the user can conduct editing work on the recording and reproducing device by rewriting the management information and generating and manipulating a list indicating the reproduction sequence (hereafter referred to as play list) (see, for example, JP-A-2000-152180).

SUMMARY OF THE INVENTION

In the above-described conventional technique, it is mentioned that the play list indicates the reproduction sequence by linking portions of AV data together. As an example, a management state of AV data on a recording medium in the above-described conventional technique is shown in Fig. 2.

Reference numeral 201 designates AV data themselves on the recording medium. The case where a program #1 to a program #3 are present as recording units is shown. Reference numeral 202 designates a second management hierarchical level (management level 2) in management information. Original cell information #1 to original cell information #3 indicate

the whole reproduction range of program units, i.e., a program #1 to a program #3, respectively. Each of user-defined cell information #1 to user-defined information #2 indicates a reproduction range of the whole or a part of a program arbitrarily specified by the user. The number of the user-defined cell information #1 to user-defined information #2 is increased or decreased by the user's editing manipulation. Reference numeral 203 designates a first management hierarchical level (management level 1). Program information contains all of the original cell information #1 to original cell information #3. By conducting reproduction on the basis of the program set information, the user can reproduce all AV data recorded on the recording medium. Play list information #1 to play list information #k indicate a reproduction sequence of the user-defined cell information arbitrarily specified by the user. It is possible to have a plurality of reproduction sequences. Inside of a frame 204 becomes original information for managing the whole AV data in the management information. Inside of a frame 205 becomes user-defined information for managing the play list obtained by the user's editing manipulation.

In Fig. 2, the play list information is placed on the same level with the program set information and managed as the management level 1. Therefore, the sequence of a plurality of play list

information pieces themselves is determined uniquely. For example, as for a catalog of the play lists, it is impossible on the user's interface to alter the display sequence. In view of the problem, the present invention has been achieved. An object of the present invention is to provide a recording scheme and device in which the user can conduct manipulation of arbitrarily rearranging the display sequence of the play lists in the play list catalog on the user interface.

Furthermore, in the conventional technique example, attention is not paid to that a plurality of users generate, select and manage favorite play list information. For example, even when a plurality of users desire to generate, select and manage respective favorite play list information pieces, it cannot be implemented. Furthermore, attention is not especially paid to that a user select some arbitrary play lists from among a plurality of play lists and manage them.

In view of these problems, the present invention has been achieved. An object of the present invention is to provide a recording and reproducing device in which the user can select and manage arbitrary play lists.

In order to achieve the objects, in accordance with the present invention, a unit of management for managing all registered play list information and an upper management hierarchical level

are added. The unit of management is adapted to be handled on the same level with unified information that indicates a reproduction range of all AV data. User-defined unified information is adapted to be handled on the added management hierarchical level. The user-defined unified information is formed to allow arbitrary reproduction ranges contained on a lower hierarchical level to be registered.

In a recording and reproducing device according to the present invention, it becomes possible for the user to select arbitrary play lists or reproduction ranges and conduct management. Even in the case where a plurality of users share a single recording medium, therefore, each user can manage favorite reproduction contents, resulting in improved usage. Since the play lists are subject to unified management, it becomes possible for the user to arbitrarily alter the display sequence of play lists.

According to the present invention, a recording and reproducing device improved in usage can be provided.

Other objects, features and advantages of the invention will become apparent from the following description of the embodiments of the invention taken in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 shows a management state of AV data in

a recording and reproducing device according to an embodiment of this invention;

Fig. 2 shows a management state of AV data in a conventional technique example;

Fig. 3 shows a block diagram of a recording and reproducing device according to an embodiment of this invention;

Fig. 4 shows a display output example of original unified information;

Fig. 5 shows a display output example of play list unified information;

Fig. 6 shows a first output example of user-defined unified information;

Fig. 7 shows a second output example of user-defined unified information;

Fig. 8 shows an example of a file structure of original unified information, play list unified information, user-defined unified information, play list information, program information, and AV data (program);

Fig. 9 shows an example of a management table structure of original unified information, play list unified information, and user-defined unified information;

Fig. 10 shows an example of a management table of play list information;

Fig. 11 shows an example of a management table of program list information;

Fig. 12 shows a display output example of play list unified information; and

Fig. 13 shows an example of a table indicating contents of user-defined information #m.

DESCRIPTION OF THE EMBODIMENTS

Hereafter, embodiments of the present invention will be described with reference to the drawings. Fig. 1 shows a management state of AV data on a recording medium in a recording and reproducing device according to the present invention. In the same way as the reference numeral 201 in Fig. 2, reference numeral 101 designates AV data themselves on the recording medium. The case where programs #1 to #3 are present as recording units is shown.

Reference numeral 102 corresponds to 202 in Fig. 2. However, reference numeral 102 designates a third management hierarchical level (management level 3) in management information. Program information #1 to program information #3 indicate the whole reproduction ranges of program units, i.e., program #1 to program #3, respectively. Each of program information #2a to program information #3a indicates a reproduction range of the whole or a part of a program arbitrarily specified by the user. The program information #2a to program information #3a indicate a part of the program #2 and a part of the program #3, respectively. In places corresponding to the program

information #1 to program information #3, information is also added, as AV data is added, i.e., with an increase in programs. In places corresponding to the program information #2a to the program information #3a, the number of information pieces increases or decreases due to the editing manipulation of the user.

Reference numeral 103 corresponds to the management level 1 in Fig. 2. However, numeral 103 designates a second management hierarchical level (management level 2), which includes only play list information #1 to play list information #n. Each play list information indicates a reproduction sequence of arbitrary program information pieces on the management level 3. It is possible to have a plurality of reproduction sequences.

Reference numeral 104 designates a newly added first management hierarchical level (management level 1) in the management information as a feature point of the present invention. The management level 1 includes a plurality of unified information pieces. Original unified information corresponds to the program set information shown in Fig. 2. The original unified information contains all of the program information #1 to program information #3 on the management level 3. By conducting reproduction on the basis of all of the program information #1 to program information #3, it becomes possible for the user to reproduce all AV data recorded on the recording medium. Play list unified

information contains all of the play list information #1 to play list information #n on the management level 2. By conducting reproduction on the basis of all of the play list information #1 to play list information #n on the management level 2, it becomes possible for the user to successively reproduce all registered play lists. User-defined unified information #1 to user-defined unified information #m contain arbitrary one or more from among play list information pieces on the management level 2 and program information pieces on the management level 3. For example, when a plurality of users use a single recording medium, it becomes possible to manage reproduced contents that meet respective users' tastes by using one user-defined unified information every user.

An embodiment of a recording and reproducing device according to the present invention will be described more specifically by using another drawing.

Fig. 3 is a block diagram showing an example of a recording and reproducing device according to the present invention. A recording and reproducing device capable of receiving digital broadcast, recording the digital broadcast on a recording medium, reproducing recorded data, and obtaining a reproduced output is shown. Reference numeral 300 designates a recording and reproducing device, 301 an input terminal supplied with a received wave from an antenna, 3011 an input terminal supplied with compressed video and audio data

from another device, 3012 an analog video input terminal supplied with an analog video signal, 3013 an analog audio input terminal supplied with an analog audio input terminal, 333 and 334 analog/digital (A/D) conversion circuits each of which converts an analog signal to a digital signal, 302 a demodulation circuit, 330 a separation circuit which separates the demodulated digital signal into audio, video and other data, 335 a compression circuit which compresses digitized video and audio signals, 303 a recording unit signal processing circuit, 331 an encryption circuit which encrypts data to be recorded, 304 a recording and reproducing unit including a drive function of a recording medium, 305 a recording medium, 332 a decryption circuit which decrypts data encrypted and recorded on the recording medium, 306 a reproducing unit signal processing circuit, 307 a switchover circuit, 308 a separation circuit, 309 a video decoding circuit, 310 a digital/analog (D/A) conversion circuit, 311 a video output terminal, 312 an audio decoding circuit, 313 a D/A conversion circuit, 314 an audio output terminal, 315 a TV set, 316 a user I/F, 317 a control unit, 318 a system bus, 319 an OSD generation unit, and 320 an addition circuit.

At the time of recording, a signal transmitted by digital broadcast or the like and received is demodulated in the demodulation circuit 302 by using a predetermined scheme, subjected to necessary

signal processing such as timing adjusting data addition and modulation in the recording unit signal processing circuit 303, encrypted in the encryption circuit 331, and then recorded on the recording medium 305 by the recording and reproducing unit 304. A digital signal input from the digital input terminal 3011 is subjected to necessary signal processing such as timing adjusting data addition and modulation in the recording unit signal processing circuit 303, encrypted in the encryption circuit 331, and then recorded on the recording medium 305 by the recording and reproducing unit 304. An analog video signal input from the analog video input terminal 3012 and an analog audio signal input from the analog audio input terminal 3013 are subjected to compression processing in the compression circuit 335, encrypted in the encryption circuit 331 via the recording unit signal processing circuit 303, and then recorded on the recording medium 305 by the recording and reproducing unit 304.

At the time of reproducing, encrypted digital data read out from the recording medium 305 via the recording and reproducing unit 304 in accordance with the user's order is decrypted in the decryption circuit 332, subjected to signal processing required for reproduction such as demodulation in a form based on a predetermined modulation scheme in the reproducing unit signal processing circuit 103, and sent to the separation circuit 308 via the switchover circuit 307.

Resultant video digital data is subjected to predetermined video decoding processing in the video decoding circuit 309, converted to an analog signal in the D/A conversion circuit 310, and then displayed as a monitor output on the TV set 315 via the video output terminal 311. Audio digital data obtained from the separation circuit 308 is subjected to predetermined audio decoding processing in the audio decoding circuit 312, converted to an analog signal in the D/A conversion circuit 313, and then outputted by an audio output mechanism in the TV set 315 via the audio output terminal 314.

The control unit 317 controls various components in the recording and reproducing device 300 via the system bus 318. Furthermore, the control unit 317 controls the whole device to cause operation based on the user's order input which is inputted via the user I/F 316 to be conducted. By the way, an order input request to the user or necessary OSD display for the user is implemented by preparing it in the OSD generation unit 319, adding it to an output of the video decoding circuit 309 on a suitable level, and finally outputting it to a monitor screen on the TV set 315.

The case where each unified information on the management level 1 is used for menu display of recording data will now be described as a specific use example of the management information configuration in

Fig. 1.

Fig. 4 shows an example in which menu display is conducted by using the original unified information shown in Fig. 1. Reference numeral 315 designates the TV set shown in Fig. 3, 401 a tag for displaying all programs, 402 a thumbnail indicating program information #1, 403 a thumbnail indicating program information #2, and 404 a thumbnail indicating program information #3. The user moves a cursor position on the screen to a desired thumbnail and conducts selection and determination by using a remote controller or the like. As a result, the user can reproduce arbitrary programs or all programs.

Fig. 5 shows an example in which menu display is conducted by using the play list unified information shown in Fig. 1. Reference numeral 501 designates a tag for displaying all play lists, 502 a thumbnail indicating play list information #1, and 503 a thumbnail indicating play list information #2. In the same way as the above-described case, the user moves a cursor position on the screen to a desired thumbnail and conducts selection and determination by using a remote controller or the like. As a result, the user can reproduce arbitrary play lists or all play lists. By the way, display switching from the all program display tag 401 to all play list display tag can be implemented by, for example, movement of the cursor in tag character positions conducted by the user.

Fig. 6 shows an example in which menu display is conducted by using the user-defined unified information #1 shown in Fig. 1. Reference numeral 601 designates a menu display tag for user #1 (who is supposed to be "mother" here). As appreciated from Fig. 1, reference numerals 402 and 502 designate thumbnails indicating the program information #1 and the play list information #1, respectively. The "mother" can use the menu display tag for mother 601 as a folder dedicated to herself, and freely register and delete data to be reproduced. In the same way, Fig. 7 shows an example in which menu display is conducted by using the user-defined unified information #2 shown in Fig. 1. Reference numeral 701 designates a menu display tag for user #2 (who is supposed to be "father" here). As appreciated from Fig. 1, reference numerals 503 and 502 designate thumbnails indicating the play list information #2 and the play list information #1, respectively. In this case, the "father" selects two play lists. However, the reproduction sequence of them can be altered. In the same way as the "mother," the "father" can use the menu display tag for father 701 as a folder dedicated to himself, and freely register and delete data to be reproduced.

As heretofore described, in the embodiment of the present invention, a unit of management for managing all registered play list information and an upper management hierarchical level are added. The

unit of management is adapted to be handled on the same level with unified information that indicates a reproduction range of all AV data. User-defined unified information is adapted to be handled on the added management hierarchical level. The user-defined unified information is formed to allow arbitrary reproduction ranges contained on a lower hierarchical level to be registered therein. As a result, it becomes possible for the user to select arbitrary play lists or reproduction ranges and conduct management. Even in the case where a plurality of users share a single recording medium, therefore, each user can manage favorite reproduction contents, resulting in improved usage.

In the embodiment heretofore described, the case where digital broadcast is received and digital data is recorded intact has been described. However, this is not restrictive. A configuration having a network I/F to acquire AV data from an external network or having coding unit to conduct recording onto the recording medium while coding analog data may also be used. In other words, the present embodiment refers to data management on the recording medium, and its input route is not especially restricted.

Fig. 8 shows an example of file configurations used to actually record the program, program information, play list information, original unified information, play list unified information, and

user-defined information on the recording medium 305 (Fig. 3). The recording medium is a medium on which digital recording and reproducing are conducted. Files on the medium are managed by a file system similar to that used to manage a recording medium in the so-called personal computer or the like. In Fig. 8, "ROOT" 800 represents a highest hierarchical level of a file directory. "TV_REC" 801 is a directory under the highest hierarchical level. "TVREC.MAN" 802, "PGRG.IFO" 803, "PGR.IFO" 804, "PROG0001.TS" 805, ··· of files which implement the management structure shown in Fig. 1 according to the present invention are recorded in the "TV_REC" 801. In the "TVREC.MAN" 802, the original unified information, the play list unified information, and the user-defined unified information #1 to #m on the management level 1 shown in Fig. 1 are described as management tables. In the "PGRG.IFO" 803, the play list information #1 to the play list information #n on the management level 2 shown in Fig. 1 are recorded as management tables. In the "PGR.IFO" 804, the program information #1 to the program information #3a on the management level 3 shown in Fig. 1 are recorded as management tables. "PROG0001.TS" 805, "PROG0002.TS" 806 and "PROG0003.TS" 807 are entity files of AV data in each program. For example, AV data between recording start and recording end of one time is recorded in the "PROG0001.TS." AV data between recording start and recording end of the next time is

recorded in the "PROG0002.TS." In this way, the file name is updated and recording is conducted. Thereafter, the management files 802 to 804 are updated.

The file structure and the configuration of management tables themselves concerning the management structure "TVREC.MAN" 802, "PGRG.IFO" 803, "PGR.IFO" 804, "PROG0001.TS" 805, ··· of files may be formed by using any method. However, an example of how to implement the management configuration in the case of Fig. 1 using the files will now be described.

Fig. 9 shows a configuration of management tables of the "TVREC.MAN" 802 (Fig. 8). As original unified information 901, the number of AV data recorded as the number of program information pieces 9011, i.e., the total number (three in this case) of entity files ("PROG0001.TS" 805, "PROG0002.TS" 806 and "PROG0003.TS" 807) of the AV data is described. Under the original unified information 901, location tables 9012 of respective original program information pieces are recorded. As play list unified information 902, play list location information tables are recorded in 9021 and subsequent tables. In 9031, the number of user-defined unified information pieces is recorded. After that, contents of #1 to #m of the user-defined information are recorded.

Fig. 13 shows contents of the user-defined information #m described above. The user-defines

information #m has combinations of original program information and play list information as a table.

Fig. 10 shows a management table of the "PGRG.IFO" 803 (Fig. 8), which corresponds to the management level 2 shown in Fig. 1. As play list information 1001, the total number of the play list information pieces is first described as designated by 10011. (In this case, the total number of the play list information pieces is n.) Beginning with 10012 indicated under the reference numeral 10011, locations in which contents of the play list information #1 to #n are described are recorded as tables. Beginning with 10013, contents of the play list information #1 to #n (contents of the reproduction sequence, which are management tables having combinations of program information indicating the reproduction start location and reproduction end location of AV data described later) are recorded.

Fig. 11 shows a management table of the "PGR.IFO" 804 (Fig. 8), which corresponds to the management level 3 shown in Fig. 1. As program information 1101, the total number of the program information pieces including all of the program information pieces paired with the original information program #1, #2 and #3 (Fig. 1) and the user-defined program information #2a and #3a (Fig. 1) is recorded as designated by 11011. Beginning with 11012 indicated under the reference numeral 11011, tables indicating

locations in which contents of the program information #1 to #3a are described are recorded. Beginning with 11013, contents of the program information #1 to #3a (describing the reproduction start location and reproduction end location of the "PROG0001.TS" 805, "PROG0002.TS" 806 and "PROG0003.TS" 807 (Fig. 8)) are recorded.

By conducting the management as heretofore described, it becomes possible to sort the location information, for example, in the play list location table 9021 and alter the sequence of displaying play lists on a GUI view from the state shown in Fig. 5 to the state shown in Fig. 12. In the case where the number of play lists has become very large, a play list that is high in user's use frequency can be displayed in the first place in the GUI view. As a result, it is possible to implement a usable recording and reproducing device, reproducing device, or recording method. For example, a plurality of users can set play lists that they want to view and recorded original contents freely and individually. Even when the number of recorded programs is very large, the user can rapidly find out a program that the user wants to view, because the user can refer to a folder defined by the user.

In the present embodiment, a clear distinction is made between the user-defined play list unified information and the user-defined unified

information #1 to #m. The user-defined play list unified information may be defined as user-defined play list unified information having no link to the original program information of the user-defined unified information.

It should be further understood by those skilled in the art that although the foregoing description has been made on embodiments of the invention, the invention is not limited thereto and various changes and modifications may be made without departing from the spirit of the invention and the scope of the appended claims.

CLAIMS:

1. A recording method including a recording step for recording on a recording medium AV data and management information used to manage the AV data, the management information comprising:

program information paired with the AV data;

original unified information for managing history of the program information;

user-defined program information which is arbitrarily defined by a user to manage reproduction positions of the AV data;

play list information for managing a reproduction sequence of the user-defined program information or the program information paired with the AV data; and

play list unified information for managing history of the play list information.

2. A recording method according to claim 1, wherein as for the management information,

the original unified information and the play list unified information are placed on a first management hierarchical level,

the play list information is placed on a second management hierarchical level, and

the program information paired with the AV data and the user-defined program information are placed on a third management hierarchical level.

3. A recording method according to claim 1,

wherein

the original unified information, the play list unified information, and the user-defined unified information are placed on a first management hierarchical level,

the play list information is placed on a second management hierarchical level,

the program information paired with the AV data and the user-defined program information are placed on a third management hierarchical level, and

AV data of recorded programs are placed on a lowest management hierarchical level.

4. A recording and reproducing device comprising:

a receiving circuit for receiving input AV data;

a recording unit signal processing circuit for recording AV data received by the receiving circuit on a recording medium;

a reproducing unit signal processing circuit for reproducing the AV data from the recording medium;

output unit for outputting AV data read out from the reproducing unit signal processing circuit;

user interface unit manipulated by a user; and

control unit for controlling each of the circuits in response to input from the user interface means,

wherein at time of recording, the AV data and management information for managing the AV data are recorded by the control unit and the recording unit signal processing circuit, and

wherein the management information comprises:

program information paired with the AV data and original unified information for managing history of the program information;

user-defined program information which is arbitrarily defined by the user to manage reproduction positions of the AV data;

play list information for managing a reproduction sequence of the user-defined program information or the original program information; and

play list unified information for managing history of the play list information.

5. A recording and reproducing device according to claim 4, wherein as for the management information,

the original unified information and the play list unified information are placed on a first management hierarchical level,

the play list information is placed on a second management hierarchical level, and

the program information paired with the AV data and the user-defined program information are placed on a third management hierarchical level.

6. A recording and reproducing device according to claim 4, wherein

the original unified information, the play list unified information and the user-defined unified information are placed on a first management hierarchical level,

the play list information is placed on a second management hierarchical level, and

the program information paired with the AV data and the user-defined program information are placed on a third management hierarchical level.

7. A reproducing device for reproducing AV data recorded on a recording medium, the reproducing device comprising:

a reproducing unit signal processing circuit for reproducing the AV data and management information for the AV data recorded on the recording medium;

output unit for outputting AV data reproduced by the reproducing unit signal processing circuit;

user interface unit manipulated by a user; and

control unit for controlling each of the circuits according to input from the user interface means and according to the management information reproduced by the reproducing unit signal processing circuit,

wherein the management information comprises:

program information paired with the AV data and original unified information for managing history of the program information;

user-defined program information recorded on the recording medium, which is arbitrarily defined by the user to manage reproduction positions of the AV data;

play list information for managing a reproduction sequence of the user-defined program information or the program information paired with the AV data; and

play list unified information for managing history of the play list information, and

wherein the control unit exercises reproduction control according to the user's manipulation on the basis of the play list unified information used to manage history of the play list information.

8. An editing method for editing AV data and management information for the AV data recorded on a recording medium,

wherein the management information comprises:

program information paired with the AV data;

original unified information for managing history of the program information;

user-defined program information which is arbitrarily defined by a user to manage reproduction positions of the AV data;

play list information for managing a reproduction sequence of the user-defined program information or the program information paired with the

AV data; and

play list unified information for managing history of the play list information, and

wherein a display sequence in a play list catalogue is altered by rewriting history of the play list unified information.

9. A recording and reproducing device comprising:

a receiving circuit for receiving input AV data;

a recording unit signal processing circuit for recording AV data received by the receiving circuit on a recording medium;

a reproducing unit signal processing circuit for reproducing the AV data from the recording medium;

output means for outputting AV data read out from the reproducing unit signal processing circuit;

user interface unit manipulated by a user; and

control unit for controlling each of the circuits in response to input from the user interface unit,

wherein at time of recording, the AV data and management information for managing the AV data are recorded by the control unit and the recording unit signal processing circuit, and

wherein the management information comprises:

program information paired with the AV data

and original unified information for managing history of the program information;

user-defined program information which is arbitrarily defined by the user to manage reproduction positions of the AV data;

play list information for managing a reproduction sequence of the user-defined program information or the original program information; and

play list unified information for managing history of the play list information, and

wherein in response to an order given from the user interface unit, the control unit alters a display sequence of a play list catalogue by rewriting a registration sequence of history of the play list unified information.

10. A recording method for recording AV data and management information used to manage the AV data, wherein the management information comprising:

program information paired with the AV data;

original unified information for managing history of the program information;

user-defined program information which is arbitrarily defined by a user to manage reproduction positions of the AV data;

play list information for managing a reproduction sequence of the user-defined program information or the program information paired with the AV data;

play list unified information for managing history of the play list information; and

user-defined unified information which groups the program information paired with the AV data or the play list information.

11. A recording method according to claim 10, wherein

the original unified information, the play list unified information, and the user-defined unified information are placed on a first management hierarchical level,

the play list information is placed on a second management hierarchical level,

the program information paired with the AV data and the user-defined program information are placed on a third management hierarchical level, and

AV data of recorded programs are placed on a lowest management hierarchical level.

12. A recording and reproducing device comprising:

a receiving circuit for receiving input AV data;

a recording unit signal processing circuit for recording AV data received by the receiving circuit on a recording medium;

a reproducing unit signal processing circuit for reproducing the AV data from the recording medium;

output unit for outputting AV data read out

from the reproducing unit signal processing circuit;

user interface unit manipulated by a user; and

control unit for controlling each of the circuits in response to input from the user interface unit,

wherein at time of recording, the AV data and management information for managing the AV data are recorded by the control unit and the recording unit signal processing circuit, and

wherein the management information comprises:

program information paired with the AV data and original unified information for managing history of the program information;

user-defined program information which is arbitrarily defined by the user to manage reproduction positions of the AV data;

play list information for managing a reproduction sequence of the user-defined program information or the original program information;

play list unified information for managing history of the play list information; and

user-defined unified information which is defined by the user to group the original program information or the play list information.

13. A reproducing device for reproducing AV data on a recording medium, the reproducing device comprising:

a reproducing unit signal processing circuit for reproducing the AV data and management information for the AV data recorded on the recording medium;

output unit for outputting AV data reproduced by the reproducing unit signal processing circuit;

user interface unit manipulated by a user; and

control unit for controlling each of the circuits according to input from the user interface unit and according to the management information reproduced by the reproducing unit signal processing circuit,

wherein the management information comprises:

program information paired with the AV data and original unified information for managing history of the program information;

user-defined program information recorded on the recording medium, which is arbitrarily defined by the user to manage reproduction positions of the AV data;

play list information for managing a reproduction sequence of the user-defined program information or the program information paired with the AV data; and

play list unified information for managing history of the play list information, and

wherein the control unit exercises reproduction control according to the user's

manipulation on the basis of management information obtained by recording user-defined unified information for grouping the program information paired with the AV data or the play list information.

14. A recording medium for recording AV data and management information used to manage the AV data, wherein the management information comprising:

program information paired with the AV data;

original unified information for managing history of the program information;

user-defined program information which is arbitrarily defined by a user to manage reproduction positions of the AV data;

play list information for managing a reproduction sequence of the user-defined program information or the program information paired with the AV data; and

play list unified information for managing history of the play list information.

ABSTRACT OF THE DISCLOSURE

In order to provide a recording and reproducing device that allows a user to select and manage arbitrary play lists, a unit of management for managing all registered play list information and an upper management hierarchical level are added. The unit of management is adapted to be handled on the same level with unified information that indicates a reproduction range of all AV data. User-defined unified information is adapted to be handled on the added management hierarchical level. The user-defined unified information is formed to allow arbitrary reproduction ranges contained on a lower hierarchical level to be registered.

FIG.1

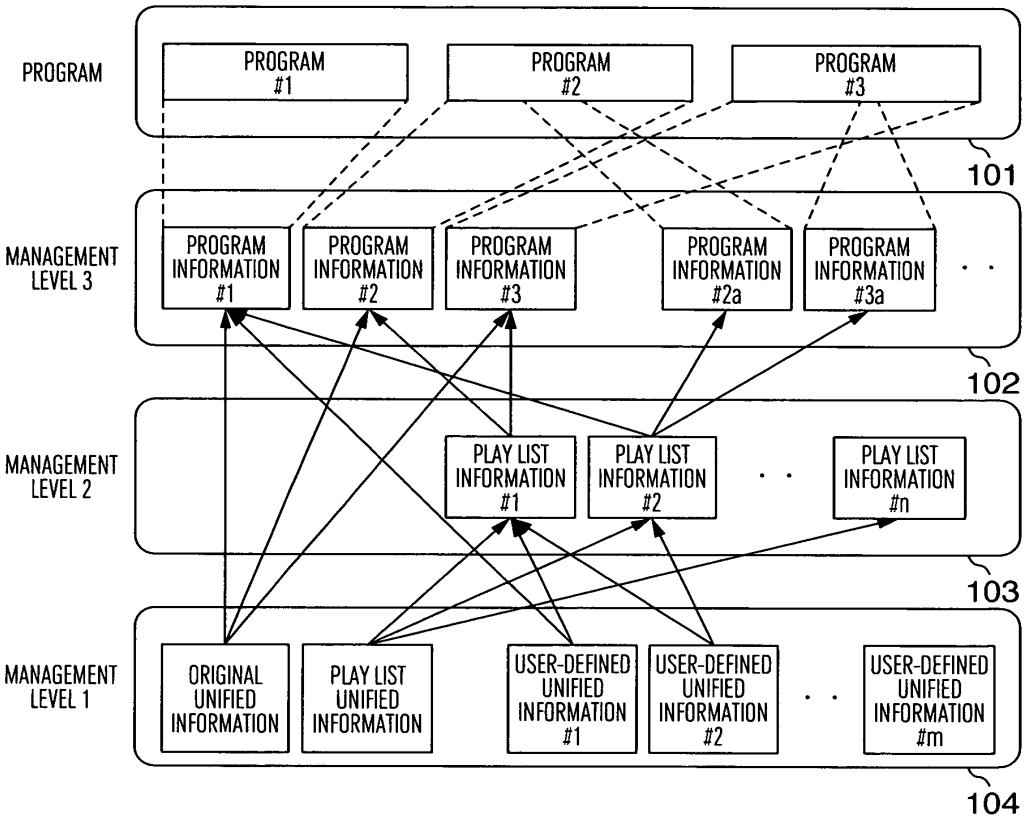

PROGRAM
PROGRAM #1
PROGRAM #2
PROGRAM #3
101
MANAGEMENT LEVEL 3
PROGRAM INFORMATION #1
PROGRAM INFORMATION #2
PROGRAM INFORMATION #3
PROGRAM INFORMATION #2a
PROGRAM INFORMATION #3a
102
MANAGEMENT LEVEL 2
PLAY LIST INFORMATION #1
PLAY LIST INFORMATION #2
PLAY LIST INFORMATION #n
103
MANAGEMENT LEVEL 1
ORIGINAL UNIFIED INFORMATION
PLAY LIST UNIFIED INFORMATION
USER-DEFINED UNIFIED INFORMATION #1
USER-DEFINED UNIFIED INFORMATION #2
USER-DEFINED UNIFIED INFORMATION #m
104

FIG.2
PRIOR ART

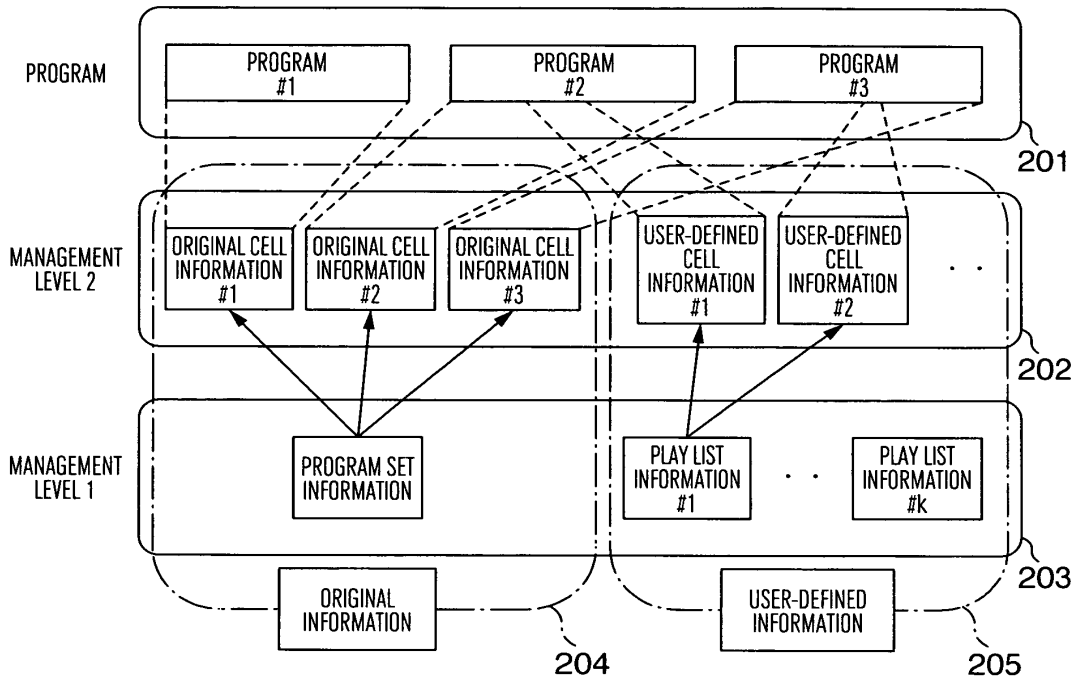


FIG.3

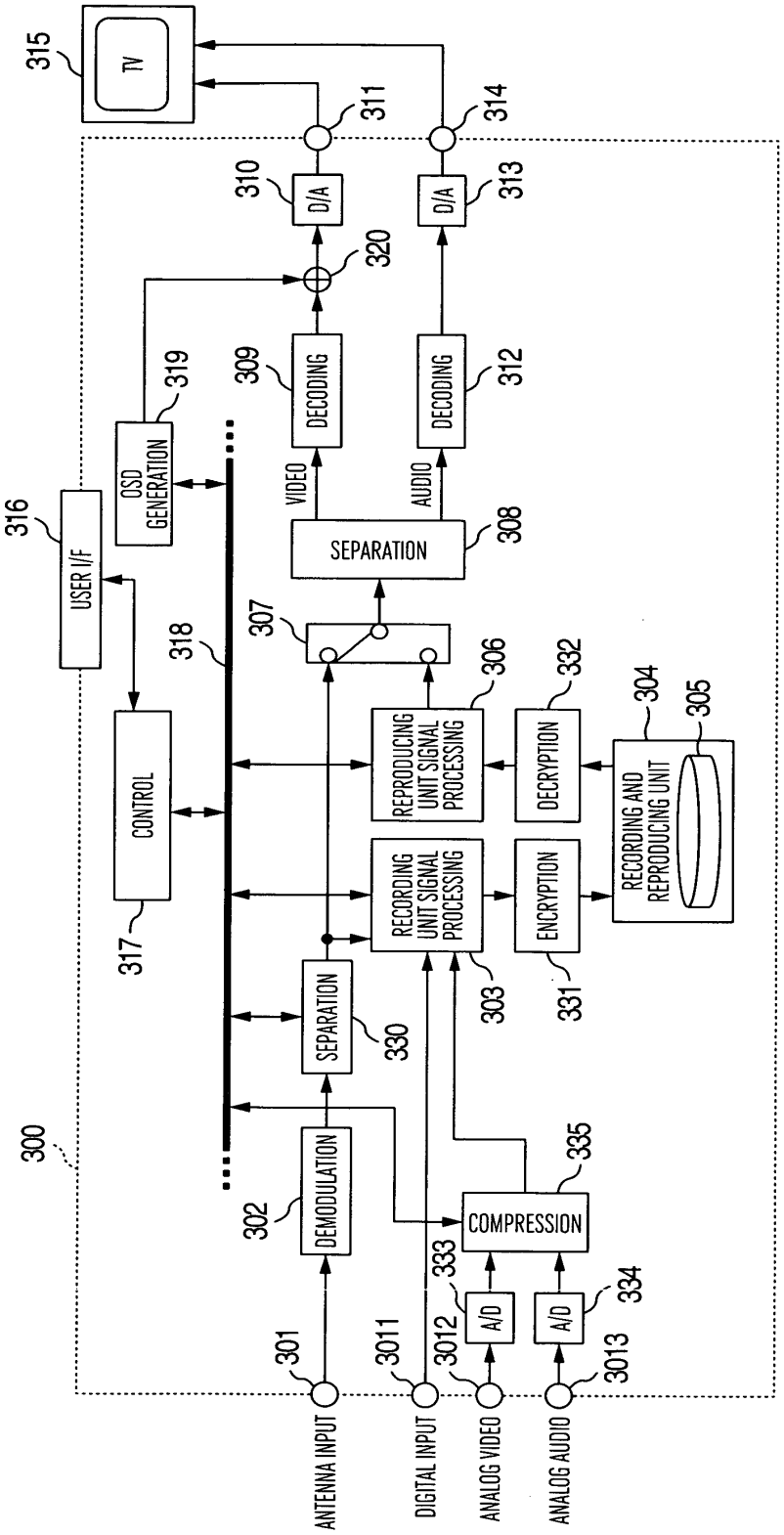

TV
D/A
D/A
DECODING
DECODING
OSD GENERATION
USER I/F
VIDEO
AUDIO
SEPARATION
CONTROL
REPRODUCING UNIT SIGNAL PROCESSING
DECRYPTION
RECORDING AND REPRODUCING UNIT
RECORDING UNIT SIGNAL PROCESSING
ENCRYPTION
SEPARATION
DEMODULATION
COMPRESSION
A/D
A/D
ANTENNA INPUT
DIGITAL INPUT
ANALOG VIDEO
ANALOG AUDIO
300
301
302
303
304
305
306
307
308
309
310
311
312
313
314
315
316
317
318
319
320
330
331
332
333
334
335
3011
3012
3013

FIG.4

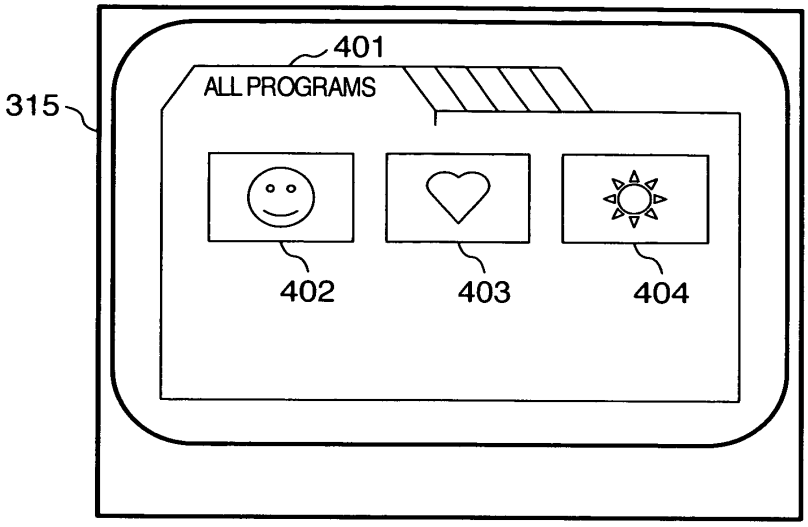

401
ALL PROGRAMS
315
402
403
404

FIG.5

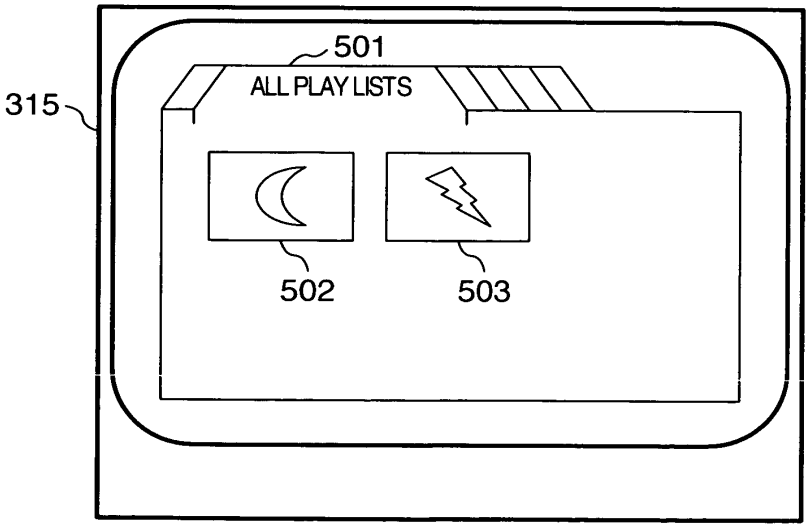

501
ALL PLAY LISTS
315
502
503

FIG.6

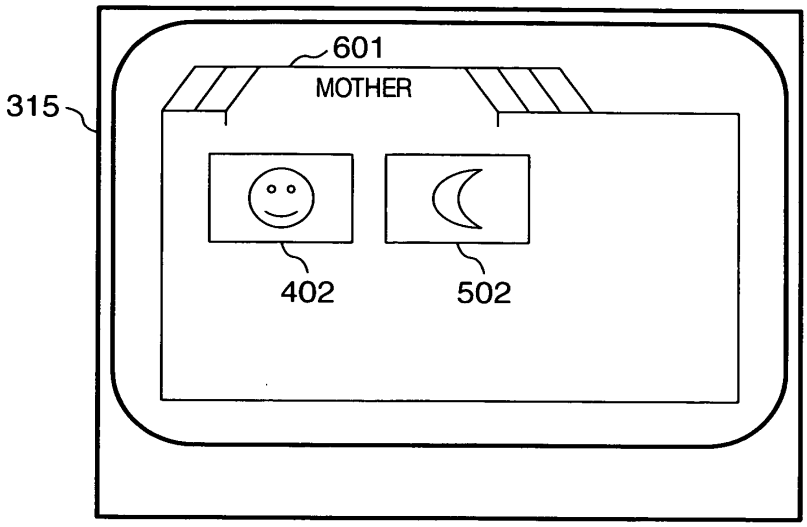


FIG.7

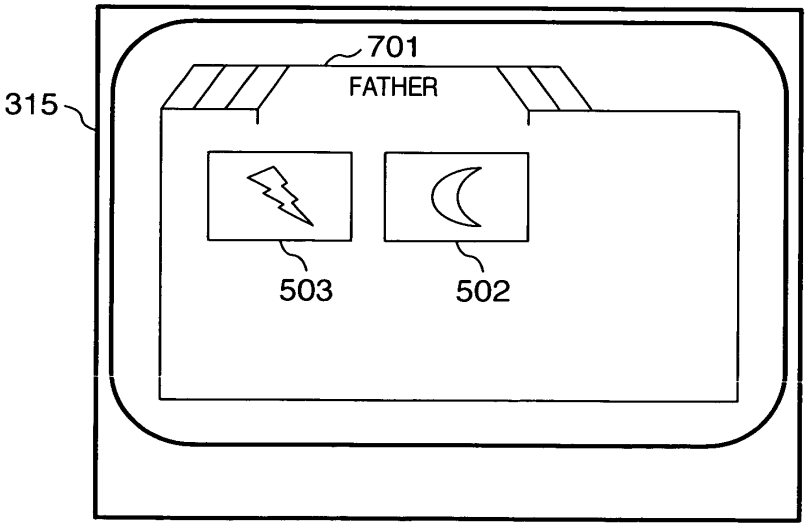


FIG.8

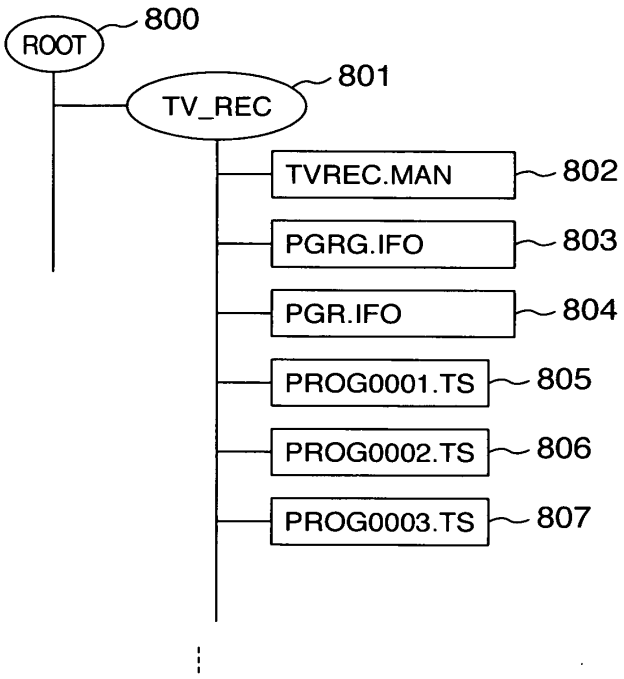

ROOT
800
TV_REC
801
TVREC.MAN
802
PGRG.IFO
803
PGR.IFO
804
PROG0001.TS
805
PROG0002.TS
806
PROG0003.TS
807

FIG.9

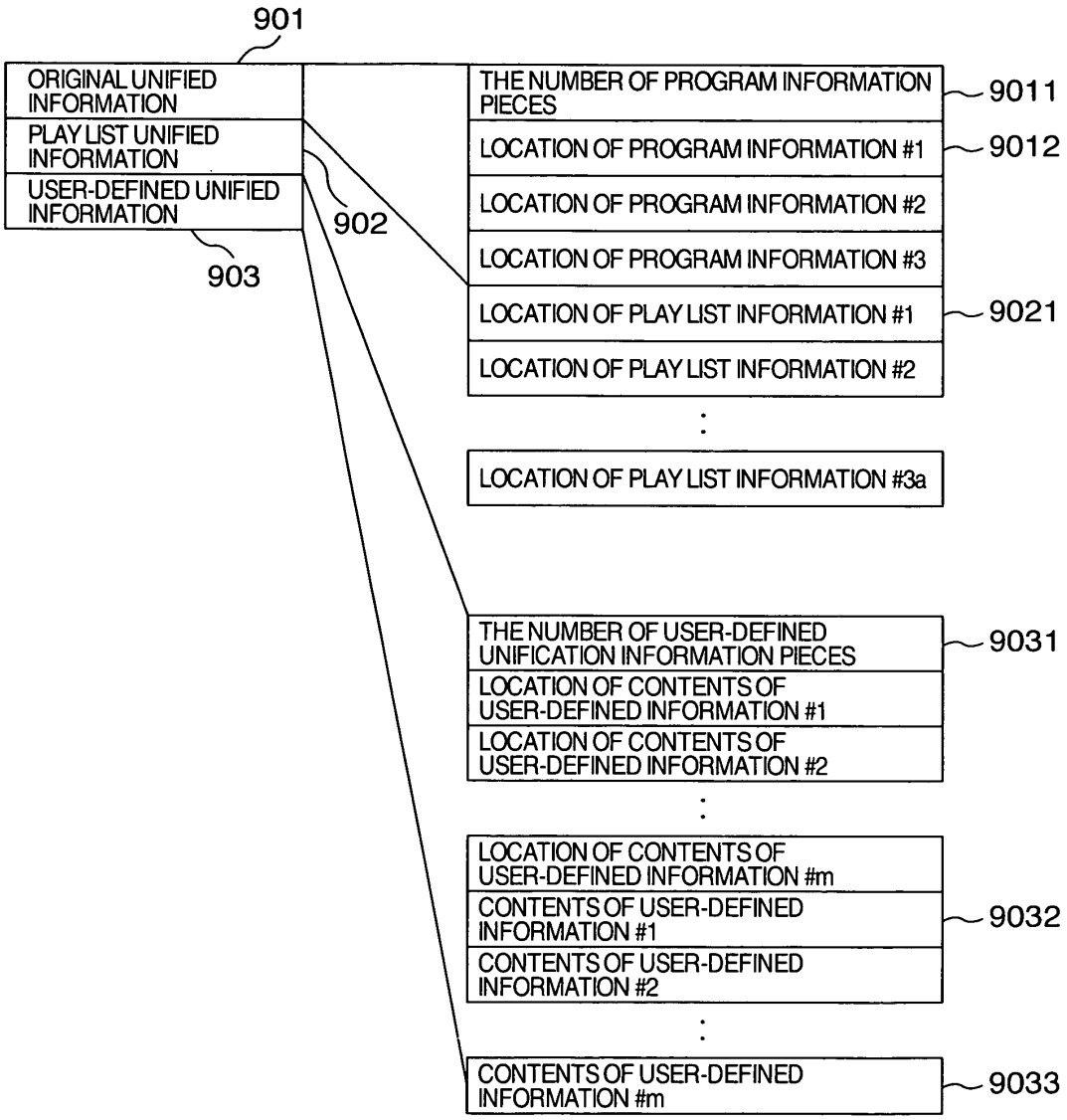

901
ORIGINAL UNIFIED INFORMATION
PLAY LIST UNIFIED INFORMATION
USER-DEFINED UNIFIED INFORMATION
902
903
THE NUMBER OF PROGRAM INFORMATION PIECES
9011
LOCATION OF PROGRAM INFORMATION #1
9012
LOCATION OF PROGRAM INFORMATION #2
LOCATION OF PROGRAM INFORMATION #3
LOCATION OF PLAY LIST INFORMATION #1
9021
LOCATION OF PLAY LIST INFORMATION #2
LOCATION OF PLAY LIST INFORMATION #3a
THE NUMBER OF USER-DEFINED UNIFICATION INFORMATION PIECES
9031
LOCATION OF CONTENTS OF USER-DEFINED INFORMATION #1
LOCATION OF CONTENTS OF USER-DEFINED INFORMATION #2
LOCATION OF CONTENTS OF USER-DEFINED INFORMATION #m
CONTENTS OF USER-DEFINED INFORMATION #1
9032
CONTENTS OF USER-DEFINED INFORMATION #2
CONTENTS OF USER-DEFINED INFORMATION #m
9033

FIG.10

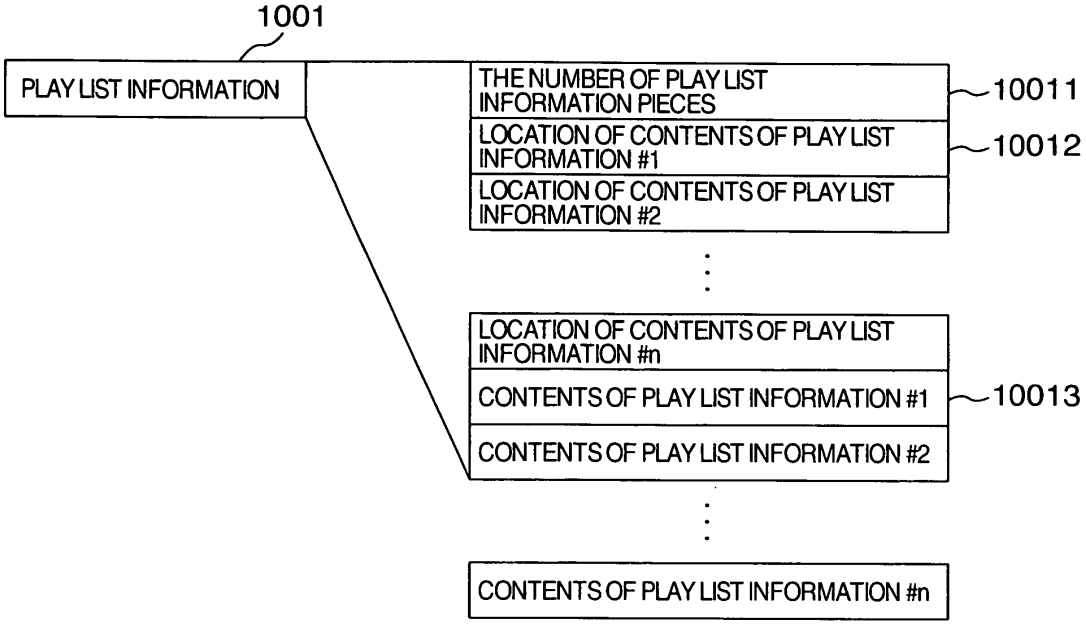

1001
PLAY LIST INFORMATION
THE NUMBER OF PLAY LIST INFORMATION PIECES
10011
LOCATION OF CONTENTS OF PLAY LIST INFORMATION #1
10012
LOCATION OF CONTENTS OF PLAY LIST INFORMATION #2
LOCATION OF CONTENTS OF PLAY LIST INFORMATION #n
CONTENTS OF PLAY LIST INFORMATION #1
10013
CONTENTS OF PLAY LIST INFORMATION #2
CONTENTS OF PLAY LIST INFORMATION #n

FIG.11

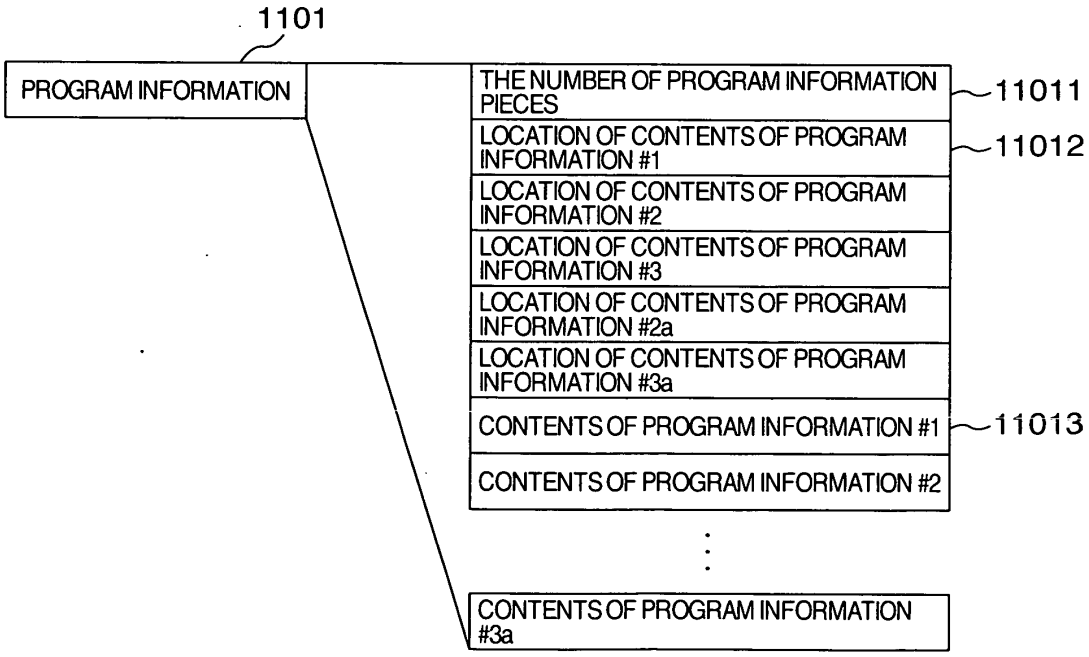

1101
PROGRAM INFORMATION
THE NUMBER OF PROGRAM INFORMATION PIECES
11011
LOCATION OF CONTENTS OF PROGRAM INFORMATION #1
11012
LOCATION OF CONTENTS OF PROGRAM INFORMATION #2
LOCATION OF CONTENTS OF PROGRAM INFORMATION #3
LOCATION OF CONTENTS OF PROGRAM INFORMATION #2a
LOCATION OF CONTENTS OF PROGRAM INFORMATION #3a
CONTENTS OF PROGRAM INFORMATION #1
11013
CONTENTS OF PROGRAM INFORMATION #2
CONTENTS OF PROGRAM INFORMATION #3a

FIG.12

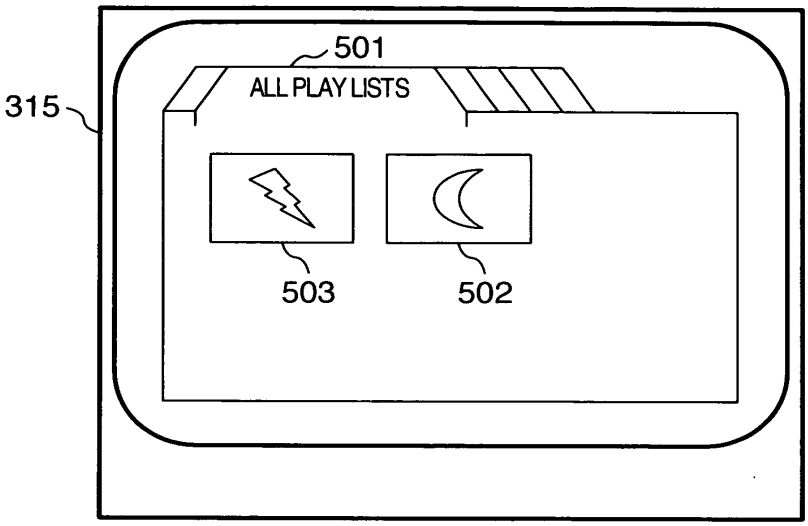
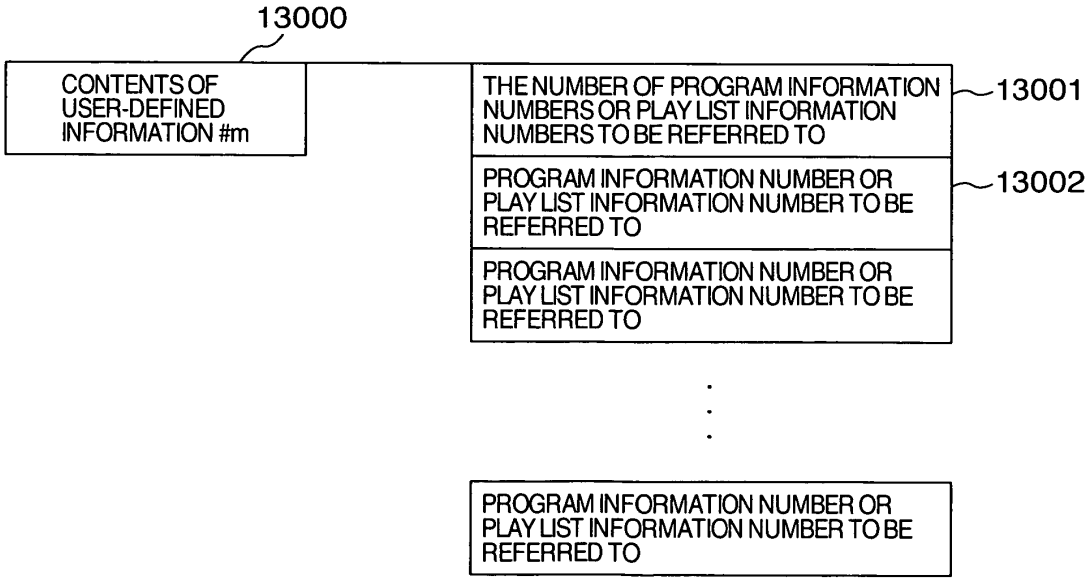

501
ALL PLAY LISTS
315
503
502

FIG.13


13000
CONTENTS OF USER-DEFINED INFORMATION #m
THE NUMBER OF PROGRAM INFORMATION NUMBERS OR PLAY LIST INFORMATION NUMBERS TO BE REFERRED TO
13001
PROGRAM INFORMATION NUMBER OR PLAY LIST INFORMATION NUMBER TO BE REFERRED TO
13002
PROGRAM INFORMATION NUMBER OR PLAY LIST INFORMATION NUMBER TO BE REFERRED TO
PROGRAM INFORMATION NUMBER OR PLAY LIST INFORMATION NUMBER TO BE REFERRED TO

PATENT APPLICATION SERIAL NO _____

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE
FEE RECORD SHEET

08/17/2005 DTESSEM1 00000050 201430 11203457

01 FC:1011	300.00	DA
02 FC:1111	500.00	DA
03 FC:1311	200.00	DA
04 FC:1201	1200.00	DA

PTO-1556
(5/87)

*U.S. Government Printing Office: 2002 — 469-267/69033

1, 4, 7, 8, 9, 10, 12, 13, 14.

PTO/SB/03 (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

Substitute for Form PTO-875 Effective December 8, 2004

Application or Docket Number: 11203457

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY RATE ($)	SMALL ENTITY FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY FEE ($)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	150.00		N/A	300.00
SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A	$250		N/A	$500
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	$100		N/A	$200
TOTAL CLAIMS (37 CFR 1.16(i))	12 minus 20 =	* 0	X$ 25 =		OR	X$50 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	9 minus 3 =	* 6	X100 =			X200 =	1200
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))			+180=			+360=	
			TOTAL			TOTAL	2200

* If the difference in column 1 is less than zero, enter "0" in column 2.

APPLICATION AS AMENDED – PART II

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE ($)	SMALL ENTITY ADDI-TIONAL FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY ADDI-TIONAL FEE ($)
AMENDMENT A	Total (37 CFR 1.16(i))	*	Minus	**	=	X$ 25 =		OR	X$50 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X100 =		OR	X200 =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					+180=		OR	+360=	
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDI-TIONAL FEE ($)	OR	RATE ($)	ADDI-TIONAL FEE ($)
AMENDMENT B	Total (37 CFR 1.16(i))	*	Minus	**	=	X$ 25 =		OR	X$50 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X100 =		OR	X200 =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					+180=		OR	+360=	
						TOTAL ADD'L FEE		OR	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.

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.

Application Data Sheet

Application Information

Application number::	
Filing Date::	
Application Type::	Regular
Subject Matter::	Utility
Suggested classification::	
Suggested Group Art Unit::	
CD-ROM or CD-R??::	
Number of CD disks::	
Number of copies of CDs::	
Sequence Submission::	
Computer Readable Form (CRF)?::	
Number of copies of CRF::	
Title::	Editing Method and Recording and Reproducing Device
Attorney Docket Number::	16869S-161000US
Request for Early Publication::	No
Request for Non-Publication::	No
Suggested Drawing Figure::	
Total Drawing Sheets::	9
Small Entity?::	No
Latin name::	
Variety denomination name::	
Petition included?::	No
Petition Type::	
Licensed US Govt. Agency::	
Contract or Grant Numbers One::	
Secrecy Order in Parent Appl.::	No

Maxell, Ltd.
Ex. 2016
Page 176 of 182

Applicant Information

Applicant Authority Type::	Inventor
Primary Citizenship Country::	Japan
Status::	Full Capacity
Given Name::	Susumu
Middle Name::	
Family Name::	YOSHIDA
Name Suffix::	
City of Residence::	Tokyo
State or Province of Residence::	
Country of Residence::	Japan
Street of Mailing Address::	c/o Hitachi, Ltd.
Postal Address Line Two::	Intellectual Property Group
Postal Address Line Three::	6-1, Marunouchi 1-chome
Postal Address Line Four::	Chiyoda-ku
City of Mailing Address::	Tokyo
State or Province of mailing address::	
Country of mailing address::	Japan
Postal or Zip Code of mailing address::	100-8220

Applicant Authority Type::	Inventor
Primary Citizenship Country::	Japan
Status::	Full Capacity
Given Name::	Junji
Middle Name::	
Family Name::	SHIOKAWA
Name Suffix::	
City of Residence::	Tokyo
State or Province of Residence::	
Country of Residence::	Japan
Street of Mailing Address::	c/o Hitachi, Ltd.
Postal Address Line Two::	Intellectual Property Group
Postal Address Line Three::	6-1, Marunouchi 1-chome

Postal Address Line Four::	Chiyoda-ku
City of Mailing Address::	Tokyo
State or Province of mailing address::	
Country of mailing address::	Japan
Postal or Zip Code of mailing address::	100-8220

Applicant Authority Type::	Inventor
Primary Citizenship Country::	Japan
Status::	Full Capacity
Given Name::	Hiroo
Middle Name::	
Family Name::	OKAMOTO
Name Suffix::	
City of Residence::	Tokyo
State or Province of Residence::	
Country of Residence::	Japan
Street of Mailing Address::	c/o Hitachi, Ltd.
Postal Address Line Two::	Intellectual Property Group
Postal Address Line Three::	6-1, Marunouchi 1-chome
Postal Address Line Four::	Chiyoda-ku
City of Mailing Address::	Tokyo
State or Province of mailing address::	
Country of mailing address::	Japan
Postal or Zip Code of mailing address::	100-8220

Correspondence Information

Correspondence Customer Number::	20350

Representative Information

Representative Designation::	Representative Number::	Representative Name::
Primary	27,431	Robert C. Colwell

Domestic Priority Information

Application::	Continuity Type::	Parent Application::	Parent Filing Date::

Foreign Priority Information

Country::	Application number::	Filing Date::
Japan	2004-349264	12/02/04
Japan	2004-378767	12/28/04
Japan	2004-378768	12/28/04

Assignee Information

Assignee Name::

Street of mailing address::

City of mailing address::

State or Province of mailing address::

Country of mailing address::

Postal or Zip Code of mailing address::

PATENT
Attorney Docket No.: 16869S-161000US
Client Reference No.: W2496-01ET

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	Examiner:
Susumu YOSHIDA, et al.	Art Unit:
Application No.:	
Filed:	
For: EDITING METHOD AND RECORDING AND REPRODUCING DEVICE	INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §1.97 and §1.98

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

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. A copy of the foreign reference [in compliance with the requirements of 1287 OG 163] is enclosed. It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that no fee is required for submission of this statement. However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,

Chun-Pok Leung
Reg. No. 41,405

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 650-326-2400
Fax: 650-326-2422
RL:c3a
60561108 v1

PTO/SB/08A (08-03)

Substitute for form 1449A/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application Number	
				Filing Date	
				First Named Inventor	YOSHIDA, Susumu
				Art Unit	
(use as many sheets as necessary)				Examiner Name	
Sheet	1	of	1	Attorney Docket Number	16869S-161000US

U.S. PATENT DOCUMENTS+

Examiner Initials*	Cite No.[1]	Document Number Number Kind Code[2] (*if known*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	0001	US-2003/0063897	04-03-2003	Heo, Jung-Kwon	
	0002	US-			
	0003	US-			
	0004	US-			
	0005	US-			
	0006	US-			
	0007	US-			
	0008	US-			
	0009	US-			
	0010	US-			
	0011	US-			
	0012	US-			
	0013	US-			
	0014	US-			
	0015	US-			
	0016	US-			
	0017	US-			
	0018	US-			
	0019	US-			
	0020	US-			

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3]	Number[4]	Kind Code[5] (*if known*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
	0021	JP	2000-152180		05-30-2000	MATSUSHITA ELE		☒
	0022							☐
	0023							☐
	0024							☐
	0025							☐
	0026							☐
	0027							☐
	0028							☐

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. [1] **Applicant's** unique citation designation number **(optional)**. [2] Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. [3] Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. [6] Applicant is to place a check mark here if English language Translation is attached.

60561108 v1