



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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Alexandria, Virginia 22313-1450
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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
15/922,926	03/16/2018	Masahide Tanaka	N0692.70001US05

CONFIRMATION NO. 9288

23628
WOLF GREENFIELD & SACKS, P.C.
600 ATLANTIC AVENUE
BOSTON, MA 02210-2206

POA ACCEPTANCE LETTER



OC00000068106498

Date Mailed: 02/09/2024

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 01/30/2024.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at (571) 272-4000 or (571) 272-4200 or 1-888-786-0101.

/nguyen/

TRANSMITTAL FORM <i>(to be used for all correspondence after initial filing)</i>	Application Number	Patent#: 10,880,592
	Filing Date	Issued: December 29, 2020
	First Named Inventor	Masahide Tanaka
	Art Unit	2425
	Examiner Name	A. Gee
Total Number of Pages in This Submission	Attorney Docket Number	N0692.70001 US05

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): Statement under 37 CFR 3.73(c)
Remarks		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm Name	WOLF, GREENFIELD & SACKS, P.C.		
Signature	/James H. Morris/		
Printed name	James H. Morris		
Date	January 24, 2024	Reg. No.	34,681

Certificate of Electronic Filing under 37 C.F.R. § 1.8	
I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office's electronic filing system in accordance with 37 C.F.R. § 1.6(a)(4).	
Dated: January 30, 2024	Signature: /Stacey L. Appleton/ (Stacey L. Appleton)

POWER OF ATTORNEY REGARDING APPLICATIONS/PATENTS BEFORE THE
USPTO

GENERAL POWER OF ATTORNEY

I hereby revoke all previous powers of attorney given in the application(s)/patent(s) identified in the attached list and/or the attached statement under 37 CFR 3.73(c).

I hereby appoint Practitioners associated with the Customer Number:

23628

as attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent application(s)/patent(s) identified in the attached list and/or the attached statement under 37 CFR 3.73(c).

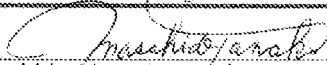
Please change the correspondence address for the application(s)/patent(s) identified in the attached list and/or the attached statement under 37 CFR 3.73(c) to:

The address associated with Customer Number: **23628**

Statements under 37 CFR 3.73(c) attached hereto may be completed by one of the practitioners appointed above if the appointed practitioner is authorized to act on behalf of the assignee, and must identify the application in which this Power of Attorney is to be filed.

Assignee Name and Address:

NL Giken Incorporated
1-17-9, Ozone, Toyonaka-Shi
Osaka, Japan 561-0813

SIGNATURE of Assignee of Record		
The individual whose signature and title is supplied below is authorized to act on behalf of the assignee		
Signature		Date January 15, 2024
Name	MASAHIDE TANAKA	Telephone +81 6 6334 6204
Title	CHIEF EXECUTIVE OFFICER	

Schedule of Patents/Applications

WGS Ref. No.	Title	Cty	Appl. No.	Filing Date	Patent No.	Issue Date
N0692.70000US00	MOVING IMAGE DATA DELIVERY SYSTEM, AN ADVERTISING IMAGE DATA DELIVERY SYSTEM, AND A MOVING IMAGE VIEWING APPARATUS	US	14/044,969	10/03/2013	9,197,939	11/24/2015
N0692.70001US00	DIGITAL CONTENTS RECEIVING APPARATUS	US	14/519,389	10/21/2014	9,210,484	12/08/2015
N0692.70001US02	DIGITAL CONTENTS RECEIVING APPARATUS	US	14/724,070	03/25/2014		
N0692.70001US03	DIGITAL CONTENTS RECEIVING APPARATUS	US	14/934,331	11/06/2015	9,762,964	03/12/2017
N0692.70001US04	DIGITAL CONTENTS RECEIVING APPARATUS	US	15/633,776	06/27/2017	9,948,968	04/17/2018
N0692.70001US05	DIGITAL CONTENTS RECEIVING APPARATUS	US	15/922,926	03/16/2018	10,880,597	12/29/2020
N0692.70001US06	DIGITAL CONTENTS RECEIVING APPARATUS	US	17/198,017	12/01/2020		
N0692.70001US07	DIGITAL CONTENTS RECEIVING APPARATUS	US	18/093,798	01/05/2023		
N0692.70002US02	TELEVISION SYSTEM, TELEVISION SET AND REMOTE CONTROLLER	US	14/145,955	01/01/2014	9,319,615	04/19/2016
N0692.70002US03	TELEVISION SYSTEM, TELEVISION SET AND REMOTE CONTROLLER	US	15/067,240	03/11/2016	10,028,024	07/17/2018
N0692.70002US04	TELEVISION SYSTEM, TELEVISION SET AND REMOTE CONTROLLER	US	15/635,266	05/28/2017	10,294,803	05/07/2019
N0692.70002US05	TELEVISION SYSTEM, TELEVISION SET AND REMOTE CONTROLLER	US	15/009,278	06/15/2018		
N0692.70002US06	TELEVISION SYSTEM, TELEVISION SET AND REMOTE CONTROLLER	US	17/197,917	11/30/2020		
N0692.70003US00	VEHICLE CAPABLE OF LOW NOISE RUNS	US	14/481,933	09/10/2014	9,352,688	05/31/2016
N0692.70004US00	DIGITAL CAMERA WITH COMMUNICATION FUNCTION	US	15/462,983	03/20/2017	10,592,547	03/17/2020
N0692.70005US00	RECEIVING APPARATUS CAPABLE OF RECEIVING DIGITAL CONTENTS AND COMMERCIAL MESSAGES	US	16/388,740	05/31/2020	11,218,781	01/04/2022

11973719.1

N0692.700070US00	DIGITAL IMAGE VIEWING SYSTEM, A CELLAR PHONE AND A DIGITAL PHOTO FRAME	US	15/362,659	03/24/2019	10,764,422	9/1/2020
N0692.700080US00	3D IMAGE CONTENTS VIEWING SYSTEM	US	15/257,251	01/25/2019	10,728,535	07/28/2020
N0692.700090US00	ELECTRONIC MUSIC BOX	US	15/633,866	06/27/2017	10,032,442	07/24/2018

11973719.1

STATEMENT UNDER 37 CFR 3.73(c)

Applicant/Patent Owner: NL Giken Incorporated

Application No./Patent No.: 10,880,592 Filed/Issue Date: December 29, 2020

Titled: DIGITAL CONTENTS RECEIVING APPARATUS

NL Giken Incorporated, a Corporation
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that, for the patent application/patent identified above, it is (choose **one** of options 1, 2, 3 or 4 below):

1. ☒ The assignee of the entire right, title, and interest.
2. ☐ An assignee of less than the entire right, title, and interest (check applicable box):
- ☐ The extent (by percentage) of its ownership interest is ____%. Additional Statement(s) by the owners holding the balance of the interest must be submitted to account for 100% of the ownership interest.
- ☐ There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right, title and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

3. ☐ The assignee of an undivided interest in the entirety (a complete assignment from one of the joint inventors was made). The other parties, including inventors, who together own the entire right, title, and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

4. ☐ The recipient, via a court proceeding or the like (e.g., bankruptcy, probate), of an undivided interest in the entirety (a complete transfer of ownership interest was made). The certified document(s) showing the transfer is attached.

The interest identified in option 1, 2 or 3 above (not option 4) is evidenced by either (choose **one** of options A or B below):

- A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 066035, Frame 0536, or for which a copy thereof is attached*.
- B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached*.

2. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached*.

STATEMENT UNDER 37 CFR 3.73(c)

3. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached*.

4. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached*.

5. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached*.

6. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached*.

☐ Additional documents in the chain of title are listed on a supplemental sheet(s).☐ *As required by 37 CFR 3.73(c)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

Signature /James H. Morris/_____
Date January 24, 2024_____
Printed or Typed Name James H. Morris_____
Title or Registration Number 34,681



UNITED STATES
PATENT AND TRADEMARK OFFICE

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Alexandria, VA 22313 - 1450
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ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #
15/922,926

RECEIPT DATE / TIME
01/30/2024 01:03:59 PM Z ET

ATTORNEY DOCKET #
US8CA5

Title of Invention

Digital contents receiving apparatus

Application Information

APPLICATION TYPE Utility - Nonprovisional Application
under 35 USC 111(a)

PATENT # 10880592

CONFIRMATION # 9288

FILED BY Stacey Appleton

PATENT CENTER # 64138178

FILING DATE 03/16/2018

CUSTOMER # 67628

FIRST NAMED
INVENTOR Masahide Tanaka

CORRESPONDENCE
ADDRESS -

AUTHORIZED BY James Morris

Documents

TOTAL DOCUMENTS: 3

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
N069270001US05-TRN-JHM.pdf	1	Miscellaneous Incoming Letter	26 KB
N069270001US05-373-JHM.pdf	2	Assignee showing of ownership per 37 CFR 3.73	25 KB
N069270001US05-POA-JHM.pdf	3	Power of Attorney	4342 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
N069270001US05-TRN-JHM.pdf	2F13E1D3C63946168B4A2C0C324CC0C450EC338E8A11754F C0F7B0F7C966A07598E89BB2C0A576B7C6261C33B685EF61E

4F170853E4B1EC5DA1448D83E6CDF32

N069270001US05-373-
JHM.pdf

92E17575971AA711C58959DE75E7AE6A076D8801F683D56961
41EE4FB35B5032E1B63AC90182BC6B47E065DABCBF88AC5E
BA5593F2719C8A05FE525BA5433E22

N069270001US05-POA-
JHM.pdf

A8CFC15DC575DD0FE826BBB7C8B3B662CEC2B19E5EFB1AA
E9EE9F873D8F1CC57FC55046C4046961D7B46F56E27D4E9F
DB4216AC9D24C12F5D58C85E3E66CB3BC

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 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.
15/922,926	12/29/2020	10880592	US8CA5	9288

67628 7590 12/09/2020
MASAHIDE TANAKA
1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN
OSAKA,
JAPAN

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 264 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):

Masahide Tanaka, Osaka, JAPAN;

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage and facilitate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit SelectUSA.gov.

"FEE ADDRESS" INDICATION FORM

Address to:
Mail Stop M Correspondence
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Fax to:
571-273-6500

- OR -

INSTRUCTIONS: The issue fee must have been paid for application(s) listed on this form. In addition, only an address represented by a Customer Number can be established as the fee address for maintenance fee purposes (hereafter, fee address). A fee address should be established when correspondence related to maintenance fees should be mailed to a different address than the correspondence address for the application. **When to check the first box below:** If you have a Customer Number to represent the fee address. **When to check the second box below:** If you have no Customer Number representing the desired fee address, in which case a completed Request for Customer Number (PTO/SB/125) must be attached to this form. For more information on Customer Numbers, see the Manual of Patent Examining Procedure (MPEP) § 403.

For the following listed application(s), please recognize as the "Fee Address" under the provisions of 37 CFR 1.363 the address associated with:

☒ Customer Number: 67628

OR

☐ The attached Request for Customer Number (PTO/SB/125) form.

PATENT NUMBER (if known)	APPLICATION NUMBER
	15/922,926

Completed by (check one):

☒ Applicant/Inventor /Masahide Tanaka/

Signature

☐ Attorney or Agent of record Masahide Tanaka

Typed or printed name
(Reg. No.)

☐ Assignee of record of the entire interest. See 37 CFR 3.71. +81 6 6334 6204

Requester's telephone number
Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

☐ Assignee recorded at Reel _____ Frame _____ November 25, 2020

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☐ * Total of _____ forms are submitted.

This collection of information is required by 37 CFR 1.363. 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 5 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 COMPLETE D FORMS TO THIS ADDRESS. **SEND TO: Mail Stop M Correspondence, 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.

Privacy Act Statement

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

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

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

Electronic Patent Application Fee Transmittal				
Application Number:		15922926		
Filing Date:		16-Mar-2018		
Title of Invention:		Digital contents receiving apparatus		
First Named Inventor/Applicant Name:		Masahide Tanaka		
Filer:		Masahide Tanaka		
Attorney Docket Number:		US8CA5		
Filed as Small Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
UTILITY APPL ISSUE FEE	2501	1	500	500

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				500

Electronic Acknowledgement Receipt	
EFS ID:	41233072
Application Number:	15922926
International Application Number:	
Confirmation Number:	9288
Title of Invention:	Digital contents receiving apparatus
First Named Inventor/Applicant Name:	Masahide Tanaka
Customer Number:	67628
Filer:	Masahide Tanaka
Filer Authorized By:	
Attorney Docket Number:	US8CA5
Receipt Date:	25-NOV-2020
Filing Date:	16-MAR-2018
Time Stamp:	21:09:02
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	\$ 500
RAM confirmation Number	E2020AOL11509889
Deposit Account	
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:	

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)	15922926ptol85b.pdf	73366	no	2
			91285ee108b688b9b452f61f7a28ff6e07dd33ed		
Warnings:					
Information:					
2	Change of Address	15922926sb0047.pdf	311419	no	2
			d12112716c3539bd1496527451016b5dd9eb1d6		
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	29793	no	2
			dcdf7ad317b273190c7f590a858f69d3e8fa3a609		
Warnings:					
Information:					
Total Files Size (in bytes):			414578		
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)

Masahide Tanaka
1-17-9, Ozone, Toyonaka-Shi, Osaka, Japan

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.
15/922,926	03/16/2018	Masahide Tanaka	US8CA5	9288

TITLE OF INVENTION:

APPL. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$500	\$0	\$0	\$500	11/27/2020
EXAMINER		ART UNIT	CLASS-SUBCLASS			

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

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

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

(A) NAME OF ASSIGNEE

NL GIKEN INCORPORATED

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

Osaka, 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 _____

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 /Masahide Tanaka/

Date November 25, 2020

Typed or printed name Masahide Tanaka

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.

Privacy Act Statement

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

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

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



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

67628 7590 08/26/2020
MASAHIDE TANAKA
1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN
OSAKA,
JAPAN

EXAMINER

GEE, ALEXANDER

ART UNIT

PAPER NUMBER

2425

DATE MAILED: 08/26/2020

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/922,926	03/16/2018	Masahide Tanaka	US8CA5	9288

TITLE OF INVENTION: Digital contents receiving apparatus

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$500	\$0.00	\$0.00	\$500	11/27/2020

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 ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

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: Maintenance fees are due in utility patents issuing on applications filed on or after Dec. 12, 1980. It is patentee's responsibility to ensure timely payment of maintenance fees when due. More information is available at www.uspto.gov/PatentMaintenanceFees.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (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)

67628 7590 08/26/2020
MASAHIDE TANAKA
1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN
OSAKA,
JAPAN

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 transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

	(Typed or printed name)
	(Signature)
	(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/922,926	03/16/2018	Masahide Tanaka	US8CA5	9288

TITLE OF INVENTION: Digital contents receiving apparatus

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$500	\$0.00	\$0.00	\$500	11/27/2020

EXAMINER	ART UNIT	CLASS-SUBCLASS
GEE, ALEXANDER	2425	725-131000

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 03-09 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,

1 _____

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

2 _____

3 _____

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

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). 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. Fees submitted: ☐ Issue Fee ☐ Publication Fee (if required) ☐ Advance Order - # of Copies _____

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

☐ Electronic Payment via EFS-Web ☐ Enclosed check ☐ Non-electronic payment by credit card (Attach form PTO-2038)

☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. _____

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

☐ Applicant certifying micro entity status. See 37 CFR 1.29

☐ Applicant asserting small entity status. See 37 CFR 1.27

☐ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____



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.
15/922,926	03/16/2018	Masahide Tanaka	US8CA5	9288
67628	7590	08/26/2020	EXAMINER	
MASAHIDE TANAKA			GEE, ALEXANDER	
1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN				
OSAKA,			ART UNIT	
JAPAN			PAPER NUMBER	
			2425	
DATE MAILED: 08/26/2020				

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

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

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.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B 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 30 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.

Privacy Act Statement

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

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

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

Notice of Allowability	Application No. 15/922,926	Applicant(s) Tanaka, Masahide	
	Examiner Alexander Gee	Art Unit 2425	AIA (FITF) Status No

-- 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 the AFCP 2.0 request dated 8/12/2020.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☒ The allowed claim(s) is/are 13-25. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a) ☒ All b) ☐ Some *c) ☐ None of the:

1. ☒ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

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

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
☐ 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)	5. ☐ Examiner's Amendment/Comment
2. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____.	6. ☒ Examiner's Statement of Reasons for Allowance
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____.	7. ☐ Other _____.
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____.	

	/ALEXANDER GEE/ Primary Examiner, Art Unit 2425
--	--

Allowable Subject Matter

1. **Claims 13-25** are allowable because the independent **claims 13 and 18**, as a whole, overcome the prior art of record. For instance, references such as Day et al. (US 2007/0174336) teach managing resources and preventing conflicts when locally recording media assets in multimedia delivery systems, Nashida et al. (US 2002/0013945) and Yu et al. (US 2010/0111504) teach providing content to a user device when it is not available, Craner et al. (US 2008/0155615) teaches indexing content and providing the indexed content at the points at which the content was indexed. However, the prior art of record cannot be reasonably combined in order to teach the claimed invention.

Conclusion

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 Alexander Gee whose telephone number is (571)270-5955. The examiner can normally be reached on Monday through Friday 8 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Pendleton can be reached on 571-272-7527. 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.

/ALEXANDER GEE/
Primary Examiner, Art Unit 2425

Notice of References Cited	Application/Control No. 15/922,926		Applicant(s)/Patent Under Reexamination Tanaka, Masahide	
	Examiner Alexander Gee		Art Unit 2425	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-20100111504-A1	05-2010	Yu; Ke	H04N21/43622	386/241
*	B	US-20080155615-A1	06-2008	Craner; Michael	H04N21/4751	725/91
*	C	US-20070174336-A1	07-2007	Day; Thomas	H04N21/8545	1/1
*	D	US-20020013945-A1	01-2002	Nashida, Tatsushi	H04N21/6543	725/58
	E					
	F					
	G					
	H					
	I					
	J					
	K					
	L					
	M					

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC 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.

U.S. Patent and Trademark Office
PTO-892 (Rev. 01-2001)

Notice of References Cited

Part of Paper No. 20200818

<i>Search Notes</i> 	Application/Control No. 15/922,926	Applicant(s)/Patent Under Reexamination Tanaka, Masahide
	Examiner Alexander Gee	Art Unit 2425

CPC - Searched*		
Symbol	Date	Examiner

CPC Combination Sets - Searched*		
Symbol	Date	Examiner
H04N21/ 2665,426,4331,4383,4432,462,4622,47208,8586,4424,6581,218,262 ,26275	01/31/2020	AG
H04N7/16	01/31/2020	AG

US Classification - Searched*			
Class	Subclass	Date	Examiner

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
EAST text and classification prior art search	01/31/2020	AG
Inventor/assignee name search	01/31/2020	AG
Updated EAST text and classification prior art search	05/12/2020	AG
Updated EAST text and classification prior art search	08/18/2020	AG

	/ALEXANDER GEE/ Primary Examiner, Art Unit 2425
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<i>Search Notes</i> 	Application/Control No. 15/922,926	Applicant(s)/Patent Under Reexamination Tanaka, Masahide
	Examiner Alexander Gee	Art Unit 2425

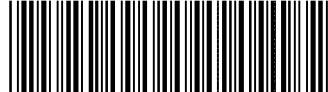
Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner
H04N21	2665,426,4331,4383,4432,462,4622,47208,8586,4424,6581,218,262,26275	08/18/2020	AG
H04N7	16	08/18/2020	AG

	/ALEXANDER GEE/ Primary Examiner, Art Unit 2425
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<i>Index of Claims</i> 	Application/Control No. 15/922,926	Applicant(s)/Patent Under Reexamination Tanaka, Masahide
	Examiner Alexander Gee	Art Unit 2425

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

CLAIMS										
☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47										
CLAIM		DATE								
Final	Original	01/31/2020	05/12/2020	08/18/2020						
	1	-	-	-						
	2	✓	-	-						
	3	✓	-	-						
	4	✓	-	-						
	5	-	-	-						
	6	-	-	-						
	7	-	-	-						
	8	-	-	-						
	9	-	-	-						
	10	-	-	-						
	11	-	-	-						
	12	-	-	-						
	13	✓	✓	=						
	14	✓	✓	=						
	15	✓	✓	=						
	16	✓	✓	=						
	17	✓	✓	=						
	18	✓	✓	=						
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	20	✓	✓	=						
	21	✓	✓	=						
	22	✓	✓	=						
	23		✓	=						
	24		✓	=						
	25		✓	=						

Issue Classification 	Application/Control No. 15/922,926	Applicant(s)/Patent Under Reexamination Tanaka, Masahide
	Examiner Alexander Gee	Art Unit 2425

CPC						
Symbol					Type	Version
H04N	/	21	/	2665	F	2013-01-01
H04N	/	21	/	4331	I	2013-01-01
H04N	/	21	/	4383	I	2013-01-01
H04N	/	21	/	4432	I	2013-01-01
H04N	/	21	/	4622	I	2013-01-01
H04N	/	21	/	8586	I	2013-01-01
H04N	/	21	/	426	I	2013-01-01
H04N	/	21	/	462	I	2013-01-01
H04N	/	21	/	47208	I	2013-01-01
H04N	/	7	/	16	A	2013-01-01
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H04N	/	21	/	6581	A	2013-01-01

CPC Combination Sets				
Symbol	Type	Set	Ranking	Version
/				

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	13	
/ALEXANDER GEE/ Primary Examiner, Art Unit 2425	18 August 2020	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	13	1

U.S. Patent and Trademark Office

Part of Paper No.: 20200818

Issue Classification 	Application/Control No. 15/922,926	Applicant(s)/Patent Under Reexamination Tanaka, Masahide
	Examiner Alexander Gee	Art Unit 2425

INTERNATIONAL CLASSIFICATION				
CLAIMED				
H04N	/	21	/	2665
H04N	/	21	/	426
H04N	/	21	/	462
H04N	/	21	/	472
H04N	/	21	/	858
H04N	/	21	/	433
H04N	/	21	/	438
H04N	/	21	/	443
H04N	/	21	/	462
H04N	/	21	/	658
H04N	/	7	/	16
H04N	/	21	/	442

NON-CLAIMED				
	/		/	

US ORIGINAL CLASSIFICATION	
CLASS	SUBCLASS
725	131

CROSS REFERENCES(S)						
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)					

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	13	
/ALEXANDER GEE/ Primary Examiner, Art Unit 2425	18 August 2020	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	13	1

U.S. Patent and Trademark Office

Part of Paper No.: 20200818

Issue Classification 	Application/Control No. 15/922,926	Applicant(s)/Patent Under Reexamination Tanaka, Masahide
	Examiner Alexander Gee	Art Unit 2425

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47															
CLAIMS															
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
-	1	-	10	7	19										
-	2	-	11	8	20										
-	3	-	12	9	21										
-	4	1	13	10	22										
-	5	2	14	11	23										
-	6	3	15	12	24										
-	7	4	16	13	25										
-	8	5	17												
-	9	6	18												

NONE (Assistant Examiner) _____ (Date) _____		Total Claims Allowed: 13	
/ALEXANDER GEE/ Primary Examiner, Art Unit 2425 (Primary Examiner) _____ (Date) 18 August 2020		O.G. Print Claim(s) 13	O.G. Print Figure 1

U.S. Patent and Trademark Office

Part of Paper No.: 20200818

EAST Search History

EAST Search History (Prior Art)

R ef #	Hits	Search Query	DBs	Defau lt Opera tor	Plur als	Time Stamp
L1	89,216	(H04N21/2665,426,4331,4383,4432,462,4622,47208,8586,4424,6581,218,262,26275 H04N7/16).cpc.	US- PGPU B; USPA T; USO CR; FPRS ; EPO; JPO	OR	OFF	2020/0 8/18 19:16
L2	403,572	(H04N21/\$\$).cpc.	US- PGPU B; USPA T; USO CR; FPRS ; EPO; JPO	OR	OFF	2020/0 8/18 19:16
L3	1,739,947	(H04N).cpcl.	US- PGPU B; USPA T; USO CR; FPRS ; EPO; JPO	OR	OFF	2020/0 8/18 19:16
L4	5,531	((content or video\$1 or media) with (schedul\$3 or "epg" or "epgs" or guide\$1) with provider\$1) and (@ad<"20080914" or @prad<"20080914" or @rlad<"20080914")	US- PGPU B; USPA T; USO CR; FPRS ; EPO; JPO	OR	OFF	2020/0 8/18 19:16

			EPO; JPO			
L5	1,630	((content or video\$1 or media) with (schedul\$3 or "epg" or "epgs" or guide\$1) with provider\$1) and (@ad<"20080914" or @prad<"20080914" or @rlad<"20080914") and L1	US- PGPU B; USPA T; USO CR; FPRS ; EPO; JPO	OR	OFF	2020/0 8/18 19:16
L6	890	((content or video\$1 or media) with (schedul\$3 or "epg" or "epgs" or guide\$1) with (provider\$1 or broadcaster\$1) with select\$3) and (@ad<"20080914" or @prad<"20080914" or @rlad<"20080914")	US- PGPU B; USPA T; USO CR; FPRS ; EPO; JPO	OR	OFF	2020/0 8/18 19:17
L7	290	((content or video\$1 or media) with (schedul\$3 or "epg" or "epgs" or guide\$1) with (provider\$1 or broadcaster\$1) with select\$3) and (@ad<"20080914" or @prad<"20080914" or @rlad<"20080914") and L1	US- PGPU B; USPA T; USO CR; FPRS ; EPO; JPO	OR	OFF	2020/0 8/18 19:17
L8	33	((("two" or second) near5 (content or video\$1 or media)) with (schedul\$3 or "epg" or "epgs" or guide\$1) with ((("two" or second) near5 (provider\$1 or broadcaster\$1 or server\$1)) with select\$3) and (@ad<"20080914" or @prad<"20080914" or @rlad<"20080914")	US- PGPU B; USPA T; USO CR; FPRS ; EPO; JPO	OR	OFF	2020/0 8/18 19:18
L9	45	((content or video\$1 or media) with (schedul\$3 or "epg" or "epgs" or guide\$1) with ((("two" or second) near5 (provider\$1 or broadcaster\$1 or server\$1)) with select\$3) and (@ad<"20080914" or @prad<"20080914" or @rlad<"20080914")	US- PGPU B; USPA T;	OR	OFF	2020/0 8/18 19:19

			USO CR; FPRS ; EPO; JPO			
L1 0	85	((("two" or second) near5 (content or video\$1 or media)) with (schedul\$3 or "epg" or "epgs" or guide\$1) with (provider\$1 or broadcaster\$1 or server\$1) with select\$3) and (@ad<"20080914" or @prad<"20080914" or @rlad<"20080914"))	US- PGPU B; USPA T; USO CR; FPRS ; EPO; JPO	OR	OFF	2020/0 8/18 19:20
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L1 2	122	((("two" or second) near5 (content or video\$1 or media)) with (schedul\$3 or "epg" or "epgs" or guide\$1) with (provider\$1 or broadcaster\$1 or server\$1 or source\$1) with select\$3) and (@ad<"20080914" or @prad<"20080914" or @rlad<"20080914"))	US- PGPU B; USPA T; USO CR; FPRS ; EPO; JPO	OR	OFF	2020/0 8/18 19:22
L1 3	70	((content or video\$1 or media) with (schedul\$3 or "epg" or "epgs" or guide\$1) with ((("two" or second) near5 (provider\$1 or broadcaster\$1 or server\$1 or source\$1)) with select\$3) and (@ad<"20080914" or @prad<"20080914" or @rlad<"20080914"))	US- PGPU B; USPA T; USO CR; FPRS ; EPO; JPO	OR	OFF	2020/0 8/18 19:22

EAST Search History (Interference)

R ef #	Hits	Search Query	DBs	Defau lt Opera tor	Plur als	Time Stamp
L1 4	36,3 43	(H04N21/2665,426,4331,4383,4432,462,4622,47208,8586,424,6581,218,262,26275 H04N7/16).cpc.	US- PGPU B; USPA T	OR	OFF	2020/08 /18 19:23
L1 5	1,53 9	((content or video\$1 or media) with (schedul\$3 or "epg" or "eggs" or guide\$1) with (provider\$1 or broadcaster\$1) with select\$3)	US- PGPU B; USPA T	OR	OFF	2020/08 /18 19:23
L1 6	465	((content or video\$1 or media) with (schedul\$3 or "epg" or "eggs" or guide\$1) with (provider\$1 or broadcaster\$1) with select\$3) and L14	US- PGPU B; USPA T	OR	OFF	2020/08 /18 19:23
L1 7	221	((content or video\$1 or media) with (schedul\$3 or "epg" or "eggs" or guide\$1) with (provider\$1 or broadcaster\$1) with select\$3).clm.	US- PGPU B; USPA T	OR	OFF	2020/08 /18 19:24
L1 8	76	((content or video\$1 or media) with (schedul\$3 or "epg" or "eggs" or guide\$1) with (provider\$1 or broadcaster\$1) with select\$3).clm. and L14	US- PGPU B; USPA T	OR	OFF	2020/08 /18 19:24
L1 9	218	((("two" or second) near5 (content or video\$1 or media)) with (schedul\$3 or "epg" or "eggs" or guide\$1) with (provider\$1 or broadcaster\$1 or server\$1) with select\$3)	US- PGPU B; USPA T	OR	OFF	2020/08 /18 19:24
L2 0	57	((("two" or second) near5 (content or video\$1 or media)) with (schedul\$3 or "epg" or "eggs" or guide\$1) with (provider\$1 or broadcaster\$1 or server\$1) with select\$3) and L14	US- PGPU B; USPA T	OR	OFF	2020/08 /18 19:25

8/18/2020 8:20:14 PM

C:\Users\agee\Documents\EAST\Workspaces\15922926.wsp

Patent

OK TO ENTER: /A.G/
08/18/2020

Docket No.: US8CA5

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Masahide TANAKA	Confirmation No.: 9288
Application No.: 15/922,926	Examiner: GEE, ALEXANDER
Filed: March 16, 2018	Group Art Unit: 2425

For: A digital contents receiving apparatus

Commissioner for Patents
Alexandria, VA 22313-1450

RESPONSE UNDER 37 C.F.R. § 1.116

Dear Commissioner:

In response to the Office Action dated May 18, 2020, please amend this application as follows.

AMENDMENT AND REPRESENTATION OF CLAIMS 2

REMARKS..... 6

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875				Application or Docket Number 15/922,926		Filing Date 03/16/2018		☐ To be Mailed					
ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO													
APPLICATION AS FILED - PART I													
		(Column 1)		(Column 2)									
FOR		NUMBER FILED		NUMBER EXTRA		RATE (\$)		FEE (\$)					
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))		N/A		N/A		N/A							
☐ SEARCH FEE (37 CFR 1.16(k), (l), or (m))		N/A		N/A		N/A							
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))		N/A		N/A		N/A							
TOTAL CLAIMS (37 CFR 1.16(j))		minus 20 = *				x \$50 =							
INDEPENDENT CLAIMS (37 CFR 1.16(h))		minus 3 = *				x \$230 =							
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))		If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 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							
APPLICATION AS AMENDED - PART II													
		(Column 1)		(Column 2)		(Column 3)							
AMENDMENT	08/12/2020	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR		PRESENT EXTRA		RATE (\$)		ADDITIONAL FEE (\$)			
	Total (37 CFR 1.16(i))	* 13	Minus	** 20	= 0			x \$50 =		0			
	Independent (37 CFR 1.16(h))	* 2	Minus	*** 3	= 0			x \$230 =		0			
	☐ Application Size Fee (37 CFR 1.16(s))												
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))												
										TOTAL ADD'L FEE		0	
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR		PRESENT EXTRA		RATE (\$)		ADDITIONAL FEE (\$)			
	Total (37 CFR 1.16(i))	*	Minus	**	=			x \$0 =					
	Independent (37 CFR 1.16(h))	*	Minus	***	=			x \$0 =					
	☐ Application Size Fee (37 CFR 1.16(s))												
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))												
										TOTAL ADD'L FEE			
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.										LIE			
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".										/DORIS M KING/			
*** 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.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Masahide TANAKA	Confirmation No.: 9288
Application No.: 15/922,926	Examiner: GEE, ALEXANDER
	Group Art Unit: 2425
Filed: March 16, 2018	

For: A digital contents receiving apparatus

Commissioner for Patents
Alexandria, VA 22313-1450

RESPONSE UNDER 37 C.F.R. § 1.116

Dear Commissioner:

In response to the Office Action dated May 18, 2020, please amend this application as follows.

AMENDMENT AND REPRESENTATION OF CLAIMS 2

REMARKS..... 6

AMENDMENT AND PRESENTATION OF CLAIMS

Please replace all prior claims in the present application with the following claims:

1-12. (Cancelled)

13. (Currently Amended) A receiving apparatus configured to receive digital moving image contents from outside providers of the digital moving image contents, the outside providers including a first provider providing a digital moving image content in accordance with a program schedule table predetermined by the provider and a second provider providing the digital moving image content independently from the program schedule table, the receiving apparatus comprising:

a remote controller selector that manually selects one of the digital moving image contents provided from the first provider, the selected digital moving image content being an integral program continuing from an opening part to an ending part by way of a midstream part;

a tuner first receiver that receives the selected digital moving image content at the midstream part of the integral program which is provided by the first provider at the time of selection by the remote controller selector;

an I/O interface second receiver that receives from the second provider the digital moving image content including entire data of the digital moving image content from the opening part to the ending part of the integral program same as the integral program received from the first provider, the I/O interface second receiver locating the integral program in accordance with information from the tuner first receiver at the time of selection by the remote controller selector;

a television display that shows the digital moving image contents from the first provider and the second provider; and

a memory in a TV set computer storage that stores the entire data of the digital moving image content received by the I/O interface second receiver.

14. (Currently Amended) The receiving apparatus according to claim 13 further comprising a TV set processor controller that has the television display show a past part of the integral program which has been already provided by the first provider and retrieved from the

memory in the TV set computer storage.

15. (Previously Presented) The receiving apparatus according to claim 14, wherein the past part is the opening part of the integral program.

16. (Currently Amended) The receiving apparatus according to claim 13 further comprising a control signal receiver designator that designates a desired part of the same integral program received by the I/O interface ~~second receiver~~.

17. (Currently Amended) The receiving apparatus according to claim 13, wherein further comprising a the memory in the TV set computer ~~that keeps~~ [[he]] information necessary for the TV set computer ~~second receiver~~ to locate the integral program same as the integral program received from the first provider.

18. (Currently Amended) A receiving apparatus configured to receive digital moving image contents from outside provider system of the digital moving image contents, the outside provider system being capable of providing a digital moving image content in accordance with a program schedule table predetermined by the provider and providing the digital moving image content independently form the program schedule table, the receiving apparatus comprising:

a remote controller selector that manually selects one of the digital moving image contents provided in accordance with a program schedule table, the selected digital moving image content being an integral program continuing from an opening part to an ending part by way of a midstream part;

a tuner first receiver that receives the selected digital moving image content at the midstream part of the integral program at the time of selection by the remote controller selector;

I/O interface ~~a second receiver~~ that receives the digital moving image content provided independently form the program schedule table including entire data of the digital moving image content from the opening part to the ending part of the integral program same as the integral program provided in accordance with a program schedule table, the I/O interface ~~second receiver~~ locating the integral program in accordance with information at the time of selection by the remote controller selector;

a television display that shows the digital moving image contents provided in accordance with a program schedule table and the digital moving image content provided independently from the program schedule table; and

a memory in a TV set computer storage that stores the entire data of the digital moving image content received by the I/O interface ~~second receiver~~.

19. (Currently Amended) The receiving apparatus according to claim 18 further comprising a TV set processor controller that has the television display show a past part of the integral program which has been already provided in accordance with a program schedule table and retrieved from the memory in the TV set computer storage.

20. (Previously Presented) The receiving apparatus according to claim 19, wherein the past part is the opening part of the integral program.

21. (Currently Amended) The receiving apparatus according to claim 18 further comprising a control signal receiver designator that designates a desired part of the same integral program received by the I/O interface ~~second receiver~~.

22. (Currently Amended) The receiving apparatus according to claim 18, wherein ~~further comprising a~~ the memory in the TV set computer that keeps the information necessary for the TV set computer ~~second receiver~~ to locate the integral program same as the integral program provided in accordance with a program schedule table.

23. (Currently Amended) The receiving apparatus according to claim 13, wherein the first provider includes selectable sub providers, wherein the s remote controller selector selects the one of the digital moving image contents by means of selecting the sub provider, and wherein the one of the digital moving image contents is provided by the selected sub provider.

24. (Previously Presented) The receiving apparatus according to claim 13, wherein the digital moving image contents is provided by the first provider by streaming technology in accordance with the program schedule table.

25. (Currently Amended) The receiving apparatus according to claim 16, wherein the ~~control signal receiver designator~~ designates an optional part of the digital moving image contents in response to a manual operation.

REMARKS

This is in full and timely response to the Official Action of May 18, 2020.
Reexamination in light of the following remarks is respectfully requested.

This Amendment is accompanied by a Request for consideration under the After Final Consideration Pilot (AFCP) 2.0 program. In the event the Office does not allow the application, applicant requests that the Examiner contact the undersigned applicant pursuant to the AFCP 2.0 program.

Claims 13-25 are currently pending in this application, claims 13 and 18 being independent. Claims 13-14, 16-19, 21-23 and 25 have been amended. No new matter has been introduced.

Entry of the amendment and examination thereon are respectfully requested.

I. Allowable Subject Matter

The applicant thanks to the indication that independent claims 13 and 18 contain allowable subject matter and that Claims 13-25 would be allowable if rewritten to overcome the 35 USC §112 (b) rejection.

II. CLAIM REJECTION – 35 USC §112

All claims are believed to overcome the 35 USC §112 (b) rejection by means of the current amendment. Specifically, all claims have been simply rewritten in accordance with the wording disclosed in Figure 1.

IV. CONCLUSION

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed

as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

In view of the following arguments, all claims are believed to be in condition for allowance over the prior art of record. Therefore, this response is believed to be a complete response to the Office Action. An early and favorable action on the merits is respectfully requested.

However, Applicant reserves the right to set forth further arguments supporting the patentability of their claims, including the separate patentability of the dependent claims not explicitly addressed herein, in future papers.

Further, for any instances in which the Examiner took Official Notice in the Office Action, Applicant expressly does not acquiesce to the taking of Official Notice, and respectfully request that the Examiner provide an affidavit to support the Official Notice taken in the next Office Action, as required by 37 CFR 1.104(d)(2) and MPEP § 2144.03.

If any unresolved issues remain, it is respectfully requested that the Examiner email the undersigned Applicant at guitar@kym.biglobe.ne.jp so that such issues may be resolved as expeditiously as possible. ***Recognizing that Internet communications are not secure, the undersigned Applicant hereby authorizes the USPTO to communicate with the undersigned Applicant concerning any subject matter of this application by electronic mail. The undersigned Applicant understands that a copy of these communications will be made of record in the application file.***

In the event the U.S. Patent and Trademark Office determines that an extension is required, Applicant petitions for any required relief including extensions of time.

Respectfully submitted,

Patent

Docket No.: US8CA5

Date: August 12, 2020

NL Giken Incorporated

561-0813 Ozone, Toyonaka-Shi, Osaka, Japan

/Masahide Tanaka/

Masahide Tanaka

Applicant

Doc Code: A.NE.AFCP

Document Description: After Final Consideration Pilot Program Request

PTO/SB/434 (05-13)

CERTIFICATION AND REQUEST FOR CONSIDERATION UNDER THE AFTER FINAL CONSIDERATION PILOT PROGRAM 2.0		
Practitioner Docket No.: US8CA5	Application No.: 15/922,926	Filing Date: March 16, 2018
First Named Inventor: Masahide Tanaka	Title: A digital contents receiving apparatus	
APPLICANT HEREBY CERTIFIES THE FOLLOWING AND REQUESTS CONSIDERATION UNDER THE AFTER FINAL CONSIDERATION PILOT PROGRAM 2.0 (AFCP 2.0) OF THE ACCOMPANYING RESPONSE UNDER 37 CFR 1.116. 1. The above-identified application is (i) an original utility, plant, or design nonprovisional application filed under 35 U.S.C. 111(a) [a continuing application (e.g., a continuation or divisional application) is filed under 35 U.S.C. 111(a) and is eligible under (i)], or (ii) an international application that has entered the national stage in compliance with 35 U.S.C. 371(c). 2. The above-identified application contains an outstanding final rejection. 3. Submitted herewith is a response under 37 CFR 1.116 to the outstanding final rejection. The response includes an amendment to at least one independent claim, and the amendment does not broaden the scope of the independent claim in any aspect. 4. This certification and request for consideration under AFCP 2.0 is the only AFCP 2.0 certification and request filed in response to the outstanding final rejection. 5. Applicant is willing and available to participate in any interview requested by the examiner concerning the present response. 6. This certification and request is being filed electronically using the Office's electronic filing system (EFS-Web). 7. Any fees that would be necessary consistent with current practice concerning responses after final rejection under 37 CFR 1.116, e.g., extension of time fees, are being concurrently filed herewith. [There is no additional fee required to request consideration under AFCP 2.0.] 8. By filing this certification and request, applicant acknowledges the following: • Reissue applications and reexamination proceedings are not eligible to participate in AFCP 2.0. • The examiner will verify that the AFCP 2.0 submission is compliant, i.e., that the requirements of the program have been met (see items 1 to 7 above). For compliant submissions: ○ The examiner will review the response under 37 CFR 1.116 to determine if additional search and/or consideration (i) is necessitated by the amendment and (ii) could be completed within the time allotted under AFCP 2.0. If additional search and/or consideration is required but cannot be completed within the allotted time, the examiner will process the submission consistent with current practice concerning responses after final rejection under 37 CFR 1.116, e.g., by mailing an advisory action. ○ If the examiner determines that the amendment does not necessitate additional search and/or consideration, or if the examiner determines that additional search and/or consideration is required and could be completed within the allotted time, then the examiner will consider whether the amendment places the application in condition for allowance (after completing the additional search and/or consideration, if required). If the examiner determines that the amendment does not place the application in condition for allowance, then the examiner will contact the applicant and request an interview. ▪ The interview will be conducted by the examiner, and if the examiner does not have negotiation authority, a primary examiner and/or supervisory patent examiner will also participate. ▪ If the applicant declines the interview, or if the interview cannot be scheduled within ten (10) calendar days from the date that the examiner first contacts the applicant, then the examiner will proceed consistent with current practice concerning responses after final rejection under 37 CFR 1.116.		
Signature /Masahide Tanaka/	Date August 12, 2020	
Name (Print/Typed) Masahide Tanaka	Practitioner Registration No.	
Note: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below*.		
☐ * Total of _____ forms are submitted.		

Privacy Act Statement

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

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

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

Electronic Acknowledgement Receipt	
EFS ID:	40269494
Application Number:	15922926
International Application Number:	
Confirmation Number:	9288
Title of Invention:	Digital contents receiving apparatus
First Named Inventor/Applicant Name:	Masahide Tanaka
Customer Number:	67628
Filer:	Masahide Tanaka
Filer Authorized By:	
Attorney Docket Number:	US8CA5
Receipt Date:	12-AUG-2020
Filing Date:	16-MAR-2018
Time Stamp:	21:04:50
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		US8CA5FOAResponse.pdf	371101 9723e2d483564dc94882993c3b3c38f2d42ec7c	yes	8

Multipart Description/PDF files in .zip description					
Document Description			Start	End	
Response After Final Action			1	1	
Claims			2	5	
Applicant Arguments/Remarks Made in an Amendment			6	8	
Warnings:					
Information:					
2	After Final Consideration Program Request	sb0434.pdf	225767	no	2
			c9009ec6215b0da1d525d256795d26e5c5a89a7f		
Warnings:					
Information:					
Total Files Size (in bytes):			596868		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/922,926	03/16/2018	Masahide Tanaka	US8CA5	9288
67628	7590	05/18/2020	EXAMINER	
MASAHIDE TANAKA			GEE, ALEXANDER	
1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN				
OSAKA,				
JAPAN				
			ART UNIT	PAPER NUMBER
			2425	
			NOTIFICATION DATE	DELIVERY MODE
			05/18/2020	ELECTRONIC

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

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

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

GUITAR@KYM.BIGLOBE.NE.JP

DETAILED ACTION

Notice of Pre-AIA or AIA Status

1. The present application is being examined under the pre-AIA first to invent provisions.

Status of the Claims

Claims 13-25 are pending in this Office Action.

Claims 13, 14, 16-19, 21, and 22 are amended.

Claims 22-25 are new.

Claims 1-12 are canceled.

Response to Arguments – 35 USC § 112

2. Applicant's arguments filed 5/2/2020 have been fully considered but they are not persuasive. The reasons are set forth below.

Regarding claim 13, 14, 16-19, 21, and 22, the Examiner must maintain the 112(b) rejection for indefiniteness because the claims are still directed to various modules “that” perform various functions. The limitations still invoke 112(f) and thus the descriptions disclosed in the claims still do not disclose any adequate functional descriptions providing a definite structure of the limitations.

Claim Rejections - 35 USC § 112

3. The following is a quotation of 35 U.S.C. 112(b):

(b) CONCLUSION.—The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

The following is a quotation of 35 U.S.C. 112 (pre-AIA), second paragraph:

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.

4. **Claims 13-25** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A rejection under 35 U.S.C. 112, second paragraph, may be appropriate in the following situations when examining means-plus-function claim limitations under 35 U.S.C. 112, sixth paragraph: (1) when it is unclear whether a claim limitation invokes 35 U.S.C. 112, sixth paragraph; (2) when 35 U.S.C. 112, sixth paragraph, is invoked and there is no disclosure or there is insufficient disclosure of structure, material, or acts for performing the claimed function; and/or (3) when 35 U.S.C. 112, sixth paragraph, is invoked and the supporting disclosure fails to clearly link or associate the disclosed structure, material, or acts to the claimed function.” See *Supplemental Examination Guidelines for Determining Compliance with 35 USC §112 and for Treatment of related Issues in Patent Applications*, 76 FR 7162, 7168 (Feb. 9, 2011).

Regarding claims 13, 14, 16-19, 21, and 22, the claims contain at least one limitation that invokes 35 U.S.C. 112, sixth paragraph, while failing to provide sufficient disclosure of structure, material, or acts for performing the claimed function. See *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1565, (Fed. Cir. 1991); see also *In re Donaldson Co.*, 16 F.3d 1189, 1195 (Fed. Cir. 1994) (en banc). Thus, the claims are rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph.

Examiners will apply 35 U.S.C. 112, sixth paragraph, to a claim limitation that meets the following conditions: (1) the claim limitation uses the phrase “means for” or “step for” or a non-structural term that does not have a structural modifier; (2) the phrase “means for” or “step for” or the non-structural term recited in the claim is modified by functional language; and (3) the phrase “means for” or “step for” or the non-structural term recited in the claim is not modified by

sufficient structure, material, or acts for achieving the specified function. This modifies the 3-prong analysis in MPEP § 2181, which will be revised in due course. *See* Supplemental Examination, 76 FR at 7167.

“When the claim limitation does not use the phrase “means for” or “step for,” examiners should determine whether the claim limitation uses a nonstructural term (a term that is simply a substitute for the term “means for”). Examiners will apply 35 U.S.C. 112, sixth paragraph, to a claim limitation that uses a nonstructural term associated with functional language, unless the nonstructural term is (1) preceded by a structural modifier, defined in the specification as a particular structure or known by one skilled in the art, that denotes the type of structural device (e.g., “filters”), or (2) modified by sufficient structure or material for achieving the claimed function. The following is a list of non-structural terms that may invoke 35 U.S.C. 112, sixth paragraph: “mechanism for,” “module for,” “device for,” “unit for,” “component for,” “element for,” “member for,” “apparatus for,” “machine for,” or “system for.” This list is not exhaustive, and other non-structural terms may invoke 35 U.S.C. 112, sixth paragraph.” *See* Supplemental Examination, 76 FR at 7167.

Claims 13 and 18 recite “a selector that,” “a first receiver that,” “a second receiver that,” “a display that,” and “a storage that.” **Claims 14 and 19** recite “a controller that.” **Claims 16 and 21** recite “a designator that.” **Claims 17 and 22** recite “a memory that.” In the claims, the system is directed toward various modules “that” perform various functions. The modules are preceded by various labeling descriptions, but words like “a selector,” “a first receiver,” “a second receiver,” “a display,” “a storage,” “a controller,” “a designator,” and “a memory” only describe the functionality descriptions of the modules and are not structural modifiers, nor defined in the specification as having a particular structure. Additionally, the actual functional language does

not provide any structure modification to the described modules. As result, the modules are non-structural terms and invoke 35 U.S.C. 112, sixth paragraph.

The applicant is required to: (a) amend the claims so that the claim limitations will no longer be a means (or step, or non-structure terms) plus function limitation under 35 U.S.C. 112, sixth paragraph; or (b) amend the written description of the specification such that it expressly recites what structure, material, or acts perform the claimed function without introducing any new matter (35 U.S.C. 132(a)).

If the applicant is of the opinion that the written description of the specification already implicitly or inherently discloses the corresponding structure, material, or acts so that one of ordinary skill in the art would recognize what structure, material, or acts perform the claimed function, the applicant is required to clarify the record by either: (a) amending the written description of the specification such that it expressly recites the corresponding structure, material, or acts for performing the claimed function and clearly links or associates the structure, material, or acts to the claimed function, without introducing any new matter (35 U.S.C. 132(a)); or (b) stating on the record what the corresponding structure, material, or acts, which are implicitly or inherently set forth in the written description of the specification, perform the claimed function. For more information, *see* 37 CFR 1.75(d) and MPEP §§ 608.01(o) and 2181.

Allowable Subject Matter

5. **Claims 13-25** are would be allowable if rewritten to overcome the 35 USC § 112(b) rejection.

6. **Claims 13 and 18** contain allowable subject matter because the claims, as a whole, overcome the prior art of record. For instance Day et al. (US 2007/0174336) teach managing resources and preventing conflicts when locally recording media assets in multimedia delivery

systems, Nashida et al. (US 2002/0013945) and Yu et al. (US 2010/0111504) teach providing content to a user device when it is not available, Craner et al. (US 2008/0155615) teaches indexing content and providing the indexed content at the points at which the content was indexed. However, the prior art of record cannot be reasonably combined in order to teach the claimed invention.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Gee whose telephone number is (571)270-5955. The examiner can normally be reached on Monday through Friday 8 am to 5 pm.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at <http://www.uspto.gov/interviewpractice>.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Pendleton can be reached on 571-272-7527. 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 <https://ppair-my.uspto.gov/pair/PrivatePair>. 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.

/ALEXANDER GEE/
Primary Examiner, Art Unit 2425

Notice of References Cited	Application/Control No. 15/922,926		Applicant(s)/Patent Under Reexamination Tanaka, Masahide	
	Examiner Alexander Gee		Art Unit 2425	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-20100111504-A1	05-2010	Yu; Ke	H04N21/43622	386/241
*	B	US-20080155615-A1	06-2008	Craner; Michael	H04N21/4751	725/91
*	C	US-20070174336-A1	07-2007	Day; Thomas	H04N21/8545	1/1
*	D	US-20020013945-A1	01-2002	Nashida, Tatsushi	H04N21/458	725/58
	E					
	F					
	G					
	H					
	I					
	J					
	K					
	L					
	M					

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC 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.

Search Notes 	Application/Control No. 15/922,926	Applicant(s)/Patent Under Reexamination Tanaka, Masahide
	Examiner Alexander Gee	Art Unit 2425

CPC - Searched*		
Symbol	Date	Examiner

CPC Combination Sets - Searched*		
Symbol	Date	Examiner
H04N21/ 2665,426,4331,4383,4432,462,4622,47208,8586,4424,6581,218,262 ,26275	01/31/2020	AG
H04N7/16	01/31/2020	AG

US Classification - Searched*			
Class	Subclass	Date	Examiner

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
EAST text and classification prior art search	01/31/2020	AG
Inventor/assignee name search	01/31/2020	AG
Updated EAST text and classification prior art search	05/12/2020	AG

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

	/ALEXANDER GEE/ Primary Examiner, Art Unit 2425
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<i>Index of Claims</i> 	Application/Control No. 15/922,926	Applicant(s)/Patent Under Reexamination Tanaka, Masahide
	Examiner Alexander Gee	Art Unit 2425

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

CLAIMS										
☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47										
CLAIM		DATE								
Final	Original	01/31/2020	05/12/2020							
	1	-	-							
	2	✓	-							
	3	✓	-							
	4	✓	-							
	5	-	-							
	6	-	-							
	7	-	-							
	8	-	-							
	9	-	-							
	10	-	-							
	11	-	-							
	12	-	-							
	13	✓	✓							
	14	✓	✓							
	15	✓	✓							
	16	✓	✓							
	17	✓	✓							
	18	✓	✓							
	19	✓	✓							
	20	✓	✓							
	21	✓	✓							
	22	✓	✓							
	23		✓							
	24		✓							
	25		✓							

EAST Search History

EAST Search History (Prior Art)

R ef #	Hits	Search Query	DBs	Defau lt Opera tor	Plur als	Time Stamp
L1	82418	(H04N21/2665,426,4331,4383,4432,462,4622,47208,8586,4424,6581,218,262,26275 H04N7/16).cpc.	US- PGPU B; USPA T; USOC R; FPRS ; EPO; JPO	OR	OFF	2020/05 /12 21:22
L2	39415 8	(H04N21/\$\$).cpc.	US- PGPU B; USPA T; USOC R; FPRS ; EPO; JPO	OR	OFF	2020/05 /12 21:23
L3	17057 93	(H04N).cpcl.	US- PGPU B; USPA T; USOC R; FPRS ; EPO; JPO	OR	OFF	2020/05 /12 21:23
L4	5496	((content or video\$1 or media) with (schedul\$3 or "epg" or "epgs" or guide\$1) with provider\$1) and (@ad<"20080914" or @prad<"20080914" or @rlad<"20080914")	US- PGPU B; USPA T; USOC R; FPRS ;	OR	OFF	2020/05 /12 21:23

			EPO; JPO			
L5	1518	((content or video\$1 or media) with (schedul\$3 or "epg" or "epgs" or guide\$1) with providers\$1) and (@ad<"20080914" or @prad<"20080914" or @rlad<"20080914") and L1	US- PGPU B; USPA T; USOC R; FPRS ; EPO; JPO	OR	OFF	2020/05 /12 21:23
L6	879	((content or video\$1 or media) with (schedul\$3 or "epg" or "epgs" or guide\$1) with (provider\$1 or broadcaster\$1) with select\$3) and (@ad<"20080914" or @prad<"20080914" or @rlad<"20080914")	US- PGPU B; USPA T; USOC R; FPRS ; EPO; JPO	OR	OFF	2020/05 /12 21:23
L7	281	((content or video\$1 or media) with (schedul\$3 or "epg" or "epgs" or guide\$1) with (provider\$1 or broadcaster\$1) with select\$3) and (@ad<"20080914" or @prad<"20080914" or @rlad<"20080914") and L1	US- PGPU B; USPA T; USOC R; FPRS ; EPO; JPO	OR	OFF	2020/05 /12 21:23
L8	33	((("two" or second) near5 (content or video\$1 or media)) with (schedul\$3 or "epg" or "epgs" or guide\$1) with ((("two" or second) near5 (provider\$1 or broadcaster\$1 or server\$1)) with select\$3) and (@ad<"20080914" or @prad<"20080914" or @rlad<"20080914"))	US- PGPU B; USPA T; USOC R; FPRS ; EPO; JPO	OR	OFF	2020/05 /12 21:24
L9	45	((content or video\$1 or media) with (schedul\$3 or "epg" or "epgs" or guide\$1) with ((("two" or second) near5 (provider\$1 or broadcaster\$1 or server\$1)) with select\$3) and (@ad<"20080914" or @prad<"20080914" or @rlad<"20080914"))	US- PGPU B; USPA T;	OR	OFF	2020/05 /12 21:24

			USOC R; FPRS ; EPO; JPO			
L1 0	85	((("two" or second) near5 (content or video\$1 or media)) with (schedul\$3 or "epg" or "epgs" or guide\$1) with (provider\$1 or broadcaster\$1 or server\$1) with select\$3) and (@ad<"20080914" or @prad<"20080914" or @rlad<"20080914"))	US- PGPU B; USPA T; USOC R; FPRS ; EPO; JPO	OR	OFF	2020/05 /12 21:24
L1 1	49	((("two" or second) near5 (content or video\$1 or media)) with (schedul\$3 or "epg" or "epgs" or guide\$1) with (("two" or second) near5 (provider\$1 or broadcaster\$1 or server\$1 or source\$1)) with select\$3) and (@ad<"20080914" or @prad<"20080914" or @rlad<"20080914"))	US- PGPU B; USPA T; USOC R; FPRS ; EPO; JPO	OR	OFF	2020/05 /12 21:24
L1 2	122	((("two" or second) near5 (content or video\$1 or media)) with (schedul\$3 or "epg" or "epgs" or guide\$1) with (provider\$1 or broadcaster\$1 or server\$1 or source\$1) with select\$3) and (@ad<"20080914" or @prad<"20080914" or @rlad<"20080914"))	US- PGPU B; USPA T; USOC R; FPRS ; EPO; JPO	OR	OFF	2020/05 /12 21:24
L1 3	70	((content or video\$1 or media) with (schedul\$3 or "epg" or "epgs" or guide\$1) with (("two" or second) near5 (provider\$1 or broadcaster\$1 or server\$1 or source\$1)) with select\$3) and (@ad<"20080914" or @prad<"20080914" or @rlad<"20080914"))	US- PGPU B; USPA T; USOC R; FPRS ; EPO; JPO	OR	OFF	2020/05 /12 21:24

EAST Search History (Interference)

<This search history is empty>

5/12/2020 9:27:03 PM

C:\Users\agee\Documents\EAST\Workspaces\15922926.wsp

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875			Application or Docket Number 15/922,926		Filing Date 03/16/2018		☐ To be Mailed	
ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO								
APPLICATION AS FILED - PART I								
		(Column 1)	(Column 2)					
FOR		NUMBER FILED	NUMBER EXTRA		RATE (\$)	FEE (\$)		
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))		N/A	N/A		N/A			
☐ SEARCH FEE (37 CFR 1.16(k), (l), or (m))		N/A	N/A		N/A			
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))		N/A	N/A		N/A			
TOTAL CLAIMS (37 CFR 1.16(j))		minus 20 =	*		x \$50 =			
INDEPENDENT CLAIMS (37 CFR 1.16(h))		minus 3 =	*		x \$230 =			
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))		If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 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			
APPLICATION AS AMENDED - PART II								
		(Column 1)	(Column 2)		(Column 3)			
AMENDMENT	05/02/2020	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	
	Total (37 CFR 1.16(i))	* 13	Minus	** 20	= 0	x \$50 =	0	
	Independent (37 CFR 1.16(h))	* 2	Minus	*** 3	= 0	x \$230 =	0	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
						TOTAL ADD'L FEE	0	
		(Column 1)	(Column 2)		(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	
	Total (37 CFR 1.16(i))	*	Minus	**	=	x \$0 =		
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x \$0 =		
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
						TOTAL ADD'L FEE		
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.						LIE		
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".						/JAMES E MASON/		
*** 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.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Masahide TANAKA	Confirmation No.: 9288
Application No.: 15/922,926	Examiner: GEE, ALEXANDER
	Group Art Unit: 2425
Filed: March 16, 2018	

For: A digital contents receiving apparatus

Commissioner for Patents
Alexandria, VA 22313-1450

RESPONSE UNDER 37 C.F.R. § 1.111

Dear Commissioner:

In response to the Office Action dated February 4, 2020, please amend this application as follows.

AMENDMENT AND REPRESENTATION OF CLAIMS 2

REMARKS..... 6

AMENDMENT AND PRESENTATION OF CLAIMS

Please replace all prior claims in the present application with the following claims:

1-12. (Cancelled)

13. (Currently Amended) A receiving apparatus configured to receive digital moving image contents from outside providers of the digital moving image contents, the outside providers including a first provider providing a digital moving image content in accordance with a program schedule table predetermined by the provider and a second provider providing the digital moving image content independently from the program schedule table, the receiving apparatus comprising:

a selector ~~that configured to manually selects~~ select one of the digital moving image contents provided from the first provider, the selected digital moving image content being an integral program continuing from an opening part to an ending part by way of a midstream part;

a first receiver ~~that receives configured to receive~~ the selected digital moving image content at the midstream part of the integral program which is provided by the first provider at the time of selection by the selector;

a second receiver ~~that receives configured to receive~~ from the second provider the digital moving image content including entire data of the digital moving image content from the opening part to the ending part of the integral program same as the integral program received from the first provider, the second receiver locating the integral program in accordance with information from the first receiver at the time of selection by the selector;

a display ~~that shows configured to view~~ the digital moving image contents from the first provider and the second provider; and

a storage ~~that stores configured to store~~ the entire data of the digital moving image content received by the second receiver.

14. (Currently Amended) The receiving apparatus according to claim 13 further comprising a controller that has ~~configured to have~~ the display show ~~to view~~ a past part of the integral program which has been already provided by the first provider and retrieved from the storage.

15. (Previously Presented) The receiving apparatus according to claim 14, wherein the past part is the opening part of the integral program.

16. (Currently Amended) The receiving apparatus according to claim 13 further comprising a designator that designates ~~configured to designate~~ a desired part of the same integral program received by the second receiver.

17. (Currently Amended) The receiving apparatus according to claim 13 further comprising a memory that keeps ~~configured to keep~~ the information necessary for the second receiver to locate the integral program same as the integral program received from the first provider.

18. (Currently Amended) A receiving apparatus configured to receive digital moving image contents from outside provider system of the digital moving image contents, the outside provider system being capable of providing a digital moving image content in accordance with a program schedule table predetermined by the provider and providing the digital moving image content independently from the program schedule table, the receiving apparatus comprising:

a selector that ~~configured to~~ manually selects ~~select~~ one of the digital moving image contents provided in accordance with a program schedule table, the selected digital moving image content being an integral program continuing from an opening part to an ending part by way of a midstream part;

a first receiver that receives ~~configured to receive~~ the selected digital moving image content at the midstream part of the integral program at the time of selection by the selector;

a second receiver that receives ~~configured to receive~~ the digital moving image content provided independently from the program schedule table including entire data of the digital

moving image content from the opening part to the ending part of the integral program same as the integral program provided in accordance with a program schedule table, the second receiver locating the integral program in accordance with information at the time of selection by the selector;

a display that shows ~~configured to view~~ the digital moving image contents provided in accordance with a program schedule table and the digital moving image content provided independently from the program schedule table; and

a storage that stores ~~configured to store~~ the entire data of the digital moving image content received by the second receiver.

19. (Currently Amended) The receiving apparatus according to claim 18 further comprising a controller that has ~~configured to have~~ the display show ~~to view~~ a past part of the integral program which has been already provided in accordance with a program schedule table and retrieved from the storage.

20. (Previously Presented) The receiving apparatus according to claim 19, wherein the past part is the opening part of the integral program.

21. (Currently Amended) The receiving apparatus according to claim 18 further comprising a designator that designates ~~configured to designate~~ a desired part of the same integral program received by the second receiver.

22. (Currently Amended) The receiving apparatus according to claim 18 further comprising a memory that keeps ~~configured to keep~~ the information necessary for the second receiver to locate the integral program same as the integral program provided in accordance with a program schedule table.

23. (New) The receiving apparatus according to claim 13, wherein the first provider includes selectable sub providers, wherein the selector selects the one of the digital moving

image contents by means of selecting the sub provider, and wherein the one of the digital moving image contents is provided by the selected sub provider.

24. (New) The receiving apparatus according to claim 13, wherein the digital moving image contents is provided by the first provider by streaming technology in accordance with the program schedule table.

25. (New) The receiving apparatus according to claim 16, wherein the designator designates an optional part of the digital moving image contents in response to a manual operation.

REMARKS

This is in full and timely response to the Official Action of February 4, 2020.

Claims 13-25 are currently pending in this application, claims 13 and 18 being independent. Claims 13-14, 16-19 and 21-22 have been amended, claims 2-4 have been cancelled without prejudice, and claims 23-25 have been added. No new matter has been introduced.

Entry of the amendment and examination thereon are respectfully requested.

I. Allowable Subject Matter

The applicant thanks to the indication that independent claims 13 and 18 contain allowable subject matter. Claims 2-4 (now replaced by new claims 23-25) and claims 13-22 are believed to have been rewritten to overcome the 35 USC §112 (b) rejection.

II. Claim Objection

Claims 2-4 have been canceled and claims 23-25 have been added in place of the canceled claims.

III. CLAIM REJECTION – 35 USC §112

All claims are believed to overcome the rejection by means of the current amendment.

IV. CONCLUSION

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically

stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

In view of the following arguments, all claims are believed to be in condition for allowance over the prior art of record. Therefore, this response is believed to be a complete response to the Office Action. An early and favorable action on the merits is respectfully requested.

However, Applicant reserves the right to set forth further arguments supporting the patentability of their claims, including the separate patentability of the dependent claims not explicitly addressed herein, in future papers.

Further, for any instances in which the Examiner took Official Notice in the Office Action, Applicant expressly does not acquiesce to the taking of Official Notice, and respectfully request that the Examiner provide an affidavit to support the Official Notice taken in the next Office Action, as required by 37 CFR 1.104(d)(2) and MPEP § 2144.03.

If any unresolved issues remain, it is respectfully requested that the Examiner email the undersigned Applicant at guitar@kym.biglobe.ne.jp so that such issues may be resolved as expeditiously as possible. ***Recognizing that Internet communications are not secure, the undersigned Applicant hereby authorizes the USPTO to communicate with the undersigned Applicant concerning any subject matter of this application by electronic mail. The undersigned Applicant understands that a copy of these communications will be made of record in the application file.***

In the event the U.S. Patent and Trademark Office determines that an extension is required, Applicant petitions for any required relief including extensions of time.

Respectfully submitted,

Patent

Docket No.: US8CA5

Date: May 2, 2020

NL Giken Incorporated

561-0813 Ozone, Toyonaka-Shi, Osaka, Japan

/Masahide Tanaka/

Masahide Tanaka

Applicant

Electronic Acknowledgement Receipt	
EFS ID:	39333964
Application Number:	15922926
International Application Number:	
Confirmation Number:	9288
Title of Invention:	Digital contents receiving apparatus
First Named Inventor/Applicant Name:	Masahide Tanaka
Customer Number:	67628
Filer:	Masahide Tanaka
Filer Authorized By:	
Attorney Docket Number:	US8CA5
Receipt Date:	02-MAY-2020
Filing Date:	16-MAR-2018
Time Stamp:	02:12:57
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		US8CA5NFOAResponse.pdf	455465	yes	8
			c708bde125334293d2cd403583u74fa13518b1ba		

	Multipart Description/PDF files in .zip description		
	Document Description	Start	End
	Amendment/Req. Reconsideration-After Non-Final Reject	1	1
	Claims	2	5
	Applicant Arguments/Remarks Made in an Amendment	6	8
Warnings:			
Information:			
Total Files Size (in bytes):		455465	
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.			



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/922,926	03/16/2018	Masahide Tanaka	US8CA5	9288
67628	7590	02/04/2020	EXAMINER	
MASAHIDE TANAKA			GEE, ALEXANDER	
1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN				
OSAKA,				
JAPAN				
			ART UNIT	PAPER NUMBER
			2425	
			NOTIFICATION DATE	DELIVERY MODE
			02/04/2020	ELECTRONIC

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

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

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

GUITAR@KYM.BIGLOBE.NE.JP

DETAILED ACTION

Notice of Pre-AIA or AIA Status

1. The present application is being examined under the pre-AIA first to invent provisions.

Status of the Claims

Claims 2-4 and 13-22 are pending in this Office Action.

Claim 2-4 are amended.

Claims 13-22 are new.

Claims 1 and 5-12 are canceled.

Claim Objections

2. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

3. **Claims 2, 3, and 4** depend on the following **claim 13**. Claims should only depend on a preceding claim. Thus, the claims should be canceled and added as new claims at the end, preferably as **claims 23, 24, and 25**.

Claim Rejections - 35 USC § 112

4. The following is a quotation of 35 U.S.C. 112(b):

(b) CONCLUSION.—The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

The following is a quotation of 35 U.S.C. 112 (pre-AIA), second paragraph:

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.

5. **Claims 2-4 and 13-22** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A rejection under 35 U.S.C. 112, second paragraph, may be appropriate in the following situations when examining means-plus-function claim limitations under 35 U.S.C. 112, sixth paragraph: (1) when it is unclear whether a claim limitation invokes 35 U.S.C. 112, sixth paragraph; (2) when 35 U.S.C. 112, sixth paragraph, is invoked and there is no disclosure or there is insufficient disclosure of structure, material, or acts for performing the claimed function; and/or (3) when 35 U.S.C. 112, sixth paragraph, is invoked and the supporting disclosure fails to clearly link or associate the disclosed structure, material, or acts to the claimed function.” See *Supplemental Examination Guidelines for Determining Compliance with 35 USC §112 and for Treatment of related Issues in Patent Applications*, 76 FR 7162, 7168 (Feb. 9, 2011).

Regarding claims 13, 14, 16-19, 21, and 22, the claims contain at least one limitation that invokes 35 U.S.C. 112, sixth paragraph, while failing to provide sufficient disclosure of structure, material, or acts for performing the claimed function. See *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1565, (Fed. Cir. 1991); see also *In re Donaldson Co.*, 16 F.3d 1189, 1195 (Fed. Cir. 1994) (en banc). Thus, the claims are rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph.

Examiners will apply 35 U.S.C. 112, sixth paragraph, to a claim limitation that meets the following conditions: (1) the claim limitation uses the phrase “means for” or “step for” or a non-structural term that does not have a structural modifier; (2) the phrase “means for” or “step for” or the non-structural term recited in the claim is modified by functional language; and (3) the phrase “means for” or “step for” or the non-structural term recited in the claim is not modified by

sufficient structure, material, or acts for achieving the specified function. This modifies the 3-prong analysis in MPEP § 2181, which will be revised in due course. *See* Supplemental Examination, 76 FR at 7167.

“When the claim limitation does not use the phrase “means for” or “step for,” examiners should determine whether the claim limitation uses a nonstructural term (a term that is simply a substitute for the term “means for”). Examiners will apply 35 U.S.C. 112, sixth paragraph, to a claim limitation that uses a nonstructural term associated with functional language, unless the nonstructural term is (1) preceded by a structural modifier, defined in the specification as a particular structure or known by one skilled in the art, that denotes the type of structural device (e.g., “filters”), or (2) modified by sufficient structure or material for achieving the claimed function. The following is a list of non-structural terms that may invoke 35 U.S.C. 112, sixth paragraph: “mechanism for,” “module for,” “device for,” “unit for,” “component for,” “element for,” “member for,” “apparatus for,” “machine for,” or “system for.” This list is not exhaustive, and other non-structural terms may invoke 35 U.S.C. 112, sixth paragraph.” *See* Supplemental Examination, 76 FR at 7167.

Claims 13 and 18 recite “a selector configured to,” “a first receiver configured to,” “a second receiver configured to,” “a display configured to,” and “a storage configured to.” **Claims 14 and 19** recite “a controller configured to.” **Claims 16 and 21** recite “a designator configured to.” **Claims 17 and 22** recite “a memory configured to.” In the claims, the system is directed toward various modules “configure to” perform various functions. The modules are preceded by various labeling descriptions, but words like “a selector,” “a first receiver,” “a second receiver,” “a display,” “a storage,” “a controller,” “a designator,” and “a memory” only describe the functionality descriptions of the modules and are not structural modifiers, nor defined in the

specification has having a particular structure. Additionally, the actual functional language does not provide any structure modification to the described modules. As result, the modules are non-structural terms and invoke 35 U.S.C. 112, sixth paragraph.

The applicant is required to: (a) amend the claims so that the claim limitations will no longer be a means (or step, or non-structure terms) plus function limitation under 35 U.S.C. 112, sixth paragraph; or (b) amend the written description of the specification such that it expressly recites what structure, material, or acts perform the claimed function without introducing any new matter (35 U.S.C. 132(a)).

If the applicant is of the opinion that the written description of the specification already implicitly or inherently discloses the corresponding structure, material, or acts so that one of ordinary skill in the art would recognize what structure, material, or acts perform the claimed function, the applicant is required to clarify the record by either: (a) amending the written description of the specification such that it expressly recites the corresponding structure, material, or acts for performing the claimed function and clearly links or associates the structure, material, or acts to the claimed function, without introducing any new matter (35 U.S.C. 132(a)); or (b) stating on the record what the corresponding structure, material, or acts, which are implicitly or inherently set forth in the written description of the specification, perform the claimed function. For more information, *see* 37 CFR 1.75(d) and MPEP §§ 608.01(o) and 2181.

Allowable Subject Matter

6. **Claims 2-4 and 13-22** are would be allowable if rewritten to overcome the 35 USC § 112(b) rejection.
7. **Claims 13 and 18** contain allowable subject matter because the claims, as a whole, overcome the prior art of record. For instance Day et al. (US 2007/0174336) teach managing

resources and preventing conflicts when locally recording media assets in multimedia delivery systems, Nashida et al. (US 2002/0013945) and Yu et al. (US 2010/0111504) teach providing content to a user device when it is not available, Craner et al. (US 2008/0155615) teaches indexing content and providing the indexed content at the points at which the content was indexed. However, the prior art of record cannot be reasonably combined in order to teach the claimed invention.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Gee whose telephone number is (571)270-5955. The examiner can normally be reached on Monday through Friday 8 am to 5 pm.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at <http://www.uspto.gov/interviewpractice>.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Pendleton can be reached on 571-272-7527. 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 <https://ppair-my.uspto.gov/pair/PrivatePair>. 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

Application/Control Number: 15/922,926
Art Unit: 2425

Page 7

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.

/ALEXANDER GEE/
Primary Examiner, Art Unit 2425

Notice of References Cited	Application/Control No. 15/922,926	Applicant(s)/Patent Under Reexamination Tanaka, Masahide	
	Examiner Alexander Gee	Art Unit 2425	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-20100111504-A1	05-2010	Yu; Ke	H04N5/76	386/241
*	B	US-20080155615-A1	06-2008	Craner; Michael	H04N5/765	725/91
*	C	US-20070174336-A1	07-2007	Day; Thomas	H04N7/17318	1/1
*	D	US-20020013945-A1	01-2002	Nashida, Tatsushi	H04N5/76	725/58
	E					
	F					
	G					
	H					
	I					
	J					
	K					
	L					
	M					

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC 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.

<i>Index of Claims</i> 	Application/Control No. 15/922,926	Applicant(s)/Patent Under Reexamination Tanaka, Masahide
	Examiner Alexander Gee	Art Unit 2425

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

CLAIMS										
☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47										
CLAIM			DATE							
Final	Original	01/31/2020								
	1	-								
	2	✓								
	3	✓								
	4	✓								
	5	-								
	6	-								
	7	-								
	8	-								
	9	-								
	10	-								
	11	-								
	12	-								
	13	✓								
	14	✓								
	15	✓								
	16	✓								
	17	✓								
	18	✓								
	19	✓								
	20	✓								
	21	✓								
	22	✓								

Search Notes 	Application/Control No. 15/922,926	Applicant(s)/Patent Under Reexamination Tanaka, Masahide
	Examiner Alexander Gee	Art Unit 2425

CPC - Searched*		
Symbol	Date	Examiner

CPC Combination Sets - Searched*		
Symbol	Date	Examiner
H04N21/ 2665,426,4331,4383,4432,462,4622,47208,8586,4424,6581,218,262 ,26275	01/31/2020	AG
H04N7/16	01/31/2020	AG

US Classification - Searched*			
Class	Subclass	Date	Examiner

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
EAST text and classification prior art search	01/31/2020	AG
Inventor/assignee name search	01/31/2020	AG

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

	/ALEXANDER GEE/ Primary Examiner, Art Unit 2425
--	--

Bibliographic Data

Application No: 15/922,926

Foreign Priority claimed: ☒ Yes ☐ No

35 USC 119 (a-d) conditions met: ☒ Yes ☐ No ☐ Met After Allowance

Verified and Acknowledged: /ALEXANDER GEE/

Examiner's Signature

Initials

Title: Digital contents receiving apparatus

FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
03/16/2018	725	2425	US8CA5
RULE			

APPLICANTS

INVENTORS

Masahide Tanaka Osaka, JAPAN

CONTINUING DATA

This application is a CON of 15633776 06/27/2017 PAT 9948968

15633776 is a CON of 14934331 11/06/2015 PAT 9762964

14934331 is a CON of 14519389 10/21/2014 PAT 9210484

14519389 is a CON of 14224070 03/25/2014 PAT 8893187

14224070 is a CON of 12557476 09/10/2009 PAT 8726028

FOREIGN APPLICATIONS

JAPAN 2008-235797 09/14/2008

IF REQUIRED, FOREIGN LICENSE GRANTED**

04/11/2018

**** SMALL ENTITY ****

STATE OR COUNTRY

JAPAN

ADDRESS

MASAHIDE TANAKA

1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN

OSAKA,

JAPAN

FILING FEE RECEIVED

\$785

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	365	((("Tanaka") near3 ("Masahide"))).INV.	US- PGPUB; USPAT; USOCR	OR	OFF	2020/01/30 15:44
L2	1	"15922926"	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2020/01/30 15:44
L3	145	("nl" near2 giken).as. or ("nl" near2 giken).aanm.	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2020/01/30 15:46
L4	413	L1 or L3	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2020/01/30 15:46
L5	4	"15633776"	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2020/01/30 16:07
L6	81283	(H04N21/2665,426,4331,4383,4432,462,4622,47208,8586,4424,6581,218,262,26275;H04N7/16).cpc.	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2020/01/30 17:53
L7	387703	(H04N21/\$\$).cpc.	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2020/01/30 17:53
L8	1678654	(H04N).cpcl.	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2020/01/30 17:53
L9	5472	((content or video\$1 or media) with (schedul\$3 or "epg" or "epgs" or guide\$1) with provider\$1) and (@ad<"20080914" or @prad<"20080914" or @rlad<"20080914")	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2020/01/30 17:57
L10	11	((content or video\$1 or media) with (schedul\$3 or "epg" or "epgs" or guide\$1) with provider\$1) and L4	US- PGPUB;	OR	OFF	2020/01/30 17:57

			USPAT; USOCR; FPRS; EPO; JPO			
L11	1507	((content or video\$1 or media) with (schedul\$3 or "epg" or "epgs" or guide\$1) with provider\$1) and (@ad<"20080914" or @prad<"20080914" or @rlad<"20080914") and L6	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2020/01/30 17:58
L12	1622	((content or video\$1 or media) with (schedul\$3 or "epg" or "epgs" or guide\$1) with (provider\$1 or broadcaster\$1)) and (@ad<"20080914" or @prad<"20080914" or @rlad<"20080914") and L6	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2020/01/30 17:59
L13	274	((content or video\$1 or media) with (schedul\$3 or "epg" or "epgs" or guide\$1) with (provider\$1 or broadcaster\$1) with select\$3) and (@ad<"20080914" or @prad<"20080914" or @rlad<"20080914") and L6	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2020/01/30 18:00
L14	704	((content or video\$1 or media) with (schedul\$3 or "epg" or "epgs" or guide\$1) with (provider\$1 or broadcaster\$1 or server\$1) with select\$3) and (@ad<"20080914" or @prad<"20080914" or @rlad<"20080914") and L6	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2020/01/30 18:01
L15	33	((("two" or second) near5 (content or video\$1 or media)) with (schedul\$3 or "epg" or "epgs" or guide\$1) with ((("two" or second) near5 (provider\$1 or broadcaster\$1 or server\$1)) with select\$3) and (@ad<"20080914" or @prad<"20080914" or @rlad<"20080914"))	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2020/01/30 18:03
L16	45	((content or video\$1 or media) with (schedul\$3 or "epg" or "epgs" or guide\$1) with ((("two" or second) near5 (provider\$1 or broadcaster\$1 or server\$1)) with select\$3) and (@ad<"20080914" or @prad<"20080914" or @rlad<"20080914"))	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2020/01/30 18:04
L17	85	((("two" or second) near5 (content or video\$1 or media)) with (schedul\$3 or "epg" or "epgs" or guide\$1) with (provider\$1 or broadcaster\$1 or server\$1) with select\$3) and (@ad<"20080914" or @prad<"20080914" or @rlad<"20080914"))	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2020/01/30 18:04
L18	15	("20070174336" "20020013945" "20100111504" "20080155615" "20080015997" "6978475" "5774664" "5832223" "5778181").pn.	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2020/01/30 18:07
L19	49	((("two" or second) near5 (content or video\$1 or media)) with (schedul\$3 or "epg" or "epgs" or guide\$1) with ((("two" or second) near5 (provider\$1 or broadcaster\$1 or server\$1 or source\$1)) with select\$3) and (@ad<"20080914" or @prad<"20080914" or @rlad<"20080914"))	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2020/01/30 18:14
L20	122	((("two" or second) near5 (content or video\$1 or media)) with (schedul\$3 or "epg" or "epgs" or guide\$1) with (provider\$1 or broadcaster\$1 or server\$1 or source\$1) with select\$3) and (@ad<"20080914" or @prad<"20080914" or @rlad<"20080914"))	US- PGPUB; USPAT; USOCR; FPRS; EPO;	OR	OFF	2020/01/30 18:15

EAST Search History

			JPO			
L21	70	((content or video\$1 or media) with (schedul\$3 or "epg" or "epgs" or guide\$1) with ((("two" or second) near5 (provider\$1 or broadcaster\$1 or server\$1 or source\$1)) with select\$3) and (@ad<"20080914" or @prad<"20080914" or @rlad<"20080914"))	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2020/01/30 18:16

EAST Search History (Interference)

< This search history is empty>

1/30/2020 6:25:02 PM**C:\Users\agee\Documents\EAST\Workspaces\15922926.wsp**



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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
15/922,926	03/16/2018	Masahide Tanaka	US8CA5

CONFIRMATION NO. 9288

PUBLICATION NOTICE

67628
MASAHIDE TANAKA
1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN
OSAKA,
JAPAN



Title:Digital contents receiving apparatus

Publication No.US-2018-0205982-A1

Publication Date:07/19/2018

NOTICE OF PUBLICATION OF APPLICATION

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

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

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Public Records Division. The Public Records Division can be reached by telephone at (571) 272-3150 or (800) 972-6382, by facsimile at (571) 273-3250, by mail addressed to the United States Patent and Trademark Office, Public Records Division, Alexandria, VA 22313-1450 or via the Internet.

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

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

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

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875				Application or Docket Number 15/922,926		Filing Date 03/16/2018		☐ To be Mailed					
ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO													
APPLICATION AS FILED - PART I													
		(Column 1)		(Column 2)									
FOR		NUMBER FILED		NUMBER EXTRA		RATE (\$)		FEE (\$)					
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))		N/A		N/A		N/A							
☐ SEARCH FEE (37 CFR 1.16(k), (l), or (m))		N/A		N/A		N/A							
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))		N/A		N/A		N/A							
TOTAL CLAIMS (37 CFR 1.16(j))		minus 20 = *				x \$50 =							
INDEPENDENT CLAIMS (37 CFR 1.16(h))		minus 3 = *				x \$230 =							
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))		If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 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							
APPLICATION AS AMENDED - PART II													
		(Column 1)		(Column 2)		(Column 3)							
AMENDMENT	05/11/2018		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR		PRESENT EXTRA		RATE (\$)		ADDITIONAL FEE (\$)		
	Total (37 CFR 1.16(i))		* 13		Minus ** 20		= 0		x \$50 =		0		
	Independent (37 CFR 1.16(h))		* 2		Minus *** 3		= 0		x \$230 =		0		
	☐ Application Size Fee (37 CFR 1.16(s))												
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))												
										TOTAL ADD'L FEE		0	
AMENDMENT			CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR		PRESENT EXTRA		RATE (\$)		ADDITIONAL FEE (\$)		
	Total (37 CFR 1.16(i))		*		Minus **		=		x \$0 =				
	Independent (37 CFR 1.16(h))		*		Minus ***		=		x \$0 =				
	☐ Application Size Fee (37 CFR 1.16(s))												
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))												
										TOTAL ADD'L FEE			
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.										LIE			
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".										marsha R richards			
*** 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.

N THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Masahide TANAKA	Confirmation No.: 9288
Application No.: 15/922,926	
Filed: March 16, 2018	Group Art Unit: 2688

For: A digital contents receiving apparatus

Commissioner for Patents
Alexandria, VA 22313-1450

PRELIMINARY AMENDMENT
UNDER 37 C.F.R. §1.115

Dear Commissioner:

Please amend this application as follows.

AMENDMENT AND PRESENTATION OF CLAIMS.....	2
REMARKS.....	6

AMENDMENT AND PRESENTATION OF CLAIMS

Please replace all prior claims in the present application with the following claims:

1. (Canceled)

2. (Currently Amended) The receiving apparatus according to claim 13[[1]], wherein the first provider included selectable sub providers wherein the selector processor is configured to designate the part select the one of the digital moving image contents by selecting the sub provider, wherein the one part of the digital moving image contents is provided by the selected sub provider.

3. (Currently Amended) The receiving apparatus according to claim 13[[1]], wherein ~~the first processor is configured to designate a part of the digital moving image contents is~~ provided by the first provider by streaming technology in accordance with the [[a]] program schedule table.

4. (Currently Amended) The receiving apparatus according to claim 16 [[1]], wherein the designator processor is configured to designate an optional part of the digital moving image contents in response to a[[the]] manual operation.

5-12. (Cancelled)

13. (New) A receiving apparatus configured to receive digital moving image contents from outside providers of the digital moving image contents, the outside providers including a first provider providing a digital moving image content in accordance with a program schedule table predetermined by the provider and a second provider providing the digital moving image content independently from the program schedule table, the receiving apparatus comprising:

a selector configured to manually select one of the digital moving image contents provided from the first provider, the selected digital moving image content being an integral program continuing from an opening part to an ending part by way of a midstream part;

a first receiver configured to receive the selected digital moving image content at the midstream part of the integral program which is provided by the first provider at the time of selection by the selector;

a second receiver configured to receive from the second provider the digital moving image content including entire data of the digital moving image content from the opening part to the ending part of the integral program same as the integral program received from the first provider, the second receiver locating the integral program in accordance with information from the first receiver at the time of selection by the selector;

a display configured to view the digital moving image contents from the first provider and the second provider; and

a storage configured to store the entire data of the digital moving image content received by the second receiver.

14. (New) The receiving apparatus according to claim 13 further comprising a controller configured to have the display to view a past part of the integral program which has been already provided by the first provider and retrieved from the storage.

15. (New) The receiving apparatus according to claim 14, wherein the past part is the opening part of the integral program.

16. (New) The receiving apparatus according to claim 13 further comprising a designator configured to designate a desired part of the same integral program received by the second receiver.

17. (New) The receiving apparatus according to claim 13 further comprising a memory configured to keep the information necessary for the second receiver to locate the integral program same as the integral program received from the first provider.

18. (New) A receiving apparatus configured to receive digital moving image contents from outside provider system of the digital moving image contents, the outside provider system being capable of providing a digital moving image content in accordance with a program

schedule table predetermined by the provider and providing the digital moving image content independently from the program schedule table, the receiving apparatus comprising:

- a selector configured to manually select one of the digital moving image contents provided in accordance with a program schedule table, the selected digital moving image content being an integral program continuing from an opening part to an ending part by way of a midstream part;

- a first receiver configured to receive the selected digital moving image content at the midstream part of the integral program at the time of selection by the selector;

- a second receiver configured to receive the digital moving image content provided independently from the program schedule table including entire data of the digital moving image content from the opening part to the ending part of the integral program same as the integral program provided in accordance with a program schedule table, the second receiver locating the integral program in accordance with information at the time of selection by the selector;

- a display configured to view the digital moving image contents provided in accordance with a program schedule table and the digital moving image content provided independently from the program schedule table; and

- a storage configured to store the entire data of the digital moving image content received by the second receiver.

19. (New) The receiving apparatus according to claim 18 further comprising a controller configured to have the display to view a past part of the integral program which has been already provided in accordance with a program schedule table and retrieved from the storage.

20. (New) The receiving apparatus according to claim 19, wherein the past part is the opening part of the integral program.

21. (New) The receiving apparatus according to claim 18 further comprising a designator configured to designate a desired part of the same integral program received by the second receiver.

22. (New) The receiving apparatus according to claim 18 further comprising a memory configured to keep the information necessary for the second receiver to locate the integral program same as the integral program provided in accordance with a program schedule table.

REMARKS

Claims 2-4 and 13-22 are currently pending in this application, claims 13 and 18 being independent. Claims 2-4 have been amended, claims 1 and 5-12 have been cancelled without prejudice, and claims 13-22 have been added. No new matter has been introduced

Entry of the amendment and examination thereon are respectfully requested.

If any issues will be caused by the amendment, it is respectfully requested that the Examiner to contact the undersigned Applicant at guitar@kym.biglobe.ne.jp by electronic mail so that such issues may be resolved as expeditiously as possible. Recognizing that Internet communications are not secure, the undersigned Applicant hereby authorizes the USPTO to communicate with the undersigned Applicant concerning any subject matter of this application by electronic mail. The undersigned Applicant understands that a copy of these communications will be made of record in the application file.

Respectfully submitted,

Date: May 11, 2018

Masahide Tanaka

NL Giken Incorporated

561-0813 Ozone, Toyonaka-Shi, Osaka, Japan

/Masahide Tanaka/

Masahide Tanaka

Applicant

Electronic Acknowledgement Receipt	
EFS ID:	32598128
Application Number:	15922926
International Application Number:	
Confirmation Number:	9288
Title of Invention:	Digital contents receiving apparatus
First Named Inventor/Applicant Name:	Masahide Tanaka
Customer Number:	67628
Filer:	Masahide Tanaka
Filer Authorized By:	
Attorney Docket Number:	US8CA5
Receipt Date:	11-MAY-2018
Filing Date:	16-MAR-2018
Time Stamp:	11:53:19
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		US8CA5PrelimAmend.pdf	218856 68e91d1207d7d2555c2969cf0a199756d47b84b5	yes	6

	Multipart Description/PDF files in .zip description		
	Document Description	Start	End
	Preliminary Amendment	1	1
	Claims	2	5
	Applicant Arguments/Remarks Made in an Amendment	6	6
Warnings:			
Information:			
Total Files Size (in bytes):		218856	
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.			



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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLAIMS	IND CLAIMS
15/922,926	03/16/2018	2688	785	US8CA5	12	3

CONFIRMATION NO. 9288

FILING RECEIPT



000000098722913

67628
MASAHIDE TANAKA
1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN
OSAKA,
JAPAN

Date Mailed: 04/13/2018

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

Inventor(s)

Masahide Tanaka, Osaka, JAPAN;

Applicant(s)

Masahide Tanaka, Osaka, JAPAN;

Assignment For Published Patent Application

NL Giken Incorporated, Osaka, JAPAN

Power of Attorney: None

Domestic Priority data as claimed by applicant

This application is a CON of 15/633,776 06/27/2017 PAT 9948968
which is a CON of 14/934,331 11/06/2015 PAT 9762964
which is a CON of 14/519,389 10/21/2014 PAT 9210484
which is a CON of 14/224,070 03/25/2014 PAT 8893187
which is a CON of 12/557,476 09/10/2009 PAT 8726028

Foreign Applications (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see <http://www.uspto.gov> for more information.)

JAPAN 2008-235797 09/14/2008 No Access Code Provided

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Permission to Access Search Results: No

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If Required, Foreign Filing License Granted: 04/11/2018

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 15/922,926**

Projected Publication Date: 07/19/2018

Non-Publication Request: No

Early Publication Request: No

**** SMALL ENTITY ****

Title

Digital contents receiving apparatus

Preliminary Class

369

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

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

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

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

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

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

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

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

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

NOT GRANTED

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

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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875						Application or Docket Number 15/922,926			
APPLICATION AS FILED - PART I									
(Column 1)		(Column 2)		SMALL ENTITY		OR OTHER THAN SMALL ENTITY			
FOR	NUMBER FILED	NUMBER EXTRA	RATE(\$)	FEE(\$)		RATE(\$)	FEE(\$)		
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	75		N/A			
SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A	330		N/A			
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	380		N/A			
TOTAL CLAIMS (37 CFR 1.16(i))	12	minus 20 = *	x 50 =	0.00	OR				
INDEPENDENT CLAIMS (37 CFR 1.16(h))	3	minus 3 = *	x 230 =	0.00					
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 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).			0.00					
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				0.00					
			TOTAL	785		TOTAL			
* If the difference in column 1 is less than zero, enter "0" in column 2.									
APPLICATION AS AMENDED - PART II									
(Column 1)		(Column 2)		(Column 3)		SMALL ENTITY		OR OTHER THAN SMALL ENTITY	
AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)		RATE(\$)	ADDITIONAL FEE(\$)	
	Total (37 CFR 1.16(i))	*	Minus **	=	x =		x =		
	Independent (37 CFR 1.16(h))	*	Minus ***	=	x =		x =		
	Application Size Fee (37 CFR 1.16(s))								
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))								
			TOTAL ADD'L FEE			TOTAL ADD'L FEE			
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.									
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".									
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".									
The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.									



UNITED STATES PATENT AND TRADEMARK OFFICE

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

APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLAIMS	IND CLAIMS
15/922,926	03/16/2018	2688	785	US8CA5	12	3

CONFIRMATION NO. 9288

FILING RECEIPT



000000098722913

67628
MASAHIDE TANAKA
1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN
OSAKA,
JAPAN

Date Mailed: 04/13/2018

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

Inventor(s)

Masahide Tanaka, Osaka, JAPAN;

Applicant(s)

Masahide Tanaka, Osaka, JAPAN;

Assignment For Published Patent Application

NL Giken Incorporated, Osaka, JAPAN

Power of Attorney: None

Domestic Priority data as claimed by applicant

This application is a CON of 15/633,776 06/27/2017 PAT 9948968
which is a CON of 14/934,331 11/06/2015 PAT 9762964
which is a CON of 14/519,389 10/21/2014 PAT 9210484
which is a CON of 14/224,070 03/25/2014 PAT 8893187
which is a CON of 12/557,476 09/10/2009 PAT 8726028

Foreign Applications (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see <http://www.uspto.gov> for more information.)

JAPAN 2008-235797 09/14/2008 No Access Code Provided

Permission to Access Application via Priority Document Exchange: Yes

Permission to Access Search Results: No

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

If Required, Foreign Filing License Granted: 04/11/2018

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 15/922,926**

Projected Publication Date: 07/19/2018

Non-Publication Request: No

Early Publication Request: No

**** SMALL ENTITY ****

Title

Digital contents receiving apparatus

Preliminary Class

369

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

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

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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875						Application or Docket Number 15/922,926			
APPLICATION AS FILED - PART I									
(Column 1)		(Column 2)		SMALL ENTITY		OR OTHER THAN SMALL ENTITY			
FOR	NUMBER FILED	NUMBER EXTRA	RATE(\$)	FEE(\$)		RATE(\$)	FEE(\$)		
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	75		N/A			
SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A	330		N/A			
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	380		N/A			
TOTAL CLAIMS (37 CFR 1.16(i))	12	minus 20 = *	x 50 =	0.00	OR				
INDEPENDENT CLAIMS (37 CFR 1.16(h))	3	minus 3 = *	x 230 =	0.00					
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 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).			0.00					
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				0.00					
				TOTAL		TOTAL			
* If the difference in column 1 is less than zero, enter "0" in column 2.									
APPLICATION AS AMENDED - PART II									
(Column 1)		(Column 2)		(Column 3)		SMALL ENTITY		OR OTHER THAN SMALL ENTITY	
AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	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))					OR			
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					OR			
				TOTAL ADD'L FEE		TOTAL ADD'L FEE			
(Column 1)		(Column 2)		(Column 3)		SMALL ENTITY		OR OTHER THAN SMALL ENTITY	
AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	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))					OR			
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					OR			
				TOTAL ADD'L FEE		TOTAL ADD'L FEE			
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3". The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.									

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UTILITY PATENT APPLICATION TRANSMITTAL <i>(Only for new nonprovisional applications under 37 CFR 1.53(b))</i>	Attorney Docket No.	US8CA5
	First Inventor	Masahide Tanaka
	Title	
	Express Mail Label No.	

APPLICATION ELEMENTS <i>See MPEP chapter 600 concerning utility patent application contents.</i>		ADDRESS TO: Commissioner for Patents P.O. Box 1450 Alexandria VA 22313-1450	
1. ☐ Fee Transmittal Form (e.g., PTO/SB/17) 2. ☒ Applicant claims small entity status. See 37 CFR 1.27. 3. ☒ Specification [Total Pages <u>38</u>] Both the claims and abstract must start on a new page <i>(For information on the preferred arrangement, see MPEP 608.01(a))</i> 4. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets <u>8</u>] 5. Oath or Declaration [Total Sheets <u>3</u>] a. ☒ Newly executed (original or copy) b. ☐ A copy from a prior application (37 CFR 1.63(d)) <i>(for continuation/divisional with Box 18 completed)</i> i. ☐ DELETION OF INVENTOR(S) Signed statement attached deleting inventor(s) name 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 <i>(if applicable, items a. – c. are required)</i> a. ☐ Computer Readable Form (CRF) b. ☐ Specification Sequence Listing on: i. ☐ CD-ROM or CD-R (2 copies); or ii. ☐ Paper c. ☐ Statements verifying identity of above copies		ACCOMPANYING APPLICATION PARTS 9. ☐ Assignment Papers (cover sheet & document(s)) Name of Assignee _____ 10. ☐ 37 CFR 3.73(b) Statement ☐ Power of Attorney <i>(when there is an assignee)</i> 11. ☐ English Translation Document <i>(if applicable)</i> 12. ☐ Information Disclosure Statement (PTO/SB/08 or PTO-1449) ☐ Copies of citations attached 13. ☐ Preliminary Amendment 14. ☐ Return Receipt Postcard (MPEP 503) <i>(Should be specifically itemized)</i> 15. ☐ Certified Copy of Priority Document(s) <i>(if foreign priority is claimed)</i> 16. ☐ Nonpublication Request under 35 U.S.C. 122(b)(2)(B)(i). Applicant must attach form PTO/SB/35 or 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.: <u>15/633,776</u> Prior application information: Examiner <u>SHAYANFAR, ALI</u> Art Unit: <u>2497</u>			
19. CORRESPONDENCE ADDRESS			
☒ The address associated with Customer Number: <u>67628</u> OR ☐ Correspondence address below			
Name	Masahide Tanaka		
Address	1-17-9, Ozone, Toyonaka-Shi, Osaka, Japan		
City	Osaka	State	Zip Code 561-0813
Country	Japan	Telephone +81663346204	Email guitar@kym.biglobe.ne.jp
Signature	/Masahide Tanaka/		Date March 16, 2018
Name (Print/Type)	Masahide Tanaka		Registration No. (Attorney/Agent)

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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

Privacy Act Statement

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

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

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

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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	US8CA5
		Application Number	
Title of Invention	A digital contents receiving apparatus		
The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76. This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.			

Secrecy Order 37 CFR 5.2

☐ Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

Inventor Information:

Inventor	1				Remove
Legal Name					
Prefix	Given Name	Middle Name	Family Name	Suffix	
Mr. ▾	Masahide		Tanaka	▾	
Residence Information (Select One) US Residency • Non US Residency Active US Military Service					
City	Osaka	Country of Residence ⁱ	JP		
Mailing Address of Inventor:					
Address 1	1-17-9, Ozone, Toyonaka-Shi, Osaka, Japan				
Address 2					
City	Osaka	State/Province			
Postal Code	561-0813	Country ⁱ	JP		
All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the Add button.					
Add					

Correspondence Information:

Enter either Customer Number or complete the Correspondence Information section below. For further information see 37 CFR 1.33(a).			
☐ An Address is being provided for the correspondence information of this application.			
Customer Number	67628		
Email Address	guitar@kym.biglobe.ne.jp	Add Email	Remove Email

Application Information:

Title of the Invention	A digital contents receiving apparatus		
Attorney Docket Number	US8CA5	Small Entity Status Claimed	☒
Application Type	Nonprovisional ▾		
Subject Matter	Utility ▾		
Total Number of Drawing Sheets (if any)	8	Suggested Figure for Publication (if any)	

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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	US8CA5
		Application Number	
Title of Invention	A digital contents receiving apparatus		

Publication Information:
☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)

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Prior Application Status	Pending	Remove			
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)		
	Continuation of	15633776	2017-06-27		
Prior Application Status	Patented	Remove			
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
15633776	Continuation of	14934331	2015-11-06	9762964	2017-09-12
Prior Application Status	Patented	Remove			
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
14934331	Continuation of	14519389	2014-10-21	9210484	2015-12-08
Prior Application Status	Patented	Remove			
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
14519389	Continuation of	14224070	2014-03-25	8726028	2014-11-18
Prior Application Status	Patented	Remove			

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Application Data Sheet 37 CFR 1.76		Attorney Docket Number		US8CA5	
		Application Number			
Title of Invention	A digital contents receiving apparatus				
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
14224070	Continuation of ☐	12557476	2009-09-10	8726028	2014-05-13
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Application Number	Country ⁱ	Filing Date (YYYY-MM-DD)	Access Code ^j (if applicable)	
2008-235797	JP	2008-09-14		
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Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

☐ This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013.

NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.

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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	US8CA5
		Application Number	
Title of Invention	A digital contents receiving apparatus		

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Applicant	1		Remove
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Clear			
Assignee	Legal Representative under 35 U.S.C. 117		Joint Inventor
Person to whom the inventor is obligated to assign.		Person who shows sufficient proprietary interest	
If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:			
Name of the Deceased or Legally Incapacitated Inventor :			
If the Applicant is an Organization check here. ☐			

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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	US8CA5
		Application Number	
Title of Invention	A digital contents receiving apparatus		

Mailing Address Information For Applicant:			
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Country		Postal Code	
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If the Assignee is an Organization check here. ☒			
Organization Name	NL Giken Incorporated		
Mailing Address Information For Non-Applicant Assignee:			
Address 1	1-17-9, Ozone, Toyonaka-Shi, Osaka, Japan		
Address 2			
City	Osaka	State/Province	
Country	JP	Postal Code	561-0813
Phone Number	+81663346204	Fax Number	+81663346204
Email Address	guitar@kym.biglobe.ne.jp		
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Signature	/Masahide Tanaka/	Date (YYYY-MM-DD)	2018-03-16
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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	US8CA5		
		Application Number			
Title of Invention	A digital contents receiving apparatus				
First Name	Masahide	Last Name	Tanaka	Registration Number	
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7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
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DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)		Attorney Docket Number	US8CA5
		First Named Inventor	Masahide Tanaka
<i>COMPLETE IF KNOWN</i>			
☒ Declaration Submitted With Initial Filing	OR	☐ Declaration Submitted After Initial Filing (surcharge (37 CFR 1.16(f)) required)	Application Number
			Filing Date
			Art Unit
			Examiner Name

A digital contents receiving apparatus

(Title of the Invention)

As a below named inventor, I hereby declare that:

This declaration is directed to:

☒ The attached application,

OR

☐ United States Application Number or PCT International application number _____
filed on _____.

The above-identified application was made or authorized to be made by me.

I believe I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

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[Page 1 of 2]

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DECLARATION — Utility or Design Patent Application

Direct all correspondence to: ☒		The address associated with Customer Number: 67628		OR ☐		Correspondence address below	
Name Masahide Tanaka							
Address 1-17-9, Ozone, Toyonaka-Shi, Osaka, Japan							
City Osaka			State		Zip 561-0813		
Country JP		Telephone +81663346204		Email guitar@kym.biglobe.ne.jp			
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LEGAL NAME OF SOLE OR FIRST INVENTOR:							
(E.g., Given Name (first and middle (if any)) and Family Name or Surname)							
Masahide Tanaka							
Inventor's Signature /Masahide Tanaka/				Date (Optional) March 16, 2018			
Residence: City Osaka		State		Country Japan			
Mailing Address 1-17-9, Ozone, Toyonaka-Shi, Osaka, Japan							
City Osaka		State		Zip 561-0813		Country JP	
☐ Additional inventors are being named on the _____ supplemental sheet(s) PTO/AIA/10 attached hereto							

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7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
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SPECIFICATION

CROSS REFERENCE TO RELATED APPLICATION

This application is a ***Continuation Application*** of U.S. application Ser. No. 15/633,776 filed June 27, 2017, which is a continuation application of U.S. application Ser. No. 14/934,331 filed November 6, 2015, which is a continuation application of U.S. application Ser. No. 14/519,389 filed October 21, 2014, which is a continuation application of U.S. application Ser. No. 14/224,070 filed March 25, 2014, which is a continuation application of U.S. application Ser. No. 12/557,476 filed September 10, 2009, herein incorporated by reference in its entirety.

TITLE OF THE INVENTION

A digital contents receiving apparatus

BACKGROUND OF THE INVENTION

1. FIELD OF THE INVENTION

This invention relates to a digital contents receiving apparatus.

2. DESCRIPTION OF THE RELATED ART

In this field of the art, various digital contents receiving apparatus have been proposed. Typical digital contents are digital moving image contents, which have been provided by television stations through digital airwaves. Such digital moving image contents are typically received by television sets as the digital contents receiving apparatus for users to enjoy them in real time. Or the digital moving image contents provided by television stations are received by recording apparatus as the digital

contents receiving apparatus, such as DVD (Digital Versatile Disc) recorders or HDD (Hard Disk Drive) recorders.

Further, the digital moving image contents have provided by server stations through the internet for a personal computer as the digital contents receiver to receive the digital moving image contents. In this case, the data of digital moving image contents have been downloaded in the compressed filed and decompressed when enjoyed. The digital moving image contents have been also enjoyed through internet in real time by means of streaming technology. Though the internet, not only the digital moving image contents, but also other various digital contents, such as digital still image contents and digital text data for various digital contents receiving apparatus to receive them.

Japanese Laid-open Patent Application No. 2006-319955 proposes an example of automatic recording and playback apparatus for digital moving image contents. Japanese Laid-open Patent Application No. 2001-285743 proposes an example of television set capable of connection to the internet.

However, the increase of options may enrich the world of digital contents receiving apparatuses, it puts ordinary and majority of users, who cannot fully appreciate them, into confusion at the same time. Thus, there still exist in this field of art many demands for improvements of the digital contents receiving apparatuses.

SUMMARY OF THE INVENTION

An object of this invention is to propose an improved digital contents receiving apparatus in easiness of use.

Another object of this invention is to propose an improved digital moving

image contents receiving apparatus in easiness of use.

To achieve one of the above objects, this invention provides a receiving apparatus capable of receiving digital contents from outside contents source comprising a first unit arranged to designate one of the digital contents in the outside source, a second unit arranged to keep information necessary for the first unit to designating the same digital content again, and a third unit arranged to automatically obtain from the outside source information relating to control of the designated digital content and keep the information in relation to the information kept in the second unit. According to the feature of this invention, the receiving apparatus can tightly cooperate with the outside content source with a mismatch therebetween avoided.

According to a detailed feature of this invention, the information obtained and kept by the third unit above relates to the time limit for the outside source to surely provide the designated content. By means of this feature, the receiving apparatus can rely on the outside source to avoid such a mismatch that the desired digital content has been deleted from the outside source when the receiving apparatus designates the same digital content again.

According to another detailed feature of this invention, the receiving apparatus further comprises a fourth unit arranged to automatically receive the designated digital content in response to the information kept by the third unit and store the received digital content. By means of this feature, the desired digital content can be automatically secured in case the outside source will delete the same. According to a further detailed feature of this invention above, the fourth unit is arranged to automatically receive the designated digital content in advance to such a situation that the outside source can no more provide the designated digital content.

According to another detailed feature of this invention, the receiving apparatus further comprises a fourth unit arranged to automatically receive the designated digital content if the third unit fails to obtain the information relating to control of the designated digital content. By means of this feature, the desired digital content can be automatically secured on the safe side under the situation of insufficient information.

According to another detailed feature of this invention, the receiving apparatus further comprises a fourth unit arranged to receive the designated digital content in response to a manual operation for demanding the designated digital content. By means of this feature, the desired digital content can be downloaded any time depending on own responsibility of the user.

A typical example of the digital contents relate to digital moving image contents and the outside contents source relates to a provider of the digital moving image contents. In this case the receiving apparatus further comprises a display unit arranged for viewing the digital moving image contents. However, the above features are not only applicable to the moving image contents, but also widely to other digital contents, such as still image contents or text data contents.

To achieve the objects above, this invention also provides a receiving apparatus capable of receiving digital moving image contents from outside providers of the digital moving image contents comprising a manually operable unit arranged to turn on and off the receiving apparatus in response to a manual operation, a first unit arranged to designate one of the digital moving image contents in the outside provider, a second unit arranged to keep information necessary for the first unit to designate the same digital moving image content again, a third unit arranged to have the second unit

keep the information when the manually operable unit turns off the receiving apparatus and have the first unit designate the same digital moving image content again when the manually operable unit turns on the receiving apparatus afterward, a fourth unit arranged to receive the designated digital moving image content in response to the designation by the first unit, and a display unit arranged for viewing the digital moving image contents received by the fourth unit. According to the feature of this invention above, a digital moving image content which has been enjoyed when the manually operable unit turns off the receiving apparatus will be automatically designated again when the manually operable unit turns on the receiving apparatus afterward. This is considered advantageous because the digital moving image content which has been actually enjoyed when the receiving apparatus is turned off is assumed to be of the most interest if no other designation is made.

In a typical case of the above feature according to this invention, the first unit is arranged to designate the digital moving image content by means of selecting the provider, whereby the digital moving image content which is provided by the provider at the time of selection is designated.

In another typical case of the above feature according to this invention, the first unit is arranged to designate a digital moving image content provided by the provider by means of streaming technology in accordance with a program schedule table, whereby the digital moving image content is provided from a part which is provided by the provider at the time of designation.

In a still another typical case of the above feature according to this invention, the first unit is arranged to designate a part of digital moving image content, whereby the digital moving image content is provided from the part which designated by the

first unit. According to a detailed feature applicable to this case, the third unit is arranged to have the second unit keep the information of a part of digital moving image content when the manually operable unit turns off the receiving apparatus and have the first unit designate a succeeding part of the same digital moving image content when the manually operable unit turns on the receiving apparatus afterward. In a further still another typical case of the above feature according to this invention, the first unit may arranged to designate an optional part of the digital moving image content in response to a manual operation.

To achieve the objects above, this invention also provides a receiving apparatus capable of receiving digital moving image contents from outside providers of the digital moving image contents comprising, a selector unit arranged to manually select one of the digital moving image contents provided in accordance with a program schedule table predetermined by the provider, a receiver unit arranged to receive the selected digital moving image content from a first part which is provided by the provider at the time of selection by the selector unit, a display unit arranged for viewing the digital moving image contents received by the receiver unit, and a controller unit arranged to make it possible for the display unit to display a second part of the same digital moving image content which has been already provided by the provider. The feature of this invention above is advantageous in such a case that a television set turning-on or channel changing operation is done by a user with any specific digital moving image content not in mind to feel interest in the content appearing on television display by chance in response to the turning-on or channel changing operation.

A typical case in which the above feature is advantageous is when the user

desire to instantly view the same interested content from an optional position such as the beginning. According to a detailed feature of this invention for such a case, the controller unit is arranged to have the receiver unit receive the second part of the same digital moving image content during a slot of the program schedule table for the selected digital moving image content.

In another typical case of the above feature according to this invention, the controller includes memory unit arranged to keep information necessary for the selector to select the same digital content again.

Still another typical case in which the above feature is advantageous is when the user desire to view the same interested content afterward. According to a detailed feature of this invention for such a case, the second part memory unit is arranged to receive and store the entire data of the digital moving image content.

Other features and advantages according to this invention will be readily understood from the detailed description of the preferred embodiment in conjunction with the accompanying drawings.

The detailed description of the preferred embodiment according to this invention includes various detailed features derived from the above mentioned features. However, such detailed features are not only applicable to the above mentioned features, but also are widely and independently applicable to other objects and features. So, the above description should not be deemed to limit the scope of this invention, which should be properly determined on the basis of the attached claims.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a block diagram showing the moving image enjoying system in whole

according to a preferred embodiment of this invention.

Fig. 2 is a basic flowchart showing the function carried out by television set processor of television set computer in Fig. 1.

Fig. 3 is a flowchart showing the detailed function of the channel changing process in step S24 in Fig. 2.

Fig. 4 is a flowchart showing the detailed function of the optional shift process in step S28 in Fig. 2.

Fig. 5 is a flowchart showing the detailed function of the recording process in step S32 in Fig. 2.

Fig. 6 is a flowchart showing the detailed function of the record recall process in step S16 in Fig. 2 or in step S62 in Fig. 3.

Fig. 7 is a flowchart showing the detailed function of the record control process in step S36 in Fig. 2.

Fig. 8 is a flowchart showing a partial function carried out by server processor of server station in cooperation with television set processor of television set computer in Fig. 1.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Fig. 1 is a block diagram showing the moving image viewing system in whole according to an embodiment of this invention. The embodiment includes television set 2 as a receiver of digital contents such as moving images, and television station 5 and server station 9 as providers of the digital contents. Television set 2 in the system includes tuner 6 for receiving a digital broadcast television program content transmitted on digital airwave 4 from television station 5. Television set 2 also

includes television set computer 10 for receiving a digital moving image program content provided by server station 9 through internet 8. Television set computer 10 includes television set processor 12, memory 14 and input/output interface 16. Input/output interface 16 serves as a receiver for inputting data of digital moving image program contents stored in data base 32 of server station 9 downloaded by way of internet 8. Memory 14 is for storing computer programs executed by television set processor 12 and also for storing various data such as the digital moving image program contents downloaded from server station 9 by means of input/output interface 16. Memory 14 is of such a large capacity including a hard disk as capable of storing a considerable number of digital moving image program contents.

Input/output interface 16 is further capable of input a control signal transmitted on infra red ray 20 from remote controller 18 and received by control signal receiver 22, which is reported to television set processor 12 for necessary function. Remote controller 18 is to be manually operated for the purpose of turning on/off the main power of television set 2, selecting channels of television stations, and adjusting the audio volume of television set 2. Remote controller 18 further serves as a graphical user interface (GUI) in conjugation with television display 26, in such a manner that remote controller 18 operates various visual buttons displayed on television display 26 or selects among operations in a menu displayed on television display 26. Some signal from remote controller 18 received by control signal receiver 22 is also capable of being directly transmitted to tuner 6 on necessity. Tuner 6, which receives a digital broadcast television program content transmitted on digital airwave 4 from television station 5 as has been mentioned above, will replace television station 5 with another television station in response to a channel selection signal of remote

controller 18 directly transmitted by way of control signal receiver 22.

Display driver 24 responsive to data signal from tuner 6 drives television display 26 to display a digital broadcast television program content on television display 26. Display driver 24 further responsive to data signal from display memory 28 drives television display 26 to display a computer display signal transmitted by way of input/output interface 16 under control by television set processor 12. The computer display signal is displayed on television display 26 in such a manner that the display signal is superimposed on a part of digital broadcast television program content as a GUI display in cooperation with remote controller 18. The computer display signal may be alternatively displayed on television display 26 in such a manner that the display signal replaces the entire digital broadcast television program content as an operation menu or a broadcast program schedule table, which is to be selected by an operation at remote controller 18. A digital broadcast television program content received by tuner 6 can also be transmitted to input/output interface 16, and in turn stored in memory 14 in response to remote controller 18 as in the similar manner to the case of the ordinary video tape recorder.

On the other hand, a digital moving image program content provided by server station 9 through internet 8 and stored in memory 14 is converted into moving image data under the control of television set processor 12 to be transmitted to display memory 28 by way of input/output interface 16, and in turn to display driver 24. If display driver 24 under the control of television set processor 12 selects moving image data from display memory 28 in place of that from tuner 6, a digital moving image program content provided by server station 9 through internet 8 is displayed on television display 26 in place of the digital broadcast television program content from

television station 5. In this case, an on-demand or live digital moving image program content can be directly provided by server station 9 and displayed on television display 26 in almost real time by means of the streaming technology. Another example of the real time digital moving image program contents provided by server station 9 through internet 8 on the streaming technology is a digital moving image program provided in accordance with a program schedule table voluntarily determined by server station 9 in a similar manner to the case of television station 5.

As in the above, television set 2 according to the embodiment of this invention in Fig. 1 can enjoy both the digital broadcast television program contents from television station 5 on digital airwave 4 and digital moving image program contents provided by server station 9 through internet 8. Further, television set 2 according to the embodiment of this invention in Fig. 1 can not only select between a digital moving image content on air and a digital moving image content downloaded through internet 8, but also can combine both in advantageous manners, which will be explained in accordance with the following flow charts. For the combination in the advantageous manner, server processor 30 in server station 9 participates, the detailed explanation of which will also follow.

As has been mentioned, the digital moving image contents enjoyable on television display 26 are not only the digital moving image program contents on air by television station 5 or the digital moving image contents downloaded from server station 9 through internet 8 and stored in memory 14, but also a real time digital moving image contents provided by server station 9 on the streaming technology. In the case of a real time digital moving image content downloaded from server station 9 through streaming technology, Uniform Resource Locator (URL) for accessing such real

time digital moving image content is considered as a channel of a broadcast station provided that server station 9 is prepared to regularly provide the real time digital moving image program contents in accordance with a program schedule table similar to that by television station 5.

Fig. 2 is a basic flowchart showing the function carried out by television set processor 12 of television set computer 10 in Fig. 1. The flowchart starts when television set 2 is connected to the power receptacle, and it is checked in step S2 whether or not television set 2 is turned on. If not, step S2 is repeated to wait the power turn on operation. The "turn on operation" to be checked in step S2 broadly means an operation to turn on the main switch or the like by a user willing to turn on television set 2. For allowing such operation, a power switch is normally turned on in advance for making television set 2 in a standby state capable of detecting turn on operation at remote controller 18. Accordingly, "turn on operation" should not be strictly construed to the turning on of the power switch for truly turning on the television set 2, but is construed to include the turn on operation at remote controller 18 or the like with the power switch having been turned on in advance for the standby state.

If it is determined that television set 2 is turned on, the flow advances to step S4 to check whether or not such a history is recorded in memory 14 that television set was turned off after television set 2 had been connected to the power receptacle. If such the record is detected in step S4, the flow goes to step S6 to recall the status of television set 2 right before the latest turning-off.

Next in step S8, it is checked whether or not the status of television set 2 right before the latest turning-off operation was to select a real time digital moving image

content such as broadcast program. In such the case, the flow goes to step S10 to recall the channel selected when television set 2 was turned off at the previous time. This is because that the latest channel is presumed to be of the most interested one. As has been mentioned, in the case of a real time digital moving image content downloaded at input/output interface from server station 9 through internet 8 on streaming technology, Uniform Resource Locator (URL) for accessing such real time digital moving image content is considered as the latest channel. For the purpose of enabling the above case of streaming, television set computer 10 comes into constant connection status to internet 8 in step S11.

The flow then goes to step S12 for instructing display driver 24 to start displaying the digital moving image content. In the case of step S12 following step S10, the digital moving image content currently on air through a channel equal to the latest one is displayed. Though control lines are omitted in Fig.1 for the sake of simplification, tuner 6 and input/output interface 16 are controlled by television set processor 12, respectively, for the purpose of providing display driver 24 with the necessary digital moving image contents data.

On the other hand, if it is not detected that the status of television set 2 right before the latest turning-off operation was to select a real time digital moving image content, the flow goes to step S14 to check whether or not television set 2 was tuned off in the course of playing a digital moving image content recorded in memory 14. In such a case, the flow goes to step S16 to carry out record recall process in which the digital moving image content interrupted by the latest turning off operation of television set 2 is retrieved. Further in step S18, the position where the digital moving image content is interrupted is searched for restarting the content from the

interrupted position. Step S18 is also followed by step S12 for instructing display driver 24 to start displaying the digital moving image content. In the case of step S12 following step S18, the play of digital moving image content, which has been interrupted in the course of the play, is restarted from the interrupted position. This function is carried out automatically in response to the detection of turning-on of television set 2 at step S2. Thus, the user, who has put a halt to the play of the digital moving image content by turning off television set 2, can enjoy the rest of the same digital moving image content by means of simply turning on television set 2.

If it is not detected in step S14 that television set 2 was tuned off in the course of playing a digital moving image content recorded in memory 14, it means that the digital moving image content was completely enjoyed to its end and television set 2 was then turned off. In other words, there is no digital moving image content with any unfinished part to be recalled and viewed when television set 2 is turned on. So, the flow goes to step S10 to recall the latest channel which was selected by television set 2 before selecting the digital moving image content recorded in memory 14. By the way, if it is not detected in step S4 that any history is recorded in memory 14 that television set was turned off after television set 2 had been connected to the power receptacle, the flow goes to step S20 to automatically select a predetermined channel to go to step S12. In the absence of step S20, the flow would reach step S12 without selection of channel for television set 2 to start display in response to the turning on thereof. The channel predetermined for step S20 may have been manually or automatically selected depending on the user, or may be generally set as the default channel.

After the start of displaying the digital moving image content in step S12, the flow goes to step S22 with the display continued. In step S22, it is checked whether or

not an operation is done to change the channel selection. If such an operation is detected, the flow goes to step S24, in which channel selection changing process is carried out, followed by step S26. The channel selection changing process includes a change from a channel for broadcast program to the play of digital moving image content stored in memory 14. The detail of channel selection changing process in step S24 will be explained later. On the other hand, if it is not detected that any operation is done to change the channel selection, the flow directly goes to step S26

Step S26 is to check whether or not such an operation is done that the position of the digital moving image content to start with is optionally shifted from the position currently displayed. The position to be optionally shifted includes the beginning of the content. If such the operation is detected in step S26, the flow goes to step S28 to carry out optional shift process to realize the desired shift of position. The optional shift operation is mainly done under the condition that a real time digital moving image content on air from television station 5 or downloaded from server station 9 on streaming is displayed on television display 26 in response to the turning-on or channel change of television set 2. In other word, the optional shift operation is expected to be done when a television set turning-on or channel changing operation is done by a user with any specific digital moving image content not in mind to feel interest in the content appearing on television display 26 by chance in response to the turning-on or channel changing operation. And, such the user may desire to instantly view the interested content from an optional position such as the beginning. The detail of optional shift process will be explained later.

On the other hand, if the optional shift operation is not detected in step S26, the flow goes to step S30 to check whether or not a recording operation is done. And,

if the recording operation is detected, the flow goes to step S32 to carry out recording process. It should be noted here that the recording process 32 is to record the digital moving image content from the beginning to the end of that in contrast to the conventional recording in which the recording is done from the position of the content where the recording operation is done. The detail of the recording operation will be explained later. Also the recording operation is mainly done under the condition that a real time digital moving image content on air from television station 5 or downloaded from server station 9 on streaming is displayed on television display 26 in response to the turning-on or channel change of television set 2. In other word, the recording operation is expected to be done when a television set turning-on or channel changing operation is done by a user with any specific digital moving image content not in mind to feel interest in the content appearing on television display 26 by chance in response to the turning-on or channel changing operation. And, such the user may desire to record the interested contents for the purpose of viewing it later from the beginning.

On the other hand, if the recording operation is not detected in step S30, the flow goes to step S34 to check whether or not an operation is done to turning-off television set 2. And, if the television set turning-off operation is detected in step S34, the flow goes to step S36 to carryout recording control process, the details of which will be explained later. Further, in step S38, the status of television set 2 right before the turning-off is stored in memory 14 and the turning-off of television set 2 is carried out. The flow then goes back to step S2. Due to the function in step S38 to store the status of television set 2, various checks and functions to be carried out in steps S4 to S10 and steps S14 to S18 are made possible.

On the other hand, if the television set turning-off operation is not detected in

step S34, the flow goes back to step S22 to repeat the loop of steps S22 to 26, S30 and 34 unless one of the optional shift operation, the recording operation and the television set turning-off operation is detected in one of steps S26, S30 and S34, respectively. And, during the repetition of the loop, the display on television display 26 is continued and prepared to respond to any of the channel changing operation, the optional shift operation and the recording operation.

In the case of returning from step S38 to step S2, the flow goes into the stage of waiting a next turning-on operation by repeating step 2, and the flow advances to the steps led by step S4 if the next turning-on operation is detected in step S2. It should be noted that optional shift process in step 28 and recording process in step S32 are both include a step to return to step 2, which will be explained later in detail.

Fig. 3 is a flowchart showing the detailed function of the channel changing process in step S24 in Fig. 2. If the flowchart starts, it is checked in step S42 whether or not television set computer 10 has been connected to internet 8. If not, the flow goes to step S44 to instruct the constant connection to internet 8, and advances to step S46. By this, the preparation for internet communication during the channel changing process is secured. On the other hand, if it is checked in step S42 that television set computer 10 has been connected to internet 8, the flow directly goes to step S46.

In step S46, it is checked whether or not a conventional channel for broadcast program has been selected in step S22 in Fig. 2. If it is the case, the flow goes to step S48 to direct the selected channel and advances to step S50. In step 50, it is directed to start displaying the digital moving image content, the flow then going to the end. In this case, a new channel of digital moving image content starts to be displayed,

which is seemingly identical with the channel changing in the conventional television set.

On the other hand, if it is not detected in step S46 that a conventional channel for broadcast program has been selected in step S22 of Fig. 2, the flow goes to step S52, in which it is checked whether or not a "channel" of server station 9 has been selected in step S22 of Fig. 2. If it is the case, the flow goes to step S54 to direct URL relating to the server station 9. The directed URL is for directly designating data of the digital moving image content prepared by server station 9 in accordance with a program schedule table. Next in step S56, it is checked whether or not the digital moving image content for the URL is provided by live streaming. If it is the case, the flow goes to step S58 to direct real time display and the flow goes to step S50 in which the digital moving image content starts to be displayed from a position currently provided in real time by means of the live streaming. The flow then goes to the end. Also in this case, the display in response to the channel changing operation in step S22 in Fig. 2 is seemingly identical with the channel changing to a live remote broadcast program in the conventional television set.

If it is determined in step S56 that URL directed in step S54 is not the digital moving image content provided by live streaming, the flow goes to step S60. In step S60, the beginning of the digital moving image content for the URL is directed as the point to start with. Next, the flow is advanced to step S50 for carrying out the starting of the content with its beginning, the flow then going to the end. In this case, the digital moving image content is started in step S50 with the beginning every time in response to a new selection of "channel", which is similar to the case of playing back a recorded digital moving image content. On the other hand, the series of function

carried out by steps S54, S56, S60 and S50 is similar to the case of normal broadcast digital moving image content provided by television station 5 in accordance with a program schedule table in that a user cannot independently select a digital moving image content itself but can merely select a "channel" in which server station 9 exclusively determine or substitute a digital moving image content for the URL regarded as a "channel".

If it is not determined in step S52 that a "channel" of server station 9 has been selected, it means that the channel selection in step S22 of Fig. 2 is for retrieving a digital moving image content recorded in memory 14. In this case, accordingly, the flow goes from step S52 to step S62 in which record recall process is carried out, the details of step S62 being to be explained later. Next, in step S64 it is checked whether or not the retrieved digital moving image content is in such a condition that the content was interrupted in the course of playing thereof. In such a case, the flow goes to step S66 to search the position where the digital moving image content is interrupted for restarting the content from the interrupted position in step S50. This function is carried out automatically in response to the detection of a new selection of "channel". Thus, the user, who has put a halt to the play of the digital moving image content by selecting another "channel", can enjoy the rest of the same digital moving image content by means of simply select the same "channel".

On the other hand, if it is not determined that the retrieved digital moving image content is in such a condition that the content was interrupted in the course of playing thereof, the flow goes to step S68 to direct the beginning of the retrieved digital moving image content as the point to start with in step S50. In this case, the user can enjoy the digital moving image content from the beginning by means of simply select a

“channel”. This is similar to the case of the function carried out in accordance with the flow from step S60 to step S 50.

Fig. 4 is a flowchart showing the detailed function of the optional shift process in step S28 in Fig. 2. If the flowchart starts, it is checked in step S72 whether or not television set computer 10 has been connected to internet 8. If not, the flow goes to step S74 to instruct the constant connection to internet 8, and advances to step S76. By this, the preparation for internet communication during the optional shift process is secured. On the other hand, if it is checked in step S72 that television set computer 10 has been connected to internet 8, the flow directly goes to step S76.

In step S76, it is checked whether or not the optional shift operation detected in Step S26 is done during the play of the digital moving image content recorded in memory 14. If it is the case, the flow advances to step S78, in which recorded content optional shift process is carried out. The recorded content optional shift process in step S78 is similar to well known functions for conventional picture recorder, such as the first-forward function, or the skipping function or the selection among chapters of a chaptered digital moving image content. When a position of the recorded moving image content has been determined through step S78, the flow goes to step S80 to issue a direction to start displaying the digital moving image content with the determined position, the flow then going to the end. As has been mentioned above, this function is similar to that in conventional video recorders or DVD recorders.

On the other hand, if it is not determined in step S76 that the optional shift operation detected in Step S26 is done during the play of the digital moving image content recorded in memory 14, the flow goes to step S82. In step S82, it is checked whether or not the optional shift operation detected in Step S26 is done during

broadcast channel selection of television station 5. If it is the case, the flow advances to step S84 to direct URL of server station 9 for digital moving image content corresponding to the broadcast digital moving image program from television station 5. For making the above function possible, both television 5 and server station 9 are providing the same digital moving image contents in cooperation. Further in step S86, it is checked whether or not the digital moving image content designated with URL is capable of being provided by means of streaming to go to step S88 if streaming is possible.

In step S88, the digital moving image content designated by URL is divided into chapters in unit of packet or group of packets and a view format of chapters is displayed on television display 26 for facilitating the optional shift by means of a selection of the chapter with which the digital moving image content is to start. The flow advances to step S90 with the display started in step S88 continued. In step S90, it is checked whether or not a chapter is selected by means of GUI in combination of remote controller 18 and television display 26. If chapter selection is detected in step S90, the flow goes to step S92 to download the packet corresponding to the selected chapter, the digital moving image content being instantly started with the selected chapter by means of streaming in step S80 as soon as the corresponding packet is downloaded. Thus, if a user meets a midstream of some broadcast digital moving image content provided in accordance with a scheduled program by chance of selecting a channel and gets interested in the content, the user can enjoy the content at any desirable position, including the beginning, of the content.

On the other hand, it is not determined in step S90 that a chapter is selected, the flow goes to step S94, in which it is checked whether or not the time since the

display started in step S88 has past over a limit. If not, the flow returns to step S88 to repeat steps S88 to S94 with the display started in step S88 continued unless the time has past or chapter selection is detected. The case of detection of chapter selection in step S90 has been above explained.

If it is determined in step S94 that the time since the display started in step S88 has past over a limit, the flow goes to step S96 to download the packet corresponding to the beginning of the digital moving image content, the digital moving image content being instantly started with the beginning by means of streaming in step S80 as soon as the corresponding packet is downloaded. Thus, if a user meets a midstream of some broadcast digital moving image content provided in accordance with a scheduled program by chance of selecting a channel and gets interested in the content, the user can enjoy the content from its beginning by means of simply make the optional shift operation with remote controller 18, which is detected in step S26 of Fig. 2 and the rest of necessary functions are all automatically carried out even if no further operation will be done.

On the other hand, if it is not determined in step S82 that optional shift operation detected in Step S26 is done during broadcast channel selection for television station 5, it means that the optional shift operation detected in Step S26 is done during URL (i.e., "channel") selection for the real time digital moving image program contents provided by server station 9 through internet 8 on the streaming technology in accordance with a program schedule table voluntarily determined by server station 9 in a similar manner to the case of television station 5. So, the flow directly goes from step S82 to step S88 in this case. In other word, since the URL has already determined as well as the streaming possibility has already confirmed in this case, the

flow can directly goes to step S88 with steps S84 and S86 omitted. The function led by step S88 in the case of directly coming from step S82 is identical with the case of broadcast channel selection with no additional explanation needed.

If it is not determined in step S86 that the digital moving image content designated with URL is capable of being provided by means of streaming, the flow goes to step S98 for hole data download process, in which the whole data necessary for playing the entirety of the digital moving image content is downloaded. And, if the download has been completed in step S98, the flow goes to step S96. In step 98 in this case, the beginning of the downloaded whole data is automatically get ready for starting in step S80. In other words, the content gotten by the whole data download is automatically started with the beginning since the content is not divided into chapters in unit of packet or group of packets in terms of streaming which is treated in steps S88 and S90.

Fig. 5 is a flowchart showing the detailed function of the recording process in step S32 in Fig. 2. If the flowchart starts, it is checked in step S102 whether or not television set computer 10 has been connected to internet 8. If not, the flow goes to step S104 to instruct the constant connection to internet 8, and advances to step S106. By this, the preparation for internet communication during the recording process is secured. On the other hand, if it is checked in step S102 that television set computer 10 has been connected to internet 8, the flow directly goes to step S106.

In step S106, it is checked whether or not the recording operation detected in step S30 in Fig. 2 has been done during conventional channel selection of broadcast program by television station 5. If it is the case, the flow advances to step S108 to direct URL of server station 9 for digital moving image content corresponding to the

broadcast digital moving image program from television station 5. For making the above function possible, both television 5 and server station 9 are providing the same digital moving image contents. Further in step S110, it is checked whether or not the digital moving image content designated with URL is capable of being provided by means of streaming to go to step S112 if streaming is possible.

On the other hand, if it is not determined in step S106 that the recording operation detected in Step S30 is done during broadcast channel selection for television station 5, the flow directly goes to step S112. No detection in step S30 of the recording operation during broadcast channel selection means that the recording operation is done during enjoying digital moving image content provided by server station 9 through streaming technology since there is no such a case that the recording operation is done during the play of the digital moving image content recorded in memory 14. Thus, the above flow is designed to directly go from step S106 to step S112 in this case as in the case that the streaming possibility is determined in step S110.

In step S112, an expiration date after which the digital moving image content will be no more provided is confirmed to check whether the expiration date is controllable. Here "controllable" means that server station 9 guarantees that it continues to provide the content until the expiration date without fail and also a predetermined sufficient time (e.g., one week) is left before the expiration date.

If it is confirmed that the expiration date controllable, the flow goes to step S118 to add URL for the digital moving image content for enjoying the content from the beginning by means of streaming technology, the URL being added to a list of "recorded contents". Further in step S120, the URL is added to a list of "controlled contents", the flow then going to the end. In other words, if the content to be recorded is possible

to be provided by streaming in the future and the expiration date is controllable, the date itself of the digital moving image content is not downloaded in response to the recording operation, but URL of the content is recorded for starting the content upon an operation for "play of recorded content" and the control of the expiration date is secured. Process of "recalling" the contents "recorded" in the above manner will be explained later.

On the other hand, if it is not determined in step S110 that the digital moving image content designated with URL is capable of being provided by means of streaming, the flow goes to step S122 for hole data download process, in which the whole data necessary for playing the entirety of the digital moving image content is downloaded. And, if the download has been completed in step S122, the flow goes to step S124 for deleting the URL from "controlled contents", the flow then going to the end. Similarly, if it is not determined in step S112 that the expiration date is controllable, the flow goes to step S122 for hole data download process. And, if the download has been completed in step S122, the flow goes to step S124 for deleting the URL from "controlled contents", the flow then going to the end also in this case.

Fig. 6 is a flowchart showing the detailed function of the record recall process in step S16 in Fig. 2 or in step S62 in Fig. 3. If the flowchart starts, it is checked in step S132 whether or not whole the data of the digital moving image content has been downloaded and recorded in memory 14 in compressed form. If whole the data has been downloaded, the flow goes to step S134 to recall the compressed data from memory 14. And it is checked in step S136 whether or not such information is recorded that the digital moving image content has been interrupted at some position during playing the content. If it is determined in step S136 that the information of

interruption is recorded, the flow goes to step S138 for preparing to decompress the recalled data of the content for restarting the content at the interrupted position, the flow then going to the end. On the other hand, if it is not determined in step S136 that the information of interruption is recorded, the flow goes to step S140 for preparing to decompress the recalled data of the content for starting the content from the beginning, the flow then going to the end also in this case.

If it is not determined in step S132 that whole the data of the digital moving image content has been downloaded, the flow goes to step S142 to recall URL form the list of "recorded contents". The URL is not only for designating server station 9, but also directly identifying the digital moving image content "recorded". And it is checked in step S144 whether or not such information is recorded that the digital moving image content has been interrupted at some position during streaming of the content. If it is determined in step S144 that the information of interruption is recorded, the flow goes to step S146 for identifying the packet corresponding to the interrupted position to restart the content therefrom, the flow then going to the end. On the other hand, if it is not determined in step S144 that the information of interruption is recorded, the flow goes to step S148 for identifying the packet corresponding to the beginning of the content to restart the content therefrom, the flow then going to the end also in this case.

The functions mentioned in steps S138, S140, S146 and S148 all relate to preparation of data or information necessary in the succeeding processes. In more detail, the data or information above are utilized as an object to be searched or directed in step 18 in Fig. 2 or steps S66 or S68 in Fig. 3 for enjoying the digital moving image contents. Further, URL's for identifying packets treated in steps S146 and S148 are

also utilized in steps S58 and S60 in Fig. 3 and steps S92 and S96 in Fig. 4.

Fig. 7 is a flowchart showing the detailed function of the record control process in step S36 in Fig. 2. The flow in Fig. 2 is for controlling URL's added to the "recorded contents" through step S118 in Fig. 5. If the flow starts, it is checked in step S152 whether or not URL is recorded in the "recorded contents". If any, the flow goes to step S154 to access all the recorded URL's one by one for confirming and updating any change in the expiration date.

Next in step S156, each of the updated expiration dates is compared with today's date and check whether or not any URL with uncontrollable expiration date exists. Here "uncontrollable" means that a predetermined sufficient time (e.g., one week) is no more left before the expiration date. In other words, "uncontrollable" means that whole the data of the content should be urgently download to secure it in memory 14, otherwise there will be a risk of losing any chance of enjoying the content afterward. If such a URL is detected in step S156, the flow goes to step S158 to select one URL with the most urgent expiration date if a plurality of URL's are detected. And, the whole data of the selected URL is downloaded at hole data download process in step S160. And, if the download has been completed in step S122, the flow goes to step S162 for deleting the URL from "controlled contents", the flow then going back to step S156.

In step S156, it is checked again whether or not any URL with uncontrollable expiration date exists among the remaining URL's. If such a URL is detected in step S156 again, the flow goes to step S158 again. In this manner, the loop of steps S156 to S162 is repeated unless no URL with uncontrollable expiration date is detected in step S156. On the other hand, if no URL with uncontrollable expiration date is detected in

step S156, the flow is to instantly go to the end. Further, if it is not detected in step S152 that URL is recorded in the “recorded contents”, the flow is to instantly go to the end.

Fig. 8 is a flowchart showing a partial function carried out by server processor 30 of server station 9 in cooperation with television set processor 12 of television set computer 10 in Fig. 1. The partial function relates to the cooperation with television server 5 and the control of expiration date for each of the digital moving image contents. Server processor 30 includes not only a central processing unit (CPU) in the narrow sense, but also various peripheral units such as communication unit which are necessary for the server though the details such units are omitted in Fig. 1. The flowchart in Fig. 8 starts in response to the initial rise of server processor 30 so that it is checked in step S172 whether or not new digital moving image content is uploaded for providing it through internet 8. The “new digital moving image content” is of just the same content as that of the digital moving image content provided by television station 5 through digital airwave 4.

If it is confirmed in step S172 that the new digital moving image content is uploaded, the flow goes to step S174 to provide the uploaded digital moving image content with information indicative of the tight relationship with the same digital moving image content provided by television station 5. Further in step S176, the uploaded digital moving image content is provided with information indicative of its expiration date, the flow then going to step S178. On the other hand, if it is not confirmed in step S172 that the new digital moving image content is uploaded, the flow directly goes to step S178.

In step S178, it is checked whether or not time is up for one of digital moving

image contents which is to be provided on time through streaming technology in accordance with a predetermined "broadcast program schedule table". If any, the flow goes to step S180 to provide the content with "regular program URL" indicative of a slot in the "broadcast program schedule table", the flow then going to step S182. On the other hand, if it is not confirmed in step S178 that time is up for any of the scheduled digital moving image content, the flow directly goes to step S182. Thus, if the "regular program URL", which is broadly considered as a channel of a broadcast station, is selected by television set 2 during the slot for the program, the digital moving image content is automatically provided through streaming technology by server station 9 from a packet corresponding to the time when the "regular program URL" is selected. In other words, the digital moving image content is provided through streaming technology by server station 9 in the very similar manner to that in the conventional television program provided by television station 5. In more detail, if the "regular program URL" is selected on time of "broadcast program schedule table", the digital moving image content will be enjoyed from its beginning. In contrast to that, if the "regular program URL" is selected in midstream of the slot of "broadcast program schedule table", the digital moving image content will be enjoyed from the midstream of the content corresponding to the time.

In step S182, it is checked whether or not time is up for a live digital moving image content which is to be provided on time through streaming technology in accordance with a predetermined "broadcast program schedule table". If any, the flow goes to step S184 to carry out live streaming starting process, in which live image is captured as streaming data and the provision of the captured image through streaming technology is started. Further in step S186, the captured live digital moving image

content is provided with information indicative of its expiration date, the flow then going to step S188. On the other hand, if it is not confirmed in step S182 that time is up for any live digital moving image content, the flow directly goes to step S188. Thus, if the URL for live streaming, which is also broadly considered as a channel of a broadcast station, is selected by television set 2 during the slot in the "broadcast program schedule table", the digital moving image content is automatically provided through streaming technology by server station 9 from a packet corresponding to the time when the URL for live streaming is selected.

In other words, the live digital moving image content is provided through streaming technology by server station 9 in the very similar manner to that in the conventional live television broadcast program provided by television station 5. In more detail, if the URL for live streaming is selected on time of "broadcast program schedule table", the live digital moving image content will be enjoyed from its beginning. In contrast to that, if the URL for live streaming is selected in midstream of the slot of "broadcast program schedule table", the live digital moving image content will be enjoyed from the midstream of the content corresponding to the time when the URL is selected. The live digital moving image content above is kept in server station 9 until the expiration date given in step S186. Accordingly, if the live digital moving image content is unfortunately missed on time, it is generally possible to enjoy the content afterward. For example, if such live digital moving image content is to be rerun in accordance with "broadcast program schedule table", the content can be enjoyed by means of the function of steps S178 and S180 in the same manner as that of general streaming program. In case of no plan of rerun in accordance with "broadcast program schedule table", it is still possible to enjoy the missed content until its

expiration date by mean of “archive function” explained later.

In step S188, it is checked whether or not any streaming digital moving image content has been provided acting on in accordance with the “broadcast program schedule table”. If any, the flow goes to step S190 to provide the content with a specific URL indicative of “archive” digital moving image content, the flow then going to step S192. On the other hand, if it is not confirmed in step S188 that any streaming digital moving image content has been provided acting on in accordance with the “broadcast program schedule table”, the flow directly goes to step S192. The digital moving image content provided with the “archive” URL corresponds to a digital moving image content which is not planned to be provided acting on “broadcast program schedule table”, but is merely kept for provision on demand when the content is designated with the “archive” URL in accordance with a selection or search into the archive list. The digital moving image content with the “archive” URL can also be provided when the “archive” URL is designated through any of the functions in Fig.4 to Fig.6.

In step S192, it is checked whether or not the expiration date for any digital moving image content is reached. If any, the flow goes to step S194 to delete the digital moving image content from the archive of server station 9. Further, in step S196, the URL given to the deleted content is also cancelled, the flow then going to step S198. On the other hand, if it is not confirmed in step S192 that the expiration date for any digital moving image content is reached, the flow directly goes to step S198.

In step S198, it is checked whether or not a regular maintenance date for server station 9 has come to go to the end if it is the case. On the other hand, if it is not confirmed in step S198 that the regular maintenance date for server station 9 has

come, the flow goes back to step S172 to repeat steps S172 to S198 unless the maintenance date is detected in step S198. The repetition of steps S172 to S198 achieves control of various digital moving image contents in data base 32 of server station 9 in reacting on various changes caused during the repetitions.

In the above description, the “regular program URL” for digital moving image content provided by servers station 9 is broadly considered as a “channel” of a broadcast station such as television station 5. In other words, the provision of digital moving image content by server station 9 through streaming technology is achieved in the very similar manner to that in the conventional television program provided by television station 5. In the same sense, television station 5 can be broadly considered as a “provider” of digital moving image contents in such a case that the “regular program URL” for digital moving image content provided by server station 9 is broadly considered as a “channel” for television station 5.

Various features of this invention are not only applicable to the above embodiment, but also widely to other embodiments. For example, the feature of control of the expiration date of the contents and the automatic download of the contents data explained in Fig. 5 through Fig. 8 are not applicable to the case of digital moving image contents data, but also widely to other contents data such as still image contents data or text data. In more detail in the case of obtaining content data through internet, download of the content data itself may not be actually carried out provided that the expiration date of the content data on the server is securely confirmed. Instead in this case, information such as “book mark” necessary for accessing again the content data is merely recorded so that actual download is to be automatically carried out when the expiration date comes close or becomes unclear.

According to this application, redundant download of content data can be saved or avoided and at the same time such inexpediency is overcome that "book marked" content data has been deleted when the data is accessed again for actual download or review.

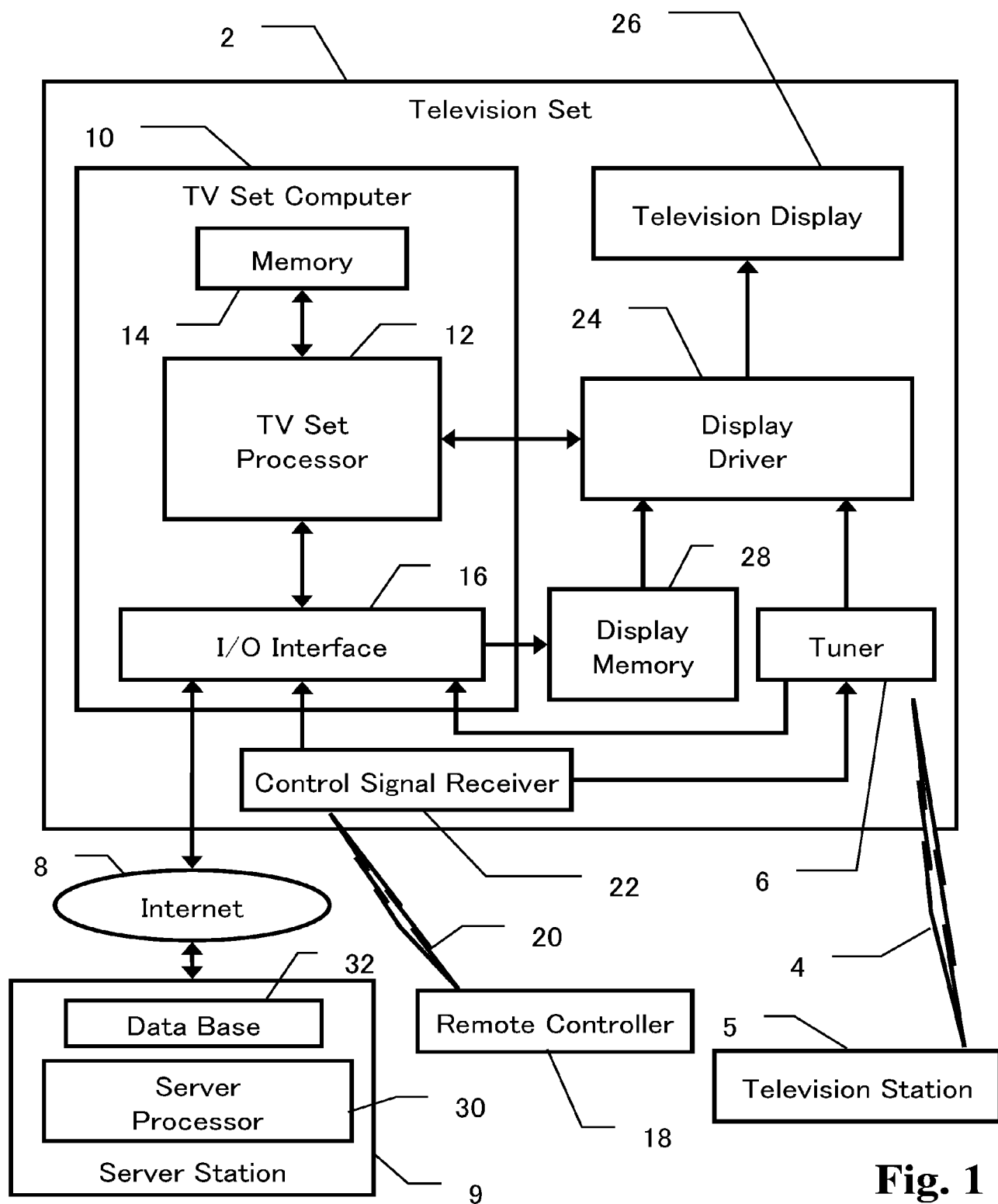


Fig. 1

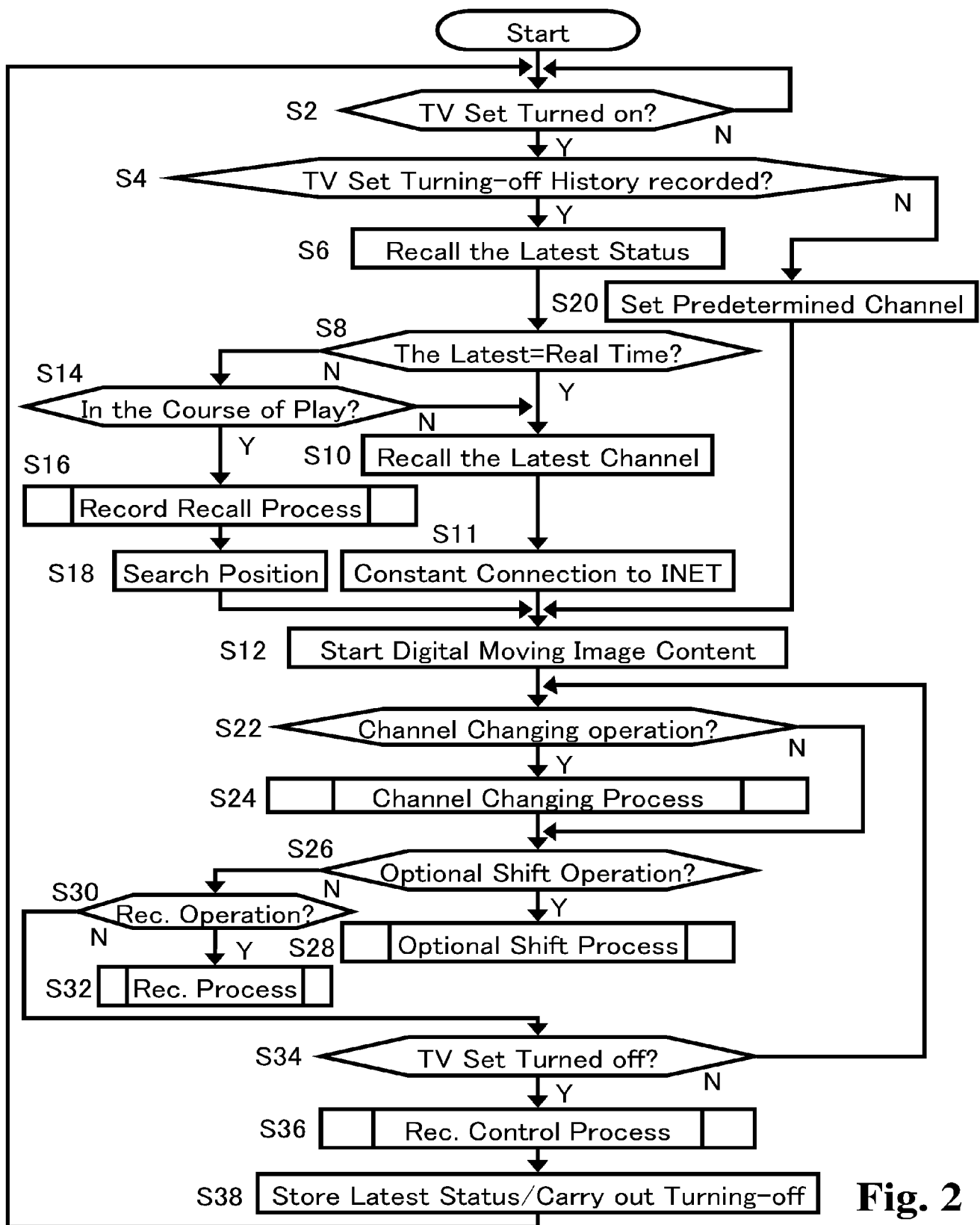


Fig. 2

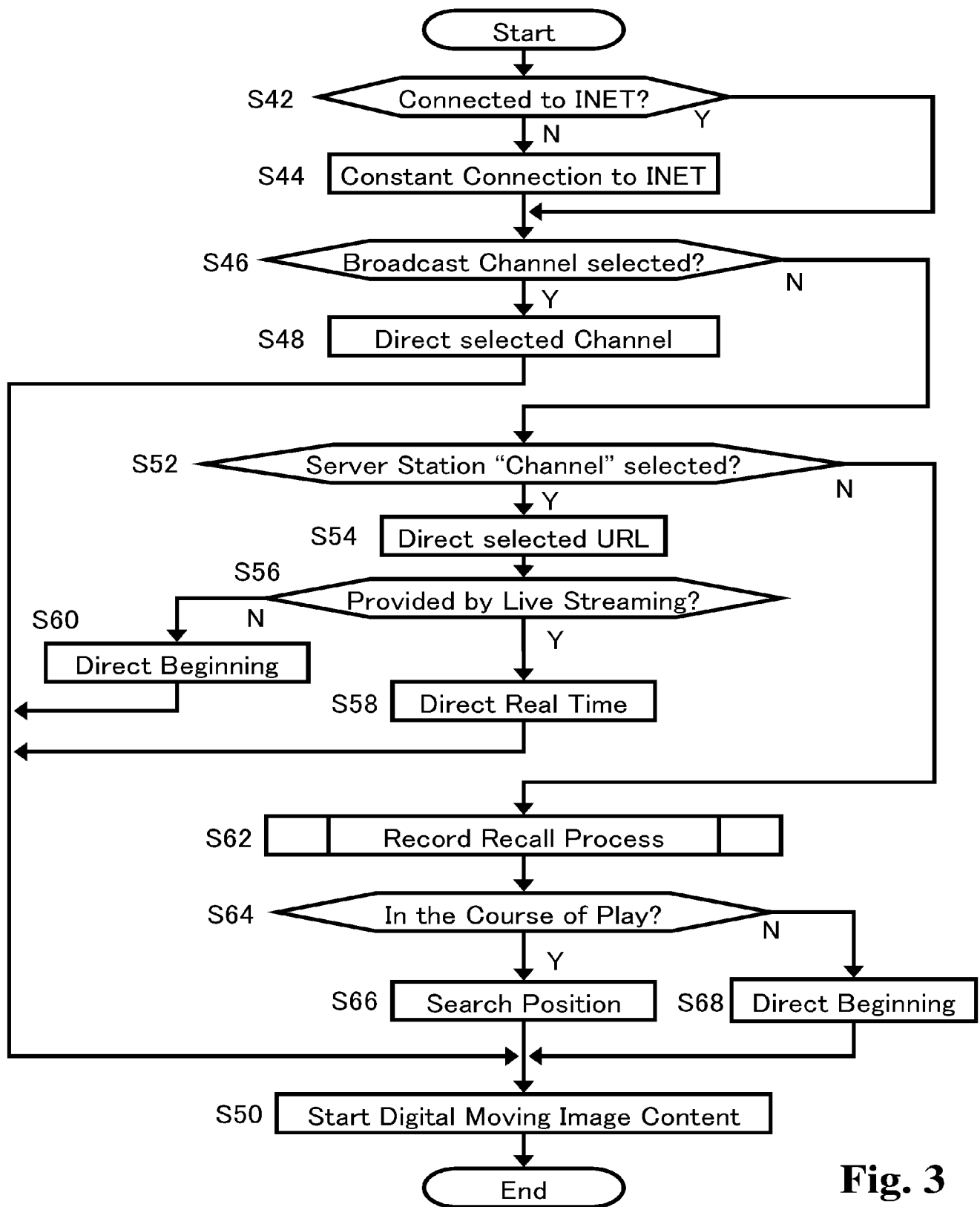


Fig. 3

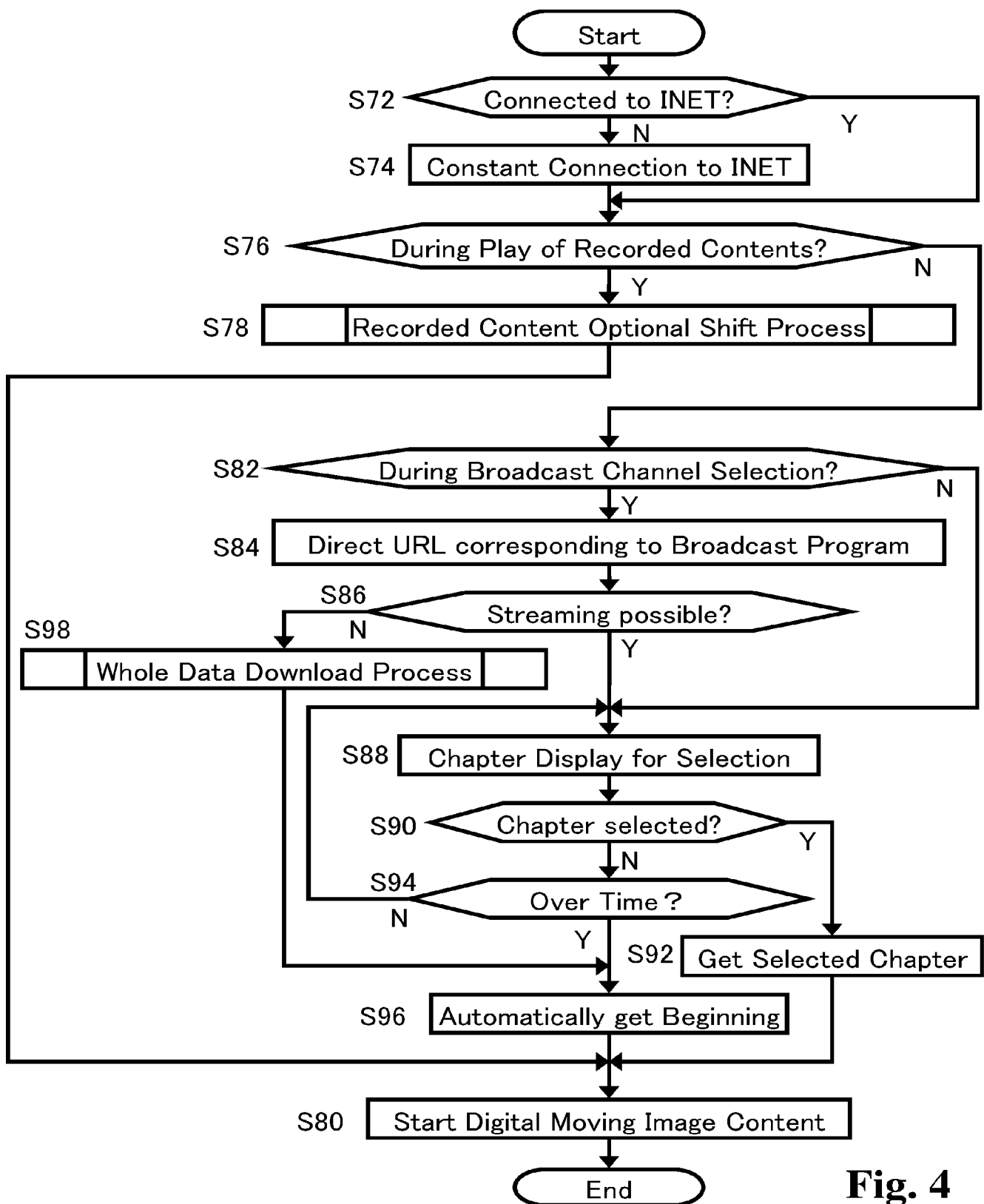


Fig. 4

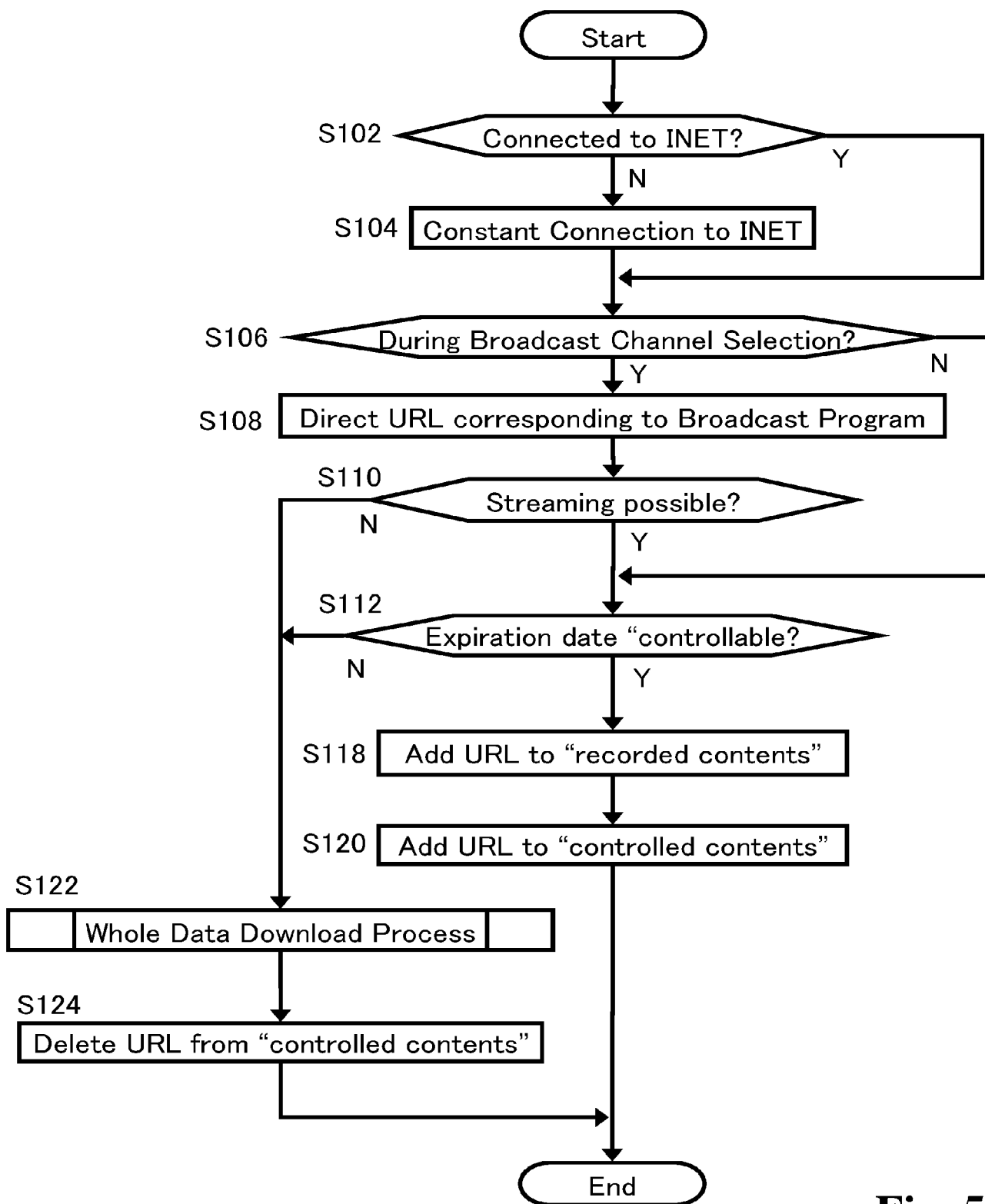


Fig. 5

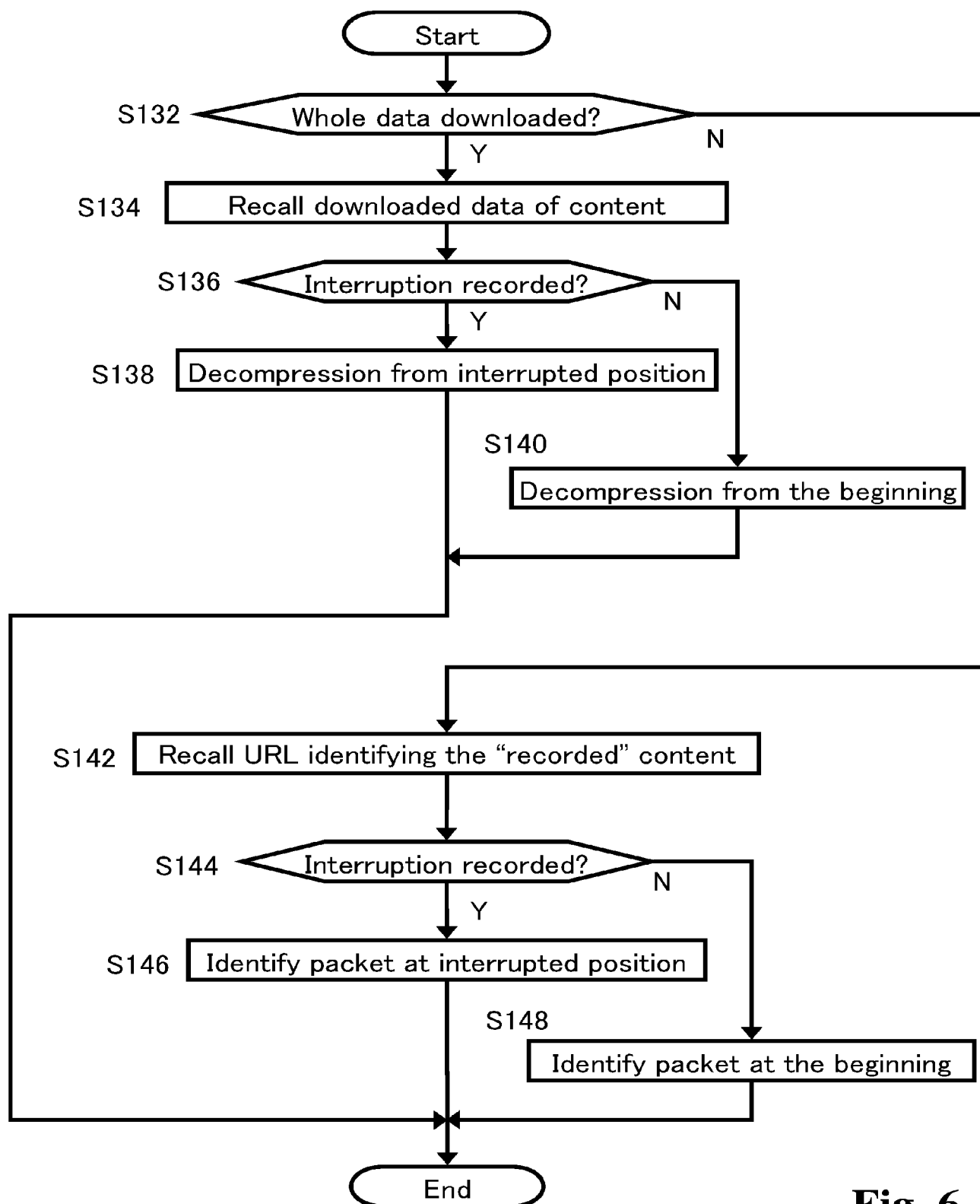


Fig. 6

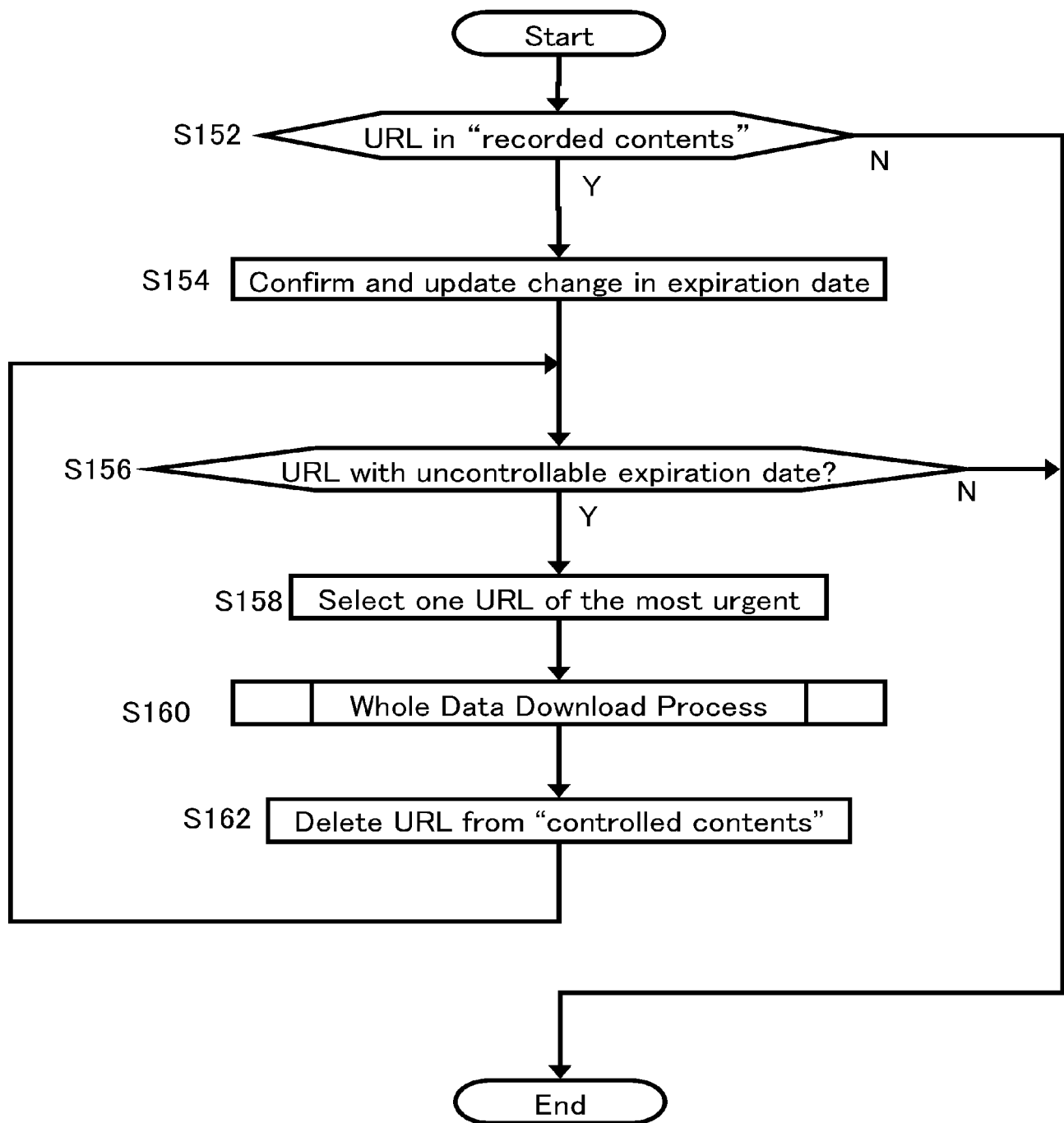


Fig. 7

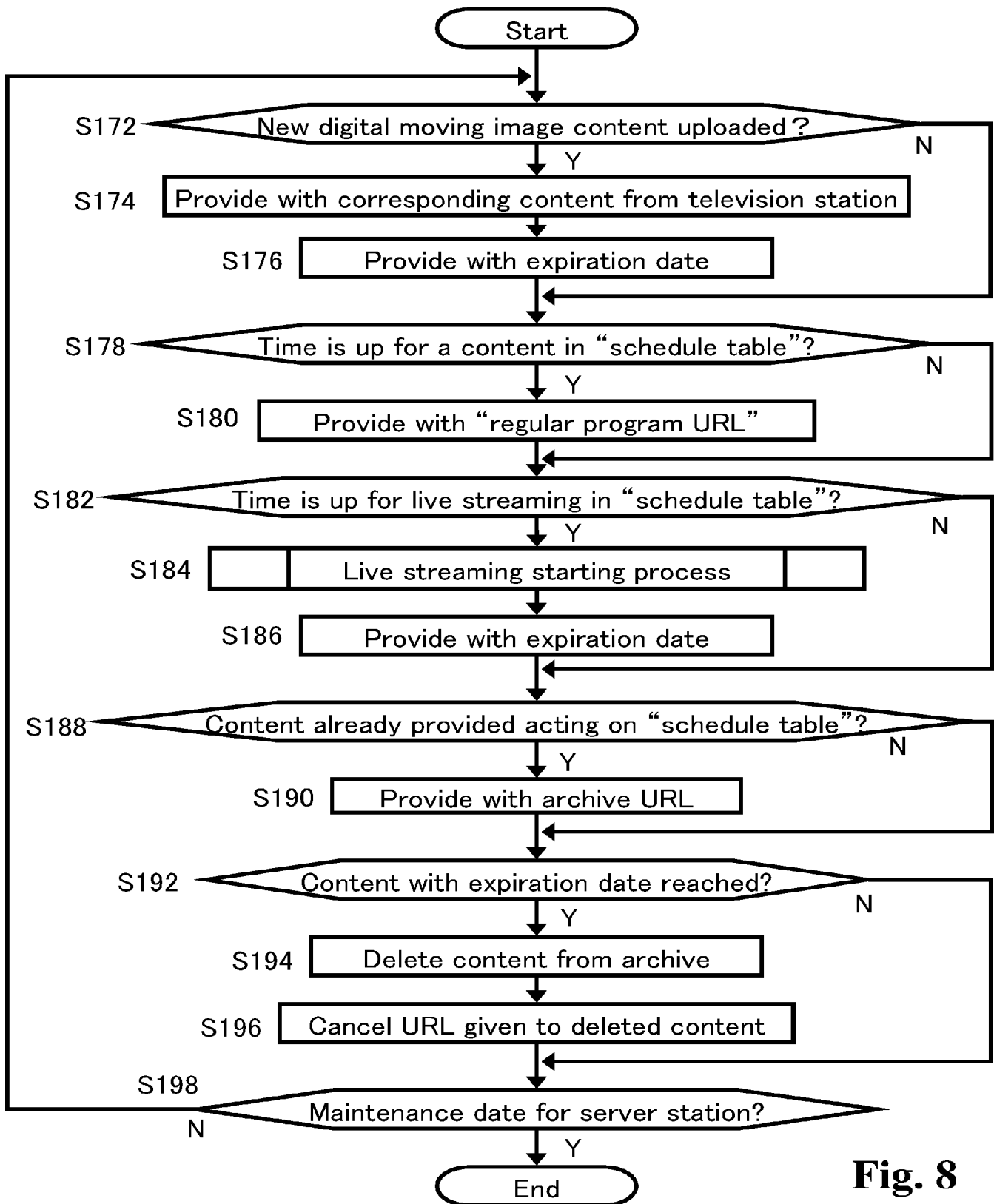


Fig. 8

What is claimed is:

1. A receiving apparatus configured to receive digital moving image contents from a provider of the digital moving image contents, the provider being commutatively connected to the receiving apparatus, the receiving apparatus comprising:

a processor executing instructions to designate a part of the digital moving image contents in the provider automatically or in response to a manual operation;

a memory that keeps information necessary for the processor to automatically designate a succeeding part of the digital moving image contents to a viewed part of the digital moving image contents;

a designation software controller configured to control the memory to keep the information in response to a termination of viewing the viewed part and control the processor to automatically designate the succeeding part of the digital moving image contents when the viewing starts again;

a receiver configured to receive the designated part of the digital moving image contents in response to the designation by the processor; and

a display configured to display the part of the digital moving image contents received by the receiver.

2. The receiving apparatus according to claim 1, wherein the processor is configured to designate the part of the digital moving image contents by selecting the provider, wherein the part of the digital moving image contents is provided by the selected provider.

3. The receiving apparatus according to claim 1, wherein the processor is configured to designate a part of the digital moving image contents provided by the provider by streaming technology in accordance with a program schedule table.

4. The receiving apparatus according to claim 1, wherein the processor is configured to designate an optional part of the digital moving image contents in response to the manual operation.

5. A receiving method configured to receive digital moving image contents from a provider of the digital moving image contents, the receiving method comprising:

a step of executing, by a computer processor, instructions to designate a part of the digital moving image contents in the provider automatically or in response to a manual operation;

a step of keeping information necessary for the executing step to automatically designate a succeeding part of the digital moving image contents to a viewed part of the digital moving image contents;

a step of controlling the keeping step to keep the information in response to a termination of viewing the viewed part and control the executing step to automatically designate the succeeding part of the digital moving image contents when the viewing starts again;

a step of receiving the designated part of the digital moving image contents in response to the designation by the executing step; and

a step of displaying the part of the digital moving image contents received by the receiving step.

6. The receiving method according to claim 5, wherein the executing step is configured to designate the part of the digital moving image contents by selecting the provider, wherein the part of the digital moving image contents is provided by the selected provider.

7. The receiving method according to claim 5, wherein the executing step is configured to designate a part of the digital moving image contents provided by the provider by streaming technology in accordance with a program schedule table.

8. The receiving method according to claim 5, wherein the receiving method is further configured to designate an optional part of the digital moving image contents in response to the manual operation.

9. A receiving system configured to receive digital moving image contents from a provider of the digital moving image contents, the provider being commutatively connected to the receiving system, the receiving system comprising:

a processor executing instructions to designate a part of the digital moving image contents from the provider automatically or in response to a manual operation;

a memory that keeps information necessary for the processor to automatically designate a succeeding part of the digital moving image contents to a viewed part of the digital moving image contents;

a designation software controller configured to control the memory to keep the information in response to a termination of viewing the viewed part and control the

processor to automatically designate a succeeding part of the digital moving image contents when the viewing starts again;

a receiver configured to receive the designated part of the digital moving image contents in response to the designation by the processor; and

a display configured to display the part of the digital moving image contents received by the receiver.

10. The receiving system according to claim 9, wherein the processor is configured to designate the part of the digital moving image contents by selecting the provider, wherein the part of the digital moving image contents is provided by the selected provider.

11. The receiving system according to claim 9, wherein the processor is configured to designate a part of the digital moving image contents provided by the provider by streaming technology in accordance with a program schedule table.

12. The receiving system according to claim 9, wherein the processor is configured to designate an optional part of the digital moving image contents in response to the manual operation.

ABSTRACT OF THE DISCLOSURE

A television set is capable of receiving both broadcast program from television station and corresponding digital file of the same contents from a server station through internet. The television set keeps information of time limit for the server station to surely provide the file. The television set automatically downloads the file when the time limit comes close or the time limit information is failed to be kept. The television set keeps URL for the moving image program enjoyed upon turning-off of the television set until the next turning-on for instantly enjoying the moving image content provided at the URL. User who turning-on the television set or changing the channel with any program not in mind to feel interest in the program on display by chance can enjoy the program from the beginning by means of downloading corresponding digital file of the same contents through internet by an automatic link.

Electronic Patent Application Fee Transmittal				
Application Number:				
Filing Date:				
Title of Invention:		A digital contents receiving apparatus		
First Named Inventor/Applicant Name:		MASAHIDE TANAKA		
Filer:		Masahide Tanaka		
Attorney Docket Number:		US8CA5		
Filed as Small Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
UTILITY FILING FEE (ELECTRONIC FILING)	4011	1	75	75
UTILITY SEARCH FEE	2111	1	330	330
UTILITY EXAMINATION FEE	2311	1	380	380
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				785

Electronic Acknowledgement Receipt	
EFS ID:	32070900
Application Number:	15922926
International Application Number:	
Confirmation Number:	9288
Title of Invention:	A digital contents receiving apparatus
First Named Inventor/Applicant Name:	MASAHIDE TANAKA
Customer Number:	67628
Filer:	Masahide Tanaka
Filer Authorized By:	
Attorney Docket Number:	US8CA5
Receipt Date:	16-MAR-2018
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Time Stamp:	04:24:18
Application Type:	Utility under 35 USC 111(a)

Payment information:

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Payment Type	CARD
Payment was successfully received in RAM	\$ 785
RAM confirmation Number	031618INTEFSW04272200
Deposit Account	
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The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:	

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal of New Application	TransmittalUS8CA5.pdf	280504	no	2
			946e8564a628e953372c3820ef2a957c21b7f792		
Warnings:					
Information:					
2	Application Data Sheet	ADSaia0014US8CA5.pdf	1505683	no	7
			3349c608d5491a3fcbca85c23e4dc28c34d4fab6		
Warnings:					
Information:					
3	Oath or Declaration filed	DecAddAIA0008US8CA5.pdf	191977	no	3
			fef2aafbca1ead77d9de714b8cef61a2b6f27a9c7		
Warnings:					
Information:					
4	Specification	US8CA5Specifaciton.pdf	426409	no	33
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Warnings:					
Information:					
5	Drawings-only black and white line drawings	US8CA5Drawings.pdf	33583	no	8
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Warnings:					
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6	Claims	US8CA5claims.pdf	120480	no	4
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7	Abstract	US8CA5Abstract.pdf	17738 ed37343895ae49d63e534b920823a61b22a69039	no	1
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8	Fee Worksheet (SB06)	fee-info.pdf	34967 cf635d60bca4b1b444e9e05a036ef0fa8d01bfc5	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			2611341		
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