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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
09/109,784	07/02/1998	TAKEYA OKAMOTO	ADACHI-P134U

CONFIRMATION NO. 3929

POA ACCEPTANCE LETTER



164
KINNEY & LANGE, P.A.
THE KINNEY & LANGE BUILDING
312 SOUTH THIRD STREET
MINNEAPOLIS, MN 55415-1002

Date Mailed: 12/03/2009

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 02/13/2008.

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.

/jrmatthews/

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



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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
09/109,784	07/02/1998	TAKEYA OKAMOTO	ADACHI-P134U

DAVIS AND BUJOLD
FOURTH FLOOR
500 N COMMERCIAL STREET
MANCHESTER, NH 03101

CONFIRMATION NO. 3929
POWER OF ATTORNEY NOTICE



Date Mailed: 12/03/2009

NOTICE REGARDING CHANGE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 02/13/2008.

- The Power of Attorney to you in this application has been revoked by the applicant. Future correspondence will be mailed to the new address of record(37 CFR 1.33).

/jrmatthews/

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



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Bib Data Sheet

CONFIRMATION NO. 3929

SERIAL NUMBER 09/109,784	FILING OR 371(c) DATE 07/02/1998 RULE	CLASS 434	GROUP ART UNIT 3713	ATTORNEY DOCKET NO. ADACHI-P134U	
APPLICANTS TAKEYA OKAMOTO, NAGOYA, JAPAN; ** CONTINUING DATA ***** This application is a CIP of 08/642,560 05/03/1996 PAT 5,775,995 ** FOREIGN APPLICATIONS ***** JAPAN 5-108303 05/10/1993 <div style="text-align: center;">** SMALL ENTITY **</div>					
Foreign Priority claimed <input type="checkbox"/> yes <input type="checkbox"/> no 35 USC 119 (a-d) conditions <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> Met after Allowance Verified and Acknowledged _____ Examiner's Signature _____ Initials _____		STATE OR COUNTRY JAPAN	SHEETS DRAWING 12	TOTAL CLAIMS 21	INDEPENDENT CLAIMS 3
ADDRESS 164					
TITLE INTERACTIVE COMMUNICATION SYSTEM FOR COMMUNICATING VIDEO GAME AND KARAOKE SOFTWARE					
FILING FEE RECEIVED 406	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:		<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees (Filing) <input type="checkbox"/> 1.17 Fees (Processing Ext. of time) <input type="checkbox"/> 1.18 Fees (Issue) <input type="checkbox"/> Other _____ <input type="checkbox"/> Credit		

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 6,193,520 B1
APPLICATION NO. : 09/109784
DATED : February 27, 2001
INVENTOR(S) : Takeya Okamoto

Page 1 of 1

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

Title Page (63)

On Front Page under Related U.S. Application Data delete "Continuation-in-part of application No. 08/642,560, filed on May 3, 1996, now Pat. No. 5,775,995." and insert --This application is a continuation-in-part of U.S. Application No. 08/642,560 filed on May 3, 1996, now U.S. Patent No. 5,775,995, which is a divisional of U.S. Application No. 08/555,400 filed on November 9, 1995, now U.S. Patent No. 5,735,744, which is a continuation-in-part of U.S. Application No. 08/232,862 filed on April 25, 1994, now U.S. Patent No. 5,489,103.--

Column 1, Lines 5 and 6, delete "This is a Continuation-in-Part of Application Ser. No. 08/642,560 filed May 3, 1996, now U.S. Pat. No. 5,775,995." and insert --This application is a continuation-in-part of U.S. Application No. 08/642,560 filed on May 3, 1996, now U.S. Patent No. 5,775,995, which is a divisional of U.S. Application No. 08/555,400 filed on November 9, 1995, now U.S. Patent No. 5,735,744, which is a continuation-in-part of U.S. Application No. 08/232,862 filed on April 25, 1994, now U.S. Patent No. 5,489,103.--

This certificate supersedes the Certificate of Correction issued March 25, 2008.

Signed and Sealed this

Fifteenth Day of April, 2008



JON W. DUDAS

Director of the United States Patent and Trademark Office

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 6,193,520 B1
APPLICATION NO. : 09/109784 ²⁷
DATED : February 21, 2001
INVENTOR(S) : Takeya Okamoto

Page 1 of 1

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

Title Page (63)

On Front Page under Related U.S. Application Data delete "Continuation-in-part of application No. 08/642,560, filed on May 3, 1996, now Pat. No. 5,775,995." and insert --This application is a continuation-in-part of U.S. Application No. 08/642,560 filed on May 3, 1996, now U.S. Patent No. 5,775,995, which is a divisional of U.S. Application No. 08/555,400 filed on November 9, 1995, now U.S. Patent No. 5,735,744, which is a continuation-in-part of U.S. Application No. 08/232,862 filed on April 25, 1994, now U.S. Patent No. 5,489,103.--

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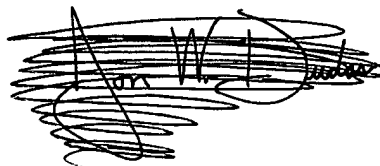
APPROVED

MAR 27 2008

FOR THE DIRECTOR OF USPTO

~~Signed and Sealed this~~

~~Twenty-fifth Day of March, 2008~~



JON W. PUDAS

~~Director of the United States Patent and Trademark Office~~

Handwritten notes on the right margin:
#11
COFF
SUPERSEDE
09/109,784
INCORRECT PATENT
DATE PRINTED IN
HEADING OF 15551
09/109,784
T. J. March 22, 2008



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY OF COMMERCE AND
COMMISSIONER OF PATENTS AND TRADEMARKS
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Alexandria, VA 22313-1450

March 26, 2008

#10

**DAVIS AND BUJOLD
FOURTH FLOOR
500 N COMMERCIAL STREET
MANCHESTER NH 03101**

Patent No. : 6,193,520 B1
Inventor(s) Takeya Okamoto
Issued : February 27, 2001
For **INTERACTIVE COMMUNICATION
SYSTEM FOR COMMUNICATING VIDEO
GAME AND KARAOKE SOFTWARE**
Doc. No. **ADACHI-P134U**

To Whom It May Concern:

The Certificate of Correction issued on March 25, 2008, issued in error, in that error(s) was made in identifying the patent number and/or keying text/corrections, i.e.:

The issue date in the heading of cofc has been incorrectly entered in the heading of the issued cofc. A superseding cofc will be issued to correct the patent issue date to read --February 27, 2001--.

Therefore, a certificate of correction will be issued to correct (supersede) the Certificate of Correction containing error(s), made during preparation of the Certificate of Correction, as noted above.

No further response is required, from applicants (attorney). However, errors discovered by attorney, other than as noted and described above, should be noted on *a copy* of the Certificate of Correction that was issued in error, accompanied by a signed transmittal letter and submitted directed to this Branch.

Antonio Johnson
(703) 308-9390 ext. 111
For Cecelia Newman, Supervisor
Decisions & Certificates of Correction Branch
(703) 305-8309 / 703-308-9390 ext. 102
cbn

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 6,193,520 B1
APPLICATION NO. : 09/109784
DATED : February 21, 2001
INVENTOR(S) : Takeya Okamoto

Page 1 of 1

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

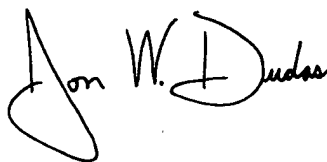
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Signed and Sealed this

Twenty-fifth Day of March, 2008



JON W. DUDAS
Director of the United States Patent and Trademark Office

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 6,193,520 B1
APPLICATION NO. : 09/109784 ²⁷
DATED : February 27, 2001
INVENTOR(S) : Takeya Okamoto

Page 1 of 1

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This certificate supersedes certificate of correction
issued March 25, 2008.

~~Signed and Sealed this~~

~~Twenty-Fifth Day of March 2008~~

~~By _____
Director of the United States Patent and Trademark Office~~

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Patentee : Takeya Okamoto

Appln. No. : 09/109,784

Filed : July 2, 1998

Title : Interactive Communication System for Communicating
Video Game and Karaoke Software

Patent No. : 6,193,520

Issued : February 27, 2001

Docket No. : A849.17-0004

REQUEST FOR CERTIFICATE OF CORRECTION

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

FILED VIA EFS-WEB
February 14, 2008

In conformity with the notice appearing in the May 6, 1969 Official Gazette, Applicant requests a Certificate of Correction in connection with the above-identified patent.

Form PTO-SB/44 entitled CERTIFICATE OF CORRECTION setting out the errors has been completed and is enclosed. Applicant respectfully requests that the enclosed Certificate be approved and signed by an Attesting Officer, and that a copy be returned to Applicant's attorney for attachment to the original Certificate of Letters Patent.

The errors requested to be corrected are related to the claim for benefit of priority under 35 U.S.C. 120 of earlier-filed applications (specifically, to add a reference to related applications for which priority under 35 U.S.C. 120 was claimed). This application was filed prior to November 29, 2000, and therefore the version of 37 C.F.R. 1.78 that was in effect as of November 29, 2000 applies. This version of 37 C.F.R. 1.78 is reproduced below:

37 CFR 1.78 Claiming benefit of earlier filing date and cross-references to other applications.

(a)

(1) A nonprovisional application may claim an invention disclosed in one or more prior filed copending nonprovisional applications or copending international applications designating the United States of America. In order for a nonprovisional application to claim the benefit of a prior filed copending nonprovisional application or copending international application designating the United States of America, each prior application must name as an inventor at least one inventor named in the later filed nonprovisional application and disclose the named inventor's invention claimed in at least one claim of the later filed nonprovisional application in the manner provided by the first paragraph of **35 U.S.C. 112**. In addition, each prior application must be:

(i) An international application entitled to a filing date in accordance with **PCT Article 11** and designating the United States of America; or

(ii) Complete as set forth in § 1.51(b); or

(iii) Entitled to a filing date as set forth in § 1.53(b) or § 1.53(d) and include the basic filing fee set forth in § 1.16; or

(iv) Entitled to a filing date as set forth in § 1.53(b) and have paid therein the processing and retention fee set forth in § 1.21(l) within the time period set forth in § 1.53(f).

(2) Except for a continued prosecution application filed under § 1.53(d), any nonprovisional application claiming the benefit of one or more prior filed copending nonprovisional applications or international applications designating the United States of America must contain a reference to each such prior application, identifying it by application number (consisting of the series code and serial number) or international application number and international filing date and indicating the relationship of the applications. Unless the reference required by this paragraph is included in an application data sheet (§ 1.76), the specification must contain or be amended to contain such reference in the first sentence following any title. The request for a continued prosecution application under § 1.53(d) is the specific reference required by **35 U.S.C. 120** to the prior application. The identification of an application by application number under this section is the specific reference required by **35 U.S.C. 120** to every application assigned that application number. Cross-references to other related applications may be made when appropriate (see § 1.14(a)).

(3) A nonprovisional application other than for a design patent may claim an invention disclosed in one or more prior filed copending provisional applications. In order for a nonprovisional application to claim the benefit of one or more prior filed copending

provisional applications, each prior provisional application must name as an inventor at least one inventor named in the later filed nonprovisional application and disclose the named inventor's invention claimed in at least one claim of the later filed nonprovisional application in the manner provided by the first paragraph of **35 U.S.C. 112**. In addition, each prior provisional application must be entitled to a filing date as set forth in § **1.53(c)**, have any required English-language translation filed therein within the time period set forth in § **1.52(d)**, and have paid therein the basic filing fee set forth in § **1.16(k)** within the time period set forth in § **1.53(g)**.

(4) Any nonprovisional application claiming the benefit of one or more prior filed copending provisional applications must contain a reference to each such prior provisional application, identifying it as a provisional application, and including the provisional application number (consisting of series code and serial number). Unless the reference required by this paragraph is included in an application data sheet (§ **1.76**), the specification must contain or be amended to contain such reference in the first sentence following any title.

In accordance with M.P.E.P. 1481.03(II)(A), a Certificate of Correction can be used, with respect to 35 U.S.C. 120 priority, to correct the failure to make reference to a prior copending application pursuant to 37 C.F.R. 1.78(a)(2), if all requirements set forth in 37 C.F.R. 1.78(a)(1) have been met in the application which became the patent to be corrected, and if it is clear from the record of the patent and the parent application(s) that priority is appropriate. If these conditions are met, a Certificate of Correction can be used to amend the patent to make reference to a prior copending application.

In this case, the conditions for using a Certificate of Correction to correct the failure to make reference to prior copending applications are met. First, all of the requirements set forth in 37 C.F.R. 1.78(a)(1) have been met in this application. Specifically, each prior application names as an inventor at least one inventor named in the later-filed nonprovisional application. U.S. Application No. 08/232,862 filed April 25, 1994 (now U.S. Patent No. 5,489,103) and U.S. Application No. 08/555,400 filed November 9, 1995 (now U.S. Patent No. 5,735,744) each name Takeya Okamoto as the sole inventor, and later-filed nonprovisional U.S. Application No. 09/109,784 (now U.S. Patent No. 6,193,520, the patent being corrected) also names Takeya Okamoto as the sole inventor. The inventor's invention as claimed in at least one claim of U.S. Patent No.

6,193,520 is also disclosed in the prior applications in the manner provided by the first paragraph of 35 U.S.C. 112. Second, it is clear from the record of U.S. Application No. 09/109,784 (now U.S. Patent No. 6,193,520) and the parent applications that priority is appropriate. U.S. Application No. 09/109,784 was filed with an executed Declaration that listed both U.S. Application No. 08/232,862 (now U.S. Patent No. 5,489,103) and U.S. Application No. 08/555,400 (now U.S. Patent No. 5,735,744) as being claimed for benefit under 35 U.S.C. 120. A copy of the Declaration is submitted with this Request via EFS-Web. This shows that the Applicant intended to claim the benefit of these applications under 35 U.S.C. 120, but inadvertently failed to make a specific reference to the applications in the specification.

In view of the foregoing, it is respectfully requested that a Certificate of Correction be issued in this patent to correct the claim for benefit of priority under 35 U.S.C. 120 by adding a reference to the related applications for which priority under 35 U.S.C. 120 was claimed, according to the attached Form PTO-SB/44. The Commissioner is authorized to charge Deposit Account 11-0982 in the amount of \$100, since all the errors requested to be corrected were Applicant's errors. This charge will be handled via an online payment in EFS-Web.

Respectfully submitted,

KINNEY & LANGE, P.A.

Date: 2/14/08

By: /Alan M. Koenck/

Alan M. Koenck, Reg. No. 43,724
THE KINNEY & LANGE BUILDING
312 South Third Street
Minneapolis, MN 55415-1002
Telephone: (612) 339-1863
Fax: (612) 339-6580

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**

Page 1 of 1

PATENT NO. : 7,275,255

APPLICATION NO.: 10/316,513

ISSUE DATE : October 23, 2007

INVENTOR(S) : Leonard Kadlec et al.

It is certified than an error appears or errors appear in the above-entitled patent and that said Letters Patent is hereby corrected as shown below:

On Front Page under Related U.S. Application Data
delete "Continuation-in-part of application No. 08/642,560, filed on
May 3, 1996, now Pat. No. 5,775,995." and insert
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No. 5,735,744, which is a continuation-in-part of U.S. Application No. 08/232,862
filed on April 25, 1994, now U.S. Patent No. 5,489,103.--

MAILING ADDRESS OF SENDER (Please do not use customer number below)

Alan M. Koenck, Kinney & Lange, P.A.

312 South Third Street

Minneapolis, MN 55415-1002

COMBINED DECLARATION AND POWER OF ATTORNEY
(Original, Design, National Stage of PCT, Supplemental)

As a below named inventor, I hereby declare that:

TYPE OF DECLARATION

This declaration is of the following type: (check one applicable item below)

- ☐ original
- ☐ design
- ☐ supplemental
- ☐ National Stage of PCT
- ☐ divisional (see added page)
- ☐ continuation (see added page)
- ☒ continuation-in-part (see added page)

INVENTORSHIP IDENTIFICATION

My residence, post office address and citizenship are as stated below next to my name, I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

TITLE OF INVENTION

INTERACTIVE COMMUNICATION SYSTEM FOR COMMUNICATING
VIDEO GAME AND KARAOKE SOFTWARE

SPECIFICATION IDENTIFICATION

The specification of which: (complete (a), (b) or (c))

- (a) ☒ is attached hereto.
- (b) ☐ was filed on _____ as ☐ Serial No. _____
0 / _____ or ☐ Express Mail No. _____
(as Serial No. not yet known) _____
and was amended on _____ (if applicable).
- (c) ☐ was described and claimed in PCT International
Application No. _____ filed on _____
Article 19 on _____ and as amended under PCT
_____ (if any).

POWER OF ATTORNEY

As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (list name(s) and registration number(s))

Anthony G. M. Davis	Registration No. 27,868
Michael J. Bujold	Registration No. 32,018

☐ Attached as part of this Declaration and Power of Attorney is the authorization of the above-named attorney(s) to accept and follow instructions from my representative(s).

Send Correspondence to

Davis and Bujold
Fourth Floor
500 N. Commercial Street
Manchester, NH 03101

Direct Telephone Calls to:

(603) 624-9220

Direct Telefaxes to:

(603) 624-9229

ACKNOWLEDGEMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR

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

I acknowledge the duty to disclose to the United States Patent Office all information which is known to be material to patentability of this application as defined in § 1.56 of Title 37 of the Code of Federal Regulations.

PRIORITY CLAIM

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed.

EARLIEST FOREIGN APPLICATION(S), IF ANY FILED WITHIN 12 MONTHS (6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION

COUNTRY	APPLICATION NO.	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 37 USC 119
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO

ALL FOREIGN APPLICATION(S), IF ANY FILED MORE THAN 12 MONTHS (6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION

Japan Appln.No.5-108303(10,May,1993) Priority Claimed: YES

DECLARATION

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

Signature(s)

Full name of sole or first inventor Takeya OKAMOTO
 Inventor's signature Takeya Okamoto
 Date June 26, 1998 Country of Citizenship Japan
 Residence Nagoya, Japan
 Post Office Address c/o ADACHI INTERNATIONAL, Nagoyaseni Bldg.,
9-27, Nishiki 2-chome, Naka-ku, Nagoya, 460-0003 Japan
 Full name of second joint inventor (if any) _____
 Inventor's signature _____
 Date _____ Country of Citizenship _____
 Residence _____
 Post Office Address _____

**ADDED PAGE TO COMBINED DECLARATION AND POWER OF ATTORNEY FOR
DIVISIONAL, CONTINUATION, OR CONTINUATION-IN-PART APPLICATION**

**CLAIM FOR BENEFIT OF EARLIER U.S./PCT APPLICATION(S) UNDER
35 U.S.C. 120**

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose information that is material to the examination of this application, namely, informative where there is substantial likelihood that a reasonable Examiner would consider it important in deciding whether to allow the application to issue as a patent, which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application.

PRIOR U.S. APPLICATIONS OR PCT INTERNATIONAL APPLICATIONS DESIGNATING THE U.S. FOR BENEFIT UNDER 35 USC 120:					
U.S. APPLICATIONS			STATUS (CHECK ONE)		
U.S. APPLICATIONS	U.S. FILING DATE		Patented	Pending	Abandoned
1. 08 /232,862	April 25, 1994		X		
2. 08 /555,400	November 9, 1995		X		
3. 08 /642,560	May 3, 1996			X	
PCT APPLICATIONS DESIGNATING THE U.S.					
PCT APPLI- CATION NO.	PCT FILING DATE	U.S. SERIAL NOS. ASSIGNED (if any)			
4.					
5.					
6.					

POWER OF ATTORNEY

Attorney Docket No.

A849.17-0004

First Named Inventor : Takeya Okamoto

Title : INTERACTIVE COMMUNICATION SYSTEM FOR COMMUNICATING
VIDEO GAME AND KARAOKE SOFTWARE

In the patent application:

___ identified above (and submitted to the Patent and Trademark Office herewith).

X filed on July 2, 1998 as Application No. 09/109,784 (now U.S. Patent No. 6,193,520).

I appoint the attorneys and agents associated with Customer Number 00164 to prosecute the patent application identified above and to transact all business in the Patent and Trademark Office connected therewith, including full power of association, substitution and revocation.

I ratify all prior actions taken by Kinney & Lange, P.A. or the attorneys and agents mentioned above in connection with the prosecution of the above-mentioned patent application.

I authorize Kinney & Lange, P.A. to mark the appropriate space above and to insert the filing date and application number of the application, as appropriate.

I authorize the attorneys and agents named herein to accept and follow instructions from Nagoya International Patent Firm as to any action to be taken in the Patent and Trademark Office regarding this application without direct communication between the attorneys and agents and the undersigned. In the event of a change in the persons from whom instructions may be taken, the attorneys and agents named herein will be so notified by the undersigned.

Please address all correspondence and telephone calls to Customer Number 00164, attention David R. Fairbairn, Telephone (612) 339-1863, Fax (612) 339-6580.

Signature:

Takeya Okamoto
Takeya Okamoto

Dated:

02/13/2008

Title:

Inventor

Electronic Patent Application Fee Transmittal

Application Number:	09109784			
Filing Date:	02-Jul-1998			
Title of Invention:	INTERACTIVE COMMUNICATION SYSTEM FOR COMMUNICATING VIDEO GAME AND KARAOKE SOFTWARE			
First Named Inventor/Applicant Name:	TAKEYA OKAMOTO			
Filer:	Alan Matthew Koenck			
Attorney Docket Number:	ADACHI-P134U			
Filed as Large Entity				
Utility Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Certificate of correction	1811	1	100	100
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
Total in USD (\$)				100

Electronic Acknowledgement Receipt

EFS ID:	2862475
Application Number:	09109784
International Application Number:	
Confirmation Number:	3929
Title of Invention:	INTERACTIVE COMMUNICATION SYSTEM FOR COMMUNICATING VIDEO GAME AND KARAOKE SOFTWARE
First Named Inventor/Applicant Name:	TAKEYA OKAMOTO
Correspondence Address:	DAVIS AND BUJOLD FOURTH FLOOR 500 N COMMERCIAL STREET - MANCHESTER NH 03101 US - -
Filer:	Alan Matthew Koenck
Filer Authorized By:	
Attorney Docket Number:	ADACHI-P134U
Receipt Date:	14-FEB-2008
Filing Date:	02-JUL-1998
Time Stamp:	16:55:42
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$ 100

RAM confirmation Number		2429			
Deposit Account		110982			
Authorized User					
File Listing:					
Document Number	Document Description	File Name	File Size(Bytes) /Message Digest	Multi Part /.zip	Pages (if appl.)
1	Request for Certificate of Correction	Req_Cert_Corr.PDF	41802	no	4
			a13cce74ce03204e09ec93475d68c02202ce169d		
Warnings:					
Information:					
2	Request for Certificate of Correction	Cert_Corr.PDF	19393	no	1
			189a681741da2a8210628b4ef34223d668418eeb		
Warnings:					
Information:					
3	Oath or Declaration filed	Orig_Decl.pdf	76186	no	3
			2d707a0a4d58b5a94d15e5a425d2199ebc9f3229		
Warnings:					
Information:					
4	Power of Attorney	POA.pdf	22392	no	1
			70d09ecodd28f751a436340a37628062c4e5f59f		
Warnings:					
Information:					
5	Fee Worksheet (PTO-06)	fee-info.pdf	8187	no	2
			40ad338cd54bf14dcd47b540a7f5809f1ae8ee30		
Warnings:					
Information:					
Total Files Size (in bytes):			167960		

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

New Applications Under 35 U.S.C. 111

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

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

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

New International Application Filed with the USPTO as a Receiving Office

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

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**

Page 1 of 1

PATENT NO. : 6,193,520

APPLICATION NO. : 09/109,784

ISSUE DATE : February 21, 2001

INVENTOR(S) : Takeya Okamoto

It is certified than an error appears or errors appear in the above-entitled patent and that said Letters Patent is hereby corrected as shown below:

On Front Page under Related U.S. Application Data
delete "Continuation-in-part of application No. 08/642,560, filed on
May 3, 1996, now Pat. No. 5,775,995." and insert
--This application is a continuation-in-part of U.S. Application No. 08/642,560
filed on May 3, 1996, now U.S. Patent No. 5,775,995, which is a divisional of
U.S. Application No. 08/555,400 filed on November 9, 1995, now U.S. Patent
No. 5,735,744, which is a continuation-in-part of U.S. Application No. 08/232,862
filed on April 25, 1994, now U.S. Patent No. 5,489,103.--

Column 1, Lines 5 and 6, delete "This is a Continuation-in-Part of Application
Ser. No. 08/642,560 filed May 3, 1996, now U.S. Pat. No. 5,775,995." and insert
--This application is a continuation-in-part of U.S. Application No. 08/642,560
filed on May 3, 1996, now U.S. Patent No. 5,775,995, which is a divisional of
U.S. Application No. 08/555,400 filed on November 9, 1995, now U.S. Patent
No. 5,735,744, which is a continuation-in-part of U.S. Application No. 08/232,862
filed on April 25, 1994, now U.S. Patent No. 5,489,103.--

MAILING ADDRESS OF SENDER (Please do not use customer number below)

Alan M. Koenck, Kinney & Lange, P.A.

312 South Third Street

Minneapolis, MN 55415-1002

Electronic Acknowledgement Receipt

EFS ID:	2862757
Application Number:	09109784
International Application Number:	
Confirmation Number:	3929
Title of Invention:	INTERACTIVE COMMUNICATION SYSTEM FOR COMMUNICATING VIDEO GAME AND KARAOKE SOFTWARE
First Named Inventor/Applicant Name:	TAKEYA OKAMOTO
Correspondence Address:	DAVIS AND BUJOLD FOURTH FLOOR 500 N COMMERCIAL STREET - MANCHESTER NH 03101 US - -
Filer:	Alan Matthew Koenck
Filer Authorized By:	
Attorney Docket Number:	ADACHI-P134U
Receipt Date:	14-FEB-2008
Filing Date:	02-JUL-1998
Time Stamp:	17:18:12
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes) /Message Digest	Multi Part /.zip	Pages (if appl.)
1	Miscellaneous Incoming Letter	Letter.PDF	19247 94394767cac679d4a6967e7e13be44d c6fa3c8b8	no	1
Warnings:					
Information:					
2	Request for Certificate of Correction	Cert_Corr_Corrected.pdf	19388 0979f1ec3049d2c0566b71f8f22a1c019 8ff7322	no	1
Warnings:					
Information:					
Total Files Size (in bytes):			38635		
<p>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.</p> <p><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.</p> <p><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.</p> <p><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.</p>					

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Patentee : Takeya Okamoto

Appln. No. : 09/109,784

Filed : July 2, 1998

Title : Interactive Communication System for Communicating
Video Game and Karaoke Software

Patent No. : 6,193,520

Issued : February 27, 2001

Docket No. : A849.17-0004

LETTER

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

FILED VIA EFS-WEB
February 14, 2008

This letter is submitted electronically via EFS-Web to accompany a replacement PTO/SB/44 form. A Request for Certificate of Correction was filed electronically earlier today, and this Request included a PTO/SB/44 form that incorrectly listed the particulars of the patent to be corrected. The replacement PTO/SB/44 form submitted herewith corrects this mistake.

Respectfully submitted,

KINNEY & LANGE, P.A.

Date: 2/14/08

By: /Alan M. Koenck/

Alan M. Koenck, Reg. No. 43,724
THE KINNEY & LANGE BUILDING
312 South Third Street
Minneapolis, MN 55415-1002
Telephone: (612) 339-1863
Fax: (612) 339-6580

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Patentee : Takeya Okamoto

Appln. No. : 09/109,784

Filed : July 2, 1998

Title : Interactive Communication System for Communicating
Video Game and Karaoke Software

Patent No. : 6,193,520

Issued : February 27, 2001

Docket No. : A849.17-0004

REQUEST FOR CERTIFICATE OF CORRECTION

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

FILED VIA EFS-WEB
February 14, 2008

In conformity with the notice appearing in the May 6, 1969 Official Gazette, Applicant requests a Certificate of Correction in connection with the above-identified patent.

Form PTO-SB/44 entitled CERTIFICATE OF CORRECTION setting out the errors has been completed and is enclosed. Applicant respectfully requests that the enclosed Certificate be approved and signed by an Attesting Officer, and that a copy be returned to Applicant's attorney for attachment to the original Certificate of Letters Patent.

The errors requested to be corrected are related to the claim for benefit of priority under 35 U.S.C. 120 of earlier-filed applications (specifically, to add a reference to related applications for which priority under 35 U.S.C. 120 was claimed). This application was filed prior to November 29, 2000, and therefore the version of 37 C.F.R. 1.78 that was in effect as of November 29, 2000 applies. This version of 37 C.F.R. 1.78 is reproduced below:

37 CFR 1.78 Claiming benefit of earlier filing date and cross-references to other applications.

(a)

(1) A nonprovisional application may claim an invention disclosed in one or more prior filed copending nonprovisional applications or copending international applications designating the United States of America. In order for a nonprovisional application to claim the benefit of a prior filed copending nonprovisional application or copending international application designating the United States of America, each prior application must name as an inventor at least one inventor named in the later filed nonprovisional application and disclose the named inventor's invention claimed in at least one claim of the later filed nonprovisional application in the manner provided by the first paragraph of **35 U.S.C. 112**. In addition, each prior application must be:

(i) An international application entitled to a filing date in accordance with **PCT Article 11** and designating the United States of America; or

(ii) Complete as set forth in § 1.51(b); or

(iii) Entitled to a filing date as set forth in § 1.53(b) or § 1.53(d) and include the basic filing fee set forth in § 1.16; or

(iv) Entitled to a filing date as set forth in § 1.53(b) and have paid therein the processing and retention fee set forth in § 1.21(l) within the time period set forth in § 1.53(f).

(2) Except for a continued prosecution application filed under § 1.53(d), any nonprovisional application claiming the benefit of one or more prior filed copending nonprovisional applications or international applications designating the United States of America must contain a reference to each such prior application, identifying it by application number (consisting of the series code and serial number) or international application number and international filing date and indicating the relationship of the applications. Unless the reference required by this paragraph is included in an application data sheet (§ 1.76), the specification must contain or be amended to contain such reference in the first sentence following any title. The request for a continued prosecution application under § 1.53(d) is the specific reference required by **35 U.S.C. 120** to the prior application. The identification of an application by application number under this section is the specific reference required by **35 U.S.C. 120** to every application assigned that application number. Cross-references to other related applications may be made when appropriate (see § 1.14(a)).

(3) A nonprovisional application other than for a design patent may claim an invention disclosed in one or more prior filed copending provisional applications. In order for a nonprovisional application to claim the benefit of one or more prior filed copending

provisional applications, each prior provisional application must name as an inventor at least one inventor named in the later filed nonprovisional application and disclose the named inventor's invention claimed in at least one claim of the later filed nonprovisional application in the manner provided by the first paragraph of **35 U.S.C. 112**. In addition, each prior provisional application must be entitled to a filing date as set forth in § **1.53(c)**, have any required English-language translation filed therein within the time period set forth in § **1.52(d)**, and have paid therein the basic filing fee set forth in § **1.16(k)** within the time period set forth in § **1.53(g)**.

(4) Any nonprovisional application claiming the benefit of one or more prior filed copending provisional applications must contain a reference to each such prior provisional application, identifying it as a provisional application, and including the provisional application number (consisting of series code and serial number). Unless the reference required by this paragraph is included in an application data sheet (§ **1.76**), the specification must contain or be amended to contain such reference in the first sentence following any title.

In accordance with M.P.E.P. 1481.03(II)(A), a Certificate of Correction can be used, with respect to 35 U.S.C. 120 priority, to correct the failure to make reference to a prior copending application pursuant to 37 C.F.R. 1.78(a)(2), if all requirements set forth in 37 C.F.R. 1.78(a)(1) have been met in the application which became the patent to be corrected, and if it is clear from the record of the patent and the parent application(s) that priority is appropriate. If these conditions are met, a Certificate of Correction can be used to amend the patent to make reference to a prior copending application.

In this case, the conditions for using a Certificate of Correction to correct the failure to make reference to prior copending applications are met. First, all of the requirements set forth in 37 C.F.R. 1.78(a)(1) have been met in this application. Specifically, each prior application names as an inventor at least one inventor named in the later-filed nonprovisional application. U.S. Application No. 08/232,862 filed April 25, 1994 (now U.S. Patent No. 5,489,103) and U.S. Application No. 08/555,400 filed November 9, 1995 (now U.S. Patent No. 5,735,744) each name Takeya Okamoto as the sole inventor, and later-filed nonprovisional U.S. Application No. 09/109,784 (now U.S. Patent No. 6,193,520, the patent being corrected) also names Takeya Okamoto as the sole inventor. The inventor's invention as claimed in at least one claim of U.S. Patent No.

6,193,520 is also disclosed in the prior applications in the manner provided by the first paragraph of 35 U.S.C. 112. Second, it is clear from the record of U.S. Application No. 09/109,784 (now U.S. Patent No. 6,193,520) and the parent applications that priority is appropriate. U.S. Application No. 09/109,784 was filed with an executed Declaration that listed both U.S. Application No. 08/232,862 (now U.S. Patent No. 5,489,103) and U.S. Application No. 08/555,400 (now U.S. Patent No. 5,735,744) as being claimed for benefit under 35 U.S.C. 120. A copy of the Declaration is submitted with this Request via EFS-Web. This shows that the Applicant intended to claim the benefit of these applications under 35 U.S.C. 120, but inadvertently failed to make a specific reference to the applications in the specification.

In view of the foregoing, it is respectfully requested that a Certificate of Correction be issued in this patent to correct the claim for benefit of priority under 35 U.S.C. 120 by adding a reference to the related applications for which priority under 35 U.S.C. 120 was claimed, according to the attached Form PTO-SB/44. The Commissioner is authorized to charge Deposit Account 11-0982 in the amount of \$100, since all the errors requested to be corrected were Applicant's errors. This charge will be handled via an online payment in EFS-Web.

Respectfully submitted,

KINNEY & LANGE, P.A.

Date: 2/14/08

By: /Alan M. Koenck/

Alan M. Koenck, Reg. No. 43,724
THE KINNEY & LANGE BUILDING
312 South Third Street
Minneapolis, MN 55415-1002
Telephone: (612) 339-1863
Fax: (612) 339-6580

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**

Page 1 of 1

PATENT NO. : 6,193,520 *B1*
APPLICATION NO. : 09/109,784
ISSUE DATE : February 21, 2001
INVENTOR(S) : Takeya Okamoto

It is certified that an error appears or errors appear in the above-entitled patent and that said Letters Patent is hereby corrected as shown below:

Title Page (63)

On Front Page under Related U.S. Application Data
delete "Continuation-in-part of application No. 08/642,560, filed on
May 3, 1996, now Pat. No. 5,775,995." and insert
--This application is a continuation-in-part of U.S. Application No. 08/642,560
filed on May 3, 1996, now U.S. Patent No. 5,775,995, which is a divisional of
U.S. Application No. 08/555,400 filed on November 9, 1995, now U.S. Patent
No. 5,735,744, which is a continuation-in-part of U.S. Application No. 08/232,862
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Column 1, Lines 5 and 6, delete "This is a Continuation-in-Part of Application
Ser. No. 08/642,560 filed May 3, 1996, now U.S. Pat. No. 5,775,995." and insert
--This application is a continuation-in-part of U.S. Application No. 08/642,560
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U.S. Application No. 08/555,400 filed on November 9, 1995, now U.S. Patent
No. 5,735,744, which is a continuation-in-part of U.S. Application No. 08/232,862
filed on April 25, 1994, now U.S. Patent No. 5,489,103.--

MAILING ADDRESS OF SENDER (Please do not use customer number below)
Alan M. Koenck, Kinney & Lange, P.A.
312 South Third Street
Minneapolis, MN 55415-1002

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 04-158441

(43)Date of publication of application : 01.06.1992

(51)Int.Cl.

G06F 9/06
G06F 15/21

(21)Application number : 02-283554

(71)Applicant : HITACHI LTD

(22)Date of filing : 23.10.1990

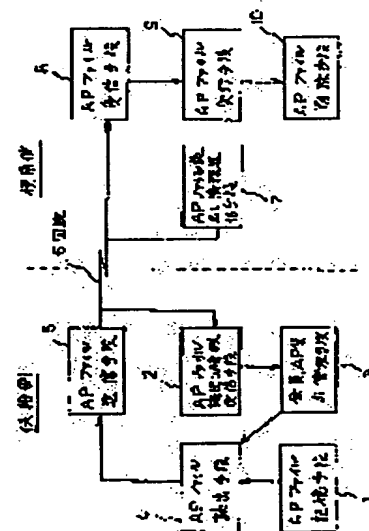
(72)Inventor : OZEKI MASAYOSHI

(54) SOFT LEASING SYSTEM AND LEASED SOFT COPY PREVENTING METHOD

(57)Abstract:

PURPOSE: To prevent the illicit copy of the leased software by erasing automatically and forcibly the leased software after executing it.

CONSTITUTION: The application-side is provided with an AP (application software) file reception means 8 which receives the AP from the supply side, an AP file execution means 9 like a computer, etc., which carries out the AP, and an AP file deletion means 10 which deletes the executed AP out of a system of the application side. At the application side, the information on an AP file, etc., are stored in a memory which is not backed up by a battery, etc., and has its contents to be erased with a power failure or a power OFF mode. When the AP file is totally stored in the memory, the control is transferred to the AP file and this file is carried out. Then the control is transferred to the means 10 and the AP file is deleted. Thus the illicit copy can be prevented.



LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2000 Japanese Patent Office

⑦ 公開特許公報(A) 平4-158441

⑧ Int. Cl.³

G 06 F 9/06

15/21

識別記号

4 5 0 Z

4 5 0 L

Z

庁内整理番号

7927-5B

7927-5B

7218-5L

⑨ 公開 平成4年(1992)6月1日

審査請求 未請求 請求項の数 7 (全7頁)

⑩ 発明の名称 ソフト貸出システムと貸出ソフトコピー防止方法

⑪ 特 願 平2-283554

⑫ 出 願 平2(1990)10月23日

⑬ 発 明 者 大 関 正 義 千葉県習志野市東習志野7丁目1番1号 株式会社日立製作所習志野工場内

⑭ 出 願 人 株式会社日立製作所 東京都千代田区神田駿河台4丁目6番地

⑮ 代 理 人 弁理士 秋本 正実

明 細 書

1. 発明の名称

ソフト貸出システムと貸出ソフトコピー防止方法

2. 特許請求の範囲

1. 多数のソフトを格納した記憶手段と要求されたソフトを該記憶手段から読み出し送信する手段とを備えるソフト貸出側と、ソフト貸出側に使用したいソフトを要求する手段と受信したソフトを実行した後に該ソフトを自動削除する手段とを備えるソフト使用側とでなり、ソフト貸出側とソフト使用側が通信回線で接続され、有償或いは無償にてソフト貸出側の保持するソフトをソフト使用側が利用することを特徴とするソフト貸出システム
2. 多数のソフトを格納した記憶手段から通信回線を介して使用者側端末に読み出されたソフトを使用者側が実行した後このソフトを自動消去する機能を有する通信ソフトを備えたことを特徴とするソフト貸出システム。

3. 使用者側に通信回線で読み出され実行された後に自分を自動消去する機能を備えるソフトを多数記憶装置に格納したことを特徴とするソフト貸出システム。

4. 多数のソフトを記憶装置に格納したソフト供給側から通信回線を介して使用者側に読み出されたソフトは使用者側端末のメモリであって停電或いは電源オフ時には内容が消去されてしまうメモリにしか読み出せないようにしたことを特徴とする貸出ソフトコピー防止方法。

5. 多数のソフトを記憶装置に格納したソフト供給側から通信回線を介して使用者側に読み出されたソフトは、使用者側で実行された後にソフト終了指令にて自動削除されることを特徴とする貸出ソフトコピー防止方法。

6. 多数のソフトを記憶装置に格納したソフト供給側から通信回線を介して使用者側に読み出されたソフトは、使用者側で実行された実行時間が設定時間に達したとき自動削除されることを特徴とする貸出ソフトコピー防止方法。

7. 多数のソフトを記憶装置に格納したソフト供給側から通信回線を介して使用者側に読み出されたソフトは、使用者側で実行されたときの入力量或いは出力量が設定値に達したとき自動削除されることを特徴とする貸出ソフトコピー防止方法。

3. 発明の詳細な説明

〔産業上の利用分野〕

本発明はコンピュータのソフトウェアに係り、特に、ソフトウェアのレンタルシステムに関する。

〔従来の技術〕

従来のコンピュータソフトウェアは、著作権保護の見地からレンタルするという考えはなく、コピー防止のためのプロテクトがかけられたものが1つ1つ販売されるだけであった。

尚、従来技術に関連するものとして、特開昭58-121463号、特開昭59-116868号がある。

〔発明が解決しようとする課題〕

コンピュータが普及し、更に様々な種類のソフ

と要求されたソフトを該記憶手段から読み出し送信する手段とを備えるソフト貸出側と、ソフト貸出側に使用したいソフトを要求する手段と受信したソフトを実行した後に該ソフトを自動削除する手段とを備えるソフト使用側とでなり、ソフト貸出側とソフト使用側が通信回線で接続され、有償或いは無償にてソフト貸出側の保持するソフトをソフト使用側が利用することで、達成される。

上記目的は、また、多数のソフトを記憶装置に格納したソフト供給側から通信回線を介して使用者側に読み出されたソフトは、使用者側で実行された後にソフト終了指令にて自動削除されるようにすることで、達成される。

〔作用〕

ソフトが貸出された場合、そのソフトが不正にコピーされると、著作権が侵害され、このソフト貸出システムは普及しないことになってしまう。そこで、貸出されたソフトが実行された後はそのソフト自動的に強制消去してしまうことで、コピーされることが防止される。

トウェアが開発され市場に出回っている。多くのソフトウェアは、1つ数万円するのが普通であり、これを多数種類個人が所有することは難しくなっている。しかも、1つのソフトウェアの使用頻度が高ければそのソフトウェアを買うメリットはあるが、めったに使用しないソフトウェアまで買わなければならないのであれば、結局そのソフトウェアを諦めることになる。これは、そのソフトウェアが有用なものであっても、普及せず、結局ソフト開発側が開発費を回収できなくなることを意味する。斯かる事態を回避するため、ソフトウェアをレンタルするシステムが開発されることが望まれるが、不正なコピーが横行すると著作権を侵害し却って害が大きくなってしまう。

本発明の目的は、ソフトウェアの健全なレンタルシステムを確立することのできるソフト貸出システムと貸出ソフトコピー防止方法を提供することにある。

〔課題を解決するための手段〕

上記目的は、多数のソフトを格納した記憶手段

〔実施例〕

以下、本発明の一実施例を図面を参照して説明する。

第1図は、本発明の一実施例に斯かるソフト貸出システムの構成図である。通信回線を使用してコンピュータのソフトウェアをレンタルする場合、ソフトウェアの不正コピーを防止する機能を設けることが必須となる。この条件を満足させるため、本実施例におけるソフト貸出システムを次の様に構成する。

先ず、ソフトウェアの供給側は、各種のアプリケーションソフトウェア（以下、APという。）を格納した記憶手段1と、使用者側からの要求に係るAPファイル読み出し情報を受信する手段2と、使用者側からの情報を解析し会員番号等を確認する会員AP貸出管理手段3と、この管理手段3からの指令を受けて使用者側の欲するAPファイルを記憶手段1から読み出す手段4と、読み出されたAPファイルを回線6を通じて使用者側に送信する手段5からなる。

使用者側は、ソフト供給側に自己の要求情報、会員番号情報等を送信する手段7と、供給側から送られてきたAPを受信する手段8と、このAPを実行するコンピュータ等の実行手段9と、AP実行後にこのAPを使用者側のシステムから削除する手段10からなる。

斯かるソフト貸出システムにおいて、先ず使用者側は送信手段7を用いて使用したいAPファイル名や会員番号等の情報を供給側に回線6を通して送信する。この要求情報は、供給側の受信手段2にて受信される。これらの情報は管理手段3に渡され、その会員が登録済みであるか否かが確認され、登録済みであれば次にAP貸出費用等の管理を行ない、特に問題が無い場合にはAPファイル名を読出手段4に送出する。読出手段4は、記憶手段1からこのAPファイルを読み出し、送信手段5に送って使用者側に送信させる。

使用者側では、このAPファイル等の情報を、バッテリ等でバックアップされておらず停電や電源オフ時には内容が消去してしまうメモリに格納

処理を終了し、無ければ元に戻り送信要求を待機する。

第3図は、第2図に示すAPファイル送信モード処理の手順を示すフローチャートである。先ずAPファイルの送信処理SENDを行ない、その後、正常に送信が行なわれたか否かをチェックし、正常送信がされなかったときはエラー処理をして第2図のプログラムに戻る。送信が正常な場合にはレンタル料金徴収のための会計処理を行ない、第2図のプログラムに戻る。

第4図は、第3図のAPファイル送信処理SENDの処理手順を示すフローチャートである。先ず、回線接続を行ない、供給側と使用者側を回線6で接続する。そして、会員番号を受信し、会員番号確認処理MNOCを行なう。その確認処理の結果、その会員が登録済み（入会済み）でなければ送信エラーフラグをオンにして第3図のプログラムに戻る。その会員が登録済みであれば、貸出APファイル名を受信し、そのAPファイルを送信する。そして、送信が正常に行なわれたか否かを判定し、

される。このメモリ内にAPファイルの全体を格納し終えた場合には、制御をAPファイルに移してこのAPファイルを実行し、実行完了後（或いは、APを貸出した時刻から所定時間が経過したとき、或いは使用者側でこのAPを実行しデータの入力量がある設定量に達したとき、或いは作成したデータの出力量がある設定量に達したとき）には、削除手段10に制御を移しAPファイルを削除する。

このように、APファイル実行終了後にはAPファイルを削除し不正にコピーされないようにする。

第2図は、供給側システムでのメインの処理手順を示すフローチャートである。先ず、使用者側からAPファイルの送信要求があるか否かを判定する。送信要求がある場合にはAPファイル送信モード処理AP-S-MAINを実行し、送信要求が無い場合には会員番号登録モード処理MN-W-MAINが行なえるようにする。これらの処理の後には、入力キーをリードし、終了指令キー入力があった場合は

正常な場合には送信エラーフラグをオフして第4図のプログラムに戻る。正常送信でない場合には送信エラーフラグをオンにして第8図のプログラムに戻る。

第5図は、第4図の会員番号確認処理MNOCの処理手順を示すフローチャートである。先ず、会員ファイルリードポイントの初期化を行ない、このポイントに従い受信した会員番号と一致するレコードが存在するか否かをリードポイントを更新しながら探す。もし一致する会員番号が検出できなかった場合には、入会済みフラグをオフし、一致するレコードが見つかった場合には入会済みフラグをオンし、第5図のプログラムに戻る。

第6図は、第2図の会員番号登録モード処理MN-W-MAINの処理手順を示すフローチャートである。先ず、会員ファイルをオープンし、会員番号や会員住所等、会員に関する情報をキー入力する。そして、入力情報を会員ファイルに書き込み、ファイルをクローズし、第2図のプログラムに戻る。

第7図は、使用者側でのメインの処理手順を示

すフローチャートである。先ず、APファイルの受信処理RECVを行なう。そして、受信が正常であるか否かを判定し、異常の場合にはエラー処理して終了する。正常の場合には、そのAPの実行処理APEXEを行ない、それが終了したら、APの削除を行ない、再び使用者がこのAPを実行できないようにし（再び使用者がこのAPの実行を欲する場合には再び供給側からレンタルすることになる。）、処理を終了する。

第8図は、第7図のAPファイル受信処理RECVの処理手順を示すフローチャートである。この受信処理は、第2図の供給側の送信処理に対応するものであり、この送信処理にて送信されてきたAPファイルを受信し、受信が正常に行なわれたか否かを判定し、異常受信の場合はエラーフラグをオンして第7図のプログラムに戻り、正常受信の場合はエラーフラグをオフして第7図のプログラムに戻る。

第9図は、第7図のAP実行処理APEXEの処理手順を示すフローチャートである。APの実行は

基本的にAP自体に依存するが、一般的には、初期処理を行ない、終了指令があるまで通常の処理を行ない、終了指令を受けてAPの実行を終了する。しかし、あまり長時間APの実行を可能にすると、著作権保護の観点から問題が生じる虞がある。そこで、積算したAPの実行時間或いはAPのメモリの存在時間が所定の時間経過したとき、或いは入力されたキー数が所定数に達したとき、或いは作成されたデータの出力量が所定量に達したとき、自動的にAPが終了指令を発行し、それまでのAP実行で作成されたデータ等をディスク等に格納して強制終了させるようにする。

この終了指令によりAP実行が終了すると、使用者側のシステムからこのAPが削除され、再び利用できないようにする。

〔発明の効果〕

本発明によれば、貸出したソフトウェアの不正コピーが防止され著作権の保護が図られるので、ソフトウェアのレンタル化を普及させるための障害がなくなる。

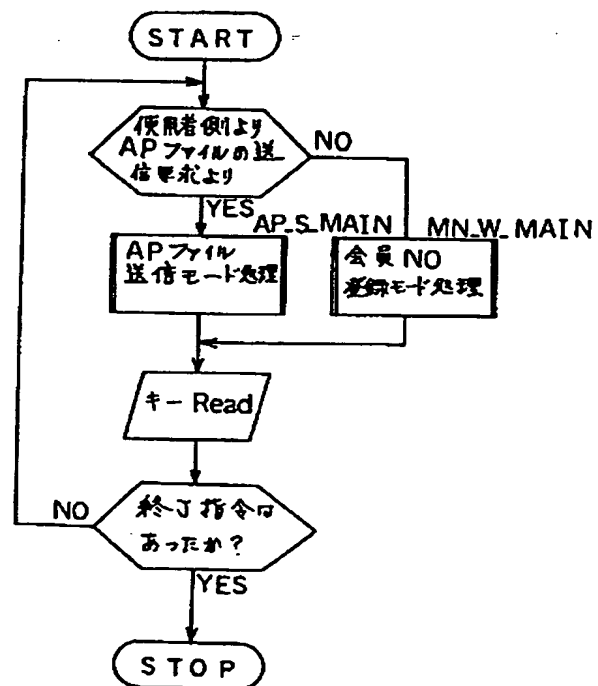
4. 図面の簡単な説明

第1図は本発明の一実施例に係るソフト貸出システムの構成図、第2図、第3図、第4図、第5図、第6図はソフト供給側での処理手順を示すフローチャート、第7図、第8図、第9図はソフト使用者側での処理手順を示すフローチャートである。

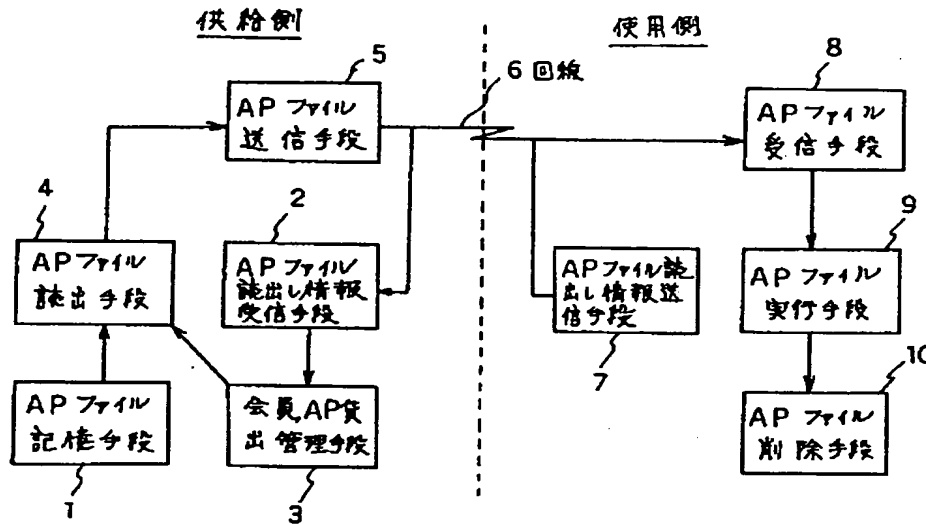
1…APファイル記憶手段、2…APファイル読出情報受信手段、3…会員AP貸出管理手段、4…APファイル読出手段、5…APファイル送信手段、6…回線、7…APファイル読出情報送信手段、8…APファイル受信手段、9…APファイル実行手段、10…APファイル削除手段。

代理人 弁理士 秋 本 正 実

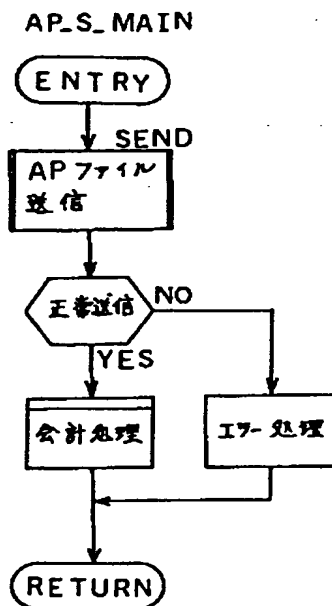
第 2 図



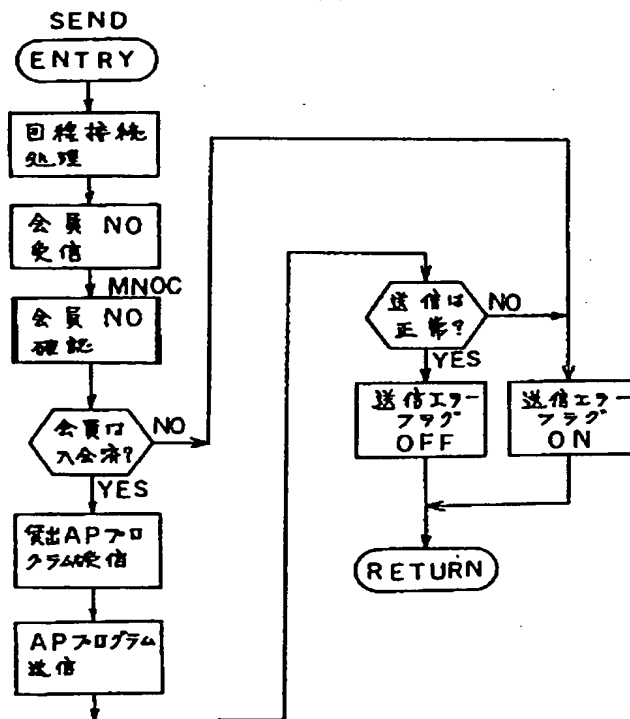
第 1 図



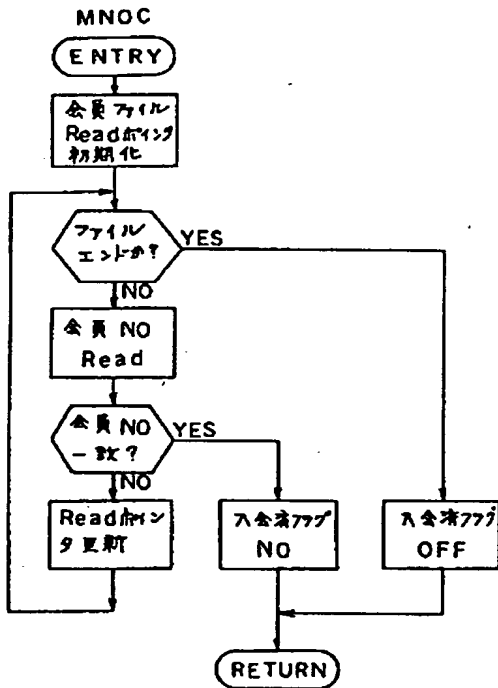
第 3 図



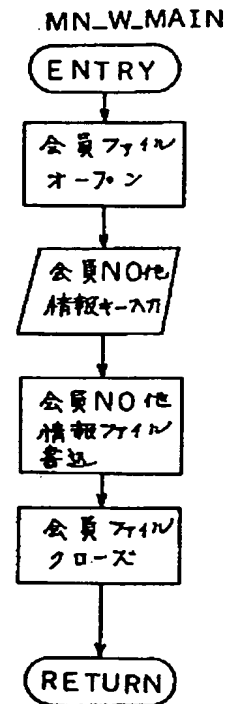
第 4 図



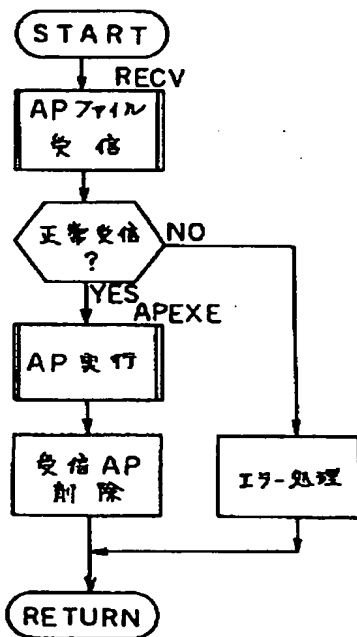
第 5 図



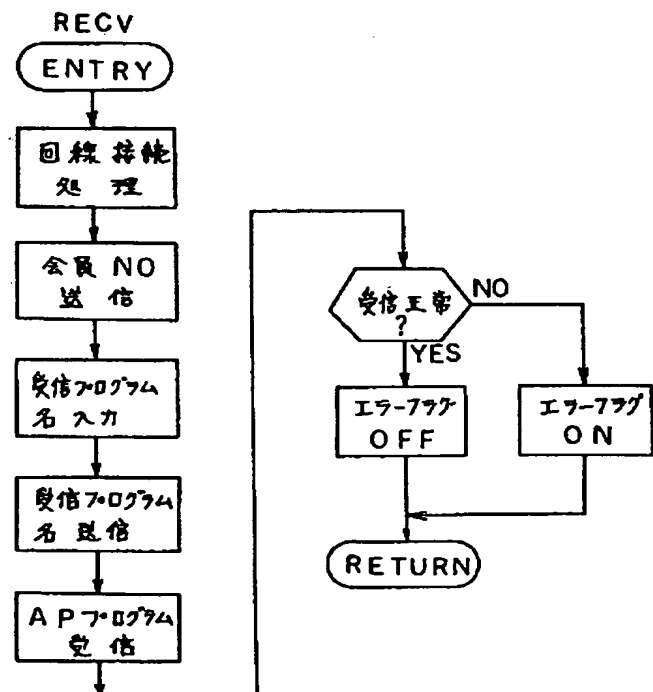
第 6 図



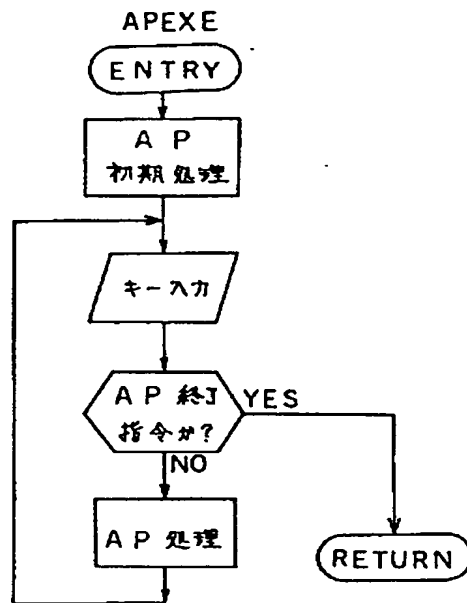
第 7 図



第 8 図



第 9 図



PATENT ABSTRACTS OF JAPAN

(11)Publication number : 03-062222

(43)Date of publication of application : 18.03.1991

(51)Int.Cl.

G06F 9/06

G06F 12/14

(21)Application number : 01-198324

(71)Applicant : TOSHIBA CORP

(22)Date of filing : 31.07.1989

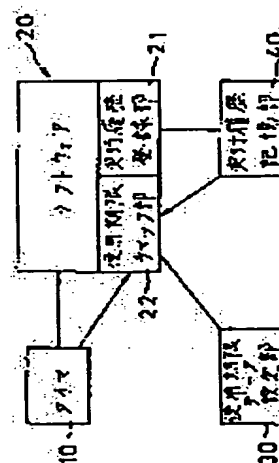
(72)Inventor : KAWAHARA AKIYOSHI

(54) CHECK SYSTEM FOR USING RIGHT OF SOFTWARE

(57)Abstract:

PURPOSE: To correctly check the available period of the software by comparing the e of a computer with the contents or an execution history storage means and checking the grant/inhibition for use of the software at execution of the software.

CONSTITUTION: The time when the software 20 is carried out by a computer is registered to an execution history storage means 40 via an execution history register means 21. At execution of the software 20, the comparison is carried out between the time of the computer (shown by a timer 10) and the contents of the means 40 as well as the computer time and the available period of the software 20. Thus the grant/inhibition is checked for use of the software 20. As a result, it is possible to prevent such an inconvenient case where the conflict is caused between the time of the computer and the contents of the means 40 and the using right (available period) of the software is checked in a wrong way even if the computer time is set back to a preceding point.



LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

⑫ 公開特許公報 (A) 平3-62222

⑬ Int. Cl.⁹

G 06 F 9/06
12/14

識別記号

4 5 0 L
3 2 0 F

庁内整理番号

7361-5B
7737-5B

⑭ 公開 平成3年(1991)3月18日

審査請求 未請求 請求項の数 1 (全4頁)

⑮ 発明の名称 ソフトウェア使用権チェック方式

⑯ 特 願 平1-198324

⑰ 出 願 平1(1989)7月31日

⑱ 発 明 者 川 原 章 義 東京都府中市東芝町1番地 株式会社東芝府中工場内

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明 細 書

1. 発明の名称

ソフトウェア使用権チェック方式

2. 特許請求の範囲

ソフトウェアが計算機で実行された実行履歴をその際の時刻によって表すための上記ソフトウェアに対応して設けられた実行履歴記憶手段と、

上記ソフトウェアの使用期限を示す使用期限データが予め設定される使用期限データ設定手段と、

上記ソフトウェアが実行された際の時刻を上記計算機が持つ時計手段から得て上記実行履歴記憶手段に登録する実行履歴登録手段と、

上記ソフトウェアの実行時に上記時計手段の示す時刻と、上記使用期限データ設定手段の内容および上記実行履歴登録手段の内容とを比較して上記ソフトウェアの使用の可否をチェックする使用期限チェック手段と、

を具備することを特徴とするソフトウェア使用権チェック方式。

3. 発明の詳細な説明

〔発明の目的〕

（産業上の利用分野）

この発明は、使用権の期限が設定されたソフトウェアの使用可否を決定するのに必要なソフトウェア使用権チェック方式に関する。

（従来の技術）

一般にソフトウェア（ソフトウェアプログラム）の販売形態として、ソフトウェアが搭載（格納）されたフロッピーディスクなどの媒体自体を販売する形態と、ソフトウェアの使用権を期限付きで販売する形態とが知られている。後者の販売形態では、対象となるソフトウェアが計算機上で実行される際に、そのソフトウェアの使用権の期限が切れているか否かを正しくチェックすることは重要なことである。そこで従来は、ソフトウェアが格納された媒体の一部に、その使用期限を示す使用期限データを予め設定しておき、上記ソフトウェアが実行される際に、その時点における計算機の時刻（年月日を含む）と上記使用期限デー

タとを比較して、そのソフトウェアの使用量の期限が切れているか否か（したがって使用可能か否か）をチェックしていた。しかし、計算機の時刻は利用者（ユーザ）側で任意に設定し直すことが可能なため、計算機の時刻と使用期限データとの比較による使用量チェックでは、計算機の時刻を設定し直すという不正には対処できず、正しい使用量チェックは期待できない。

（発明が解決しようとする課題）

上記したように従来は、ソフトウェア使用量のチェックを、そのソフトウェアに対応して予め設定された使用期限データと、そのソフトウェアが実行される際の計算機の時刻とを比較することで行っていたため、ソフトウェア利用者側で計算機の時刻を設定し直した場合には正しい使用量チェックが行えないという問題があった。

この発明は上記事情に鑑みてなされたものでその目的は、計算機の時刻をソフトウェア利用者が設定し直しても、ソフトウェア使用量（使用期限）のチェックが正しく行えるソフトウェア使用

量チェック方式を提供することにある。

〔発明の構成〕

（発明が解決しようとする課題）

この発明は、ソフトウェアの実行履歴を表すための同ソフトウェアに対応して設けられた実行履歴記憶手段と、上記ソフトウェアの使用期限を示す使用期限データが予め設定される使用期限データ設定手段と、上記ソフトウェアが計算機上で実行された際の時刻を同計算機が持つ時計手段から得て上記実行履歴記憶手段に登録する実行履歴登録手段と、上記ソフトウェアの実行時に上記時計手段の示す時刻と、上記使用期限データ設定手段の内容および上記実行履歴登録手段の内容とを比較して上記ソフトウェアの使用の可否をチェックする使用期限チェック手段とを設けたことを特徴とするものである。

（作用）

上記の構成によれば、ソフトウェアが計算機で実行された際の時刻が実行履歴登録手段によって実行履歴記憶手段に登録され、ソフトウェアの

実行時には、計算機の（時計手段の示す）時刻と同ソフトウェアの使用期限との比較だけでなく、計算機の時刻と実行履歴記憶手段の内容との比較も行われて、同ソフトウェアの使用の可否がチェックされる。このため、計算機の時刻を前に戻すように設定し直しても、実行履歴記憶手段の内容との間に矛盾が生じて、その旨が上記の比較で検出されるため、従来のように誤ったソフトウェア使用量（使用期限）のチェックが行われる虞はない。

（実施例）

第1図はこの発明の一実施例を示すブロック構成図である。同図において、10は計算機内に設けられ、計算機の時刻を表すための時計手段であるタイマ、20は期限付きの使用量が設定されるソフトウェアである。30はソフトウェア20の使用期限を示す使用期限データが設定される使用期限データ設定部、40はソフトウェア20の実行履歴が実行時刻の形で記録される実行履歴記憶部40である。本実施例において、ソフトウェア20、使用期限デ

ータ設定部30および実行履歴記憶部40は同一記憶媒体（例えばフロッピーディスク）に搭載されている。ソフトウェア20には、同ソフトウェア20の実行履歴を実行履歴記憶部40に登録する実行履歴登録部21、およびタイマ10の示す計算機時刻と使用期限データ設定部30に設定されている使用期限データ並びに実行履歴記憶部40の内容とを比較して使用期限のチェックを行う使用期限チェック部22が含まれている。この実行履歴登録部21および使用期限チェック部22は、ソフトウェア20が計算機上で実行されることにより所定のタイミングで機能するものである。

次に、第1図の構成の動作を第2図のフローチャートを参照して説明する。

まず実行履歴登録部21は、ソフトウェア20が計算機上で実行（使用）される毎に、第1の所定タイミング、例えば実行終了時に動作し、その際のタイマ10の示す計算機時刻（年月日を含む）を実行履歴記憶部40に登録する。この結果、実行履歴記憶部40には常に、最も最近にソフトウェア20

が実行された際の実行時刻が実行履歴として記録される。

一方、使用期限チェック部22は、ソフトウェア20が計算機上で実行される毎に第2のタイミングで動作し、第2図のフローチャートに示す手順でソフトウェア20の使用期限のチェック処理を行う。まず使用期限チェック部22は、タイマ10の示す計算機の現在時刻を読取り、この読取った現在時刻が実行履歴記憶部40に既に登録されている実行時刻（即ち前回のソフトウェア20の実行時刻）より後の時刻であるかをチェックする（ステップS1）。もし、タイマ10から読取った現在時刻の方が実行履歴記憶部40に登録されている前回のソフトウェア20の実行時刻より前であれば、使用期限チェック部22はタイマ10の時刻がソフトウェア20の利用者によって前に戻すように不正に設定し直されたものと判断し、ソフトウェア20の使用は不可としてその実行を禁止させる。

これに対し、タイマ10から読取った現在時刻の方が実行履歴記憶部40に登録されている前回の

ソフトウェア20の実行時刻より後であれば、使用期限チェック部22はタイマ10が不正に設定し直されたことはないものとして、従来と同様の使用期限データのチェックを行う（ステップS2）。即ち使用期限チェック部22は、タイマ10から読取った時刻が使用期限データ設定部30に予め設定されている使用期限データの示す使用期限より前であるか否かをチェックする。もし、タイマ10から読取った現在時刻が使用期限以前であれば、使用期限チェック部22はソフトウェア20の使用期限は切れていないものと判断し、ソフトウェア20の使用は可であるものとしてその実行を継続させる。反対に、タイマ10から読取った現在時刻が使用期限より後であれば、使用期限チェック部22はソフトウェア20の使用期限は切れているものと判断し、ソフトウェア20の使用は不可としてその実行を禁止させる。なお、使用期限チェック部22の動作タイミングは、ソフトウェア20の実行開始時は勿論、実行途中（例えば実行結果をファイルに出力する直前など）でもよく、要はソフトウェア20の使用

不可が判定された場合に、それまでのソフトウェア20の実行が無意味となるようなタイミングであればよい。

【発明の構成】

以上詳述したようにこの発明によれば、ソフトウェアが計算機で実行される毎にその実行時刻が実行履歴記憶手段に登録され、ソフトウェアの実行時には、計算機の時刻と同ソフトウェアの使用期限との比較だけでなく、計算機の時刻と実行履歴記憶手段の内容との比較も行われて、同ソフトウェアの使用の可否がチェックされる構成としたので、ソフトウェア利用者が計算機の時刻を前に戻すように設定し直しても、実行履歴記憶手段の内容との間に時刻の矛盾が生じて、その旨が上記の比較で検出される。即ち、この発明によれば、計算機の時刻が不正に設定し直されても、ソフトウェアの使用期限のチェックを正しく行うことができる。

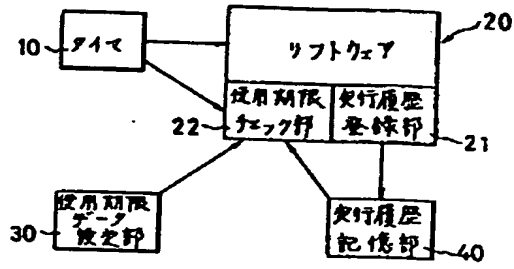
4. 図面の簡単な説明

第1図はこの発明の一実施例を示すブロック構

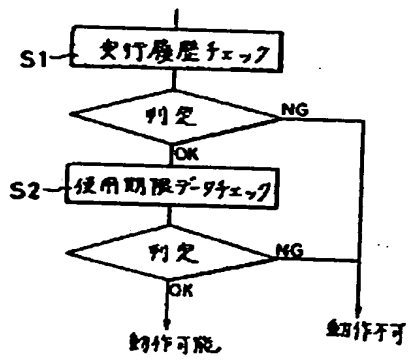
成図、第2図は第1図に示す使用期限チェック部22の動作を説明するためのフローチャートである。

10…タイマ（時計手段）、20…ソフトウェア、
21…実行履歴登録部、22…使用期限チェック部、
30…使用期限データ設定部、40…実行履歴記憶部。

出願人代理人 弁理士 鈴江武彦



第1図



第2図

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 02-267628

(43)Date of publication of application : 01.11.1990

(51)Int.Cl.

G06F 9/06

G06F 1/00

G06F 12/14

(21)Application number : 01-088602

(71)Applicant : NEC CORP

(22)Date of filing : 07.04.1989

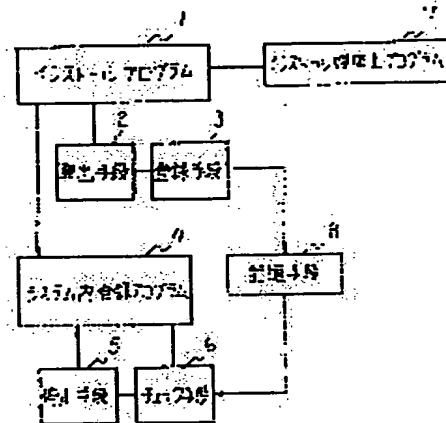
(72)Inventor : SHIMOHATA AKIHIKO

(54) CHECK SYSTEM FOR PROGRAM USING PERIOD

(57)Abstract:

PURPOSE: To invalidate a program whose available period already expired by checking automatically the expiring date of the program based on the register information on the expiring date and erasing the program if its available period already expired.

CONSTITUTION: When an intra-system registered program 4 is started, the program 4 calls out a check means 6. The means 6 checks whether the expiring date of the program 4 already passed or not based on the register information on the expiring date stored in a storage means 8. If the expiring date does not pass yet, the run of the program 4 is granted. Meanwhile a stop means 5 is called out if the expiring date already passes. Thus the means 5 destroys the program 4 to prevent the run of the program 4 hereafter. As a result, a program whose available period already expired is not available thereafter.



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[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

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⑨ 日本国特許庁(JP)

⑩ 特許出願公開

⑪ 公開特許公報(A) 平2-267628

⑫ Int. Cl.⁴

G 06 F 9/06
1/00
12/14

識別記号

4 5 0 L
3 7 0 E
3 2 0 F

庁内整理番号

7361-5B
7459-5B
7737-5B

⑬ 公開 平成2年(1990)11月1日

審査請求 未請求 請求項の数 1 (全3頁)

⑭ 発明の名称 プログラムの使用期間チェック方式

⑮ 特 願 平1-88602

⑯ 出 願 平1(1989)4月7日

⑰ 発 明 者 下 畑 明 彦 東京都港区芝5丁目33番1号 日本電気株式会社内

⑱ 出 願 人 日本電気株式会社 東京都港区芝5丁目7番1号

⑲ 代 理 人 弁理士 内 原 晋

明 細 書

発明の名称

プログラムの使用期間チェック方式

特許請求の範囲

- (A) 情報処理システムでプログラムを使用システムにインストールするときに、インストール日付を元に前記プログラムの使用を停止する日付を算出する算出手段、
- (B) 算出された使用停止日付をシステム内に登録する登録手段、
- (C) 前記プログラムが起動されたとき、前記プログラムが起動された日付が前記プログラムの使用停止日付に達しているか否かをチェックするチェック手段、
- (D) 前記プログラムが起動された日付が前記プログラムの使用停止日付に達していたとき、プログラムの使用ができないようにする停止手段、

を備えたことを特徴とするプログラムの使用期間チェック方式。

発明の詳細な説明

〔産業上の利用分野〕

本発明はプログラムの使用期間チェック方式に関し、特に情報処理システムにおけるプログラムのインストール日付を元に使用停止日付を決定し、以後、使用停止日付に達するまでプログラムの使用を許可するプログラムの使用期間チェック方式に関する。

〔従来の技術〕

従来、プログラムを試験使用等であらかじめ使用期間を決めて使用者に提供する場合、使用期間完了時には、使用者又は提供者がそのプログラムを使用システムから消去するなどにより、使用期間完了後はそのプログラムを使用できないようにする必要があった。

〔発明が解決しようとする課題〕

上述した従来のプログラムの使用期間チェック

方式は、使用期間完了時にプログラム提供者がユーザに提供したプログラムを消去するか、又は、ユーザの申告を信頼するしか方法がないという問題点があった。

本発明の目的は、使用期間完了時に自動的にプログラムを使用できないようにすることができるプログラムの使用期間チェック方式を提供することにある。

〔課題を解決するための手段〕

本発明のプログラムの使用期間チェック方式は、

- (A) 情報処理システムでプログラムを使用システムにインストールするときに、インストール日付を元に前記プログラムの使用を停止する日付を算出する算出手段、
- (B) 算出された使用停止日付をシステム内に登録する登録手段、
- (C) 前記プログラムが起動されたとき、前記プログラムが起動された日付が前記プログラムの使用停止日付に達しているか否かをチェックする

プログラムの使用停止日付がシステム内の使用停止日付登録情報として格納される記憶手段8から構成されている。

次に、動作を説明する。

インストールプログラム1が起動されると、インストール媒体上プログラム7を読み込み、システム内登録プログラム4として使用システムに登録した後、算出手段2を呼び出す。呼び出された算出手段2は、そのときの日付を元にあらかじめ定められた使用期間を加算し使用停止日付を算出して登録手段3を呼び出す。呼び出された登録手段3は、使用停止日付をシステム内の使用停止日付登録情報として記憶手段8に格納し、インストールプログラム1の処理が完了する。

その後、システム内登録プログラム4は起動されると、チェック手段6を呼び出す。呼び出されたチェック手段6はそのときの日付が記憶手段8に格納されている使用停止日付登録情報の使用停止日付を過ぎているか否かをチェックし、過ぎていなければシステム内登録プログラム4に走行を

るチェック手段、

- (D) 前記プログラムが起動された日付が前記プログラムの使用停止日付に達していたとき、プログラムの使用ができないようにする停止手段、

を備えて構成されている。

〔実施例〕

次に、本発明の実施例について図面を参照して説明する。

第1図は本発明の一実施例のブロック図である。

第1図に示すプログラムの使用期間チェック方式は、プログラムを使用システムにインストールするときに、インストール日付を元に使用を停止する日付を算出する算出手段2、算出された使用停止日付をシステム内に登録する登録手段3、プログラムが起動されたときに使用停止日付に達していたか否かをチェックするチェック手段6、プログラムが使用停止日付に達していたとき、プログラムの使用ができないようにする停止手段5、

許可する。又、過ぎていれば、停止手段5を呼び出す。呼び出された停止手段5はシステム内登録プログラム4が以後走行できないようにするために、システム内登録プログラム4を破壊する。

このように、自動的に使用停止日付登録情報にもとづきプログラムの使用停止日付をチェックし、使用期間が完了したプログラムを消去することにより、使用期間が完了したプログラムを以後使用できないようにすることができる。

なお、本発明に用いる情報処理システムとしては、中央処理装置、主記憶装置、データ入出力装置、及び補助記憶装置から構成された情報処理システムを用いることができる。

〔発明の効果〕

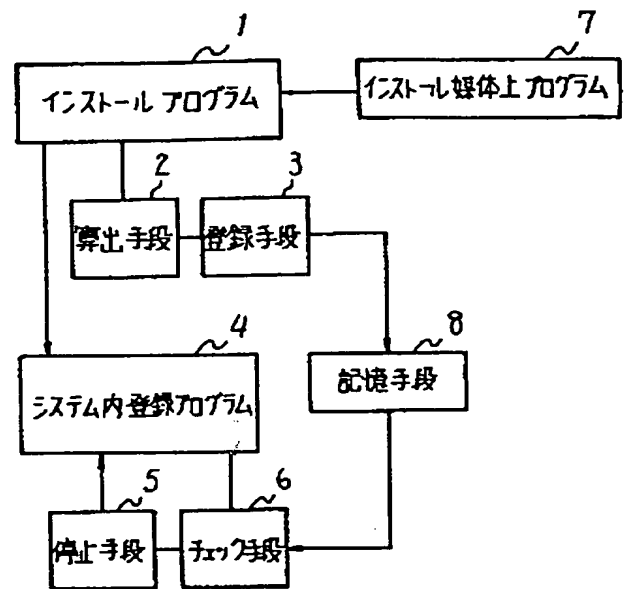
以上説明したように、本発明は、自動的に使用停止日付登録情報にもとづきプログラムの使用停止日付をチェックし、使用期間が完了したプログラムを消去することにより、使用期間が完了したプログラムを以後使用できないようにすることができるという効果を有する。

図面の簡単な説明

第1図は本発明の一実施例のブロック図である。

1…インストールプログラム、2…算出手段、
3…登録手段、4…システム内登録プログラム、
5…停止手段、6…チェック手段、7…インストール媒体上プログラム、8…記憶手段。

代理人 弁理士 内 原 晋



第 1 図

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 02-300823

(43)Date of publication of application : 13.12.1990

(51)Int.Cl.

G06F 9/06

G06F 12/14

(21)Application number : 01-122414

(71)Applicant : NEC CORP

(22)Date of filing : 15.05.1989

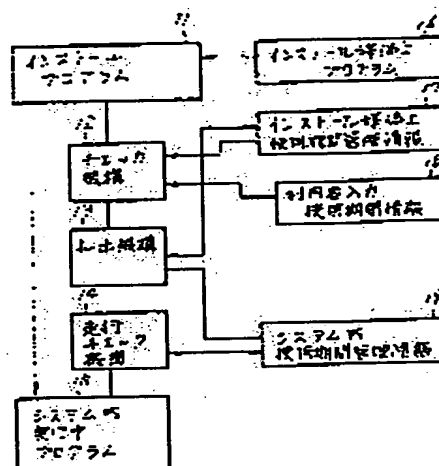
(72)Inventor : MISUMI IKUYO

(54) CHARGED CHECK SYSTEM

(57)Abstract:

PURPOSE: To limit the use of a program simultaneously with plural systems by setting the activity period of the program not being overlapped at every system, and checking the activity period when the program is run.

CONSTITUTION: When an install medium activity period is within on-install medium activity period managing information 17, it is checked whether or not user input activity period information 18 inputted by the user of a medium next is effective by a check mechanism 12. When the user input activity information 18 is effective and furthermore, it is included in the install medium activity period, the user input activity period is deleted from the install medium activity period by a payment mechanism 13, and a deleted result is registered as the on-install medium activity period managing information 17 and the user input activity period information 18 as in-system activity period managing information 19. After that, when an in-system execution program 15 is executed, it is checked whether or not it is an in-system activity period with a travel check mechanism 14. Thereby, it is possible to limit the use of the program with the plural systems.



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[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's]

⑨ 日本国特許庁(JP)

⑩ 特許出願公開

⑫ 公開特許公報(A) 平2-300823

⑬ Int. Cl.⁵

G 06 F 9/06
12/14

識別記号

4 5 0 L
3 2 0 F

庁内整理番号

7361-5B
7737-5B

⑭ 公開 平成2年(1990)12月13日

審査請求 未請求 請求項の数 1 (全3頁)

⑮ 発明の名称 有償チェック方式

⑯ 特 願 平1-122414

⑰ 出 願 平1(1989)5月15日

⑱ 発 明 者 三 隅 生 代 東京都港区芝5丁目33番1号 日本電気株式会社内

⑲ 出 願 人 日本電気株式会社 東京都港区芝5丁目7番1号

⑳ 代 理 人 弁理士 内 原 晋

明 細 書

1. 発明の名称

有償チェック方式

2. 特許請求の範囲

インストール媒体上に予め設定された使用期間と、インストール時に利用者に指定させる使用期間をチェックするチェック機構と、指定された使用期間が媒体上の使用期間に含まれる場合、媒体上の使用期間よりインストールするシステムに指定された使用期間を払い出す払出機構と、指定された使用期間をシステムに登録する登録機構と、インストールされたプログラムが走行時、システムに登録された使用期間内かチェックする走行チェック機構よりなるプログラムの有償チェック方式。

3. 発明の詳細な説明

〔産業上の利用分野〕

本発明は、利用者の使用条件が「一時に1CPUで使用可能」なプログラムの有償チェックに関し、データ処理システムにおいて実行されるプログラムの走行条件チェックに関して、システム毎に重複しないプログラム使用期間を設定し、プログラム走行時、本使用期間をチェックすることで一時に複数のシステムで本プログラムを使用する事を制限する有償プログラムチェック方式に関する。

〔従来の技術〕

従来の有償チェック方式は、インストール時に使用可能システムを一意に決定してしまい、システム毎に使用期間の管理を行っていなかった。

〔発明が解決しようとする課題〕

上述した従来の有償チェック方式では、複数のシステムで同時使用しない条件でプログラムを使用させる場合、同時使用しているか否かのチェックが困難であった。

本発明の目的は、上記従来の有償チェック方式の欠点を解消し、簡易に複数システム間で同時使用が無い条件でプログラムを使用できるようにし

た有償チェック方式を提供することにある。

〔課題を解決するための手段〕

本発明の有償チェック方式は、インストール媒体上に予め設定された使用期間と、インストール時に利用者に指定させる使用期間をチェックするチェック機構と、指定された使用期間が媒体上の使用期間に含まれる場合、媒体上の使用期間よりインストールするシステムに指定された使用期間を払い出す払出機構と、指定された使用期間をシステムに登録する登録機構と、インストールされたプログラムが走行時、システムに登録された使用期間内かチェックする走行チェック機構よりなる。

〔実施例〕

次に、本発明について図面を参照して詳細に説明する。

第1図は、本発明の一実施例に用いる情報処理システムを示すブロック図で、演算をつかさどる中央処理装置1と、データを記憶させておく主記憶装置2および補助記憶装置4と、入出力をつかさ

どる入出力装置3と、入出力媒体5から構成されている。

第2図は本発明の一実施例を示すブロック図である。インストール媒体上プログラム16は、インストールプログラム11とシステム内実行プログラム15から構成される。

インストール媒体上プログラム16を入出力装置3よりインストールする。すると、インストールプログラム11が実行される。初めに、チェック機構12により、インストール媒体上使用期間管理情報17をチェックする。インストール媒体使用期間がインストール媒体上使用期間管理情報17内であれば、次に、媒体の利用者が入力する利用者入力使用期間情報18をチェック機構12により、有効であるか否かチェックする。利用者が入力使用期間情報18が有効であり、さらにインストール媒体使用期間に含まれる場合、払出機構13によりインストール媒体使用期間から利用者入力使用期間を削除し、削除した結果をインストール媒体上使用期間管理情報17とし、利用者

入力使用期間情報18をシステム内使用期間管理情報19として登録する。

その後、システム内実行プログラム15が実行される時、プログラム15のシステム内使用期間であるかを走行チェック機構14によりチェックする。

〔発明の効果〕

以上説明したように、本発明は、データ処理システムにおいて実行されるプログラムの走行条件チェックに関して、システム毎に重複しないプログラム使用期間を設定し、プログラム走行時、本使用期間をチェックすることで一時に複数のシステムで本プログラムを使用する事を制限することができる。

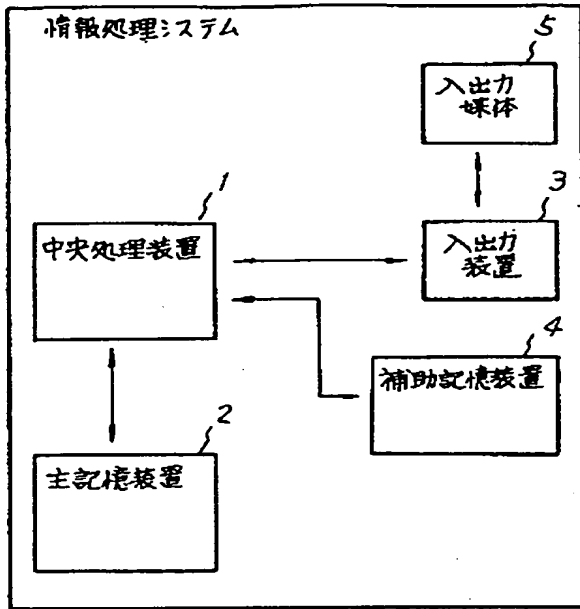
3……補助記憶装置、4……入出力装置、5……入出力媒体、11……インストールプログラム、12……チェック機構、13……払出機構、14……走行チェック機構、15……システム内実行プログラム、16……インストール媒体上プログラム、17……インストール媒体上使用期間管理情報、18……利用者入力使用期間情報、19……システム内使用期間管理情報。

代理人 弁理士 内 原 晋

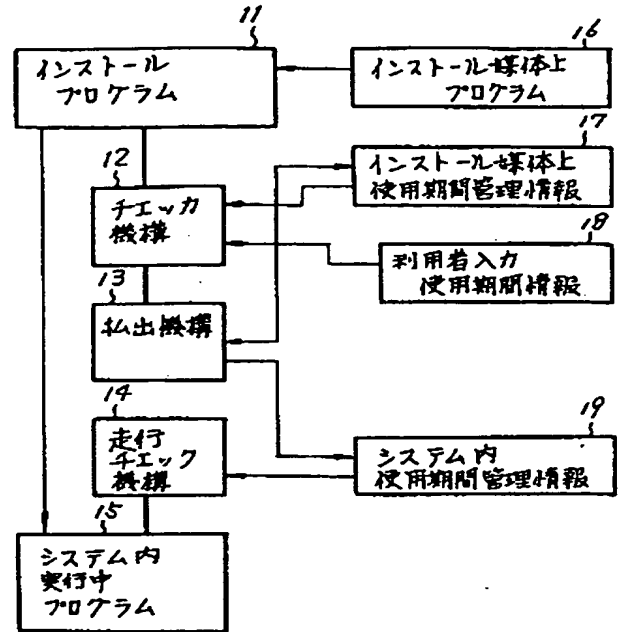
4. 図面の簡単な説明

第1図および第2図はそれぞれ本発明の一実施例に用いる情報処理システムを示すブロック、およびその実施例のブロック図である。

1……中央処理装置、2……主記憶装置、



第 1 図



第 2 図

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 02-166875

(43)Date of publication of application : 27.06.1990

(51)Int.Cl.

H04M 11/00

G06F 15/20

(21)Application number : 63-322865

(71)Applicant : TSUMURA MIMOJI

(22)Date of filing : 20.12.1988

(72)Inventor : TSUMURA MIMOJI

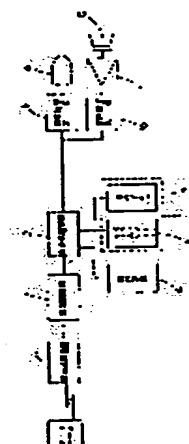
TANIGUCHI SHINNOSUKE

(54) GAME INFORMATION PROCESSOR

(57)Abstract:

PURPOSE: To obtain arbitrary plural pieces of game software with only one device at a terminal side by providing a means to transmit arbitrary game information from a data base through a digital line to the device, a memory means, an operating means, etc.

CONSTITUTION: When a desired game is not stored in a memory means 5 after the game is started, the code of the desired game is searched using a table in which identification codes and game contents are made to correspond to each other, etc., and this code is inputted by an operating means 4. Thus, a CPU 3 can control a communication control part 2, connect through the digital line with the data base, and a load desired game information. Further, when all the space in the memory capacity of a game software memory 6 of the means 5 is used and the game information is to be loaded from the data base, game information having a low selection frequency is erased. Thus, the influence of a noise can be reduced, a game having the minimum malfunction and high accuracy can be enjoyed, transmission time can be shortened, a line charge can be reduced, and the availability of the device can be improved.



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[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

⑬ 日本国特許庁(JP) ⑭ 特許出願公開

⑯ 公開特許公報(A) 平2-166875

⑰ Int. Cl.³
H 04 M 11/00
G 06 F 15/20

識別記号 庁内整理番号
3 0 2 R 8020-5K
7165-5B

⑱ 公開 平成2年(1990)6月27日

審査請求 未請求 請求項の数 5 (全4頁)

⑲ 発明の名称 ゲーム情報処理装置

⑳ 特 願 昭63-322865

㉑ 出 願 昭63(1988)12月20日

㉒ 発 明 者	津 村	三 百 次	大阪府大阪市都島区都島南通2丁目1番1-805号
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㉕ 代 理 人	弁理士	小 原 和 夫	外1名

明 細 書

1. 発明の名称 ゲーム情報処理装置

2. 特許請求の範囲

1. 識別コードを付したデジタル情報からなるコンピュータゲーム情報を蓄積したデータベースから、任意のゲーム情報をデジタル回線を介して伝送させる手段1・2と、この伝送されたゲーム情報を記憶するメモリ手段5と、上記識別コードを指定することによって特定したゲーム情報を選択し、かつゲームの進行の制御を行う操作手段4と、このゲーム情報を画像・音声処理する中央処理手段3とからなるゲーム情報処理装置。
2. メモリ手段として、複数のゲーム情報を記憶するメモリ6と、これら複数のゲーム情報の目次部分を記憶するメモリ7とを備え、画像化した目次を選択することによってゲームを開始する請求項1記載のゲーム情報処理装置。
3. 複数のゲーム情報を記憶したメモリとして、新たなゲーム情報がセーブされたときは最少ロード回数のゲーム情報を消去する請求項2記載のゲー

ム情報処理装置。

4. 操作手段として、目次の選択によってゲームを開始する入力部を有すると共に、ゲームを制御する入力部を有する請求項1または2記載のゲーム情報処理装置。
5. デジタル回線にISDNを用い、このISDNのチャンネル数に見合った数のゲーム情報をデータベースから同時に伝送する請求項1記載のゲーム情報処理装置。

3. 発明の詳細な説明

(産業上の利用分野)

本発明は、テレビゲームのデータソフトに識別コードを付記したデジタルゲーム情報を外部から入力・記憶し、有効に処理するためのゲーム情報処理装置に関し、特にデジタル回線網を用いた業務用あるいは家庭用のテレビゲーム機に利用する。

(従来技術および発明が解決しようとする課題)

従来の業務用のテレビゲーム機では1つの筐体に1つのテレビゲームソフトしか収容することができなかった。従って、ゲーム場で多種類のテレ

ビデオゲームを導入しようとするれば、その分だけテレビゲーム機の台数を保有しなければならない。ところが、テレビゲームはソフトウェアの種類によって遊戯回数が大きく異なり、人気のないゲームは遊戯が行われないので、どのようなゲームを導入するかによってゲーム場の収益率が異なるという課題を有している。このため、ゲーム場では絶えず人気ゲームを検討し、収益率の低いゲームはROMなどのハードウェアを早急に交換しなければならないが、何れにしても1筐体には1ゲームしか収容できないという根本課題は解消することはできない。

また、家庭用のテレビゲーム機ではカセット方式によってゲームソフトを販売しているので、カセットを購入することによって複数のゲームを楽しむことができるが、カセットを保有することが必須なので、気に入ったゲームを数回だけ楽しむということは不可能であった。

本発明は、上記従来の課題を解決しようとするもので、多数のテレビゲームソフトを収容したデ

ータベースとデジタル回線で通信することによって、端末側が一台のみで任意の複数のゲームソフトを入手することができるゲーム情報処理装置を提供することを目的とする

〔課題を解決するための手段〕

本発明は、この目的を達成するために、識別コードを付したデジタル情報からなるコンピュータゲーム情報を蓄積したデータベースから、任意のゲーム情報をデジタル回線を介して伝送させる手段と、この伝送されたゲーム情報を記憶するメモリ手段と、上記識別コードを指定することによって特定したゲーム情報を選択し、かつゲーム進行の制御を行う操作手段と、このゲーム情報を画像・音声処理する中央処理手段とからなる構成を採用した。

ここにおいて、メモリ手段としては複数のゲーム情報を記憶するメモリと、これら複数のゲーム情報の目次部分を記憶するメモリとを備え、画像化した目次を選択することによってゲームを開始する手段を用いた。

また、複数のゲーム情報を記憶したメモリとして、新たなゲーム情報がセーブされたときは最少ロード回数のゲーム情報を消去して、絶えず新鮮なゲーム情報を収容する手段をも用いた。

さらに、操作手段としては目次の選択によってゲームを開始する入力部を有すると共に、ゲームを制御する入力部を有する構成とした。

さらにまた、デジタル回線としてはISDNを用い、このISDNのチャンネル数に見合った数のゲーム情報を同時に伝送するという手段をも用いることとしている。

〔作用〕

本発明においては、ゲーム情報はデジタル化したうえで識別コードが付されており、この識別コードを操作手段によって指定することによってゲーム情報の選択が行われる。また、伝送されたゲーム情報はメモリ手段に記憶され、この記憶されたゲーム情報を中央処理装置によってCRT等に画像化し、また音声処理してスピーカから効果音を出力する。

メモリ手段は、複数のゲーム情報を記憶するメモリ、及びこのゲーム情報の一部である目次のみを記憶するメモリで構成されており、ゲーム開始前には記憶された目次情報がCRTに表示される。

複数のゲーム情報の記憶に際しては、新たなゲーム情報が入力された場合には、記憶されているゲーム情報のうち、使用頻度の低いものを消去して新たなゲーム情報を記憶する作用を付与している。

操作手段はCRTに表示された目次から、任意のゲームを選択してゲームを開始する機能と、ゲーム開始後はこのゲームの進行を制御する入力装置の機能とを兼備する。

また、デジタル回線として用いるISDNは、複数の情報を一回線で伝送する機能を有するが、遠く内容のゲーム情報をISDNのチャンネルによって伝送することにより、伝送時間の短縮化を図る。

〔実施例〕

以下、本発明のゲーム情報処理装置の一実施例を図面に従ってさらに詳述すると、図は本発明装

置の概略を示すブロック図で、データ伝送方式としてはデジタル回線であるISDNを用いたものである。図中、1はISDN(日本ではINS)回線網の加入者側とのインターフェイスである回線終端装置、2はISDNの通信を制御するための通信制御部、3は中央処理装置で、ISDNによって伝送されてきたゲーム情報を記憶させたり、画像・音声処理を指示する機能を奏する。この中央処理装置3は1チップのCPUによることも、ゲーム情報の実行用および入力用の2つのCPUによって構成することも自由であるが、ここには実行ソフトウェアのための記憶用主メモリを持っている。次に、4は任意のゲーム情報を取り出すための入力部と、ゲーム開始後のゲーム制御用の入力部とを有する操作手段、5はメモリ手段で、複数のゲーム情報を記憶するためのゲームソフトウェアメモリ6と、記憶されているゲーム情報の目次部分のみを取り出して、これを記憶するための目次メモリ7によって構成されている。8はゲーム画像を処理するための画像処理装置、9はゲーム画像を表示する

御し、ゲームを楽しむのである。この操作手段は、ゲームを選択する機能と、表示装置の画像を制御する機能とを有するが、それぞれ別構成としてもよく、反対に1つの構成で両機能をすることができ、構成にすることも可能である。また、操作手段としては、コンピュータのキーボードを用いることも、いわゆるジョイスティックなどのように複数のオン・オフボタンと方向指定ボタンを有する構成を用いても、同様の機能を奏することができる。

一方、メモリ手段に希望するゲームが記憶されていない場合には、識別コードとゲーム内容とを対応させた一覧表等によって希望するゲームのコードを探し、このコードを操作手段4によって入力する。このようにコード入力されれば、中央処理装置3によって通信制御部2をコントロールし、デジタル回線を介してデータベースと接続し、希望するゲーム情報を本装置にロードさせるのである。ここにおいてゲーム情報の伝送は全てデジタルによっているため、ノイズによる影響を

ためのCRTや液晶パネルなどの表示装置、10は効果音を処理するための音声処理装置、11はアンプ、12は音声出力用のスピーカである。

ここにおいて、ISDNとしては、わが国では現在2本のBチャンネルを有するINS64、及び23本のBチャンネルを有するINS1500を利用する。また、回線終端装置1はISDNのネットワークの一端を形成しており、多数のゲーム情報を蓄積するデータベースと連絡されている。

次に本発明装置の操作に関しては、先ず電源をオンにすれば、メモリ手段5に記憶されているゲーム情報の目次が目次メモリ7より中央処理装置3および画像処理装置を介して表示装置9に目次画面として表示される。ここに希望するゲームが表示されている場合には、操作手段4によってカーソルを動かしたり、数値を入力したりしてそのゲームを指定すると、中央処理装置3によってゲームソフトウェア6から主メモリに情報がロードされ、ゲームが開始される。ゲーム開始後は、操作手段4を操作して、表示手段9の表示画像を制

受けにくく、誤作動しにくい精度の高いゲームを楽しむことができる。この場合、ゲーム情報のロードは、ISDNのチャンネル数に見合ったゲーム情報をデータベースから同時に伝送できるようにしておけば、多くのゲーム情報を短時間で伝送することができ、通話料金を削減することも可能である。

また、ゲームソフトウェアメモリの記憶容量に余裕がなくなった場合には、ゲーム情報をデータベースからロードするに当たって、選択頻度の低いゲーム情報を消去するようにしておけば、絶えず新しいゲーム情報を収容することができ、装置の利用率が向上する。そのために、本装置ではゲーム情報の使用頻度も記憶するようにしておき、頻度の低いゲーム情報のゲームソフトウェアのみならず、目次部分も消去する構成としている。

なお、本発明装置を業務用に利用する場合には、電源スイッチに加えて、コインや貨幣の投入によって装置が作動し、1つのゲームの終了によって入力装置による入力が中断するようにしておけば、

従来のゲーム機と同様に、ゲーム機毎に個別に貸
借などを回収することができるので、収益率の管
理は容易である。

(発明の効果)

本発明は、ゲーム情報の伝送にデジタル回線網
を用いたので、伝送途中のノイズによる情報の歪
みが殆どなく、誤作動の少ない精度の高いゲー
ムが楽しめるのみでなく、伝送に要する時間が短時
間で済むため、回線使用料を低額に押さえること
が可能となった。

また、任意のゲーム情報を選択することができ
るので、1台のゲーム機によって複数のゲームを
楽しむことができ、従ってゲーム場などにおいて
も特定のゲーム機に遊戯者が集中することなく均
一にゲーム機を利用することとなり、ゲーム機毎
の収益率のばらつきを抑制することができる。

さらに、装置内に備えたメモリ手段によって複
数のゲーム情報を記憶することができるので、遊
戯者はゲームを選択すれば伝送の待機時間なく即
座に遊戯を開始することができる。

一方、目次画面を表示することができる構成で
は、遊戯者が自由にゲームを選択することができ、
便利である。

さらにまた、新たなゲーム情報がロードされて
きた場合には、遊戯の頻度の低いゲーム情報を目
次と共に消去するようにしているので、絶えず新
しいゲームソフトウェアを収容することができ、
ゲーム場などでの遊戯者の要望に的確に対応する
ことができるゲーム情報処理装置とすることができ
き、その効果は著大なるものである。

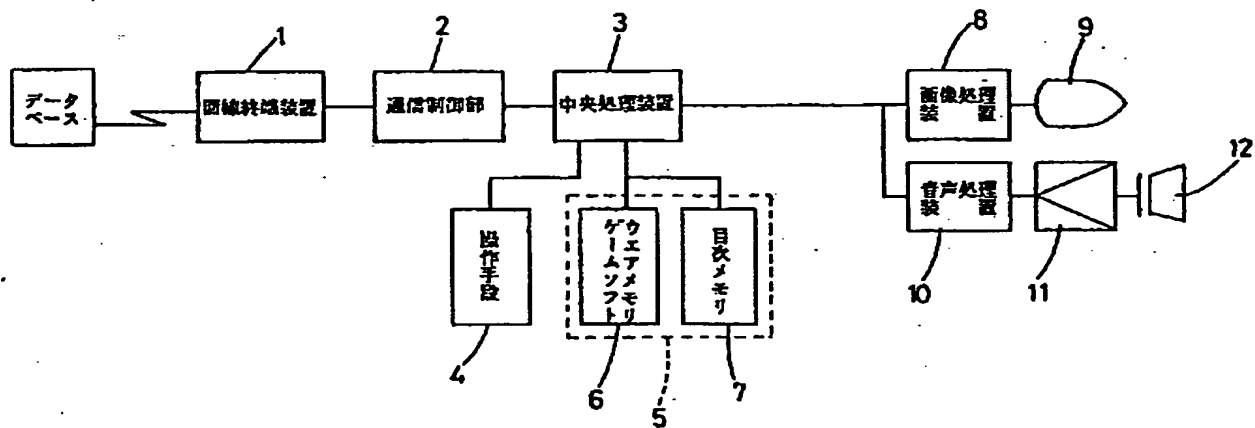
4. 図面の簡単な説明

図は、本発明のゲーム情報処理装置の一実施例
を示すブロック図である。

尚、図中1…回線終端装置、2…通信制御部、
3…中央処理装置、4…操作手段、5…メモリ手
段、6…ゲームソフトウェアメモリ、7…目次メ
モリ。

以 上

特許出願人 津 村 三 百 次
代理人 弁理士 小 原 和 夫 外 1 名



PATENT ABSTRACTS OF JAPAN

(11)Publication number : 01-166218

(43)Date of publication of application : 30.06.1989

(51)Int.Cl.

G06F 9/06

G06F 12/14

(21)Application number : 62-323933

(71)Applicant : HITACHI LTD

(22)Date of filing : 23.12.1987

(72)Inventor : SUZUKI KATSUKI

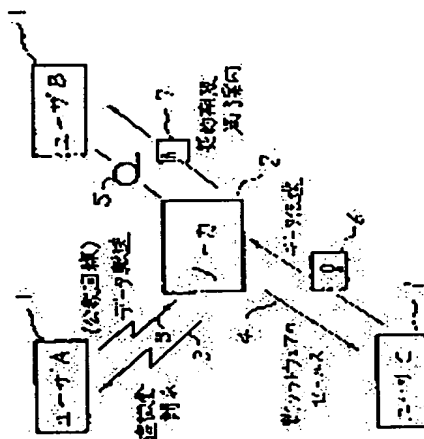
MATSUURA YASUHIKO

(54) MAINTENANCE CONTROL SYSTEM FOR ONEROUS SOFTWARE

(57)Abstract:

PURPOSE: To prevent the damage due to a breach of contrast and also to improve the maintenance of the onerous software by outputting a warning message before expiration of a term and also a stop message for a fixed period of time even after the expiration of the term and transmitting these messages to both a user and a maker.

CONSTITUTION: An onerous software offerer (maker) 2 totalize automatically and periodically the contents of a maintenance control file of an onerous software receiver (user) 1 via a public circuit 3, a floppy disk 3, an MT 5, etc. Based on this totalized information, the forfeit is requested by the circuit 3 after the expiration of a term and at the same time the maintenance control is carried out by the man power 4 for sales of new software, the guidance of expiration of a term, etc. While a message, the date of application, the frequency of application, the application period of time of a computer, etc. In such constitution, the damage due to the foul application and the automatic maintenance are ensured for the onerous software.



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[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

⑩ 公開特許公報(A)

平1-166218

⑨ Int. Cl.⁴

G 06 F 9/06
12/14

識別記号

3 3 0
3 2 0

庁内整理番号

B-7361-5B
F-7737-5B

⑨ 公開 平成1年(1989)6月30日

審査請求 未請求 発明の数 1 (全3頁)

⑨ 発明の名称 有償ソフトウェア保守管理方式

⑨ 特 願 昭62-323933

⑨ 出 願 昭62(1987)12月23日

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明 細 書

1. 発明の名称

有償ソフトウェア保守管理方式

2. 特許請求の範囲

1. 出荷する有償ソフトウェアの契約期限を暗号化してディレクトリに格込む手段と、この有償ソフトウェアを扱うオペレーションシステムにおいて、有償ソフトウェアの処理要求が発生した場合、計算機使用日付を計算機より読み取り日付をディレクトリから読んで両者を比較変数に変換後比較を行い比較結果の差によって警告、停止指示、停止メッセージを処理要求者に出力する手段と、前記メッセージと計算機使用日付を有償ソフトウェア保守管理ファイルに格込み蓄積する手段と、前記蓄積された情報を定期的に有償ソフトウェア提供者に伝達する手段と、提供者が前記伝達された情報を基に契約期限満了後の有償ソフトウェア使用に対する退会金請求、契約期限満了案内、新有償ソフトウェアのセールス等の情報を伝達する手段とからなるこ

とを特徴とする有償ソフトウェア保守管理方式。

3. 発明の詳細な説明

(産業上の利用分野)

本発明は、使用期限、性能期限を有する有償ソフトウェアの保守管理方式に関し、特に契約期限満了のソフトウェアについて以後の使用状況を把握し、契約違反の防止、新システムのセールスを行うための手段をそなえた保守管理方式に関する。

(従来技術)

従来技術は、特開昭58-87651号公報に記載のように、契約期限と使用日の日付けを比較して期限満了前であることを確認した場合にのみ有償ソフトウェアを使用する処理を許可する制御手段となっていた。

(発明が解決しようとする問題点)

上記従来技術は有償ソフトウェアの期限満了後の不当使用防止に関し、ユーザ側へ警告及び有給を与えるという点で配慮がされておらず、突然使用不可能になるという問題があった。また、メーカー側が有償ソフトウェアの契約期限満了情報、満

了後の使用情報などを自動で把握するという点についての配慮がされておらず、有償ソフトウェアの保守性が悪いという問題があった。

本発明の目的は、有償ソフトウェアの契約期限満了後の不当使用防止を数段階に分けて行い、また契約期限満了情報についても、自動でメーカーに伝達することによって、有償ソフトウェアの使い勝手を向上させ、契約違反防止による損害防止、保守性の向上を容易に実現することにある。

〔問題点を解決するための手段〕

上記目的は、契約期限と計算機使用日付の比較を比較変数の差の範囲で行うことにより、メッセージを警告、停止猶予、停止と分割して出力し、ユーザーに警告、猶予を与えることと、比較結果の情報を有償ソフトウェア保守管理ファイルに蓄積して定期的にメーカー側へ伝達することにより、達成される。

〔作用〕

契約期間満了となる有償ソフトウェアは、期限満了前に警告メッセージを出力し、期限満了後も

ることとはできない。また、有償ソフトウェアがどのようにコピーされても、ディレクトリも一体となってコピーされるため、コピー先でも不法な使用は行えない。さらに契約期限は数バイトの暗号情報で、ディレクトリの一部に記込むため、有償ソフトウェアの容量はほとんど変わらない。次にユーザーより有償ソフトウェア処理要求が発生(201)した場合、オペレーションシステムにおいて、契約期限を有償ソフトウェアのディレクトリ部より記込む(201)。記込んだ契約期限暗号化情報を期限比較変数Aに変換する(202)。次に、計算機より計算機使用日付を記込んで(203)、比較変数Bに変換する(204)。

次にAとBを比較し契約期間内であれば(205)処理を許可する(212)。警告期間内については(206)警告メッセージを(209)停止有余期間内については(207)停止猶予メッセージを出力(210)して、有償ソフトウェア保守管理ファイルに前記メッセージと使用日付を蓄込み(211)処理を許可する。(212)停止猶予期限を過ぎているも

一定期間後は停止メッセージを出力し動作する。それによってユーザー側に猶予が与えられるので、作業が突然停止したりすることがない。

また、前記情報はメーカー側にも伝達される。

それによって契約期限満了後使用された期間も把握でき、これに対し追徴も行えるため損害は受けない。また、事前に契約期限満了ソフトウェアも把握でき、セールス等の保守を容易に行うことができる。

〔実施例〕

以下、本発明の一実施例を図1図～図3図により説明する。

有償ソフトウェア出荷要求が発生(100)した場合、ディレクトリライターに契約期限を記込させる。(101)記込んだ契約期限を暗号変換して(102)出荷有償ソフトウェアのディレクトリに蓄込む。(103)ディレクトリに蓄込む情報は契約期限の他に、停止有余期間等の付加情報も蓄込むことが可能である。契約期限は暗号化されているためユーザーはこれに対して何らかの操作を加え

るKについては処理を却下する(213)。

次に、図3に示すように、メーカー側はユーザー側にある有償ソフトウェア保守管理ファイルの内容を定期的に公衆回線、フロッピーディスク、MT等により回収を行い自動集計する。この集計した情報に基づいて契約期限満了後の使用に対する追徴金の請求、新ソフトウェアのセールス、契約期限満了案内等の保守管理を行う。有償ソフトウェア保守管理ファイルは検閲保護することによって、ユーザーが不法に更新できないようにする。これによってメーカーは損害を受けることはない。

さらに有償ソフトウェア保守管理ファイルへ蓄込む情報としてメッセージ、使用日付の他にも、使用回数、計算機使用時間、性能評価情報等を蓄積して、この情報を解析することにより、評価等に役立てることも可能である。

本発明によれば、ユーザー側では契約期限満了を事前に知ることができ、メーカー側も契約期限満了情報を把握できるため、不法使用による損害を受けることもなく、保守を自動で行える効果がある。

(発明の効果)

本発明によればユーザ側は契約期限満了を事前に知ることが可能となり、契約期限満了後も一定期間使用可能となる。メーカー側は有償ソフトウェアの自動的な契約管理が可能となり、保守面においても自動的に行える効果がある。

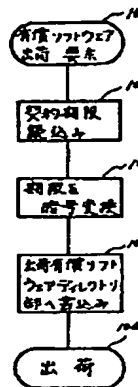
4. 図面の簡単な説明

第1図は本発明の一実施例の有償ソフトウェアのディレクトリに契約期限を格込む手順を示すフローチャート、第2図はオペレーションシステムにおける有償ソフトウェアの処理認可手順を示すフローチャート、第3図は有償ソフトウェア提供者側の保守管理手順を示す説明図である。

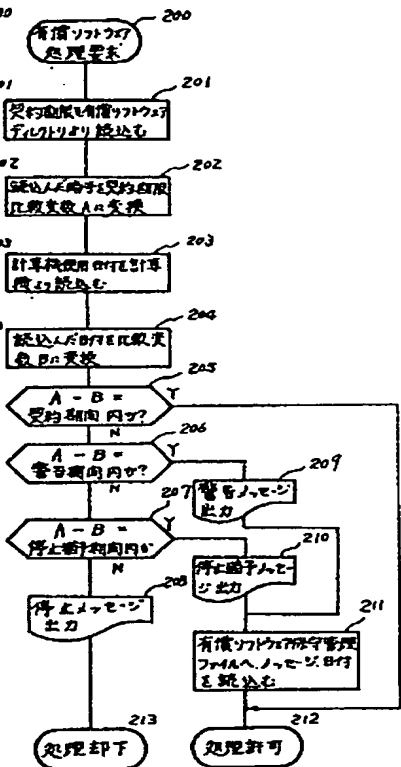
- 1…有償ソフトウェア提供先(ユーザ)。
- 2…有償ソフトウェア提供者(メーカー)。
- 3…公衆回線。
- 4…入手。
- 5…MT。
- 6…フロッピーディスク。
- 7…郵便物。

代理人弁護士 小川 勝 男

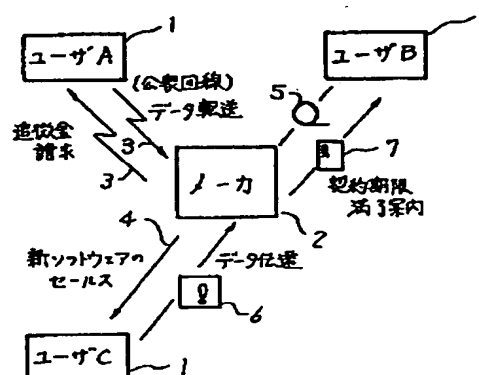
第1図



第2図



第3図



(translation)

Japanese Patent Publication No. 62-286489, published December 12, 1987

Applicant: OMRON TATEISI ELECTRONICS CO

Inventor: Hirofumi MIYATA

Title: TV GAME SYSTEM

What is claimed is:

1. A TV game system comprising a center and TV game controllers connected to the center online, wherein

the center includes a first storage means in which soft data of a plurality of TV game types are stored, and

each of the TV game controllers includes a display device for displaying game screen images, an input device for selecting a desired TV game type, a means of requesting transfer of the soft data corresponding to the selected TV game type from the center, a second storage means for storing the soft data transferred from the center according to the above transfer request, and a means of executing the TV game by means of the display device based on the soft data stored in the second storage means.

⑨ 日本国特許庁(JP)

⑩ 特許出願公開

⑫ 公開特許公報(A)

昭62-286489

⑪ Int.Cl.⁺

A 63 F 9/22
G 06 F 9/06
13/00

識別記号

3 1 0
3 5 1

庁内整理番号

H-8102-2C
G-7361-5B
F-7218-5B

⑬ 公開 昭和62年(1987)12月12日

審査請求 未請求 発明の数 1 (全6頁)

⑭ 発明の名称 TVゲーム・システム

⑮ 特 願 昭61-130038

⑯ 出 願 昭61(1986)6月6日

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明 細 書

1. 発明の名称

TVゲーム・システム

2. 特許請求の範囲

センタとセンタにオンラインで結ばれるTVゲーム機とから構成され、

センタが、複数種類のTVゲームのソフト・データが記憶されている第1の記憶手段を備えており、

各TVゲーム機が、ゲーム画面を表示するための表示装置、所望のTVゲームの種類を選択するための入力装置、選択されたTVゲームの種類に対応するソフト・データの転送をセンタに要求する手段、上記転送要求にもとづいてセンタから転送されてくるソフト・データを記憶するための第2の記憶手段、および第2の記憶手段に記憶されているソフト・データにもとづき表示装置を用いてTVゲームを実行する手段を備えている、

TVゲーム・システム。

3. 発明の詳細な説明

発明の要約

複数種類のTVゲームのソフト・データが記憶されている記憶手段を備えたセンタに、TVゲーム機がオンラインで結ばれている。TVゲーム機に設けられた入力装置を用いて、所望のTVゲームの種類が選択されると、選択されたTVゲームの種類に対応するソフト・データの転送要求がTVゲーム機からセンタに伝送される。この転送要求にもとづいてセンタからTVゲーム機にソフト・データが転送されてくると、転送されてきたソフト・データにもとづいてTVゲームが実行される。

発明の背景

この発明は、TVゲーム・システムに関する。TVゲーム機として、ゲームセンタ等に設置される業務用のものと、家庭で使用される家庭用のものとが従来から知られている。

業務用TVゲーム機は、専用機であって1台で1種類のゲームしか実行できないので、複数種類

のゲームを提供するためには複数台のTVゲーム機が必要となり、TVゲームの流行が激しいこの業界にあってはTVゲーム機の稼働効率が低いという問題がある。

一方、家庭用TVゲーム機においては、TVゲームのソフト・データ(TVゲームのプログラムを指す)が記憶されたカセット・テープ、フロッピー・ディスク等の記憶媒体を交換することによって、1台で複数種類のTVゲームを実行できるが、TVゲーム機の記憶装置にゲーム・ソフトをその都度上記記憶媒体から転送して蓄積させなければならないという問題がある。

発明の概要

この発明は、1台のTVゲーム機で複数種類のTVゲームを比較的容易に実行できるTVゲーム・システムを提供することを目的とする。

この発明によるTVゲーム・システムは、センタとセンタにオンラインで結ばれたTVゲーム機とから構成され、センタは複数種類のTVゲームのソフト・データが記憶されている第1の記憶手

に、異なる種類のTVゲームを行ないたい場合にも、比較的すみやかに所望のTVゲームを実行することができるようになる。

実施例の説明

TVゲーム・システムは、複数種類のゲーム・ソフト・データを保有しているセンタ1(第2図参照)と、センタ1にオンライン(たとえば電話回線、通信回線)で結ばれかつTVゲームを実行するTVゲーム機2(第2図参照)とから構成されている。

第1図は、TVゲーム機2の外観を示している。TVゲーム機2の上面には、ゲーム実行画面、TVゲーム機2が実行しうるゲームの種類を示すゲーム・メニュー画面、各ゲームの内容の一部をデモンストレーションするアイドル画面等を表示するためのCRT11が設けられている。TVゲーム機2の上面両側部には、各ゲームのルール説明書12が取り付けられている。

TVゲーム機2の前面には、100円硬貨投入口13、100円硬貨返却口14、TVゲーム用価値

段を備えており、ゲーム機は、ゲーム画面を表示するための表示装置、所望のTVゲームの種類を選択するための入力装置、選択されたTVゲームの種類に対応するソフト・データの転送をセンタに要求する手段、上記転送要求にもとづいてセンタから転送されてくるソフト・データを記憶するための第2の記憶手段、および第2の記憶手段に記憶されているソフト・データにもとづき表示装置を用いてTVゲームを実行する手段を備えていることを特徴とする。

遊戯者がTVゲーム機の入力装置を用いて、所望のTVゲームの種類を選択すると、入力されたTVゲームのソフト・データの転送要求がTVゲーム機からセンタに伝送される。この転送要求にもとづいて該当するソフト・データがセンタからTVゲーム機に転送され、その記憶手段に記憶される。そして、記憶されたソフト・データにもとづいて、TVゲームが実行される。

この発明によれば、1台のTVゲーム機で複数種類のTVゲームを楽しむことができることも

カードCの挿入返却口15、硬貨およびカード返却ボタン(図示略)、ゲーム時に操作される複数のキーやレバーを備えたゲーム用操作部16、ならびに所望のTVゲームを選択するためにその種類を番号でゲーム番号を入力するためのゲーム種類選択キーおよびメニュー画面表示要求キーを備えたゲーム種類選択用操作部17が設けられている。TVゲーム機2の下面一側部には、通信制御装置接続用コネクタ18が設けられている。

TVゲーム用価値カードCは、あらかじめ定められた回数分または金額分のゲームを行なえるカードであって、有効な残りゲーム回数等を記憶する読出しおよび書き込み可能な記憶部を有している。

第2図は、TVゲーム・システムの電気的構成の概要を示している。

TVゲーム機2は、CPU20によって制御される。CPU20は、そのプログラムおよび各種データを記憶するメモリ21を備えている。

CPU20には、上記CRT11、ゲーム用操作部

18およびゲーム種類選択用操作部17の他、ゲーム音を出力する音声出力部22および価値カードCのデータの読出しおよび書き込みを行うカード・リーダー/ライト23、およびセンタ1と交信を行うための通信制御装置24が接続されている。

センタ1も、CPU30を備えている。CPU30には、そのプログラム、複数種類のゲーム・ソフト・データおよび各ゲームごとのアイドル画面データ、メニュー画面データがあらかじめ記憶されているとともに、その他の各種データを記憶するメモリ31、ならびにTVゲーム機2と交信するための通信制御装置32が接続されている。

第3図は、TVゲーム機2のメモリ21の内容を示している。メモリ21には、そのプログラムを記憶するためのエリアE1、センタ1から送られてきたメニュー画面データを記憶するためのエリアE2、センタ1から送られてきたアイドル画面データを記憶するためのエリアE3、センタ1から送られてきたゲーム・ソフト・データを記憶するためのエリアE4等が設けられている。エリア

を含む電文をTVゲーム機2に送る。TVゲーム機2は、この電文を受信すると（ステップ42）、受信電文中のメニュー画面データをメモリ21のエリアE2に記憶する（ステップ43）。

メニュー画面データがメモリ21に記憶されると、センタ1に、その旨を表わす電文（番線OK電文）を送る。センタ1は、この電文を受信すると、メニュー画面に含まれる各ゲームについてのアイドル画面データを含む電文をTVゲーム機2に送る。TVゲーム機2はこの電文を受信すると（ステップ44）、受信電文中のアイドル画面データをメモリ21のエリアE3の記憶場所E31～E3nに、E31から順に記憶していく（ステップ45）。センタ1から送られてきたアイドル画面データの種類がnよりも多い場合には、利用頻度の高いものを、利用頻度の少ないものに優先させて記憶するとよい。アイドル画面データがメモリ21に記憶されると、TVゲーム機2は、その旨を表わす電文（番線OK電文）をセンタ1に送る。

次に、メモリ21のエリアE2に記憶されている

E3には、n種類のアイドル画面データを記憶するための記憶場所E31～E3nが設けられている。

第4図は、CRT11に表示されるメニュー画面の一例を示している。メニュー画面には、TVゲーム機2が実行しうる複数のTVゲームの名称、各TVゲームに対応してつけられたゲーム番号、および各TVゲームについての過去の最高得点が表示される。TVゲーム名ならびにそれに対応するゲーム番号および最高得点は一行ずつ順次フラッシングしていく。アイドル画面の一例が第5図に示されており、それに対応するゲーム番号が画面の左上に表示される。

第6図は、TVゲーム機2のCPU20によるゲーム処理手順を示し、第7図はTVゲーム機2とセンタ1との間の電文の交信の様子を示している。

TVゲーム機2は、初期画像データ（メニュー画面データおよびアイドル画面データ）の転送要求電文をセンタ1に送る（ステップ41）。センタ1は、この電文を受信すると、メニュー画面デー

メニュー画面データにもとづいて、CRT11にメニュー画面を一定時間表示する（ステップ46）。こののち、メモリ21のエリアE3に記憶されているアイドル画面データにもとづいて、CRT11に各アイドル画面を順次表示していく（ステップ47）。

そして、メニュー画面表示要求キーによって、メニュー画面の表示が要求されたかどうかを判別し（ステップ48）、メニュー画面の表示要求がなければ、ゲーム種類選択キーによって、ゲーム番号が入力されたかどうか判断される（ステップ49）。ゲーム番号が入力されていない場合には、ステップ48に戻る。したがって、メニュー画面表示キーによってメニュー画面の表示要求が行なわれるかまたはゲーム種類選択キーによってゲーム番号が入力されるまでは、CRT11にメニュー画面およびアイドル画面が繰り返し表示される。

遊戯者は、ゲームを行う場合には、100円硬貨を硬貨投入口13に投入するかまたは価値カードCをカード挿入返却口15に挿入する。そして、通常

は、メニュー画面表示要求キーを押す。遊戯者が自分が行ないたいゲームのゲーム番号を知っている場合には、遊戯者はメニュー画面表示要求キーを押さずに、ゲーム種類選択キーによってゲーム番号を入力することもある。

遊戯者によって、メニュー画面表示要求キーが押されると、ステップ48でYESとなり、ステップ50に進んでCRT11にメニュー画面を表示する。遊戯者は、メニュー画面を見て、自分が行ないたいゲームがあれば、そのゲーム番号をゲーム種類選択キーによって入力し、自分が行ないたいゲームがなければ、硬貨およびカード返却ボタンを押して、すでに投入または挿入されている硬貨または価値カードCの返却を求める。

上記ステップ50でメニュー画面を表示してから、一定時間内に、ゲーム番号が入力されないときには（ステップ51でNO）、メニュー画面で示されたゲームの中に遊戯者の行ないたいゲームがなかったと判断し、ステップ46に戻る。

上記ステップ50でメニュー画面が表示されてか

力した場合には、ステップ49でYESとなり、上記ステップ51でゲーム番号が入力された場合と同様に、ステップ52～58の処理が行なわれる。

この発明は、業務用のみならず家庭用のTVゲーム機に対しても適用可能である。

4. 図面の簡単な説明

第1図はTVゲーム機の外観を示す斜視図、第2図はTVゲーム・システムの電気的構成の概要を示すブロック図、第3図はTVゲーム機のメモリの内容を示す図、第4図はメニュー画面の一例を示す図、第5図はアイドル画面の一例を示す図、第6図はTVゲーム機のCPUによるゲーム処理手順を示すフロー・チャート、第7図はTVゲーム機とセンタとの間の電文の送信の様子を示す図である。

- 1…センタ、 2…TVゲーム機、
11…CRT、 17…ゲーム種類選択用操作部、
20…CPU、 21…メモリ、
24…通信制御装置、 30…CPU、

ら、一定時間内に、ゲーム番号が入力された場合には（ステップ51でYES）、まず、ゲーム・ソフト・データ転送要求電文をセンタ1に送信し、これに対してセンタ1からのデータ転送OK電文を受信したのちに、上記の入力されたゲーム番号を表わすデータを含む電文をセンタ1に送る（ステップ52）。

センタ1は、この電文を受信すると、受信した電文中のゲーム番号に対応したゲーム・ソフト・データを含む電文をTVゲーム機2に送る。TVゲーム機2は、この電文を受信すると（ステップ53）、受信した電文中のゲーム・ソフト・データをメモリ21のエリアE4に記憶する（ステップ54）。

そして、メモリ21に記憶したゲーム・ソフト・データにもとづいて、ゲームが実行される（ステップ55）。ゲームが終了すると（ステップ56でYES）、ステップ48に戻る。

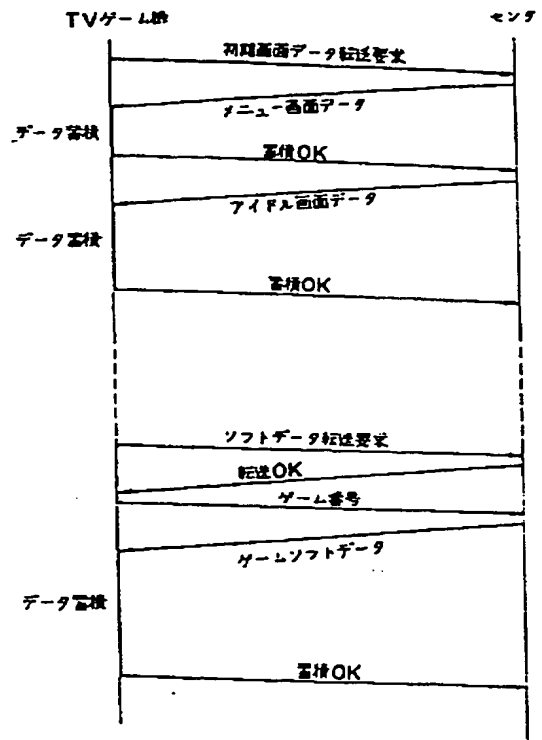
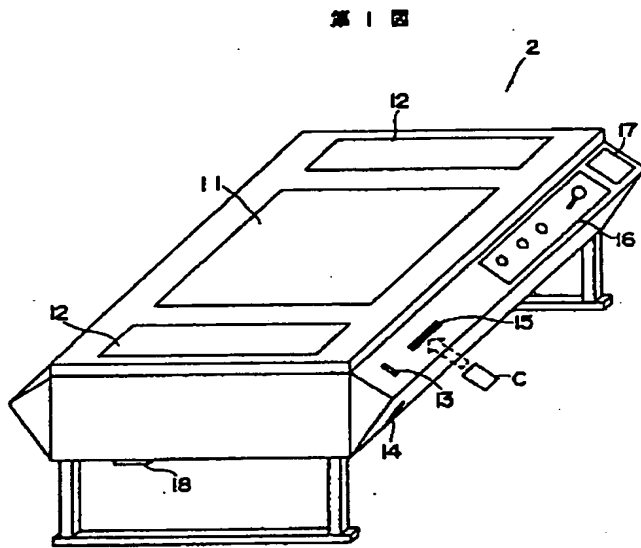
遊戯者がメニュー画面表示要求キーを押さずに、ゲーム種類選択キーによってゲーム番号を入

31…メモリ、 32…通信制御装置。

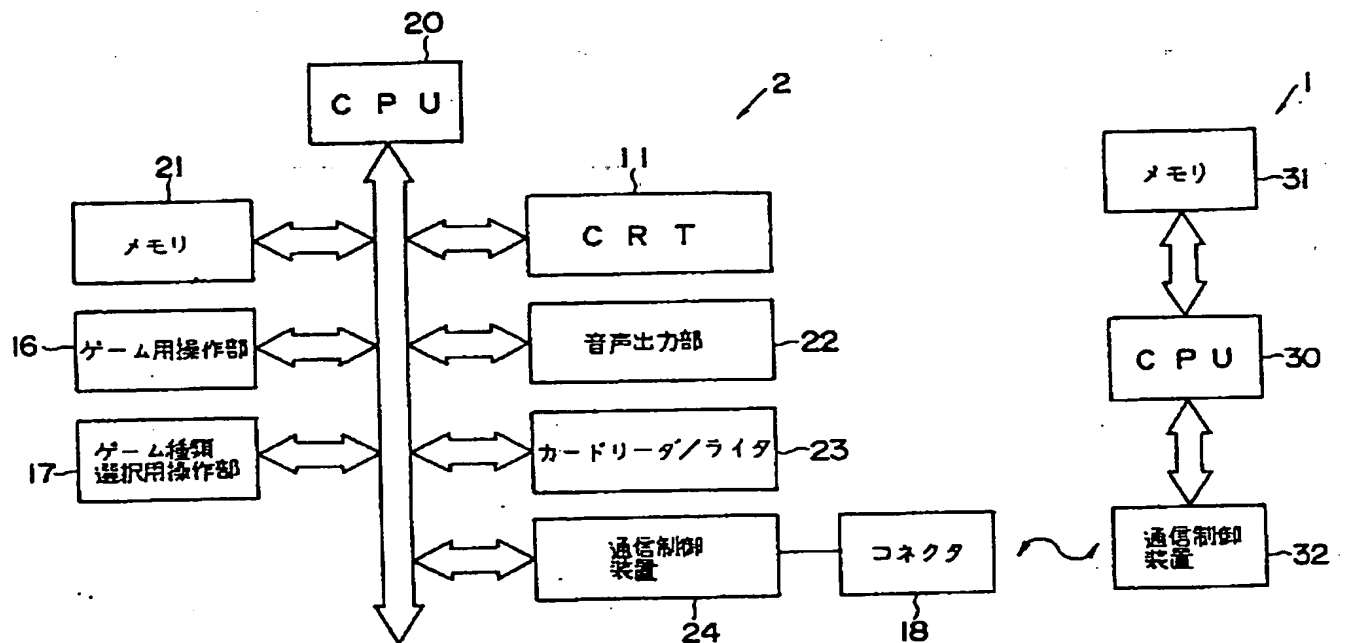
以上

特許出願人 立石電機株式会社
代理人 弁理士 牛久 健司（外1名）

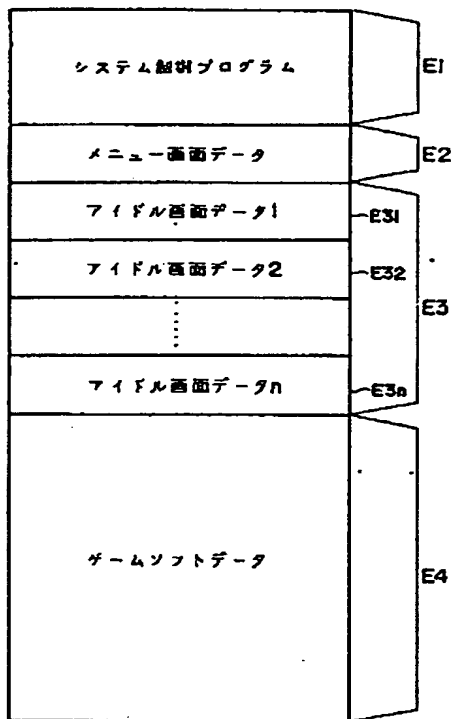
第 7 図



第 2 図



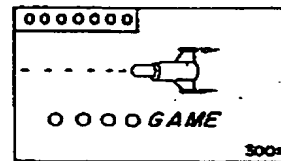
第3図



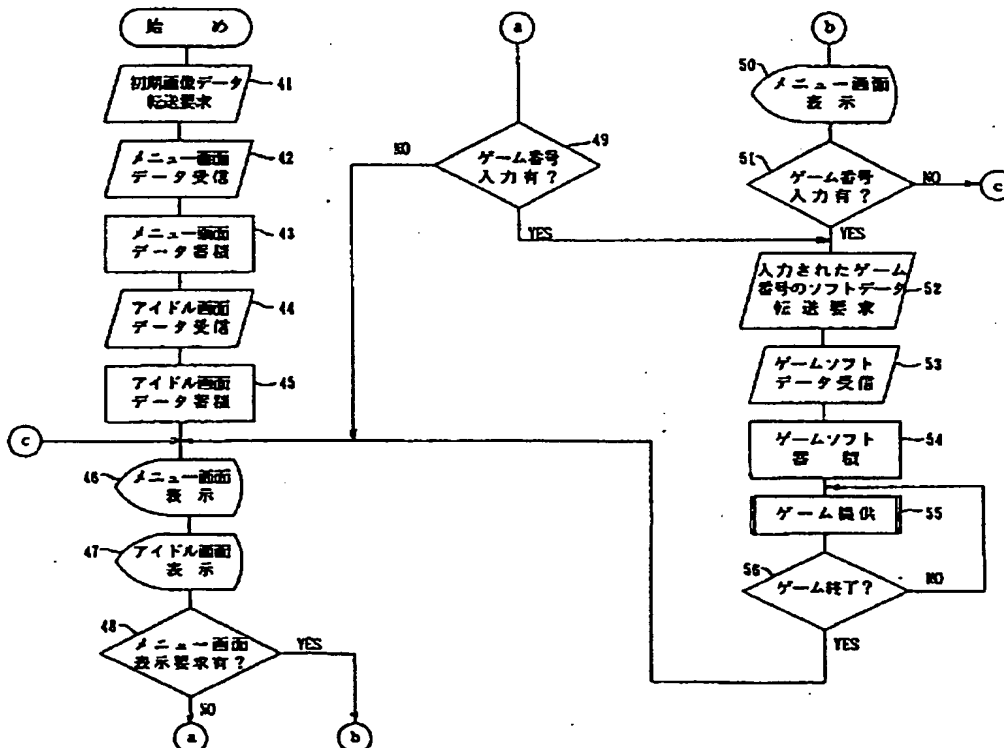
第4図

ゲーム名	ゲーム番号	最高得点
ドンキーコング	000000	0000
インベーダー	000000	0000
パックマン	000000	0000
...

第5図



第6図



PATENT ABSTRACTS OF JAPAN

(11)Publication number : 58-151762

(43)Date of publication of application : 09.09.1983

H04M 11/06
G06F 3/04
// H04M 15/00

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KANO HARUKIYO

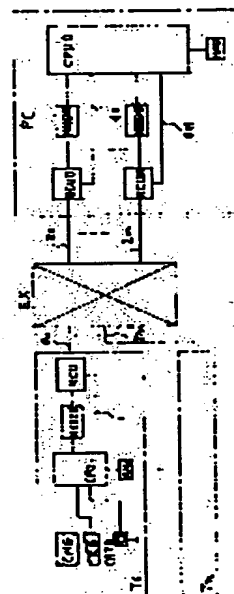
(54) PROGRAM SERVING SYSTEM

(57)Abstract:

PURPOSE: To obtain a corresponding program from a center automatically in response to the request of a user, by providing the center storing the program required by an intelligence terminal and connecting the terminal and the center via an exchange.

CONSTITUTION: Intelligence terminals T0 Tn are initialized with a program in a respective memory MM1, and when the user deposits a coin, a network control unit is started with the status output of a charge box CHG. In dialing a telephone number of a program center, connection is done through an exchange EX. When the center PC responds, it is displayed on a display CRTD, and when the user inputs the code of the program to be executed next at a keyboard KB, it is transmitted to a center controller CPU0 of the center PC, the corresponding program and imposition information read out a memory MM0 and are transmitted to the terminal.

When this information is stored in the memory MM1 at the terminal, the connection with the center PC is released and the processing for the program execution and imposition is done.



LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

⑨ 日本国特許庁 (JP)

⑩ 特許出願公開

⑪ 公開特許公報 (A)

昭58—151762

⑫ Int. Cl.³
H 04 M 11/06
G 06 F 3/04
// H 04 M 15/00

識別記号

庁内整理番号
6372—5K
7230—5B
7830—5K

⑬ 公開 昭和58年(1983)9月9日

発明の数 1
審査請求 未請求

(全 5 頁)

⑭ プログラム提供システム

⑮ 特 願 昭57—33811

⑯ 出 願 昭57(1982)3月5日

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⑳ 代 理 人 弁理士 薄田利幸

明 細 書

1 発明の名称 プログラム提供システム

2 特許請求の範囲

- 情報の記憶、処理機能及び回線の制御機能を有する端末と、各種プログラムを格納し、任意のプログラムを取り出し、回線に転送する制御機能を有するプログラムセンタと、該プログラムセンタと前記端末とを回線を介して交換接続する交換機とを備え、前記端末の利用者の操作によって、該端末と前記プログラムセンタとの回線を前記交換機を介して設定し、前記端末利用者が所望のプログラムの入手要求を行うと、前記センタでは要求のあったプログラムを取り出して前記回線を介して前記端末に転送し、しかる後、該端末では転送されてきたプログラムを記憶し、該プログラムに従って前記端末利用者にサービスを提供することを特徴とするプログラム提供システム。

2 前記端末に料金収納機能を付加すると共に

前記プログラムセンタに転送プログラムに対応した料金情報を転送する機能を設け、該端末では該料金情報によって、提供するプログラムに応じた料金を収納させることを特徴とする特許請求の範囲第1項記載のプログラム提供システム。

3 発明の詳細な説明

本発明は、インタリジェンス端末が実行する各種プログラムを利用者の要求に応じて提供するためのシステム構成に関する。

従来、第1図に示すように1つの中央処理装置CPUと複数のインタリジェンス端末E0～En相互を交換機EXを介して接続し、所定のプログラムを実行するシステムは、銀行オンラインシステムなどで知られている。このようなシステムは、固定的なサービスである銀行業務サービスだけを目的としており、主たる処理は全て中央処理装置CPUで行う。端末(E0～En)は中央処理装置CPUと銀行業務用データの送受及び表示を行い、特定の制御動作を行うのみである。

従って、銀行業務とは無関係な異種サービス例えば、ゲーム等のサービスを利用者の要求に応じて自由に提供するには不都合である。

またインタリジェンス端末毎に各種プログラムを格納しておき、端末利用者の要求に応じて必要なプログラムを取り出しサービスを提供することも考えられるが、この場合、各端末のプログラムファイルが膨大となり、不経済であるばかりでなく、融通性に欠ける。

本発明の目的は、前記した欠点をなくし、各種サービスに対応するプログラムを随時端末に提供すると共にプログラムのステップ数等按比例した料金を端末側で徴収させ得るプログラム提供システムを実現することにある。

前記目的を達成するため、本発明は、インタリジェンス端末が必要とするプログラムの提供を役目とする各種プログラムを格納するプログラムセンタを設け、少なくとも1つ以上の該インタリジェンス端末と、プログラムセンタとを交換機を介して接続可能とし、該インタリジェ

ンス端末に使用者の要求によって自動的にプログラムセンタから該当するプログラムを提供させる構成としたものである。

また提供すべきプログラムの中に課金情報を入れ、該インタリジェンス端末にプログラムの中から課金情報を読み出して、料金を徴収する装置を設けるものである。

以下、本発明の実施例を図により説明する。

第2図は、本発明によるプログラム提供システムの一実施例を示す中継方式図、第3図は、本システム動作の基本的な制御手順を示すフローチャートである。

第2図において、 $T_0 \sim T_n$ は情報の収集、加工、計算、記憶、記録、表示等の機能を有するインタリジェンス端末、 PC はゲームや家計簿処理等のプログラムをインタリジェンス端末 $T_0 \sim T_n$ に提供するプログラムセンタであり、両者は網制御ユニット NCU 、 $NCU_0 \sim NCU_m$ 及び中継線 $20 \sim 2m$ 、 $30 \sim 3n$ を介して交換機 EX に接続されている。また、 $CPU_0, 1$ 及び $MM_0, 1$ はそれ

ぞれプログラムセンタ PC とインタリジェンス端末 $T_0 \sim T_n$ の中央処理装置及びメモリである。さらに $MODEM$ 、 $MODEM_0 \sim m$ は交換機 EX を介してインタリジェンス端末 $T_0 \sim T_n$ とプログラムセンタ PC 間で情報を送受するための変換調整装置、 $1, 40 \sim 4m$ はそれぞれ網制御ユニット NCU 、 $NCU_0 \sim m$ の制御リード、 CHG は料金収納装置、 KB はキーボード、 $CRTD$ は網制御ユニット NCU 、 $NCU_0 \sim m$ の応答などを表示するディスプレイである。

次に第2図の動作を、第3図のフローチャートに従って説明する。

まず、インタリジェンス端末 $T_0 \sim T_n$ に電源が投入されると、公知の方法によりインタリジェンス端末 $T_0 \sim T_n$ は、夫々のメモリ MM_1 に格納された所定のプログラムによりイニシャライズされる(ステップ100)。イニシャライズが完了すると、中央制御装置 CPU_1 はメモリ MM_1 に格納されたプログラムに従ってインタリジェンス端末 $T_0 \sim T_n$ の料金収納装置 CHG に貨幣が入っ

たかどうかを調べ、ゆき、利用者が使用を開始したかどうかの監視を始める(ステップ101)。

次に、インタリジェンス端末 T_0 が使用された場合について説明する。インタリジェンス端末 T_0 の利用者が貨幣を投入すると、インタリジェンス端末 T_0 の中央制御装置 CPU_1 ではまず貨幣投入を識別し(ステップ101)、しかる後制御リード4を介して網制御ユニット NCU を起動し(ステップ102)、接続先であるプログラムセンタ PC の番号を自動的にダイヤルして交換機 EX に送出する(ステップ103)。交換機 EX ではこのダイヤルにより網制御ユニット $NCU_0 \sim NCU_m$ の1つ(例えば NCU_0)を中継線 $20 \sim 2m$ を介して選択捕捉し、網制御ユニット NCU と NCU_0 間を中継線 $30, 20$ を介して接続する。一方、この間端末 T_0 ではプログラムセンタ PC の $NCU_0 \sim m$ からの応答を監視する(ステップ104)。

網制御ユニット NCU_0 が応答すると、端末 T_0 ではこの応答を NCU を介して CPU_1 で識別し、ディスプレイ $CRTD$ を制御して該応答を表示さ

せる(ステップ105)。

その後端末T0の利用者がディスプレイCRTDの応答表示を見て、実行すべきプログラムの種別に対応するコードをキーボードKBよりタイプインすると(ステップ106)、中央処理装置CPU1では、このコードを交換機装置MODEM-制御ユニットNCU-中継線30-交換機EX-中継線20-制御ユニットNCU0-交換機装置MODEM0を介して中央制御装置CPU0に送出する。プログラムセンタPCの中央制御装置CPU0では、受信したコードに基づいてメモリMM0をアクセスし、各種プログラムの中から、そのコードに対応するプログラム(P0)を読み出すと共にそれに付随した課金情報(K0)を読み出し、MODEM0-NCU0-20-EX-30-NCU-MODEMを介して、端末T0の中央制御装置CPU1に順次送出する。端末T0のCPU1では、プログラムセンタPCから該当するプログラム(P0)を入手すると(ステップ107)、そのプログラム(P0)をメモリMM1の作業エリアに記憶する

判断を行い(ステップ113)、入手要求がなければ引き続きプログラム実行処理(ステップ112)を継続する。一方、別のプログラム(P1)の入手要求があると、端末T0の中央制御装置CPU1は再び制御リード1を介して制御ユニットNCUを起動し(ステップ102)、プログラムセンタPCの番号を自動的にダイヤルしてセンタPCを呼出す(ステップ103)。以後、前述のステップ104~111を実行し、新たに入手したプログラム(P1)及びそれに付随した課金情報(K1)に基づいて別の種類のサービスを利用者に提供する(ステップ112)。

このように、端末利用者の要求に応じてセンタに記憶された多種類のプログラムの中から、必要なプログラムを随時端末に転送し、そのプログラムに対応したサービスを提供することができると共に、サービスの指定や変更も端末を定めることなく容易にできる。

なお以上の説明では、端末T0~Tnと交換機を介して接続されるプログラムセンタPCは固定

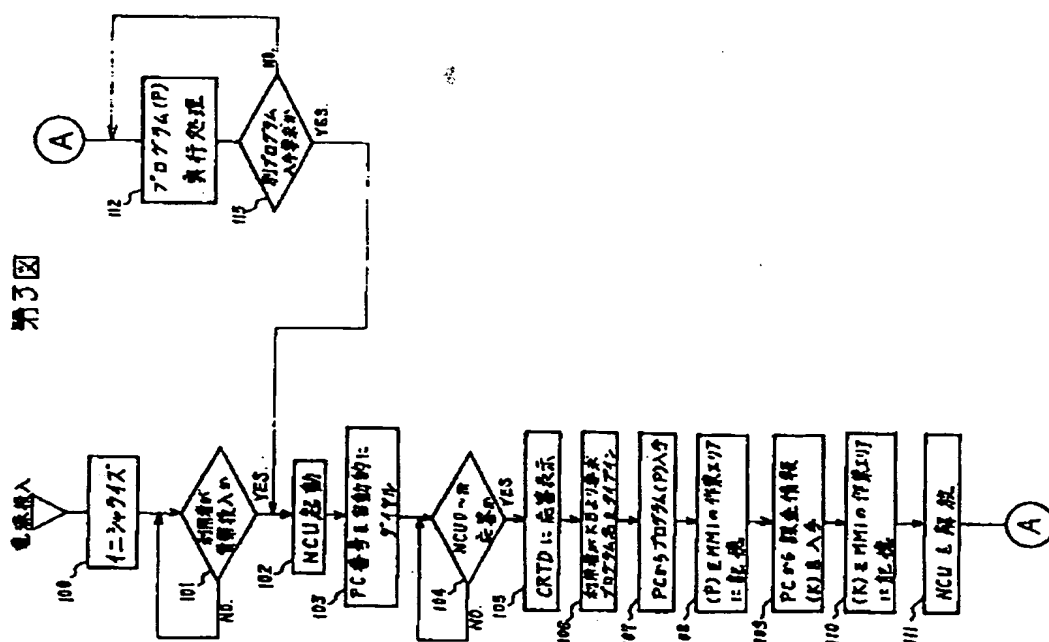
(ステップ108)。また、そのプログラムに付随した課金情報(K0)をプログラムセンタPCから入手すると(ステップ109)、同様にその課金情報(K0)をメモリMM1の作業エリアに記憶する(ステップ110)。これら一連のプログラム入手制御が終了すると、CPU1は制御リード1を介して制御ユニットNCUを解放し(ステップ111)、インテリジェンス端末T0とプログラムセンタPCとの接続を解除する。

しかる後、インテリジェンス端末T0は入手したプログラム(P0)と課金情報(K0)によりプログラムの実行処理に移動する(ステップ112)。すなわち、端末T0の中央制御装置CPU1では、メモリMM1の作業エリアに記憶された課金情報(K0)に基づいて料金収納装置CHGを監視し、課金処理を行うと共に、プログラム(P0)に基づいてキーボードKB及びディスプレイCRTDを制御し、ゲーム等の特定のサービスを利用者に提供する。この提供されたサービスを実行中、別のプログラム(例えばP1)を入手するかどうかの

された1つのものとしたが、プログラム(P)の種別ごとにプログラムセンタPCを設け、端末T0~Tnで指定したセンタPCを接続する方法でもよい。また端末T0~Tnにカード読取装置を設置し、利用者の所有しているカードの種別によって、あるいはパスワードによって、アクセスし得るセンタPCやプログラム(P)の種別を制限したりすることも可能である。これにより、重要なプログラムの破壊や他のセンタへの無断アクセスを防止することもできる。

以上説明したように本発明によれば、従来単一のサービスしか行っていなかったインテリジェンス端末に、使用者の要求に応じて多種類のサービスを自由に提供できる機能を持たせることが可能となり、該インテリジェンス端末の汎用性が大巾に向上し、かつ利用範囲が広がる利点がある。

また、提供されるサービスのプログラムのステップ数等に応じて、利用料金を設定し、端末側で徴収させるため、利用者が希望するサービ



スの種類ごとに利用者に負担させることができる。

さらに、所定の手順でプログラムを入手すれば、センタとの回線を解放するため、入手したプログラムの実行処理中の回線保留がなく経済的であると共に、プログラムの入手要求ごとに随時センタとの回線を設定できる利点がある。またプログラムセンタとインテリジェンス端末間を交換機を介して接続するため、既存の交換機等を利用してサービスが提供でき簡単、かつ経済的にシステムを構成することができる。

4 図面の簡単な説明

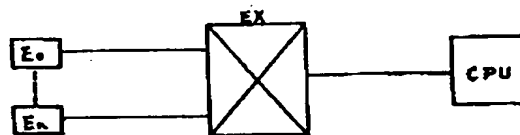
第1図は、インテリジェンス端末と中央処理装置とを接続する従来の中継方式の一例を示す図、第2図は、本発明によるプログラム提供システムの1実施例を示す中継方式図、第3図は第2図におけるシステム動作の基本的な制御手順を示すフローチャートである。

1, 40~4n 網制御ユニットの制御リード

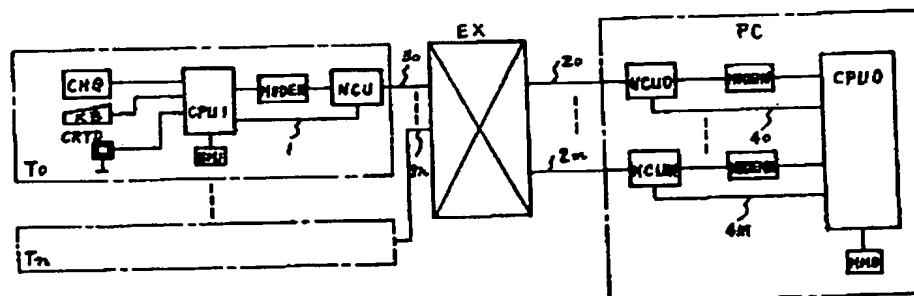
20~2n, 30~3n 中継線

EX 交換機
PC プログラムセンタ
CPU 0, 1 中央処理装置
MM 0, 1 メモリ
MODEM, MODEM 0~n 変復調装置
NCU, NCU 0~n 網制御ユニット
T0~Tn インテリジェンス端末
CHG 料金収納装置
KB キーボード
CRTD ディスプレイ

第1図



第2図



(Rev. 2-32)
PATENT AND TRADEMARK OFFICE
INFORMATION DISCLOSURE
STATEMENT BY APPLICANT
 (Use several sheets if necessary)

U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Sub- Class	Filing Date, if Appropriate
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FOREIGN PATENT DOCUMENTS

Examiner Initials	Document Number	Date	Country	Sub- Class	Class	Translation	
						Yes	No
	58-151762	09/09/1983	JAPAN	H04M	11/06	✓	(Abstract)
	62-286489	12/12/1987	JAPAN			✓	
	01-166218	06/30/1989	JAPAN	G06F	9/06	✓	(Abstract)
	02-166875	06/27/1990	JAPAN	H04M	11/00	✓	(Abstract)
	02-267628	11/01/1990	JAPAN	G06F	9/06	✓	(Abstract)
	02-300823	12/13/1990	JAPAN	G06F	9/06	✓	(Abstract)
	03-062222	03/18/1991	JAPAN	G06F	9/06	✓	(Abstract)
	04-158441	06/01/1002	JAPAN	G06F	9/06	✓	(Abstract)

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

Examiner	Date Considered
----------	-----------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



GAU 3713

#8

PATENT REGISTRATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Takeya OKAMOTO
Patent No. : 6,193,520 B1
Dated : February 27, 2001
Serial no. : 09/109,784
Filed : July 2, 1998
For : INTERACTIVE COMMUNICATION SYSTEM
FOR COMMUNICATING VIDEO GAME AND
KARAOKE SOFTWARE
Group Art Unit : 3713
Examiner : Joe H. Cheng
Docket : ADACHI P134USP1

The Commissioner of Patents and Trademarks
Washington, D.C. 20231

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INFORMATION DISCLOSURE STATEMENT

Dear Sir:

In connection with this matter, the Applicant hereby attaches one (1) United States Patent Office Form PTO-1449 and copies of the information listed in the enclosed PTO-1449 Form, unless otherwise indicated on such Form.

English language abstracts or translations, of all or part of listed relevant foreign language information, is submitted herewith.

In the event that there are any fee deficiencies or additional fees are payable, please charge the same or credit any overpayment to our Deposit Account (Account No. 04-0213).

Respectfully submitted,


Michael J. Bujold, Reg. No. 32,018

Customer No. 020210

Davis & Bujold, P.L.L.C.

Fourth Floor

500 North Commercial Street

Manchester NH 03101-1151

Telephone 603-624-9220

Facsimile 603-624-9229

E-mail: patent@davisandbujold.com

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service, with sufficient postage, as First Class Mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231 on July 13, 2001.

By: 
Print Name: Michael J. Bujold

PART B—ISSUE FEE TRANSMITTAL

Complete and mail this form, together with appropriate fees, to:

Box ISSUE FEE
Assistant Commissioner for Patents
Washington, D.C. 20231

MAILING INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE. Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Issue Fee Receipt, 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: Legibly mark-up with any corrections or use Block 1)

DAVIS AND BUJOLD
FOURTH FLOOR
500 N COMMERCIAL STREET
MANCHESTER NH 03101

Note: The certificate of mailing below can only be used for domestic mailings of the Issue Fee 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.

Certificate of Mailing

I hereby certify that this Issue Fee Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Box Issue Fee address above on the date indicated below.

Michael J. Bujold (Depositor's name)

(Signature)

November 22, 2000 (Date)

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
09/109,784	07/02/98	021	CHENG, J 3713	08/25/00
First Named Applicant	OKAMOTO, 35 USC 154(b) term ext. = 0 Days.			

TITLE OF INVENTION: INTERACTIVE COMMUNICATION SYSTEM FOR COMMUNICATING VIDEO GAME AND KARAOKE SOFTWARE

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
3	ADACHI-P134U	434-307.00A	R19	UTILITY	YES	\$605.00 \$620.00
						11/27/00

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). Use of PTO form(s) and Customer Number are recommended, but not required.

☐ 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) attached.

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

1. DAVIS AND BUJOLD

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. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the PTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

Yugengaisha Adachi International

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

Nagoya, 460-0003 JAPAN

Please check the appropriate assignee category indicated below (will not be printed on the patent)

☐ individual ☒ corporation or other private group entity ☐ government

4a. The following fees are enclosed (make check payable to Commissioner of Patents and Trademarks):

☒ Issue Fee☒ Advance Order - # of Copies 1

4b. The following fees or deficiency in these fees should be charged to:

DEPOSIT ACCOUNT NUMBER 04-0213

(ENCLOSE AN EXTRA COPY OF THIS FORM)

☒ Issue Fee☒ Advance Order - # of Copies

The COMMISSIONER OF PATENTS AND TRADEMARKS IS requested to apply the Issue Fee to the application identified above.

(Authorized Signature)

(Date)

11/22/00

NOTE: The Issue Fee 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 Patent and Trademark Office.

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending on the needs of the individual case. Any comments on the amount of time required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND FEES AND THIS FORM TO: Box Issue Fee, Assistant Commissioner for Patents, Washington D.C. 20231

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.

TRANSMIT THIS FORM WITH FEE

11/22/00



PATENT APPLICATION

#7 1-17-01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Takeya OKAMOTO
Serial no. : 09/109,784
Filed : July 2, 1998
For : INTERACTIVE COMMUNICATION SYSTEM
FOR COMMUNICATING VIDEO GAME AND
KARAOKE SOFTWARE
Group Art Unit : 3713
Examiner : Joe H. Cheng
Docket : ADACHI P134USP1

BOX ISSUE FEE

The Commissioner of Patents and Trademarks
Washington, D.C. 20231

Issue Batch No. : R19
Notice of Allowance Dated : August 25, 2000

OK to Enter

SUBMISSION OF SUPPLEMENTAL DECLARATION AND ISSUE FEE

In response to the Notice of Allowability mailed August 25, 2000, the associated issue fee accompanies this submission.

Enclosed please find a Supplemental Declaration executed by Takeya OKAMOTO, the inventor of this case. No fee is believed payable with respect to the Supplemental Declaration and it is respectfully requested that this document be made of record in the above referenced application.

In the event that there are any fee deficiencies or additional fees are payable, please charge the same or credit any overpayment to our Deposit Account (Account No. 04-0213).

Respectfully submitted,


Michael J. Bujold, Reg. No. 32,018
Customer No. 020210
Davis and Bujold
Fourth Floor
500 North Commercial Street
Manchester NH 03101-1151
Telephone 603-624-9220
Facsimile 603-624-9229
E-mail: patent@davisandbujold.com

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service, with sufficient postage, as First Class Mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231 on November 22, 2000.

By: 

Print Name: Michael J. Bujold

Attorney's Docket No. ADACHI P134USP1

PATENT

SUPPLEMENTAL DECLARATION FOR AMENDMENT PRESENTING CLAIMS FOR MATTER DISCLOSED BUT NOT ORIGINALLY CLAIMED

I, Takeya OKAMOTO, as an inventor named in the application for a United States Letters Patent for an improvement entitled INTERACTIVE COMMUNICATION SYSTEM FOR COMMUNICATING VIDEO GAME AND KARAOKE SOFTWARE, (Serial No.: 09/109,784 filed: July 2, 1998), hereby declare that the subject matter

- ☐ of the attached amendment
- ☒ of the claim amendments contained in the Response filed with the United States Patent and Trademark Office on or about August 1, 2000 was part of my invention and was invented before the filing of the original application, above identified, for such invention.

WARNING:

If the inventors are each not the inventors of all the claims, an explanation of the facts, including the ownership of all the claims at the time the last claimed invention was made, should be submitted.

ACKNOWLEDGMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR

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

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations. (see rule 1.56).

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

Nov. 17, 2000

Date

Takeya Okamoto

Takeya OKAMOTO



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

SLC

NOTICE OF ALLOWANCE AND ISSUE FEE DUE

QM32/0825

DAVIS AND BUJOLD
FOURTH FLOOR
500 N COMMERCIAL STREET
MANCHESTER NH 03101

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
09/109,784	07/02/98	021	CHENG, J	3/13 08/25/00
First Named Applicant	OKAMOTO, 35 USC 154(b) term ext. - 6 Days.			

TITLE OF INVENTION INTERACTIVE COMMUNICATION SYSTEM FOR COMMUNICATING VIDEO GAME AND KARAOKE SOFTWARE

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
3	ADACHI-P134U	434-307.00A	R19 UTILITY	YES	\$605.00	11/27/00

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.

THE ISSUE FEE 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.

HOW TO RESPOND TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

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

- A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
- B. If the status is the same, pay the FEE DUE shown above.

If the SMALL ENTITY is shown as NO:

- A. Pay FEE DUE shown above, or
- B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

II. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.

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

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

PATENT AND TRADEMARK OFFICE COPY

Notice of Allowability

Application No.

09/109,784

Applicant(s)

Okamoto

Examiner

Joe H. Cheng

Group Art Unit

3713



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 and Issue Fee Due or other appropriate communication will be mailed in due course.

- ☒ This communication is responsive to the Amendment filed 8/4/2000
- ☒ The allowed claim(s) is/are 1-21
- ☒ The drawings filed on Jul 2, 1998 are acceptable.
- ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
- ☐ received.
- ☒ received in Application No. (Series Code/Serial Number) 08/232,862
- ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

- ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE **THREE MONTHS** FROM THE "DATE MAILED" of this Office action. Failure to timely comply will result in ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

- ☐ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.
- ☐ Applicant MUST submit NEW FORMAL DRAWINGS
- ☐ because the originally filed drawings were declared by applicant to be informal.
- ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review, PTO-948, attached hereto or to Paper No. _____
- ☐ including changes required by the proposed drawing correction filed on _____, which has been approved by the examiner.
- ☐ including changes required by the attached Examiner's Amendment/Comment.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the reverse side of the drawings. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

- ☐ Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any response to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE/SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

Attachment(s)

- ☐ Notice of References Cited, PTO-892
- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Interview Summary, PTO-413
- ☐ Examiner's Amendment/Comment
- ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- ☐ Examiner's Statement of Reasons for Allowance

JOE H. CHENG
PRIMARY EXAMINER
ART UNIT 3713



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of
Serial no.
Filed
For



Group Art Unit
Examiner
Docket

Takeya OKAMOTO

09/109,784

July 2, 1998

INTERACTIVE COMMUNICATION SYSTEM
FOR COMMUNICATING VIDEO GAME AND
KARAOKE SOFTWARE

3713

Joe H. Cheng

ADACHI P134USP1

- PATENT APPLICATION

YAU 3713
\$
#4/a
MC
8/24/00

The Commissioner of Patents and Trademarks
Washington, D.C. 20231

RESPONSE

Dear Sir:

[XXX] A CHECK FOR THE FEES INDICATED BELOW, BASED UPON THE APPLICANT'S small ENTITY STATUS, ACCOMPANIES THIS RESPONSE.	
NOTICE OF APPEAL	\$
TERMINAL DISCLAIMER TO OBVIATE DOUBLE-PATENTING REJECTION	\$55
LATE SUBMISSION OF INFORMATION DISCLOSURE STATE.	\$
TOTAL CLAIMS ALREADY PAID FOR ____	
ADDITIONAL CLAIMS ADDED HEREBY __ X __ =	\$
TOTAL INDEPENDENT CLAIMS ALREADY PAID FOR ____	
ADDITIONAL IND. CLAIMS ADDED HEREBY __ x __ =	\$
TOTAL	\$55

In response to the official action mailed ^{may} August 9, 2000, please enter the following
before reconsideration of this application.

In the Specification:

Please amend the specification as follows:

Page 1, line 6, after "May 3, 1996" insert now U.S. Patent No. 5,775,995.

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09/109,784

In the Claims:

Please amend claims 3, 10 and 17 as follows:

Claim 3, line 1, replace "1" with -2-;

Claim 10, line 1, replace "8" with -9-; and

Claim 17, line 1, replace "15" with -16-.

REMARKS

The Applicant amended the specification to indicate that the parent application, from which the above identified application claims priority, is now United States Patent No. 5,775,995. The Applicant thanks the Examiner for his input concerning the same.

Next, claims 3, 10 and 17 are objected to as being of improper dependent form for failing to further limit the subject matter of a parent claim. In accordance with the Examiner's suggestions, these three (3) claims are now amended to depend from claims 2, 9 and 16, respectively.

Lastly, claims 1-3, 5, 8-10, 12, 15-17 and 19 are rejected under the judicially created doctrine of obviousness-double patenting over claims 1-3 of U.S. Patent No. 5,775,995. A Terminal Disclaimer, as well as the necessary official fee is enclosed to overcome this rejection. The submission of the Terminal Disclaimer is believed to overcome the raised double patenting rejection with respect to these claims.

The Applicant thanks the Examiner for indicating that claims 4, 6, 7, 11, 13, 14, 18, 20 and 22 are objected to but would be allowable. In view of the above amendments and the attached Terminal Disclaimer, it is respectfully submitted that all of the claims of this application are now placed in a condition for allowance.

In view of the foregoing, it is respectfully submitted that this application is now placed in a condition for allowance. Action to that end, in the form of an early Notice of Allowance, is courteously solicited by the Applicant at this time.



09/109,784

In the event that there are any fee deficiencies or additional fees are payable, please charge the same or credit any overpayment to our Deposit Account (Account No. 04-0213).

Respectfully submitted,

Michael J. Bujold
Michael J. Bujold, Reg. No. 32,018
Customer No. 020210
Davis and Bujold
Fourth Floor
500 North Commercial Street
Manchester NH 03101
Telephone 603-624-9220
Facsimile 603-624-9229
E-mail: patent@davisandbujold.com

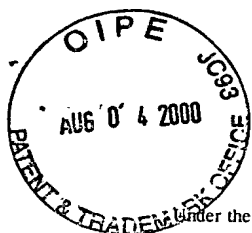
CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service, with sufficient postage, as First Class Mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231 on August 1, 2000.

By: _____

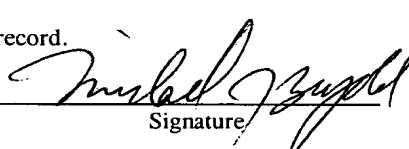
Print Name: Michael J. Bujold

A



#5
Term Disclaimer

PTO/SB/63 (10-96)
Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TERMINAL DISCLAIMER TO OBVIATE A DOUBLE PATENTING REJECTION OVER A PRIOR PATENT (Period of disclaimer to be completed by Petitions Examiner)		Docket Number (Optional) ADACHI P134USP1
In re Application of: Takeya OKAMOTO		
Application Number: 09/109,784		
Filed: July 2, 1998		
For: INTERACTIVE COMMUNICATION SYSTEM FOR COMMUNICATING VIDEO GAME AND KARAOKE SOFTWARE		
<p>The owner, YUGENGAISHA ADACHI INTERNATIONAL, of Nagoyaseni Building, 9-27, Nishiki 2- Chome, Naka-ku, Nagoya 460-0003, JAPAN, 100 percent interest in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application, which would extend beyond the expiration date of the full statutory term defined in 35 U.S.C. 154 to 156 and 173, as presently shortened by any terminal disclaimer, of prior U. S. Patent No. 5,775,995, filed May 3, 1996. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and the prior patent are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.</p> <p>In making the above disclaimer, the owner does not disclaim the terminal part of any patent granted on the instant application that would extend to the expiration date of the full statutory term as defined in 35 U.S.C. 154 to 156 and 173 of the prior patent, as presently shortened by any terminal disclaimer, in the event that it later: expires for failure to pay a maintenance fee, is held unenforceable, is found invalid by a court of competent jurisdiction, is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321, has all claims canceled by a reexamination certificate, is reissued, or is in any manner terminated prior to the expiration of its full statutory term as presently shortened by any terminal disclaimer.</p> <p>Check either box 1 or 2 below, if appropriate.</p> <p>1. <input type="checkbox"/> For submissions on behalf of an organization (e.g. corporation, partnership, university, government agency, etc.), the undersigned is empowered to act on behalf of the organization.</p> <p>I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application of any patent issuing thereon.</p> <p>2. <input checked="" type="checkbox"/> The undersigned is an attorney of record.</p> <div style="display: flex; justify-content: space-between; align-items: flex-end;"><div><p>08/04/2000 HCHRISTA 00000016 09109784</p><p>01 FC:248 55.00 OP</p></div><div style="text-align: center;"> _____ Signature Michael J. Bujold _____ Typed or printed name</div><div style="text-align: right;"><p>August 1, 2000</p><p>_____</p></div></div> <p><input checked="" type="checkbox"/> Terminal disclaimer fee under 37 CFR 1.20(d) included.</p> <p>* Certification under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner). Form PTO/SB/96 may be used for making this certification. See MPEP § 324.</p>		

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Times will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patent, Washington, DC 20231.

Terminal Disclaimer to Obviate a Double Patenting Rejection Over a Prior Patent
(Rel. 71-97 Pub. 605) **FORM 9-4.2**
(Our File 1FORMS/DSCL9-42.frm)



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

CN

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/109,784 07/02/98 OKAMOTO T ADACHI-P134U

┌

QM12/0509

EXAMINER

DAVIS AND BUJOLD
FOURTH FLOOR
500 N COMMERCIAL STREET
MANCHESTER NH 03101

CHENG, J	
ART UNIT	PAPER NUMBER

3713
DATE MAILED:

3
05/09/00

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

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/109,784

Applicant(s)
Okamoto

Examiner
Joe H. Cheng

Group Art Unit
3713



- ☐ Responsive to communication(s) filed on _____.
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

- ☒ Claim(s) 1-21 is/are pending in the application.
- Of the above, claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☐ Claim(s) _____ is/are rejected.
- ☒ Claim(s) 4, 6, 7, 11, 13, 14, 18, 20, and 21 is/are objected to.
- ☒ Claims 1-3, 5, 8-10, 12, 15-17, and 19 are subject to restriction or election requirement.

Application Papers

- ☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
- ☐ received.
- ☒ received in Application No. (Series Code/Serial Number) 08/232,862.
- ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

- ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- ☐ Notice of References Cited, PTO-892
- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2
- ☐ Interview Summary, PTO-413
- ☒ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit:

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: The term "This is a Continuation-in-Part of Application Ser. No. 08/642,560 filed May 3, 1996." on Pg. 1, lines 5 and 6 should be recited as --This is a Continuation-In-Part of U.S. Patent Application Serial No. 08/642,560, filed May 3, 1996, now U.S. Patent No. 5,775,995.--, so as to clarify the status. Appropriate correction is required.

Claim Objections

2. Claims 3, 10 and 17 are objected to because of the following informalities: The recitation of the "third clock means" and the "interference stop instruction means" as being of improper dependent form for failing to further limit the subject matter of the respective parent claims. These claim should be amended as being respectively depended on claims 2, 9 and 16. Appropriate correction is required.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

Art Unit:

A timely filed terminal disclaimer in compliance with 37 CFR 1.321© may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

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

4. Claims 1-3, 5, 8-10, 12, 15-17 and 19 are rejected under the judicially created doctrine of double patenting over claims 1-3 of U. S. Patent No. 5,775,995 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows: The communication system for transmitting at least one of the program, the data, and a combination of the program and data (such as software of video games or karaoke music) from the host facility to a communication terminal device.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Allowable Subject Matter

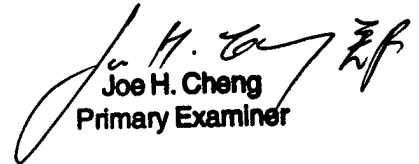
Art Unit:

5. Claims 4, 6, 7, 11, 13, 14, 18, 20 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joe H. Cheng whose telephone number is (703) 308-2667.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.


Joe H. Cheng
Primary Examiner

Joe H. Cheng
April 27, 2000

ADACHI-P134U

09/109784

LIST OF REFERENCES CITED BY APPLICANT

(Use several sheets if necessary)

APPLICANT

Takeya OKAMOTO

FILING DATE

7/2/98

GROUP

3713

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
JH	AA	5 2 7 3 2 8 8	12-1993	TESHIMA ET AL	273	439	
JH	AB	5 0 1 8 7 3 6	5-1991	PEARSON ET AL	273	439	
JH	AC	5 2 5 0 7 4 7	10-1993	TSUMURA	434	3074	
JH	AD	5 2 3 6 1 9 9	8-1993	THOMPSON, JR.	273	439	
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AL							
	AM							
	AN							
	AO							
	AP							

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

	AR		
	AS		
	AT		

EXAMINER

DATE CONSIDERED

JH H. S. EP

4/25/00

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

9/109784

NOTICE OF DRAFTPERSON'S PATENT DRAWING REVIEW

The drawing filed (insert date) 9/2/98A. not objected to by the Draftperson under 37 CFR 1.84 or 1.152.B. objected to by the Draftperson under 37 CFR 1.84 or 1.152 as indicated below. The Examiner will require submission of new, corrected drawings where necessary. Corrected drawings must be submitted according to the instructions on the back of this notice.

1. DRAWINGS. 37 CFR 1.84(a): Acceptable categories of drawings: Black ink. Color.

Color drawing are not acceptable until petition is granted.

Fig(s) _____

Pencil and non black ink is not permitted. Fig(s) _____

2. PHOTOGRAPHS. 37 CFR 1.84(b)

Photographs are not acceptable until petition is granted.3 full-tone sets are required. Fig(s) _____Photographs not properly mounted (must bristol board or photographic double-weight paper). Fig(s) _____Poor quality (half-tone). Fig(s) _____

3. TYPE OF PAPER. 37 CFR 1.84(e)

Paper not flexible, strong, white and durable.

Fig(s) _____

Erasures, alterations, overwritings, interlineations, folds, copy machine marks not acceptable. (too thin)Mylar, vellum paper is not acceptable (too thin).

Fig(s) _____

4. SIZE OF PAPER. 37 CFR 1.84(f): Acceptable sizes:

21.0 cm by 29.7 cm (DIN size A4)21.6 cm by 27.9 cm (8 1/2 x 11 inches)All drawings sheets not the same size.

Sheet(s) _____

5. MARGINS. 37 CFR 1.84(g): Acceptable margins:

Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm
SIZE: A4 SizeTop 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm
SIZE: 8 1/2 x 11Margins not acceptable. Fig(s) _____Top (T) Left (L)Right (R) Bottom (B)

6. VIEWS. 37 CFR 1.84(h)

REMINDER: Specification may require revision to correspond to drawing changes.

Views connected by projection lines or lead lines.

Fig(s) _____

Partial views. 37 CFR 1.84(h)(2)

Brackets needed to show figure as one entity.

Fig(s) _____

Views not labeled separately or properly.

Fig(s) _____

Enlarged view not labeled separately or properly.

Fig(s) _____

7. SECTIONAL VIEWS. 37 CFR 1.84(h)(3)

Hatching not indicated for sectional portions of an object.

Fig(s) _____

Sectional designation should be noted with Arabic or

Roman numbers. Fig(s) _____

8. ARRANGEMENT OF VIEWS. 37 CFR 1.84(i)

Words do not appear on a horizontal, left-to-right fashion when page is either upright or turned, so that the top becomes the right side, except for graphs. Fig(s) _____Views not on the same plane on drawing sheet. Fig(s) _____

9. SCALE. 37 CFR 1.84(k)

Scale not large enough to show mechanism without crowding when drawing is reduced in size to two-thirds in reproduction.

Fig(s) _____

10. CHARACTER OF LINES, NUMBERS, & LETTERS. 37 CFR 1.84(l)

Lines, numbers & letters not uniformly thick and well defined, clean, durable and black (poor line quality).

Fig(s) _____

11. SHADING. 37 CFR 1.84(m)

Solid black areas pale. Fig(s) _____Solid black shading not permitted. Fig(s) _____Shade lines, pale, rough and blurred. Fig(s) _____

12. NUMBERS, LETTERS, & REFERENCE CHARACTERS. 37 CFR 1.84(p)

Numbers and reference characters not plain and legible.

Fig(s) _____

Figure legends are poor. Fig(s) _____Numbers and reference characters not oriented in the same

direction as the view. 37 CFR 1.84(p)(3) Fig(s) _____

English alphabet not used. 37 CFR 1.84(p)(3) Fig(s) _____Numbers, letters and reference characters must be at least

.32 cm (1/8 inch) in height. 37 CFR 1.84(p)(3) Fig(s) _____

13. LEAD LINES. 37 CFR 1.84(q)

Lead lines cross each other. Fig(s) _____Lead lines missing. Fig(s) _____

14. NUMBERING OF SHEETS OF DRAWINGS. 37 CFR 1.84(t)

Sheets not numbered consecutively, and in Arabic numerals beginning with number 1. Fig(s) _____

15. NUMBERING OF VIEWS. 37 CFR 1.84(u)

Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s) _____

16. CORRECTIONS. 37 CFR 1.84(w)

Corrections not made from PTO-948 dated _____

17. DESIGN DRAWINGS. 37 CFR 1.152

Surface shading shown not appropriate. Fig(s) _____Solid black shading not used for color contrast.

Fig(s) _____

COMMENTS

REVIEWER W/SDATE 9/5/98TELEPHONE NO. 7033058404

ATTACHMENT TO PAPER NO. _____

PTO COPY

FEE TRANSMITTAL

Patent fees are subject to annual revision on October 1.

These are the fees effective October 1, 1997.

Small Entity payments must be supported by a small entity statement, otherwise large entity fees must be paid. See Forms PTO/SB/09-12.

See 37 C.F.R. §§ 1.27 and 1.28.

Complete if Known

Application Number	
Filing Date	
First Named Inventor	Takeya OKAMOTO
Examiner Name	
Group / Art Unit	
Attorney Docket No.	ADACHI P134USP1

TOTAL AMOUNT OF PAYMENT (\$) 446.00

METHOD OF PAYMENT (check one)

1. ☒ The Commissioner is hereby authorized to charge indicated fees and credit any over payments to:

Deposit Account Number: 04-0213
Deposit Account Name: DAVIS AND BUJOLD

- ☒ Charge Any Additional Fee Required Under 37 C.F.R. §§ 1.16 and 1.17
☐ Charge the Issue Fee Set in 37 C.F.R. § 1.18 at the Mailing of the Notice of Allowance

2. ☒ Payment Enclosed:
☒ Check ☐ Money Order ☐ Other

FEE CALCULATION

1. BASIC FILING FEE

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
101 799	201 395	Utility filing fee	395
106 330	206 165	Design filing fee	
107 540	207 270	Plant filing fee	
108 790	208 395	Reissue filing fee	
114 150	214 75	Provisional filing fee	
SUBTOTAL (1)			(\$) 395

2. EXTRA CLAIM FEES

Number of Claims	Extra Claims	Fee from below	Fee Paid
21	-20** = 1	11	11
3	-3** = 0	0	0
0		0	0

number previously paid, if greater; For Reissues, see below

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description
03 22	203 11	Claims in excess of 20
02 82	202 41	Independent claims in excess of 3
04 270	204 135	Multiple dependent claim, if not paid
09 82	209 41	** Reissue independent claims over original patent
10 22	210 11	** Reissue claims in excess of 20 and over original patent

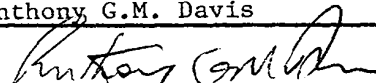
SUBTOTAL (2) (\$) 11

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
105 130	205 65	Surcharge - late filing fee or oath	
127 50	227 25	Surcharge - late provisional filing fee or cover sheet	
139 130	139 130	Non-English specification	
147 2,520	147 2,520	For filing a request for reexamination	
112 920*	112 920*	Requesting publication of SIR prior to Examiner action	
113 1,840*	113 1,840*	Requesting publication of SIR after Examiner action	
115 110	215 55	Extension for reply within first month	
116 400	216 200	Extension for reply within second month	
117 950	217 475	Extension for reply within third month	
118 1,510	218 755	Extension for reply within fourth month	
128 2,060	228 1,030	Extension for reply within fifth month	
119 310	219 155	Notice of Appeal	
120 310	220 155	Filing a brief in support of an appeal	
121 270	221 135	Request for oral hearing	
138 1,510	138 1,510	Petition to institute a public use proceeding	
140 110	240 55	Petition to revive - unavoidable	
141 1,320	241 660	Petition to revive - unintentional	
142 1,320	242 660	Utility issue fee (or reissue)	
143 450	243 225	Design issue fee	
144 670	244 335	Plant issue fee	
122 130	122 130	Petitions to the Commissioner	
123 50	123 50	Petitions related to provisional applications	
126 240	126 240	Submission of Information Disclosure Stmt	
581 40	581 40	Recording each patent assignment per property (times number of properties)	40
146 790	246 395	Filing a submission after final rejection (37 CFR 1.129(a))	
149 790	249 395	For each additional invention to be examined (37 CFR 1.129(b))	
Other fee (specify)			
Other fee (specify)			
* Reduced by Basic Filing Fee Paid			
SUBTOTAL (3)			(\$) 40

SUBMITTED BY

Prepared or Invented Name: Anthony G.M. Davis
Signature: 

Date: 7.2.98

Complete (if applicable)

Reg. Number: 27,868
Deposit Account User ID: 04-0213

Estimated Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → ☐

Approved for use through 09/30/2000. OMB 0651-0032
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07/02/98
595
S. 100

UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 C.F.R. § 1.53(b))

Attorney Docket No.	ADACHI P134USP1
First Inventor or Application Identifier	Takeya OKAMOTO
Title	INTERACTIVE COMMUNICATION SYSTEM FOR.
Express Mail Label No.	EL128018389US

PTO/SB/05 (2/98)
07/02/98
Jc1
09/10/98
07/02/98

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

ADDRESS TO: Assistant Commissioner for Patent Applications
Box Patent Application
Washington, DC 20231

1. ☒ * Fee Transmittal Form (e.g., PTO/SB/17)
(Submit an original and a duplicate for fee processing)
 2. ☒ Specification [Total Pages (preferred arrangement set forth below)
 - Descriptive title of the invention
 - Cross References to Related Applications
 - Statement Regarding Fed sponsored R & D
 - Reference to Microfiche Appendix
 - Background of the invention
 - Brief Summary of the invention
 - Brief Description of the Drawings (if filed)
 - Detailed Description
 - Claim(s)
 - Abstract of the Disclosure
 3. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets - 4. Oath or Declaration [Total Pages - a. ☒ Newly executed (original or copy)
 - b. ☐ Copy from a prior application (37 C.F.R. § 1.63(d))
(for continuation/divisional with Box 17 completed)
[Note Box 5 below]
 - i. ☐ DELETION OF INVENTOR(S)
Signed statement attached deleting inventor(s) named in the prior application, see 37 C.F.R. §§ 1.63(d)(2) and 1.33(b).
5. ☐ Incorporation By Reference (useable if Box 4b is checked)
The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 4b, is considered to be part of the disclosure of the accompanying application and is hereby incorporated by reference therein.

6. ☐ Microfiche Computer Program (Appendix)
7. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
 - a. ☐ Computer Readable Copy
 - b. ☐ Paper Copy (identical to computer copy)
 - c. ☐ Statement verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

8. ☒ Assignment Papers (cover sheet & document(s))
9. ☐ 37 C.F.R. § 3.73(b) Statement (when there is an assignee) ☐ Power of Attorney
10. ☐ English Translation Document (if applicable)
11. ☒ Information Disclosure Statement (IDS)/PTO-1449 ☒ Copies of IDS Citations
12. ☐ Preliminary Amendment
13. ☒ Return Receipt Postcard (MPEP 503)
(Should be specifically itemized)
14. ☒ * Small Entity Statement(s) ☐ Statement filed in prior application, Status still proper and desired (PTO/SB/09-12)
15. ☐ Certified Copy of Priority Document(s) (if foreign priority is claimed)
16. ☒ Other: Express Mail Certificate....

* NOTE FOR ITEMS 1 & 14: IN ORDER TO BE ENTITLED TO PAY SMALL ENTITY FEES, A SMALL ENTITY STATEMENT IS REQUIRED (37 C.F.R. § 1.37), EXCEPT IF ONE FILED IN A PRIOR APPLICATION IS RELIED UPON (37 C.F.R. § 1.28).

17. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment:
☐ Continuation ☐ Divisional ☒ Continuation-in-part (CIP) of prior application No: 08 / 642,560

Prior application information: Examiner Michael O'Neill

Group / Art Unit: 3304

18. CO

PATENT & TRADEMARK OFFICE

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Address

City

State

Zip Code

Country

Telephone

Fax

Name (Print/Type)

Anthony G.M. Davis

Registration No. (Attorney/Agent)

27,868

Signature

Date

JULY 2, 1998

Order Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Patent Application, Washington, DC 20231.

Practitioner's Docket No. ADACHI P134USP1

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Takeya OKAMOTO

Serial No.: 0 /

Group No.:

Filed:

Examiner:

For: INTERACTIVE COMMUNICATION SYSTEM FOR COMMUNICATING VIDEO
GAME AND KARAOKE SOFTWARE

**Assistant Commissioner for Patents
Washington, D.C. 20231**

EXPRESS MAIL CERTIFICATE

"Express Mail" label number EL128018389US

Date of Deposit July 2, 1998

I hereby state that the following *attached* paper or fee

1 pg. Patent Application Transmittal, Check for \$446., 1 pg. Fee Transmittal (dupl),
34 pg. Specification, 9 pg. Claims, 1 pg. Abstract, 12 Sheets Formal Drawings,
Declaration and Power of Attorney, Verified Statement Claiming Small Entity Status,
Return Postcard, Assignment for recordation

is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10, on the date indicated above and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

Anthony G.M. Davis

Typed or printed name of person mailing paper or fee

Signature of person mailing paper or fee

NOTE: The label number need not be placed on each page. It should, however, be placed on the first page of each separate document, such as, a new application, amendment, assignment, and transmittal letter for a fee, along with the certificate of mailing by "Express Mail." Although the label number may be on checks, such a practice is not required. In order not to deface formal drawings it is suggested that the label number be placed on the back of each formal drawing or the drawings be accompanied by a set of informal drawings on which the label number is placed.

(Express Mail Certificate [8-3])

INTERACTIVE COMMUNICATION SYSTEM FOR
COMMUNICATING VIDEO GAME AND KARAOKE
SOFTWARE

5 This is a Continuation-in-Part of Application Ser. No.
08/642,560 filed May 3, 1996.

Field of the Invention

10 This invention relates to an interactive communication
system for transmitting video game and karaoke software from a
host facility to communication terminal devices.

Background of the Invention

15 Video games have become a very popular form of family
entertainment. In order to play a video game, a game cassette
is first installed in a video game machine body. Game data,
contained in the cassette and including video information and
usually audio information, is read and outputted to a common
television receiver. Accordingly, the one who wishes to play a
20 video game must have a video game machine and a game cassette,
besides a television set. Once the game cassette is installed,
the player can play the game whenever and as many times as the
player wishes.

25 However, therein lies a problem: the player has to
purchase each and every game cassette he wishes to play,

which can be very costly. For all the advantage that the player can play the game repeatedly, he may soon get tired of the game, or the game content may not be oriented for repeated play.

Another form of entertainment increasing in popularity is "karaoke", i.e. singing to recorded instrumental accompaniment. More and more "karaoke bars" can be seen in major cities, and karaoke machines for domestic use are becoming widely accepted. Such family karaoke machines need, by definition, karaoke music software, which can be found, for example, on video disk, video tape containing video and audio information, and music tape containing only audio information. Karaoke singers, tempted by changing trends in music, tend to purchase newly available karaoke programs, one after another. Thus, there arise problems of accumulated expenditure and limited storage space for the increasing number of karaoke programs.

Summary of the Invention

Wherefore, an object of this invention is to provide an interactive communication system in which video game and karaoke software is transmitted via communication lines from a host facility to a calling communication terminal device at each individual home.

In order to attain the stated object, a communication terminal device according to the present invention includes communication means, connected to communication lines, for

5 sending out or receiving data, and a computer for outputting control instructions to the communication means, and outputting or inputting data to or from the communication lines via the communication means. The communication terminal device further includes temporary storage means for temporarily storing the data inputted from the communication lines if the data inputted is game data including video information or video plus audio information, and game data outputting means included in the computer, for outputting, if the data stored in the temporary storage means is game data, the game data to integral or external display means, and, if the game data also includes audio information, to integral or external sound generating means.

10 In this way, the computer controls the communication means by supplying control instructions thereto. Data is thus sent out, under the control by the computer, via the communication means and the communication lines, or received via the communication lines and the communication means.

15 From another aspect of the invention, the computer may also include a printer, provided on the computer or provided externally, whereby, the data stored in the computer can be printed. For example, when the player wishes to quit game play, the current status of the game progress, e. g. which player corresponds to which character in the game, or the top scorer at the time, can be stored. When resuming the game, the player

20
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can refer to the printed data.

From still another aspect of the invention, a communication system according to the present invention includes the above described communication terminal device and
5 a host facility intercommunicably connected to the communication terminal device. When the communication terminal device requests the host facility to provide game data, the host facility sends out the corresponding game data to the communication terminal device via the communication lines.
10 The game data, received at the communication terminal device, is temporarily stored in the temporary storage means.

From a further aspect of the invention, the game data stored in the temporary storage means is deleted after a predetermined amount of time passes after the game data was
15 received at the communication terminal device. In order to effect this deletion, the communication terminal device may include control means which operates, responsive to receipt of the game data, to delete the game data after a predetermined time period. Alternatively, the host facility may send an
20 instruction concerning the time period, in addition to each game data it sends out. The latter alternative permits alteration of the time period with respect to each game.

By utilizing the communication system, the player need not purchase a game cassette or other software for playing video
25 games, since the game data is provided by the host facility, which

received the game data request sent by the player from his communication terminal device. Further, the game data provided to the player is temporarily stored in the temporary storage means of the communication terminal device, thereby releasing
5 the host facility to serve other communication terminal devices requesting game data. The host facility is thus able to respond to a greater number of callers having communication terminal devices.

Furthermore, the game data stored in the temporary
10 storage means is deleted in a predetermined time period after it was received at the communication terminal device. In other words, the useful life of the game data at the communication terminal devices is limited. As a result of this arrangement, in order to continue the game play at the end of the
15 predetermined time period, the player again needs to request the game data from the host facility. This arrangement is therefore prerequisite so long as the game data transmission service is not free of charge. In contrast, if it were possible to keep the game data at the communication terminal device at the end of game
20 play, the player could play the game permanently without calling the host facility. Consequently, the service cost per each transmission would be higher than the normal price of the game cassettes. The above described arrangement solves this problem and meets the need of software distributors.

25 The arrangement is also beneficial to players since the

service cost per each transmission can be considerably lower than the price of each game cassette. Therefore, the game player who conventionally has to buy an expensive game cassette, even if he plays the game only once, can be satisfied with the reasonable cost of the transmission. The arrangement is also superior with respect to child discipline, since children can only play a limited time.

From still another aspect of the invention, the communication terminal device according to the present invention may be adapted for karaoke.

When the data input from the communication lines is a karaoke data, the temporary storage means temporarily stores the karaoke data, which is then outputted to a sound output device. The sound output device may be provided on the communication terminal device or provided externally. If the karaoke data also includes video information, the karaoke data is also output to a display. The display may also be provided on the communication terminal device or provided externally.

The communication system according to the present invention includes the above described communication terminal device and a host facility intercommunicably connected to the communication terminal device. Karaoke data is sent and received in a manner similar to the one described above for video games. The system may be configured so that the karaoke data is erased after a certain time period.

Other objects, advantages and novel features of the invention will become apparent from the following detailed description of the invention when considered in conjunction with the accompanying drawings, in which like reference characters
5 designate the same or similar parts through the figures thereof.

Brief Description of the Drawings

FIG. 1 is a block diagram of a communication terminal device according to the present invention;

10 FIG. 2 is a block diagram of a communication system including the communication terminal device shown in FIG. 1;

FIG. 3 is a flowchart of the process to call a host facility;

FIG. 4 is an example of screen display in accordance with the method of operation selection in the embodiment;

15 FIG. 5 is an example of screen display in accordance with the method of further operation selection in the embodiment;

FIG. 6 is a flowchart of the process to be effected when playing a game is requested at the communication terminal device;

20 FIG. 7 is a flowchart of the process to effect deletion of the game data;

FIGS. 8A through 8D are illustrations showing various forms of modified interference means which interfere with the progress of a game;

25 FIG. 9 is a flowchart of the game data deletion/restoration

process;

FIG. 10 is a block diagram schematically showing the system consisting of a host facility and the communication terminal device for receiving the game data from the host facility via wireless transmission;

FIG. 11 is a block diagram schematically showing the system consisting of a broadcasting station and the communication terminal device for receiving the game data from the broadcasting station;

FIG. 12 is a flowchart showing another embodiment;
FIG. 13 is a flowchart showing a further embodiment;
and
FIG. 14 is a flowchart showing a still further embodiment.

Detailed Description of the Preferred Embodiment

In the embodiment of the invention, data, a program, or a combination of the two is transmitted from a host facility to a communicator as a communication terminal device. The data can be game data for playing games, karaoke data for playing karaoke music, image data for displaying static images like still pictures or dynamic images like movies, audio data for reproducing sound or playing music, character data for composing documents, and the like. The program includes a large-scale program, such as a program for word processing, a program for computing with a spread sheet, or a program for

communication, and a plug-in-program to be incorporated in a main program. Transmitting a combination of the program and data means, for instance, transmitting a karaoke executing program and the data indicative of karaoke music to be played, or a set of a word processing program and the data indicative of document examples.

In the embodiment of the invention, when a predetermined time has elapsed after the host facility sends out the transmission to the communicator, the data or the program becomes unusable, preferably after a warning has been given. It is also preferable to have a way to resume the use in accordance with the user's instruction, even after the data or program becomes unusable.

As shown in FIG. 2, the communication system according to the present invention includes a host facility 100, a personal communicator 1 as a communication terminal device, and transmission paths 200 as communication lines.

The host facility 100 has game data base 101, karaoke data base 103 and other data base 105. The host facility 100 also has game data transmitter 111, karaoke data transmitter 113 and other data transmitter 115 to retrieve data from corresponding data base and transmit them. The host facility 100 further has control unit 120 to control the transmitters 111, 113 and 115, and a headend 130 to output or input signals.

When a request data is sent out from the personal

communicator 1 via the transmission paths 200, the request data is received through the headend 130 and input by the control unit 120. The control unit 120 then controls one of the transmitters 111, 113 and 115 to retrieve data corresponding to the request, and the retrieved data is sent out via the headend 130 to the transmission paths 200.

The transmission paths 200 is coaxial cables and connected to a plurality of personal communicators 1.

As shown in FIG. 1, the personal communicator 1 includes a terminal modem 3, timer 4, CPU 5, input device 6, ROM 7, memory 8, video image circuit 9, sound source 10, audio amplifier 11, speaker 13, image composite circuit 15, monitor 16, controller connector 21, microphone connector 23, data input/output controller 25 and data input/output connector 27.

The terminal modem 3 is connected to the transmission paths 200 and includes modulator/demodulator 3a and video tuner 3b which selects a channel of the image to be projected.

The input device 6 may be a keyboard or mouse, and is used for inputting a designation of a desired game or karaoke data or other instructions. When a controller 31, which is exclusively used for playing video games, is connected to the controller connector 21, the controller 31 can be operated only for playing games. The controller 31 is provided with joy sticks or other control buttons commonly provided on conventional video game machines.

By connecting a microphone 33 to the microphone connector 23, the user can have his voice output to the speaker 13.

The data input/output connector 27 is connected via data output cable 37 to a printer 40, personal computer 41, or other apparatus.

The operation effected on the CPU 5 will be now explained referring to the flowchart of FIG. 3.

When power is supplied, a main menu is displayed, offering various selections, including "call host facility", which is selected by a user.

First, category selection pages are displayed at step S1000. The display includes the instruction of "select a category" and a list of available categories such as game and karaoke. The selected category is next determined at step S1010. Subsequently, an operation selection page corresponding to the selected category is displayed at step S1020. The display of the operation selection page includes an instruction to the operator and the list of available operations in the selected category. When the operator inputs direction responsive to this instruction, the corresponding respective operation process is performed at step S1030. In preparation for the respective operation process, the personal communicator 1 is connected to the host facility 100 such that the interactive communication can be performed between the personal communicator 1 and the host

facility 100.

The above procedure is further explained in detail, only for exemplification purpose, hereinafter referring to FIGS. 4, 5, and 6.

5 When "game" category is selected at step S1000, operation selection page shown in FIG. 4 is displayed, with an instruction 301 and operation list 303 shown on the screen. The operation list has three items of item A, item B and item C. Item A has a first game number box 305, into which the operator can directly
10 input a game number representative of a specific game the operator desires to receive. Item B is the operation to display the list of the game numbers now available from the game data base 101 of the host facility 100. Item C is the operation to display charges, for example the accumulated cost for the month
15 or the past month(s).

 When the operator wishes to play a game, item A or B is selected. For example, if the operator knows the game number of the game he wishes to play, the operator moves the cursor on the screen to the first game number input box 305, and inputs
20 the desired game number therein. If the operator does not know the game number, he selects item B.

 When item B is selected, data in the form of the list of game numbers is sent from the host facility 100 and displayed on the screen. As shown in FIG. 5, the list displayed by selecting
25 item B has an input part 311 and display part 313. The display

of the game list 313 can be scrolled to display further the list of games. The display part 313 displays the number of players able to participate in the play and the charge, in addition to the game numbers and the game name. The operator, referring to
5 these information on the screen, inputs his desired game number into a second game number input box 315 of the input part 311.

When selecting a game for the first time, the operator may wish to know the feature or outline of the game. In this case, the operator inputs the selected game number into an
10 explanation box 317 of item Y of the input part 311. As a result, the outline of the game is explained on the display part 313.

The game list can be printed out such that the operator can refer to the printed game list when he selects a game on other occasions. For printing, item Z of "print" in the input part
15 311 is selected. In response, the game list is printed, via the data input/output connector 27 and data output cable 37 shown in FIG. 1, at the printer 40. The process which is effected when a game number is input in the first game number box 305 of item A shown in FIG. 4 or in the second game number box 315 of item X
20 shown in FIG. 5 will be now explained referring to FIG. 6.

First, game request data is generated at step S1100. The game request data includes the identification number of the calling personal communicator 1 and the desired game number. The generated game request data is then sent out to the host
25 facility 100 at step S1110.

At the host facility 100, the received request data is input by the control unit 120 through the headend 130. Subsequently, game data corresponding to the request is retrieved from the game data base 101 by the game data transmitter 111. The
 5 retrieved game data is sent out via the headend 130 to the transmission paths 200 and to the corresponding personal communicator 1. First, second, and third predetermined time periods, which will be described later in detail, are also sent out to the personal communicator 1.

10 Turning back to FIG. 6, the game data is received at the personal communicator 1 at step S1120 and stored in the memory 8 at step S1130. When the storage of the game data into the memory 8 is completed, the completion is indicated on the monitor 16 at step S1140. Further, data indicative of the
 15 completion of the game data transmission is sent out to the host facility 100 at step S1150 as the last step of the instant process step, and the personal communicator 1 awaits the next operation. When, for example, game play is instructed as the next operation, the game stored in the memory 8 is started.

20 The game data received by the process shown in FIG. 6 and the game data stored in the memory 8 is automatically deleted, as shown in the flowchart of FIG. 7, in the following manner. First, the time when the data receipt is completed is read out at step S1200. The current time is also read out and the
 25 time period which has elapsed after the completion of the data

receipt is calculated at step S1210. Next, it is determined, at step S1220, whether or not a first predetermined time period has elapsed. If "NO" is determined at the step S1220, the flow goes back to the step S1210. Thus, when the first predetermined
5 time period has elapsed, a warning is given at step S1230. Further elapsing time period is calculated at step S1240. When it is determined, at step S1250, that a second predetermined time period has elapsed, the game data stored in the memory 8 is deleted at step S1260, and the instant process ends.

10 The warning given at step S1230 may be a various form of warning, such as a message reading "Time Out in Five Minutes!" on the monitor 16, or an alarming sound. Therefore, the total of the first predetermined time period of the step S1220 and the second predetermined time period of the step S1250 is the useful
15 life period of the received game data. The warning may be provided a plurality of times, such as five minutes, two minutes and one minute before the deletion of the game data. Warned by this warning, the player can print the current status of the game progress, for example, which player corresponds to which
20 character in the game or the top scorer at the time, at the printer 40 before quitting the game play. The printed data is useful when the player resumes the game play.

Furthermore, when the host facility 100 receives the data indicative of the transmission completion at the step S1150, the
25 host facility 100 performs the charging process to accumulate the

cost for its data transmission service. There are two known cost charging systems. One is the fixed amount system and the other is the pay-per-play system. In the fixed amount system, the fixed cost amount per-time period, for example monthly, is predetermined. In the pay-per-play system, the cost is charged per each play.

The charging system is dependent on the form or condition of the communication service to be rendered. In a practical charging system, the cost would be varied with respect to the complicatedness or scale of the game data provided. The cost would also vary depending on whether the game is new or old in the market. In the present embodiment, the pay-per-play system is adopted and the cost for the data service to each terminal communicator is charged every time the data indicative of the transmission completion is sent from the personal communicator 1 at step S1150. The payment would be made, using the automatic transfer system, by debiting the amount to the bank account of the players.

However, the pay-per-play system has a problem: the player cannot know the total amount of the accumulated cost before actual payment. If the payment is made using the automatic transfer system, the player may not even notice his considerable expenditure on the game play. This problem is solved by the arrangement shown in FIG. 4. If the player selects item C of the operation list 303, the present accumulated

cost and the previous cost, such as the payment made previously or the cost accumulated in the past half or whole year, are shown on the screen. Thus, parents can know the accumulated cost of their child's video game play.

5 By utilizing the communication system, the player need not purchase a game cassette or other software for playing video games, since the game data is provided by the host facility which received the game data request sent by the player from his personal communicator 1. Further, the game data provided to
10 the player is temporarily stored in the memory 8 serving as temporary storage means of the personal communicator 1, thereby releasing the host facility to serve other personal communicators 1 requesting game data. The host facility is thus enabled to respond to a greater number of callers having
15 personal communicators 1.

Furthermore, the game data stored in the memory 8 is deleted in a predetermined time period after it was received at the personal communicator 1. In other words, the useful life of the game data at the personal communicator 1 is limited. As a
20 result of this arrangement, in order to continue the game play at the end of the predetermined time period, the player again needs to request the game data from the host facility 100. This arrangement is therefore prerequisite so long as the game data transmission service is not free of charge. In contrast, if it were
25 possible to keep the game data at the communication terminal

personal communicators 1 to one another such that the interactive communication can be performed therebetween. When the plurality of personal communicators 1 are supplied with the same game data, the players have the same game characters in common. Therefore, the data to be transmitted among the plurality of personal communicators 1 are only character number data and the position data. Thus, the players together participate, on a real time basis, in the same game on the monitor 16 of respective personal communicators 1.

Map data of a role-playing game may be divided according to the progress degree of the story and the divided map data be sold separately. When the game progresses and the player wishes to play on a more advanced map data, the player purchases and downloads the advanced map data. In this case, arrangement is provided such that the player cannot purchase the advanced map data until the "capacity" or the progress degree of the characters in the game reaches a predetermined degree or level. Accordingly, using the interactive communication system, the player is to ask the host facility 100 for the proof of the capacity. In response, data proving the capacity or level of the characters may be transmitted from the host facility 100. The capacity proof sent from the host facility 100 would be printed out by the printer 40 or transmitted to the player's facsimile machine, as a certificate.

It will be now explained how the communication system of

the present invention is adopted to karaoke. The procedure to communicate the karaoke data is basically similar to the above described procedure to communicate the game data. Therefore, the explanation of the similar portion of the procedure are omitted for simplification. When using the system for karaoke, the microphone 33 is connected to the microphone connector 23 of the personal communicator 1.

When "karaoke" is selected on the category selection page at step S1000, an operation selection page similar to that of FIG. 4 is displayed on the screen. Specifically, an item A of a desired karaoke number, item B of the karaoke number list, and item C of charge are displayed. If the operator wishes to start karaoke, the operator inputs the desired karaoke number in the corresponding box at item A or B.

Karaoke request data is then generated at the personal communicator 1 and sent out to the host facility 100. The host facility 100, receiving the request, controls the karaoke data transmitter 113 to retrieve corresponding karaoke data from the karaoke data base 103, and sends out the retrieved karaoke data to the personal communicator 1.

The karaoke data received at the personal communicator 1 is stored, as song data, in the memory 8 via the modulator/demodulator 3a. At the same time, the CPU 5 sends song selection data, which is predetermined according to the type of each song, to the video tuner 3b in order to select visual data

suitable to the selected song. Further, the CPU 5 synchronously outputs to the video image circuit 9 and the sound source 10, respectively, words data and accompaniment data included in the song data stored in the memory 8. The video
 5 image circuit 9 converts the information concerning the words and other elements of the song into word/image data and outputs the word/image data to the monitor 16.

The sound source 10 converts the accompaniment data into audio signals, and outputs the audio signals to the audio
 10 amplifier 11. Subsequently, the audio amplifier 11 synthesizes the audio signals and the voice signals sent from the microphone 12, amplifies these synthesized signals and outputs them to the speaker 13 as sound signals. The video tuner 3b reads out background visual data selected according to the song selection
 15 data, and outputs to the image composite circuit 15. Then, the image composite circuit 15 synthesizes the background visual data and the words/image data and outputs the video signals to the monitor 16.

The procedure for playing karaoke music will be further
 20 explained in detail.

The song data sent out from the host facility 100 via the co-axial cables as transmission paths 200 includes multiplied RF signals of video information and RF signals converted from the song data. The CPU 5 of the personal communicator 1
 25 sends the song selection data to the video tuner 3b of the

terminal modem 3 in order to select the video channel according to the received song data. The song selection data is predetermined according to the genre of songs. Consequently, the song data is sent to the sound source 10 and the karaoke music is played.

When the karaoke music is ended, data indicative of the end of the play is sent to the host facility 100. In response, the host facility 100 performs the charging process. In contrast to the pay-per-play system of the game data service, the cost for providing the karaoke music may be charged, for example per hour, since a single piece of karaoke music is only several minutes long.

In the case of karaoke data, as in the case of game data, a predetermined time is counted after the karaoke data is received from the host facility, and when the predetermined time has elapsed, the karaoke data is deleted.

By utilizing the communication system, the karaoke singer need not purchase a video disk or other karaoke software, since the karaoke data is provided by the host facility 100, which received the karaoke data request sent by the karaoke singer from his personal communicator 1. Further, the karaoke data provided to the karaoke singer is temporarily stored in the memory 8 serving as temporary storage means for the personal communicator 1, thereby releasing the host facility 100 to serve other personal communicators 1 requesting karaoke

data. The host facility 100 is thus able to respond to a greater number of callers having personal communicators 1. This invention has been described above with reference to the preferred embodiment as shown in the drawings. Modifications and alterations may become apparent to one who skilled in the art upon reading and understanding the specification. Despite the use of the embodiment for illustration purposes, it is intended to include all such modifications and alterations within the scope and spirit of the appended claims.

10 In this spirit, it should also be noted that in the embodiment, the personal communicator 1 is integrally provided with the monitor 16 and the speaker 13. However, any other external monitor or speaker may be connected to the personal communicator 1 and utilized. For example, a television receiver
15 may be connected to the personal communicator 1, thereby outputting the video information and the audio information on the television receiver. In this case, the personal communicator 1 may be provided with a small display, on which the selection pages as those shown in FIGS. 4 and 5 would be displayed.

20 Furthermore, the transmission paths 200 may be existing co-axial cables for cable television system, thereby structuring the communication system of the present invention as a multimedia interactive communication system. In this way, the video and audio information of satellite television services,
25 video disks, radio programs, and other various forms of available

software are equated to the other data base shown in FIG. 2. Such personal communicators 1 of the present invention can be provided in each individual's home or hotel room and in other various situations and places.

5 As mentioned, the stored data is deleted in a predetermined time period after it was received. This arrangement is beneficial to the data distributors since repeated game or karaoke play using the same game data or karaoke data is prevented.

10 In the above described embodiment, the game data stored in the memory 8 is deleted in order to interfere with the progress of game. Alternative arrangements to this are provided by the present invention, as shown in FIGS. 8A through 8D. In the arrangement of FIG. 8A, the view on a screen 161 of the monitor
 15 16 is blocked with patterns of stripes 162 displayed thereon. Instead, the view displayed on the screen may be partly deleted. In the arrangement shown in FIG. 8B, only an opponent of a boxing game, who is to be displayed on an area 163 of the screen 161, is deleted. Still another alternative is provision of a switch
 20 131 shown in FIG. 8C for a speaker circuit, which, when turned off, withholds the sound that would otherwise be issued from the speaker 13 during the game. Further alternative is provision of a switch 61 shown in FIG. 8D which invalidates the operation on the input device 6 or the controller 31. The
 25 switches 131 and 61 may be mechanical components or may be

software operations. For instance, actuation of the sound source 10 may be halted by the CPU 5, or the CPU 5 may reject signals from the input device 6 or the controller 31. As still another alternative, the power of the personal communicator 5 may be turned off when the CPU 5 determines that a predetermined time has elapsed after the game data was received.

In the described embodiment, when a predetermined time has passed after the game data was received from the host facility 100, the game data stored in the memory 8 is deleted. However, it may be arranged so that the player can resume playing the game by paying a surcharge. Specifically, the process steps shown in FIG. 9 may be taken. As will be noted, the process steps S1200 through S1250 in FIG. 9 are identical to those in FIG. 7, whereas at step S1260' the deletion of the game data is effected only after it is stored in a temporary storage device, different from the process at step S1260. At next step S1270, it is determined whether or not a surcharge has been paid. If the answer to the step S1270 is negative, it is next determined, at step S1280, whether or not a predetermined time has elapsed after the game data in the memory 8 was deleted. If the answer to the step S1280 is negative, the flow returns to step S1270. If the answer to the step S1280 is affirmative, the process step ends.

If "YES" is determined at the step S1270, the game data

received, is stored in the memory 8 of the personal communicator 1". In this case, the personal communicator 1" is connected with a tuner 300 so that the game is displayed on a screen of a home TV set 400. Alternatively, the broadcasting may be performed preferably via two-way communication through cables, or via Internet. In the communication system disclosed in this specification, the data to be transmitted may be either analog or digital.

In both modifications shown in FIGS. 10 and 11, the game play is interrupted when a predetermined time has elapsed after the game data was received at the personal communicators 1', 1". Of course, the arrangement shown in FIG. 9 may be incorporated into these arrangements of FIGS. 10 and 11 to allow the player to continue playing a game by paying a surcharge.

FIG. 12 is a flowchart showing another embodiment. In this embodiment, a predetermined time period to prevent further use of the image data is counted from the starting time of use of the data, not from the receiving time of the data from the host facility.

This embodiment is explained in detail hereinafter referring to FIG. 12. When the use of the image data sent from the host facility starts, the starting time is read out at step S1300. The current time is also read out, and the elapsed time after the starting time is calculated at step S1310. Then it is determined, at step S1320, whether or not a first predetermined

time period has elapsed. If "NO" is determined at step S1320, the flow returns to step S1310. If "YES" is determined, a warning is given at step S1330, and the elapsed time continues to be calculated at step S1340 until the end of a second
5 predetermined time period. When it is determined, at step S1350, that the second predetermined time period has elapsed, a process to prevent further use of the above image data is performed at step S1360. There may be various means to prevent further use of the image data, such as deleting the image
10 data stored in the memory 8, blocking, as shown in FIG. 8A or 8B, the view on the screen of the monitor 16 in accordance with the progress of the image data processing, stopping, as shown in FIG. 8C, the sound generated in accordance with the progress of the image data processing and invalidating, as shown in FIG. 8D,
15 any operation of the input device 6 or the controller 31 for instruction.

At next step S1370, it is determined whether or not a surcharge is paid. If the answer to step S1370 is negative, it is next determined, at step S1380, whether or not a third
20 predetermined time has elapsed after the process to prevent further use of the image data is performed. If the answer to step S 1380 is negative, the flow returns to step S1370. If the answer to step S1380 is affirmative, the process step ends.

If "YES" is determined at step S1370, the image data is
25 permitted to be continuously used at step S1390, then the flow

returns to step S1310. In the process after the resumption of use, the elapsed time after the payment of the surcharge is calculated at step S1310. In the case where deletion of the image data stored in the memory is used as a means of preventing further use of the image data, it is preferable to preserve the image data in a not-shown temporary storage device before deleting it from the memory, and to restore it from the temporary storage device into the memory after the surcharge is paid.

As in the above embodiment, instructions to pay the surcharge can be given by operating the keyboard of the communicator 1, and in response to the key operation, the host facility 100 performs the charging process.

FIG. 13 is a flowchart of a further embodiment. In this embodiment, when the program sent from the host facility is continuously unused for a predetermined time period, a process to prevent further use of the program is performed.

The procedure of this embodiment is explained in detail, hereinafter referring to FIG. 13. When the program sent from the host facility is used for some time and then the use ends, the ending time is read out at step S1400. Next, the current time is also read out and the elapsed time after the ending time is calculated at step S1410. Then it is determined, at step S1420, whether or not a first predetermined time period has elapsed. If "NO" is determined at step S1420, the flow returns to step

5 S1410. If "YES" is determined, a warning is given at step S1430, and the elapsed time continues to be calculated at step S1440 until the end of a second predetermined time period. When it is determined, at step S1450, that the second predetermined time period has elapsed, a process to prevent further use of the above program is performed at step S1460. There may be various means to prevent further use of the program, such as deleting the program stored in the memory 8, blocking, as shown in FIG. 8A or 8B, the view on the screen of the monitor 16 in accordance with the progress of the program, stopping, as shown in FIG. 8C, the sound generated in accordance with the progress of the program, and invalidating, as shown in FIG. 8D, any operation of the input device 6 or the controller 31 for instructions.

15 At next step S1470, it is determined whether or not a surcharge is paid. If the answer to step S1470 is negative, it is next determined, at step S1480, whether or not a third predetermined time has elapsed after the process to prevent further use of the program is performed. If the answer to step S1480 is negative, the flow returns to step S1470. If the answer to step S1480 is affirmative, the process step ends.

25 If "YES" is determined at step S1470, the program is permitted to be continuously used at step S1490, then the flow returns to step S1410. In the process after the resumption of use, the elapsed time after the payment of the surcharge is

calculated at step S1410. In the case where deletion of the program stored in the memory is used as a means of preventing further use of the program, it is preferable to preserve the program in a not-shown temporary storage device before deleting
5 it from the memory, and to restore it from the temporary storage device into the memory after the surcharge is paid.

As in the above embodiment, instructions to pay the surcharge can be given by operating the keyboard of the communicator 1, and in response to the key operation, the host
10 facility 100 performs the charging process.

If the program is used while a process shown in FIG. 13 is in progress, the above process is ended by a not-shown interrupt handling, and at the next cycle time the process at step S1400 starts again.

15 In the embodiments shown in FIG.13, the elapsed time period, during which a program is continuously unused, is preferably counted in the background by a backup power source even when the power of the personal communicator 1 is off. The processes to give a warning and to prevent further use may be
20 performed when the power switch of the personal communicator 1 is turned on next time.

In addition to the above described case, it may be considered that the elapsed time is calculated each time the power switch of the personal communicator 1 is turned on.
25 Such an embodiment is shown in FIG. 14. In this embodiment,

concerning each program or data stored in the memory 8, the ending time of use of the program or the data is stored in a specific storage region of the memory 8. When the program or the data is used, the ending time data is renewed at the time of
5 end of use. The procedure is explained hereinafter with respect to the case where a program is received by a personal communicator. In the case where image data, game data, or karaoke data is received, the same procedure is also taken.

In FIG.14, when the power switch of the personal
10 communicator 1 is turned on, the ending time data concerning every stored program is read out, at step S1500, from the above specific storage region of the memory 8. Next, at step S1510, the elapsed time after the ending time is calculated. It is next determined, at step S1520, whether or not the elapsed time has
15 exceeded a predetermined time period to prevent further use of the program, and at step S1530, whether or not the elapsed time has exceeded another predetermined time period to give a warning. If the elapsed time has exceeded the predetermined time period (a first time period) to give a warning (the answer to
20 step S1530: "YES"), a warning is given at step S1540. If the elapsed time has exceeded the predetermined time period (a second time period) to prevent further use of the program (the answer to step S1520: YES), the process to prevent further use of the program is performed at step S1550. If the elapsed time
25 has not exceeded either of the above predetermined time periods,

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the process step shown in FIG.14 ends.

When the process to prevent further use is performed, it is determined, at step S1560, whether or not a surcharge has been paid within a predetermined time period (a third time period). If the answer to step S1560 is negative, the process step ends. If the answer to step S1560 is affirmative, the process to allow resumption of use of the program is performed at step S1570. Next, the process to renew the ending time data with the current time concerning the program is performed at step S1580, and then the process step ends.

As in the above embodiment, instructions to pay the surcharge can be given by operating the keyboard of the communicator 1, and in response to the key operation, the host facility 100 performs the charging process.

In order to enable the choice between two modes, one of which is to calculate the elapsed time when the power switch of the personal communicator 1 is turned on as shown in FIG.14, and the other of which is to calculate the elapsed time in the background as shown in FIG.13, the input device 6 or the controller 25 of the personal communicator 1 may be used by the user for choosing.

Wherefore, having described the present invention, what is claimed is:

1. A communication system for transmitting at least one of the program, the data, and a combination of the program and data from a host facility to a communication terminal device, said communication terminal device comprising:

an input device for inputting instructions to execute the program or to process the data,

receiving means for receiving one of the program, the data, and a combination of the program and data as sent out from said host facility,

storage means for storing the program, the data, or a combination of the program and data received by said receiving means,

executing means for executing the program stored in said storage means or executing data processing by using the data stored in said storage means, in accordance with instructions from said input device,

clock means for keeping a predetermined time period after said receiving means receives the transmission, and

interference means for interfering with execution of said executing means when said clock means counts said predetermined time period; and

said host facility comprising:

storage means for storing at least one of the program, the

data, and a combination of the program and data together with the duration data indicative of the predetermined time period to be counted by said clock means, and

5 sending out means for sending out at least one of the program, the data, and a combination of the program and data together with the duration data stored in said storage means to said communication terminal device.

2. The communication system according to Claim 1, said
10 communication terminal device further comprising:

 second clock means for keeping a second predetermined time period shorter than said predetermined time period counted by said clock means, and

15 alarm means for issuing an alarm when said second clock means counts said second predetermined time period, and thereby informing that interference by said interference means with execution of said executing means will soon be performed.

3. The communication terminal device according to Claim 1,
20 further comprising:

 third clock means for keeping a third predetermined time period after said interference means interferes with execution of said executing means,

25 interference stop instruction means for instructing to stop the interference performed by said interference means, and

means for stopping the interference performed by said interference means and thereby allowing resumption of execution of the program or data processing performed by said executing means when said interference stop instruction means receives the instruction before said third clock means counts said third predetermined time period.

4. The communication system according to Claim 1, wherein said interference means comprises means for deleting at least one of the program, the data, and a combination of the program and data stored in said storage means.

5. The communication system according to Claim 1, wherein said communication terminal device comprises display means having a screen on which the progress of execution of the program or data processing is displayed, and

said interference means comprises means for blocking the view of what is displayed on said screen.

6. The communication system according to Claim 1, wherein said interference means comprises means for invalidating the operation of said input device.

7. The communication system according to Claim 1, further comprising sound generating means for generating a

predetermined sound in accordance with the progress of execution of the program or data processing, wherein said interference means comprises means for preventing said sound generating means from generating the sound.

5

8. A communication system for transmitting at least one of the program, the data, and a combination of the program and data from a host facility to a communication terminal device, said communication terminal device comprising:

10 an input device for inputting instructions to execute the program or to process the data,

receiving means for receiving one of the program, the data, and a combination of the program and data as sent out from said host facility,

15 storage means for storing the program, the data, or a combination of the program and data received by said receiving means,

executing means for executing the program stored in said storage means or executing data processing by using the data stored in said storage means, in accordance with instructions from said input device,

20 clock means for keeping a predetermined time period after said executing means starts execution of the program or data processing, and

25 interference means for interfering with execution of said

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said host facility comprising:

10 sending out means for sending out at least one of the program, the data, and a combination of the program and data together with the duration data stored in said storage means to said communication terminal device.

15 second clock means for keeping a second predetermined
time period shorter than said predetermined time period counted
by said clock means, and

10. The communication terminal device according to Claim 8,
further comprising:

operation of said input device.

14. The communication system according to Claim 8, further comprising sound generating means for generating a
 5 predetermined sound in accordance with the progress of execution of the program or data processing, wherein said interference means comprises means for preventing said sound generating means from generating the sound.

10 15. A communication system for transmitting at least one of the program, the data, and a combination of the program and data from a host facility to a communication terminal device, said communication terminal device comprising:

an input device for inputting instructions to execute the
 15 program or to process the data,

receiving means for receiving one of the program, the data, and a combination of the program and data as sent out from said host facility,

storage means for storing the program, the data, or a
 20 combination of the program and data received by said receiving means,

executing means for executing the program stored in said storage means or executing data processing by using the data stored in said storage means, in accordance with instructions
 25 from said input device,

clock means for keeping a predetermined time period after
 said execution means ends the execution of the program or data
 processing to count a time period during which at least one of the
 program, the data, and a combination of the program and data is
 5 continuously unused, and

interference means for interfering with execution of said
 executing means when said clock means counts a predetermined
 time period; and

said host facility comprising:

10 storage means for storing at least one of the program, the
 data, and a combination of the program and data together with
 duration data indicative of the predetermined time period to be
 counted by said clock means, and

15 sending out means for sending out at least one of the
 program, the data, and a combination of the program and data
 together with the duration data stored in said storage means to
 said communication terminal device.

16. The communication system according to Claim 15, said
 20 communication terminal device further comprising:

second clock means for keeping a second predetermined
 time period shorter than said predetermined time period counted
 by said clock means, and

25 alarm means for issuing an alarm when said second clock
 means counts said second predetermined time period, and

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thereby informing that interference by said interference means with execution of said executing means will soon be performed.

17. The communication terminal device according to Claim 15,
5 further comprising:

third clock means for keeping a third predetermined time period after said interference means interferes with execution of said executing means,

interference stop instruction means for instructing to stop
10 the interference performed by said interference means, and

means for stopping the interference performed by said interference means and thereby allowing resumption of execution of the program or data processing performed by said executing means when said interference stop instruction means
15 receives the instruction before said third clock means counts said third predetermined time period.

18. The communication system according to Claim 15, wherein said interference means comprises means for deleting at
20 least one of the program, the data, and a combination of the program and data stored in said storage means.

19. The communication system according to Claim 15, wherein said communication terminal device comprises display
25 means having a screen on which the progress of execution of

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program or data processing is displayed,

said interference means comprises means for blocking the view of what is displayed on said screen.

5 20. The communication system according to Claim 15, wherein said interference means comprises means for invalidating the operation of said input device.

10 21. The communication system according to Claim 15, further comprising sound generating means for generating a predetermined sound in accordance with the progress of execution of the program or data processing, wherein said interference means comprises means for preventing said sound generating means from generating the sound.

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Abstract of the Disclosure

A communication system is proposed for transmitting at least one of the data, the program, and a combination of them from a host facility to a communicator such as a communication terminal device. In this communication system, the data or the program becomes unable to be used when a predetermined time has elapsed after it is transmitted from the host facility to the communicator. This communication system is provided with the function of giving a warning before the use of the transmission becomes unable and the function of resuming the use in accordance with the user's instruction even after the use becomes unable.

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FIG. 1

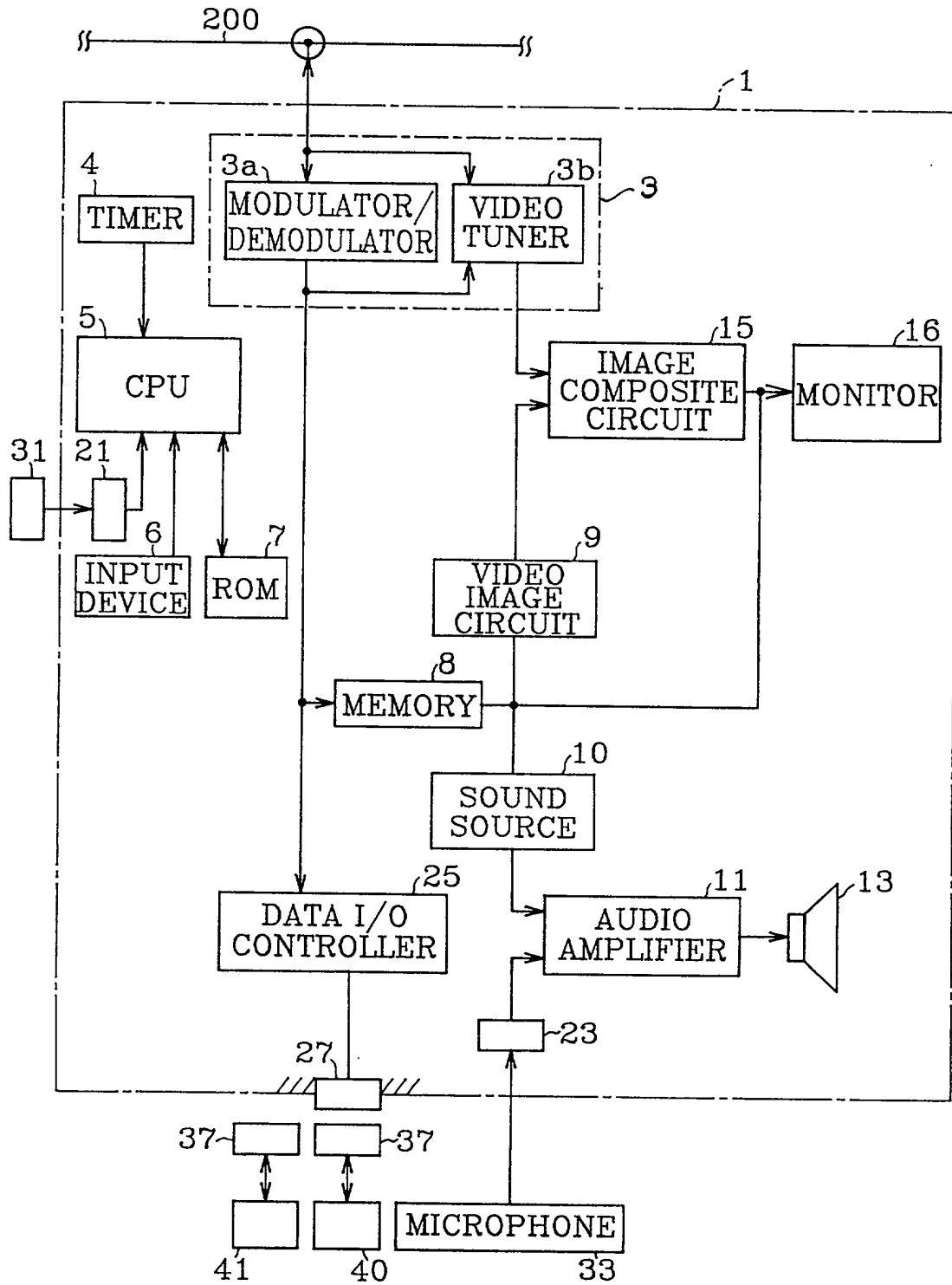


FIG.2

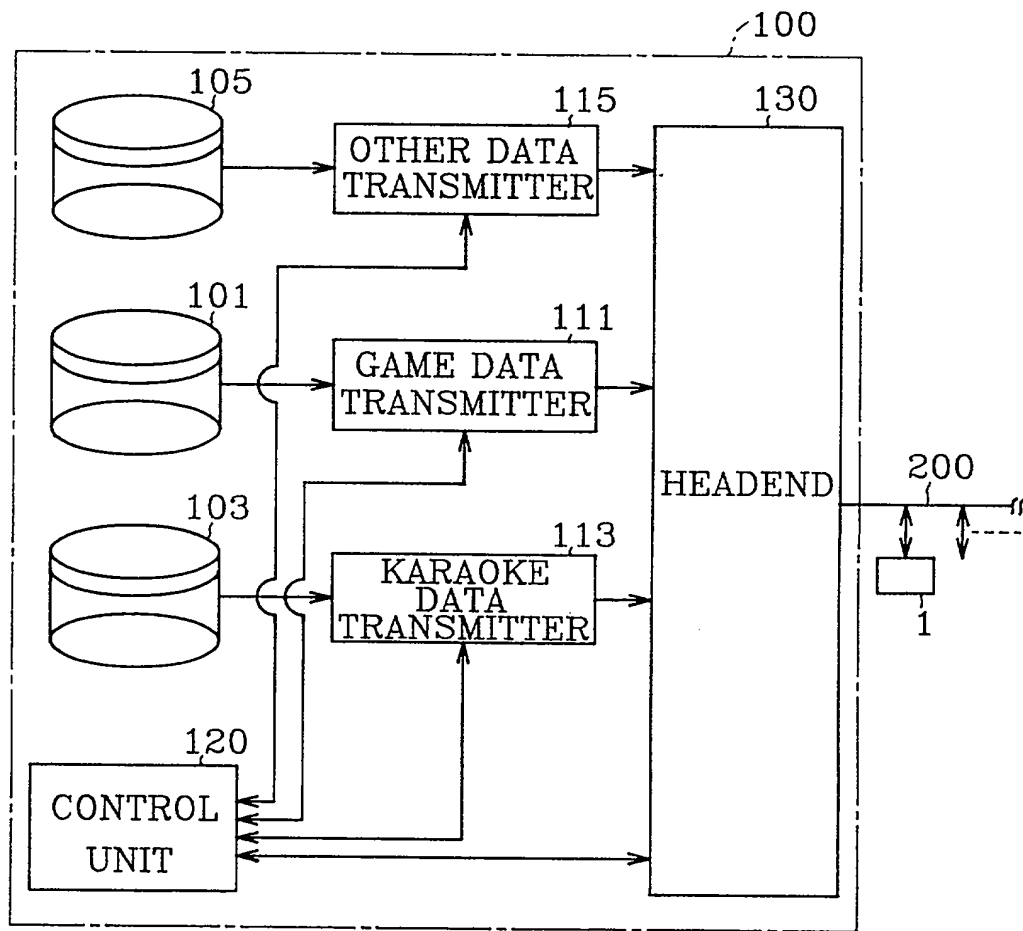


FIG.3

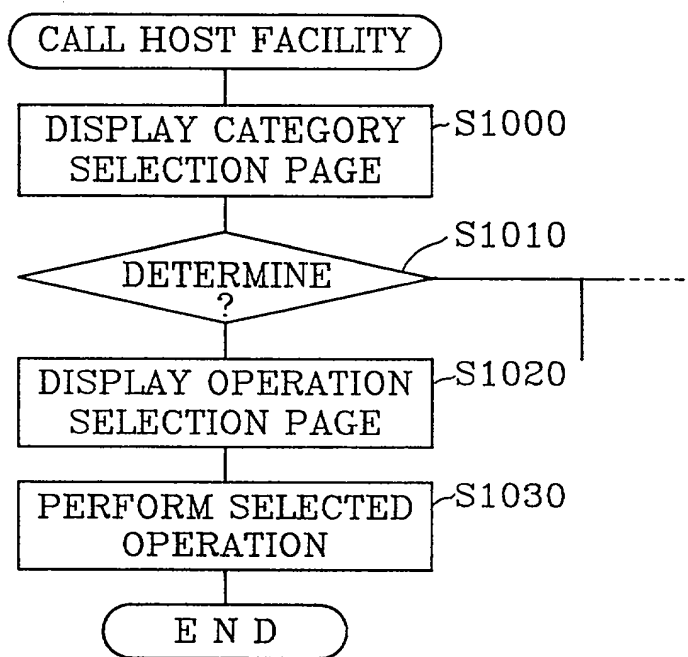


FIG.4

301

INPUT YOUR DESIRED GAME NUMBER AT
ITEM A OR SELECT EITHER OPERATION OF
ITEM B OR C

303 { A: DESIRED GAME NUMBER 305
B: GAME NUMBER LIST
C: CHARGE

FIG.5

X: DESIRED GAME NUMBER <input type="text"/> 315			
Y: EXPLANATION <input type="text"/> 317			
Z: PRINT 311			
GAME NUMBER	GAME NAME	NUMBER OF PLAYER	CHARGE
1	... CART	1-2	(...)
2	... PAINT	1	(...)
3	SUPER...	1-2	(...)
4	... LEGEND	1-2	(...)
5	STREET...	1-2	(...)

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FIG.6

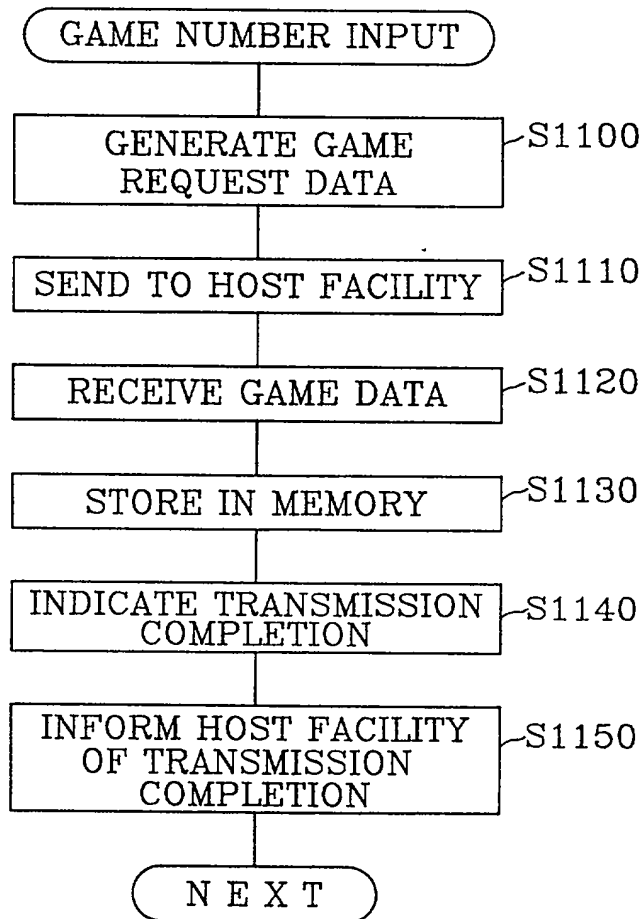
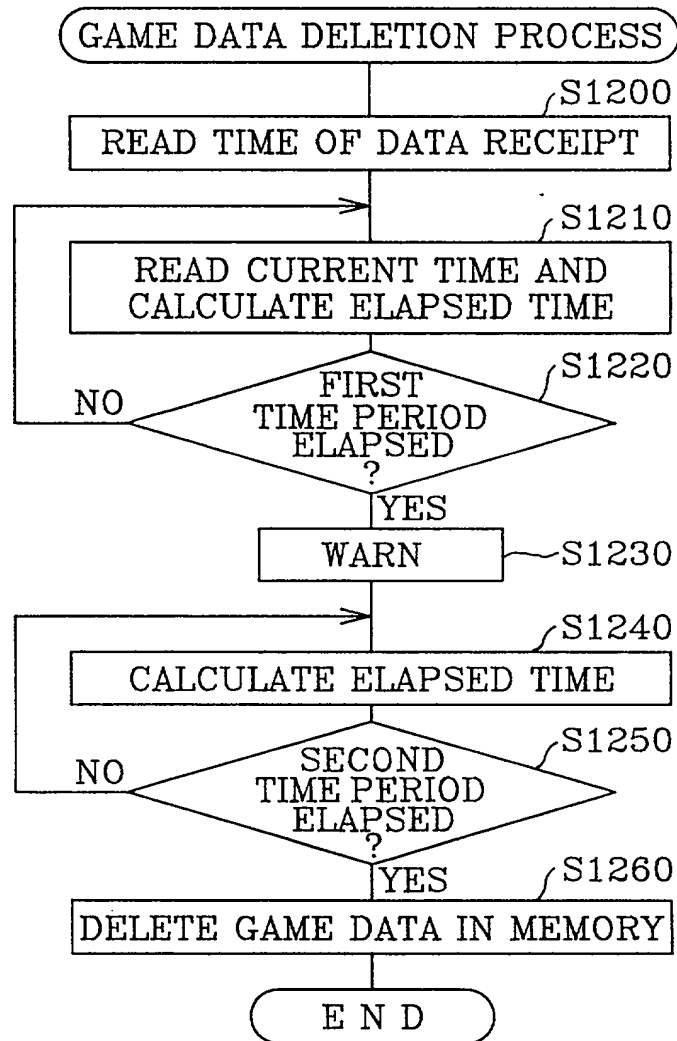


FIG.7



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FIG. 8A

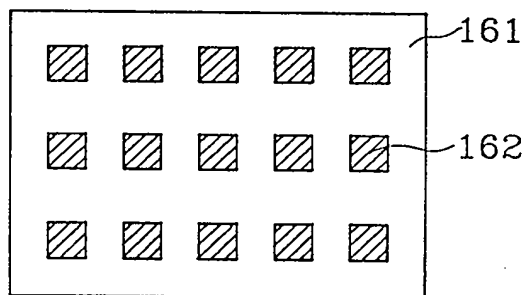


FIG. 8B

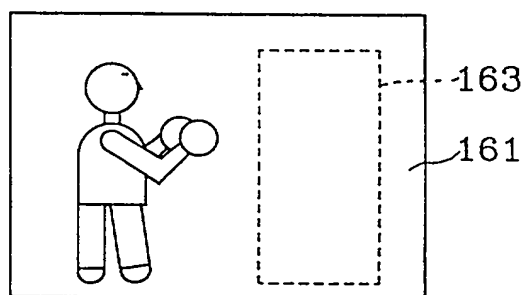


FIG. 8C

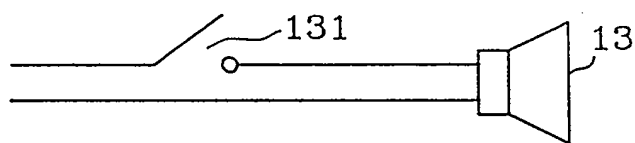


FIG. 8D

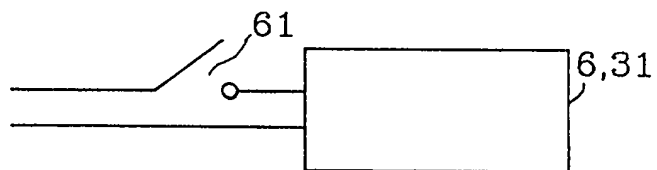


FIG.9

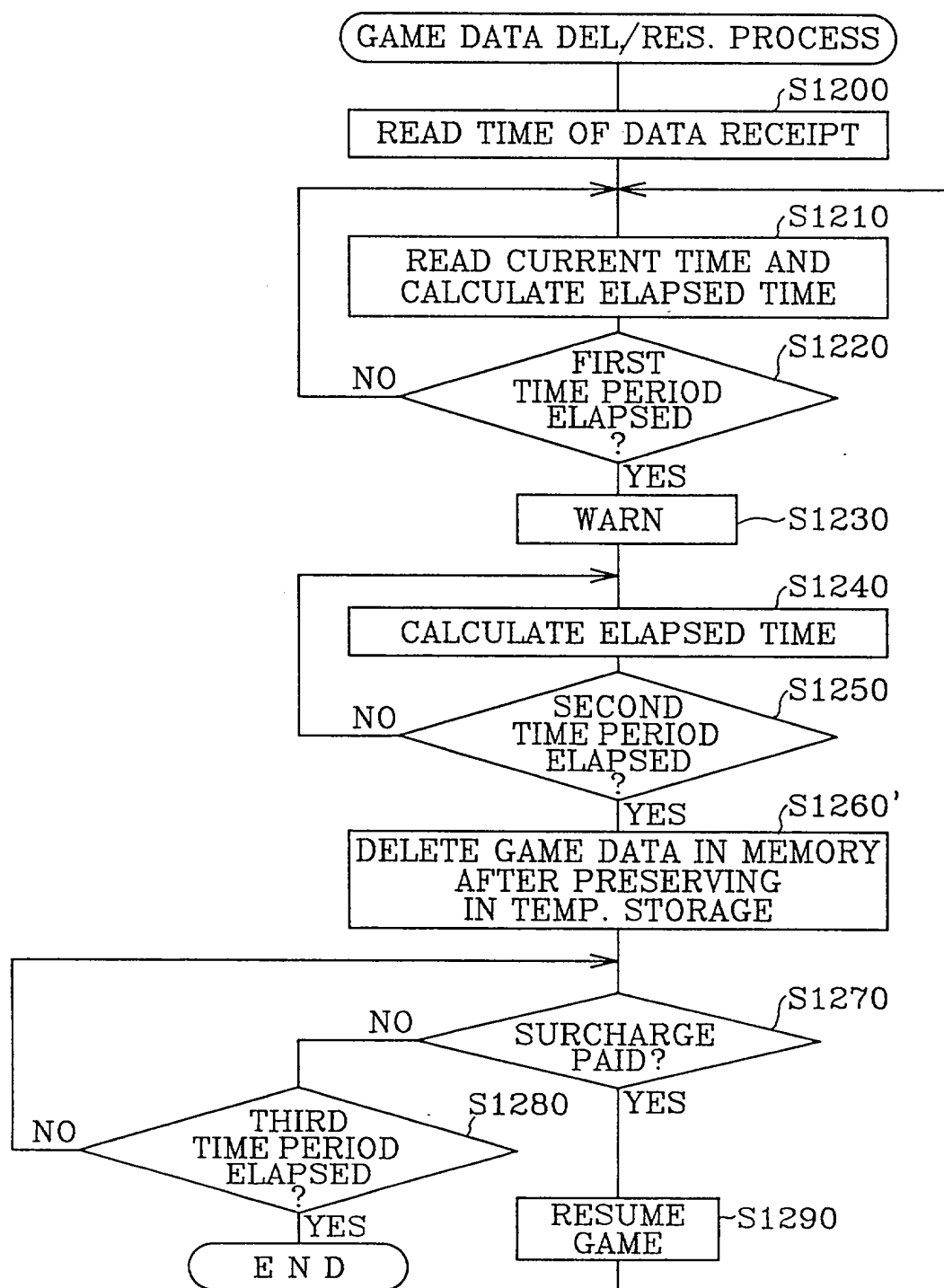


FIG.10

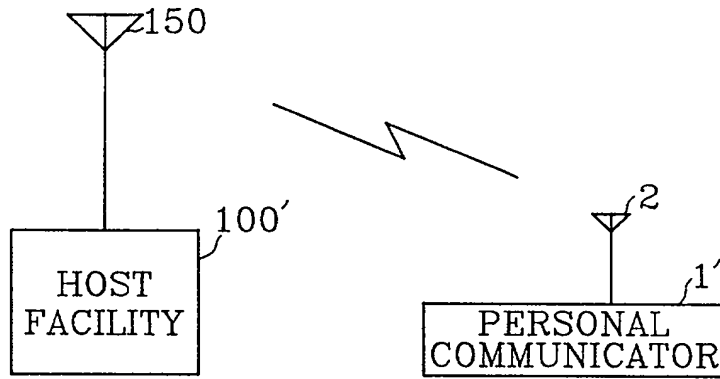


FIG.11

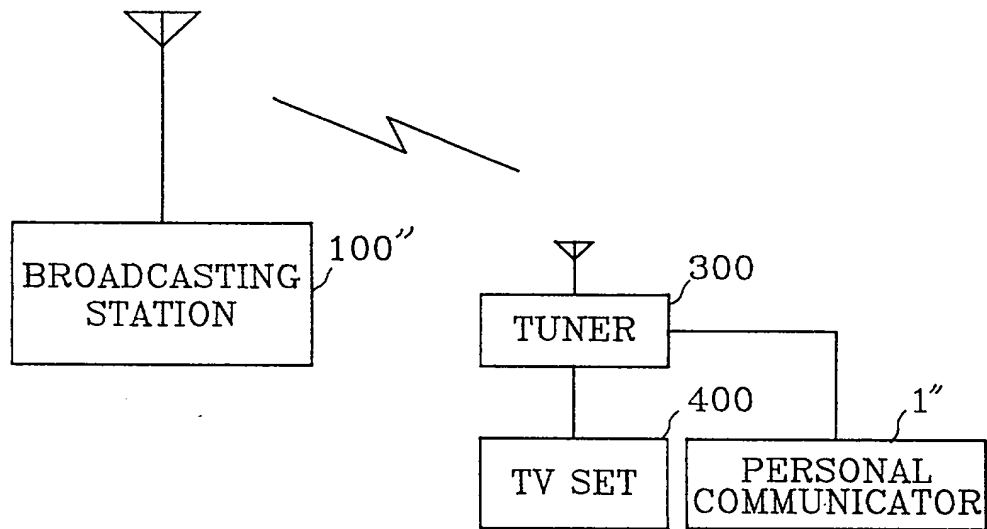


FIG. 12

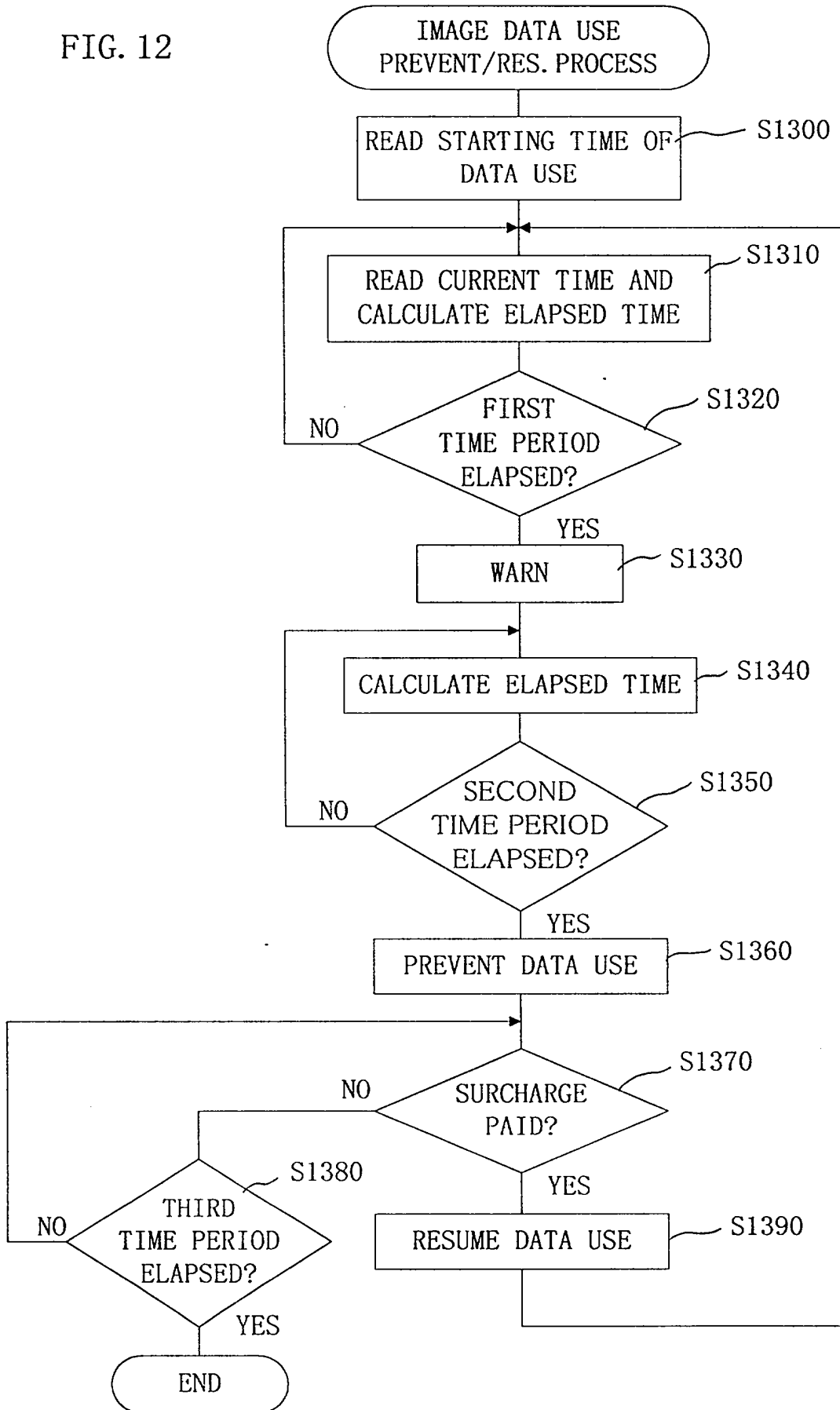


FIG. 13

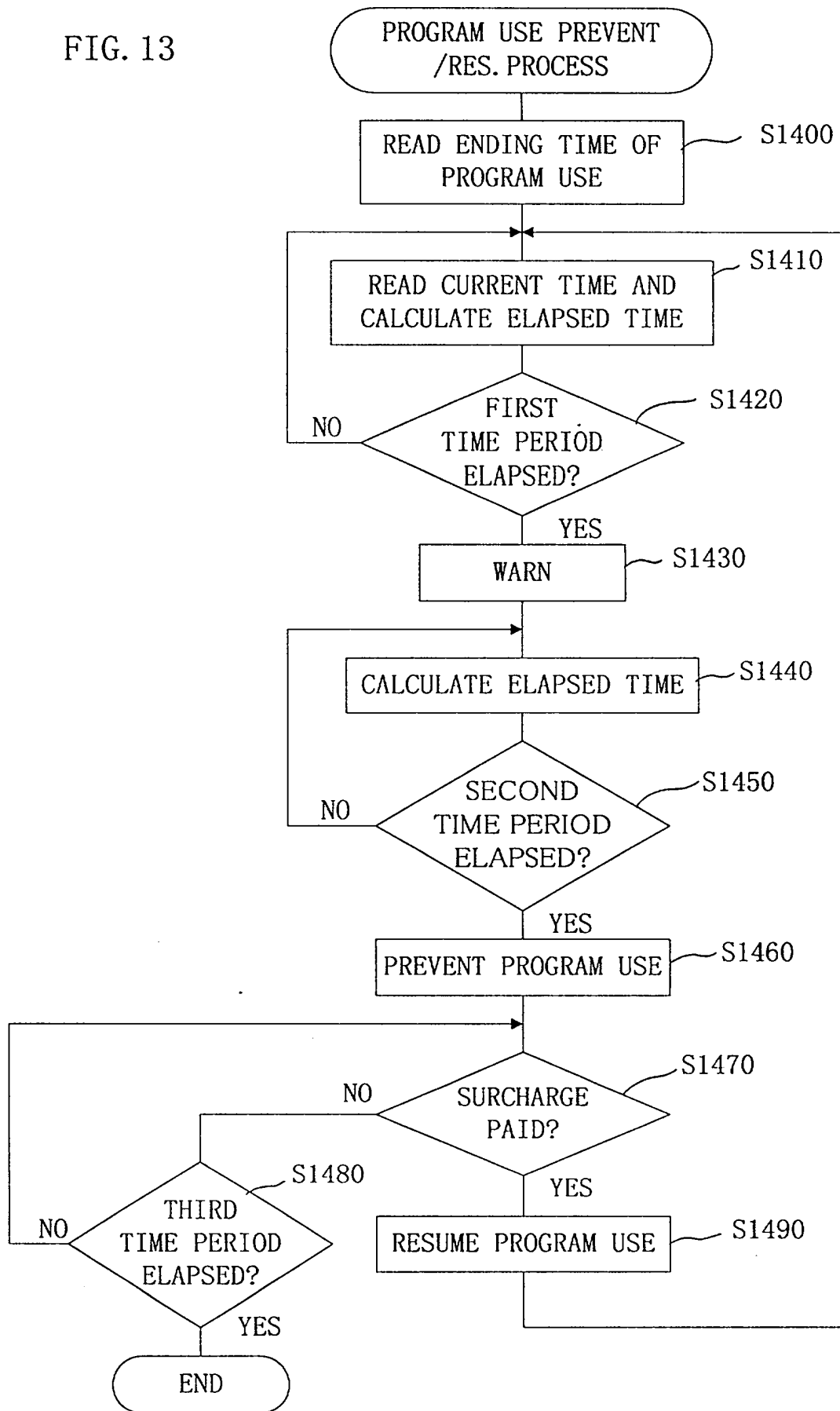
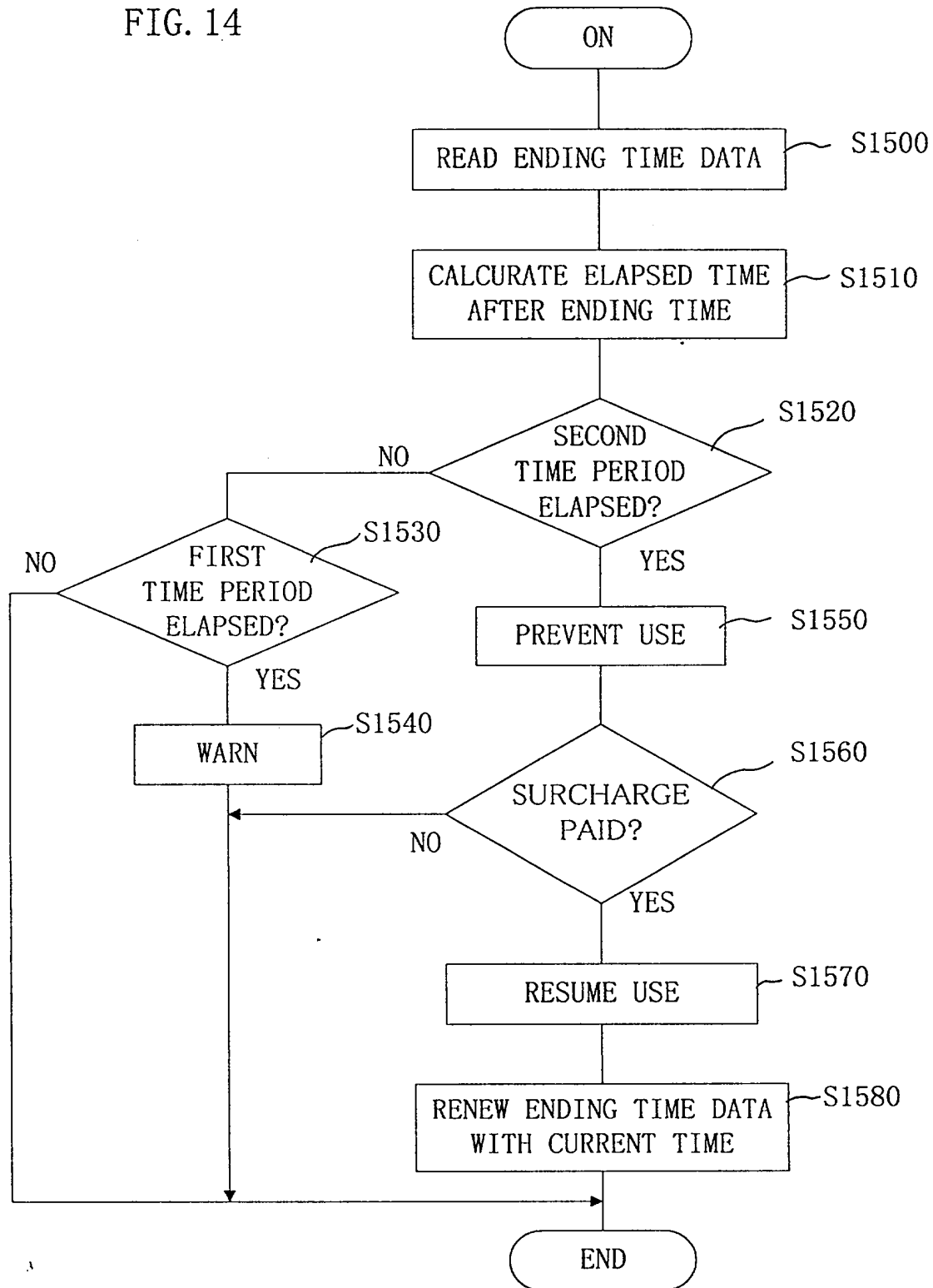


FIG. 14



COMBINED DECLARATION AND POWER OF ATTORNEY
(Original, Design, National Stage of PCT, Supplemental)

As a below named inventor, I hereby declare that:

TYPE OF DECLARATION

This declaration is of the following type: (check one applicable item below)

- ☐ original
- ☐ design
- ☐ supplemental
- ☐ National Stage of PCT
- ☐ divisional (see added page)
- ☐ continuation (see added page)
- ☒ continuation-in-part (see added page)

INVENTORSHIP IDENTIFICATION

My residence, post office address and citizenship are as stated below next to my name, I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

TITLE OF INVENTION

INTERACTIVE COMMUNICATION SYSTEM FOR COMMUNICATING

VIDEO GAME AND KARAOKE SOFTWARE

SPECIFICATION IDENTIFICATION

The specification of which: (complete (a), (b) or (c))

- (a) ☒ is attached hereto.
- (b) ☐ was filed on _____ as ☐ Serial No. _____
0 / _____ or ☐ Express Mail No. _____
(as Serial No. not yet known) _____
and was amended on _____ (if applicable).
- (c) ☐ was described and claimed in PCT International
Application No. _____ filed on _____
and as amended under PCT
Article 19 on _____ (if any).

POWER OF ATTORNEY

As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (list name(s) and registration number(s))

Anthony G. M. Davis	Registration No. 27,868
Michael J. Bujold	Registration No. 32,018

☐ Attached as part of this Declaration and Power of Attorney is the authorization of the above-named attorney(s) to accept and follow instructions from my representative(s).

Send Correspondence to

Davis and Bujold
Fourth Floor
500 N. Commercial Street
Manchester, NH 03101

Direct Telephone Calls to:

(603) 624-9220

Direct Telefaxes to:

(603) 624-9229

ACKNOWLEDGEMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR

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

I acknowledge the duty to disclose to the United States Patent Office all information which is known to be material to patentability of this application as defined in § 1.56 of Title 37 of the Code of Federal Regulations.

PRIORITY CLAIM

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed.

EARLIEST FOREIGN APPLICATION(S), IF ANY FILED WITHIN 12 MONTHS (6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION

COUNTRY	APPLICATION NO.	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 37 USC 119
Japan	5-108303	10/05/1993	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO

ALL FOREIGN APPLICATION(S), IF ANY FILED MORE THAN 12 MONTHS (6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION

Japan Appln.No.5-108303(10,May,1993) Priority Claimed: YES

DECLARATION

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

Signature(s)

Full name of sole or first inventor Takeya OKAMOTO
 Inventor's signature Takeya Okamoto
 Date June 26, 1998 Country of Citizenship Japan
 Residence Nagoya, Japan
 Post Office Address c/o ADACHI INTERNATIONAL, Nagoyaseni Bldg.,
9-27, Nishiki 2-chome, Naka-ku, Nagoya, 460-0003 Japan
 Full name of second joint inventor (if any) _____
 Inventor's signature _____
 Date _____ Country of Citizenship _____
 Residence _____
 Post Office Address _____

ADDED PAGE TO COMBINED DECLARATION AND POWER OF ATTORNEY FOR
DIVISIONAL, CONTINUATION, OR CONTINUATION-IN-PART APPLICATION

CLAIM FOR BENEFIT OF EARLIER U.S./PCT APPLICATION(S) UNDER
35 U.S.C. 120

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose information that is material to the examination of this application, namely, informative where there is substantial likelihood that a reasonable Examiner would consider it important in deciding whether to allow the application to issue as a patent, which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application.

PRIOR U.S. APPLICATIONS OR PCT INTERNATIONAL APPLICATIONS DESIGNATING THE U.S. FOR BENEFIT UNDER 35 USC 120:					
U.S. APPLICATIONS			STATUS (CHECK ONE)		
U.S. APPLICATIONS	U.S. FILING DATE		Patented	Pending	Abandoned
1. 08 /232,862	April 25, 1994		X		
2. 08 /555,400	November 9, 1995		X		
3. 08 /642,560	May 3, 1996			X	
PCT APPLICATIONS DESIGNATING THE U.S.					
PCT APPLI- CATION NO.	PCT FILING DATE	U.S. SERIAL NOS. ASSIGNED (if any)			
4.					
5.					
6.					

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

☒ In re Application of: Takeya OKAMOTO
 Serial no.: _____ Group No.: _____
 Filed: _____ Examiner: _____
 For: INTERACTIVE COMMUNICATION SYSTEM FOR COMMUNICATING
 VIDEO GAME AND KARAOKE SOFTWARE
☐ Patent No.: _____ Issued: _____

* NOTE: Insert name(s) of inventor(s) and title also for patent. Where statement is with respect to a maintenance fee payment also insert application serial number and filing date and add Box M. Fee to address.

VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS (37 CFR 1.9(c-f) and 1.27(b-d))

With respect to the invention described in

- ☒ the specification filed herewith.
☐ application serial no. _____ filed _____
☐ patent no. _____ issued _____

I. IDENTIFICATION OF DECLARANT AND RIGHTS AS A SMALL ENTITY

I hereby declare that I am

(complete either (a), (b), (c) or (d) below):

(a) Independent Inventor

- ☐ a below named independent inventor and that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees under Section 41(a) and (b) of Title 35, United States Code to the Patent and Trademark Office.

(b) Non-inventor Supporting a Claim By Another

- ☐ making this verified statement to support a claim by _____

for a small entity status for purposes of paying reduced fees under Section 41(a) and (b) of Title 35, United States Code and I hereby declare that I would qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees under 41(a) and (b) of Title 35, United States Code, if I had made the above identified invention.

(c) Small Business Concern

- ☒ the owner of the small business concern identified below:
☐ an official of the small business concern empowered to act on behalf of the concern identified below:

NAME OF CONCERN YUGENGAISHA ADACHI INTERNATIONAL

ADDRESS OF CONCERN Nagoyaseni Bldg., 9-27, Nishiki 2-chome,
Naka-ku, Nagoya, 460-0003 Japan and

that the above identified small business concern qualifies as a small business concern as defined in 13 CFR 121.3-18, and reproduced in 37 CFR 1.9(d), for purposes of paying reduced fees under Section 41(a) and (b) of the Title 35, United States Code, in that the number of employees of the concern, including those of its affiliates, does not exceed 500 persons. For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay periods of the fiscal year, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both.

(d) Non-Profit Organization

- ☐ an official empowered to act on behalf of the nonprofit identified below:

NAME OF ORGANIZATION _____

ADDRESS OF ORGANIZATION _____

TYPE OR ORGANIZATION

- ☐ UNIVERSITY OR OTHER INSTITUTION OF HIGHER EDUCATION
- ☐ TAX EXEMPT UNDER INTERNAL REVENUE SERVICE CODE (26 USC 501(a) and 501(c)(3))
- ☐ NONPROFIT SCIENTIFIC OR EDUCATIONAL UNDER STATUTE OF STATE OF THE UNITED STATES OF AMERICA

(NAME OF STATE _____)

(CITATION OF STATUTE _____)

- ☐ WOULD QUALIFY AS TAX EXEMPT UNDER INTERNAL REVENUE SERVICE CODE (26 USC 501(a) and 501(c) (3)) IF LOCATED IN THE UNITED STATES OF AMERICA
- ☐ WOULD QUALIFY AS NONPROFIT SCIENTIFIC OR EDUCATIONAL UNDER STATUTE OF STATE OF THE UNITED STATES OF AMERICA IF LOCATED IN THE UNITED STATES OF AMERICA

(NAME OF STATE _____)

(CITATION OF STATUTE _____)

and that the nonprofit organization identified above qualifies as a nonprofit organization as defined in 37 CFR 1.9(e) for purposes of paying reduced fees under Section 41(a) and (b) of Title 35, United States Code.

II. OWNERSHIP OF INVENTION BY DECLARANT

I hereby declare that rights under contract or law remain with and/or have been conveyed to the above identified

- ☐ person (item (a) or (b) above) ☒ concern (item (c) above) ☐ organization (item (d) above)

EXCEPT, that if the rights held are not exclusive, each individual, concern or organization having rights to the invention is listed below* and no rights to the invention are held (1) by any person who could not be classified as an independent inventor under 37 CFR 1.9(c) if that person had made the invention, (2) any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or (3) a non-profit organization under 37 CFR 1.9(e).

- ☒ no such person, concern, or organization
- ☐ person, concerns or organizations listed below*

***NOTE:** Separate verified statements are required from each named person, concern organization having rights to the invention averring to their status as small entities (37 CFR 1.27).

FULL NAME _____

ADDRESS _____

- ☐ Individual ☐ Small Business Concern ☐ Nonprofit Organization

FULL NAME _____

ADDRESS _____

- ☐ Individual ☐ Small Business Concern ☐ Nonprofit Organization

III. ACKNOWLEDGEMENT OF DUTY TO NOTIFY PTO OF STATUS CHANGE

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate (37 CFR 1.28(b)).

IV. DECLARATION

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

V. SIGNATURES (complete only (e) or (f) below)

(e) NOTE: All inventors must sign the verified statement

Name of Inventor

Signature of Inventor

Date

Name of Inventor

Signature of Inventor

Date

Name of Inventor

Signature of Inventor

Date

Name of Inventor

Signature of Inventor

Date

Name of Inventor

Signature of Inventor

Date

Name of Inventor

Signature of Inventor

Date

OR

(f) NOTE: The title of the person signing on behalf of a concern or non-profit organization should be specified.

NAME OF PERSON SIGNING Sumiko ADACHI

TITLE OF PERSON President of YUGENGAISHA ADACHI INTERNATIONAL

(if signing on behalf of a concern or non-profit organization)

ADDRESS OF PERSON SIGNING c/o ADACHI INTERNATIONAL, Nagoyaseni Bldg.,
9-27, Nishiki 2-chome, Naka-ku, Nagoya, 460-0003 Japan

SIGNATURE 足立 壽子 DATE June 26, 1998

07/02/98 PTO/SB/05 (2/98) PATENT APPLICATION TRANSMITTAL (Only for new nonprovisional applications under 37 C.F.R. § 1.53(b))	Attorney Docket No.	ADACHI P134USP1
	First Inventor or Application Identifier	Takeya OKAMOTO
	Title	INTERACTIVE COMMUNICATION SYSTEM FOR...
	Express Mail Label No.	EL128018389US

APPLICATION ELEMENTS See MPEP chapter 600 concerning utility patent application contents.	ADDRESS TO: Assistant Commissioner for Patents Box Patent Application Washington, DC 20231
--	--

1. <input checked="" type="checkbox"/> * Fee Transmittal Form (e.g., PTO/SB/17) (Submit an original and a duplicate for fee processing)	6. <input type="checkbox"/> Microfiche Computer Program (Appendix)
2. <input checked="" type="checkbox"/> Specification [Total Pages 44] (preferred arrangement set forth below) <ul style="list-style-type: none">- Descriptive title of the Invention- Cross References to Related Applications- Statement Regarding Fed sponsored R & D- Reference to Microfiche Appendix- Background of the Invention- Brief Summary of the Invention- Brief Description of the Drawings (if filed)- Detailed Description- Claim(s)- Abstract of the Disclosure	7. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary) <ul style="list-style-type: none">a. <input type="checkbox"/> Computer Readable Copyb. <input type="checkbox"/> Paper Copy (identical to computer copy)c. <input type="checkbox"/> Statement verifying identity of above copies

3. <input checked="" type="checkbox"/> Drawing(s) (35 U.S.C. 113) [Total Sheets 12]	ACCOMPANYING APPLICATION PARTS	
4. Oath or Declaration [Total Pages 56] <ul style="list-style-type: none"><input checked="" type="checkbox"/> Newly executed (original or copy)<input type="checkbox"/> Copy from a prior application (37 C.F.R. § 1.63(d)) (for continuation/divisional with Box 17 completed) [Note Box 5 below]i. <input type="checkbox"/> DELETION OF INVENTOR(S) Signed statement attached deleting inventor(s) named in the prior application, see 37 C.F.R. §§ 1.63(d)(2) and 1.33(b).	8. <input checked="" type="checkbox"/> Assignment Papers (cover sheet & document(s))	
5. <input type="checkbox"/> Incorporation By Reference (useable if Box 4b is checked) The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 4b, is considered to be part of the disclosure of the accompanying application and is hereby incorporated by reference therein.	9. <input type="checkbox"/> 37 C.F.R. § 3.73(b) Statement (when there is an assignee) <input type="checkbox"/> Power of Attorney	
	10. <input type="checkbox"/> English Translation Document (if applicable)	
	11. <input checked="" type="checkbox"/> Information Disclosure Statement (IDS)/PTO-1449 <input checked="" type="checkbox"/> Copies of IDS Citations	
	12. <input type="checkbox"/> Preliminary Amendment	
	13. <input checked="" type="checkbox"/> Return Receipt Postcard (MPEP 503) (Should be specifically itemized)	
	14. <input checked="" type="checkbox"/> * Small Entity Statement(s) <input type="checkbox"/> Statement filed in prior application, Status still proper and desired (PTO/SB/09-12)	
	15. <input type="checkbox"/> Certified Copy of Priority Document(s) (if foreign priority is claimed)	
	16. <input checked="" type="checkbox"/> Other: Express Mail Certificate...	

17. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment:
☐ Continuation ☐ Divisional ☒ Continuation-in-part (CIP) of prior application No: 08 / 642,560
Prior application information: Examiner Michael O'Neill Group / Art Unit: 3304

18. CO	PATENT & TRADEMARK OFFICE	DRESS
Customer Number or Bar Code Label (Insert Cu: 020210)		or <input type="checkbox"/> Correspondence address below
Name		
Address		
City	State	Zip Code
Country	Telephone	Fax

Name (Print/Type)	Anthony G.M. Davis	Registration No. (Attorney/Agent)	27,868
Signature		Date	JULY 2, 1998

FEE TRANSMITTAL

Patent fees are subject to annual revision on October 1.

These are the fees effective October 1, 1997.

Small Entity payments must be supported by a small entity statement, otherwise large entity fees must be paid. See Forms PTO/SB/09-12.

See 37 C.F.R. §§ 1.27 and 1.28.

TOTAL AMOUNT OF PAYMENT (\$) 446.00

Complete if Known

Application Number	
Filing Date	
First Named Inventor	Takeya OKAMOTO
Examiner Name	
Group / Art Unit	
Attorney Docket No.	ADACHI P134USP1

METHOD OF PAYMENT (check one)

1. ☒ The Commissioner is hereby authorized to charge indicated fees and credit any over payments to:

Deposit
Account
Number
Deposit
Account
Name

04-0213

DAVIS AND BUJOLD

☒ Charge Any Additional Fee Required Under 37 C.F.R. §§ 1.16 and 1.17 ☐ Charge the Issue Fee Set in 37 C.F.R. § 1.18 at the Mailing of the Notice of Allowance

2. ☒ Payment Enclosed:

☒ Check ☐ Money Order ☐ Other

FEE CALCULATION

1. BASIC FILING FEE

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
101 790	201 395	Utility filing fee	395
106 330	206 165	Design filing fee	
107 540	207 270	Plant filing fee	
108 790	208 395	Reissue filing fee	
114 150	214 75	Provisional filing fee	
SUBTOTAL (1)			(\$) 395

2. EXTRA CLAIM FEES

Total Claims	Extra Claims	Fee from below	Fee Paid
21	-20** = 1	11	11
3	-3** = 0	0	0
Multiple Dependent		0	0

* For number previously paid, if greater; For Reissues, see below

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description
103 22	203 11	Claims in excess of 20
102 82	202 41	Independent claims in excess of 3
104 270	204 135	Multiple dependent claim, if not paid
109 82	209 41	** Reissue independent claims over original patent
110 22	210 11	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$) 11

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
105 130	205 65	Surcharge - late filing fee or oath	
127 50	227 25	Surcharge - late provisional filing fee or cover sheet	
139 130	139 130	Non-English specification	
147 2,520	147 2,520	For filing a request for reexamination	
112 920*	112 920*	Requesting publication of SIR prior to Examiner action	
113 1,840*	113 1,840*	Requesting publication of SIR after Examiner action	
115 110	215 55	Extension for reply within first month	
116 400	216 200	Extension for reply within second month	
117 950	217 475	Extension for reply within third month	
118 1,510	218 755	Extension for reply within fourth month	
128 2,060	228 1,030	Extension for reply within fifth month	
119 310	219 155	Notice of Appeal	
120 310	220 155	Filing a brief in support of an appeal	
121 270	221 135	Request for oral hearing	
138 1,510	138 1,510	Petition to institute a public use proceeding	
140 110	240 55	Petition to revive - unavoidable	
141 1,320	241 660	Petition to revive - unintentional	
142 1,320	242 660	Utility issue fee (or reissue)	
143 450	243 225	Design issue fee	
144 670	244 335	Plant issue fee	
122 130	122 130	Petitions to the Commissioner	
123 50	123 50	Petitions related to provisional applications	
126 240	126 240	Submission of Information Disclosure Stmt	
581 40	581 40	Recording each patent assignment per property (times number of properties)	40
146 790	246 395	Filing a submission after final rejection (37 CFR 1.129(a))	
149 790	249 395	For each additional invention to be examined (37 CFR 1.129(b))	
Other fee (specify) _____			
Other fee (specify) _____			
* Reduced by Basic Filing Fee Paid			
SUBTOTAL (3)			(\$) 40

SUBMITTED BY

Typed or Printed Name Anthony G.M. Davis

Signature

Anthony G.M. Davis

Date

7.2.98

Complete (if applicable)

Reg. Number 27,868

Deposit Account User ID 04-0213

Burden Hour Statement This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Practitioner's Docket No. ADACHI P134USP1

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Takeya OKAMOTO

Serial No.: 0 /

Group No.:

Filed:

Examiner:

For: INTERACTIVE COMMUNICATION SYSTEM FOR COMMUNICATING VIDEO
GAME AND KARAOKE SOFTWARE

Assistant Commissioner for Patents
Washington, D.C. 20231

EXPRESS MAIL CERTIFICATE

"Express Mail" label number EL128018389US

Date of Deposit July 2, 1998

I hereby state that the following *attached paper or fee*
1 pg. Patent Application Transmittal, Check for \$446., 1 pg. Fee Transmittal (dupl),
34 pg. Specification, 9 pg. Claims, 1 pg. Abstract, 12 Sheets Formal Drawings,
Declaration, and Power of Attorney, Verified Statement Claiming Small Entity Status,
Return Postcard, Assignment for recordation

is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10, on the date indicated above and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

Anthony G.M. Davis

Typed or printed name of person mailing paper or fee

Anthony G.M. Davis

Signature of person mailing paper or fee

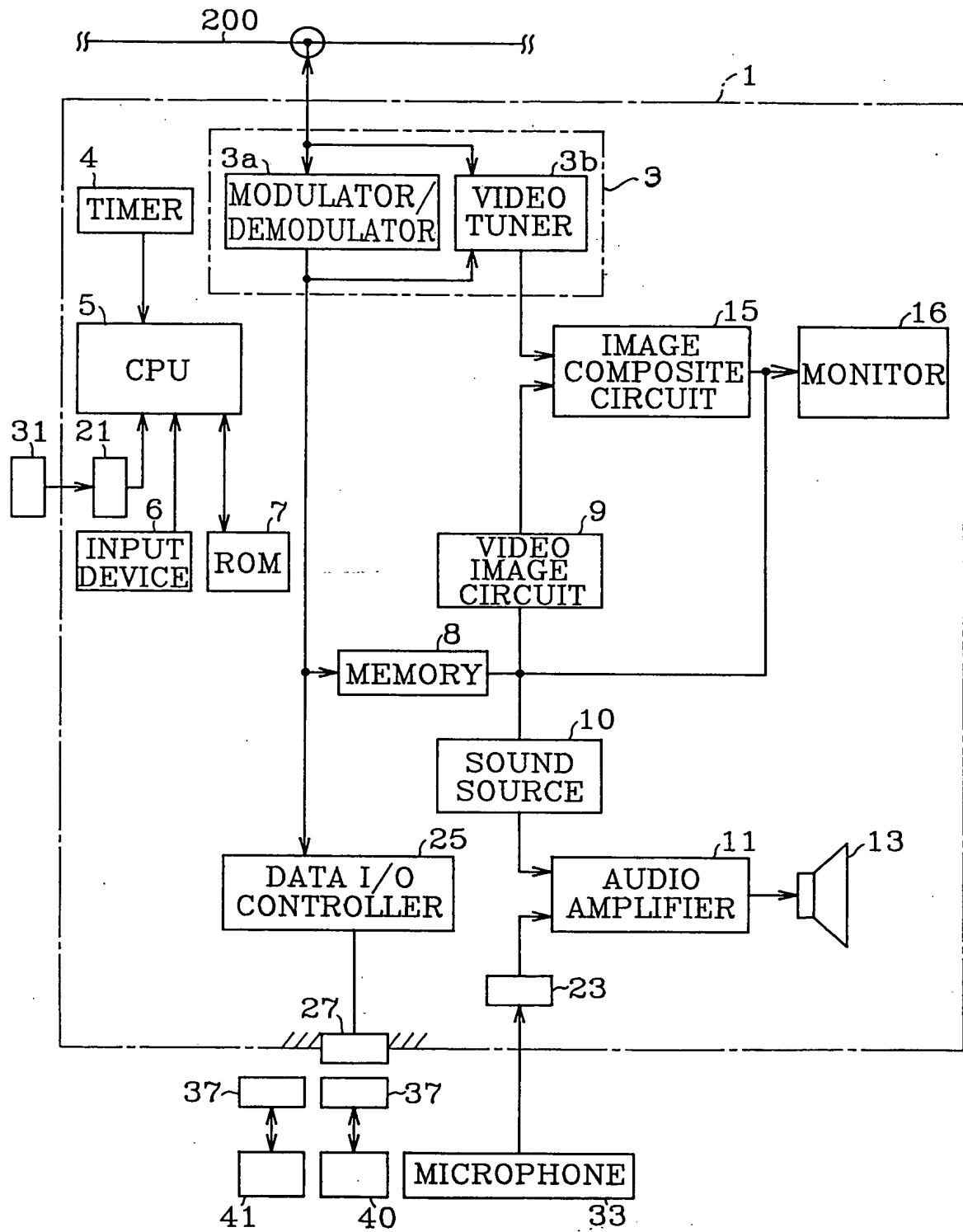
NOTE: The label number need not be placed on each page. It should, however, be placed on the first page of each separate document, such as, a new application, amendment, assignment, and transmittal letter for a fee, along with the certificate of mailing by "Express Mail." Although the label number may be on checks, such a practice is not required. In order not to deface formal drawings it is suggested that the label number be placed on the back of each formal drawing or the drawings be accompanied by a set of informal drawings on which the label number is placed.

(Express Mail Certificate [8-3])

863020 4860160

6193520

FIG.1



APPROVED O.G. FIG. 1 Rev. 2
CLASS SUBCLASS 44 307A
BY DRAFTSMAN

8152020" 18/50T 50

862020 48260T50

FIG.2

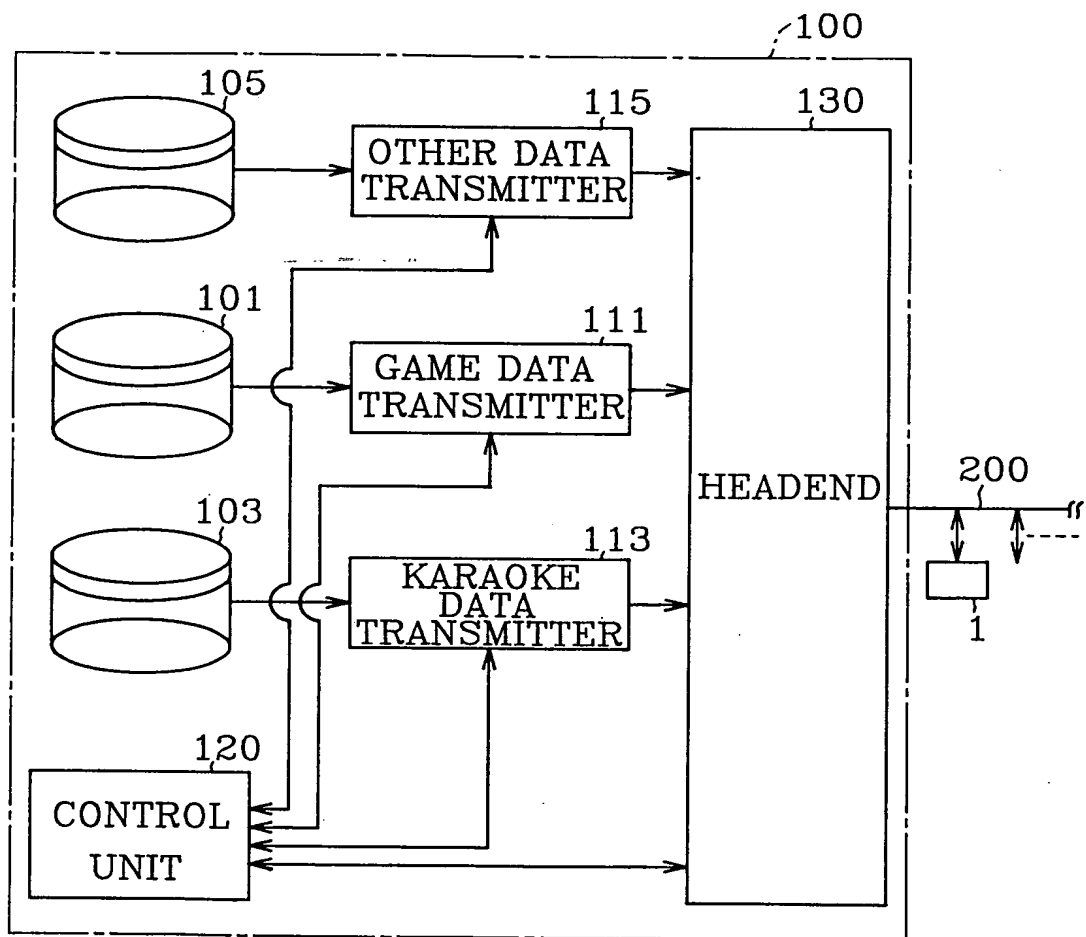
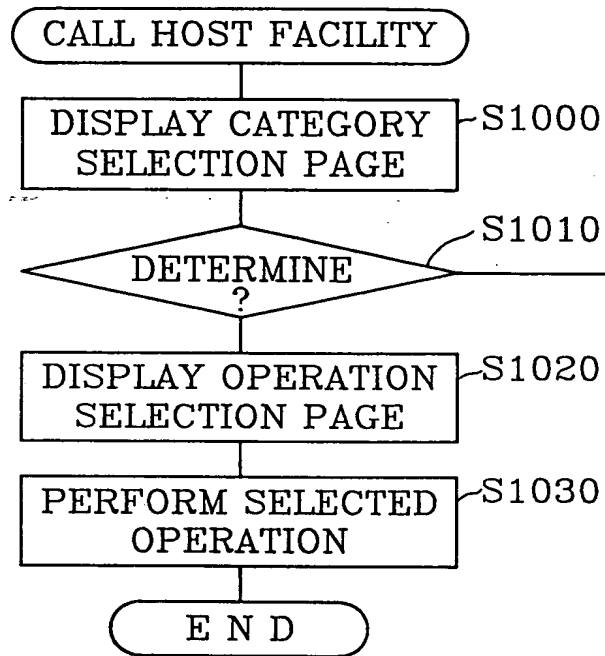


FIG.3



APPROVED	O.G. FIG.	CLASS	SUBCLASS
BY			
DRAFTSMAN			

862020-18260750

FIG.4

301

INPUT YOUR DESIRED GAME NUMBER AT
ITEM A OR SELECT EITHER OPERATION OF
ITEM B OR C

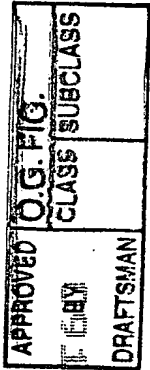
303 { A: DESIRED GAME NUMBER 305
B: GAME NUMBER LIST
C: CHARGE

FIG.5

X: DESIRED GAME NUMBER 315
Y: EXPLANATION 317
Z: PRINT 311

GAME NUMBER	GAME NAME	NUMBER OF PLAYER	CHARGE
1	... CART	1-2	(...)
2	... PAINT	1	(...)
3	SUPER...	1-2	(...)
4	... LEGEND	1-2	(...)
5	STREET...	1-2	(...)

313



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APPROVED	O.G. FIG.	
	CLASS	SUBCLASS
BY	DRAFTSMAN	

FIG.6

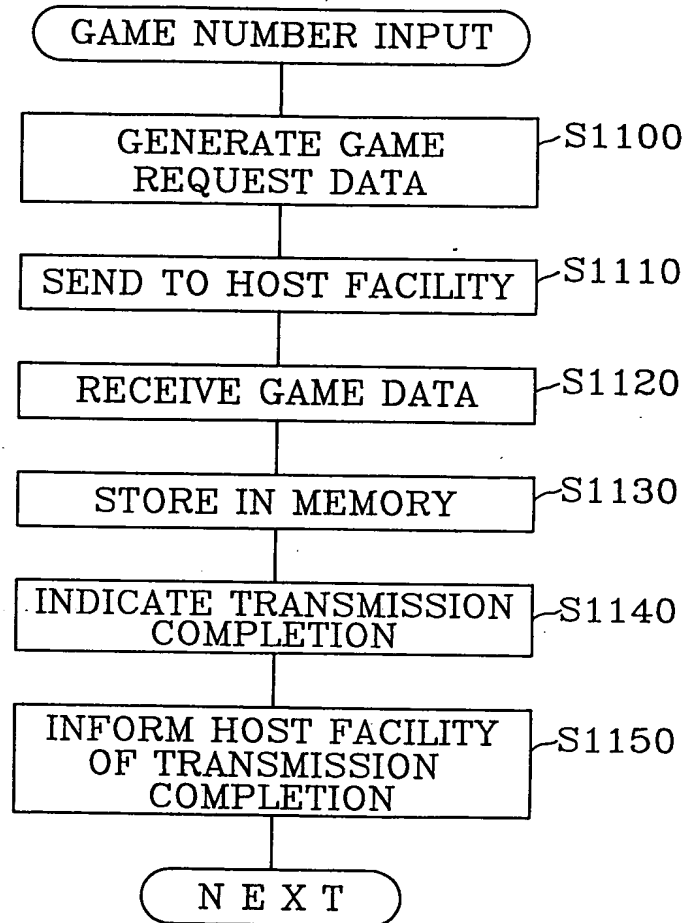
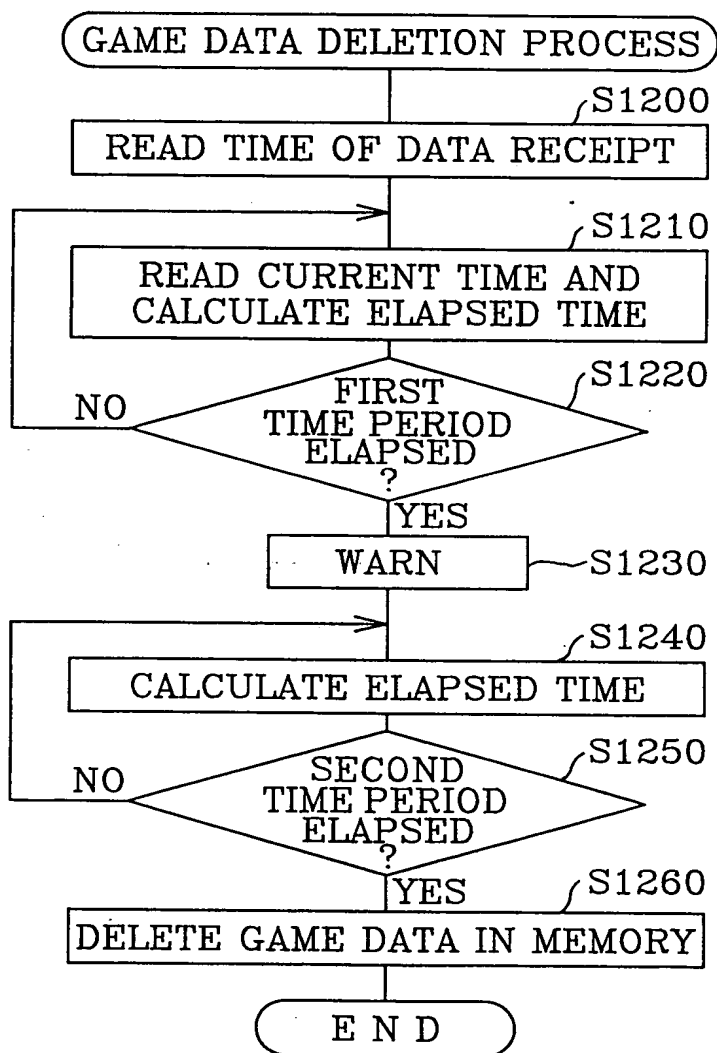


FIG. 7



APPROVED	O.G. FIG.	CLASS	SUBCLASS
	BY		
DRAFTSMAN			

FIG. 8A

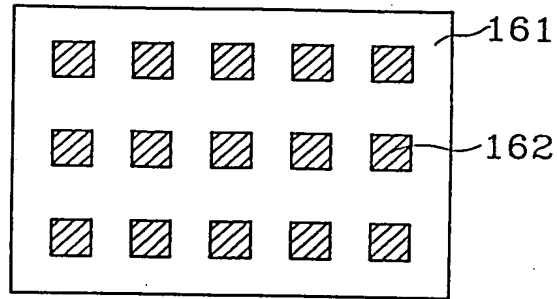


FIG. 8B

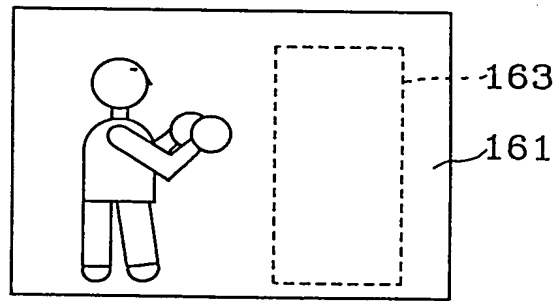


FIG. 8C

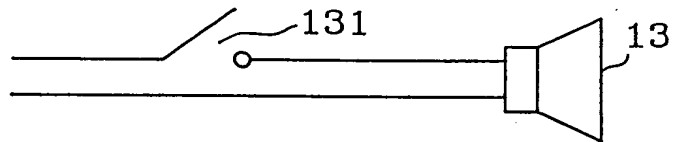


FIG. 8D

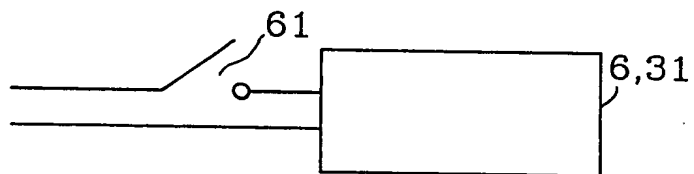
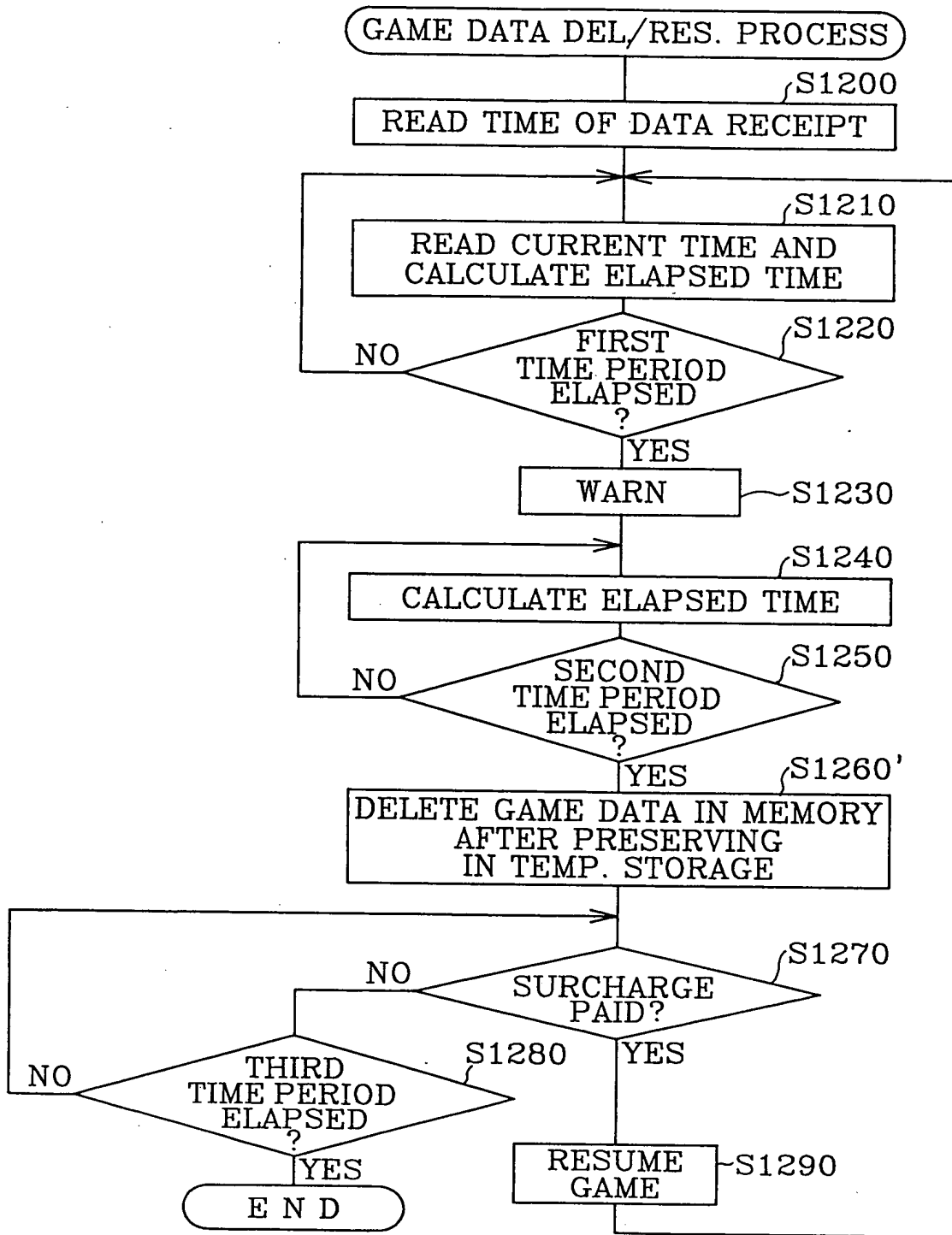


FIG.9



APPROVED	O.G. FIG.	CLASS	SUBCLASS
BY	6		
DRAFTSMAN			

862020" 4826076

APPROVED	O.G. FIG.	CLASS	SUBCLASS
662020	48260		
DRAFTSMAN			

FIG.10

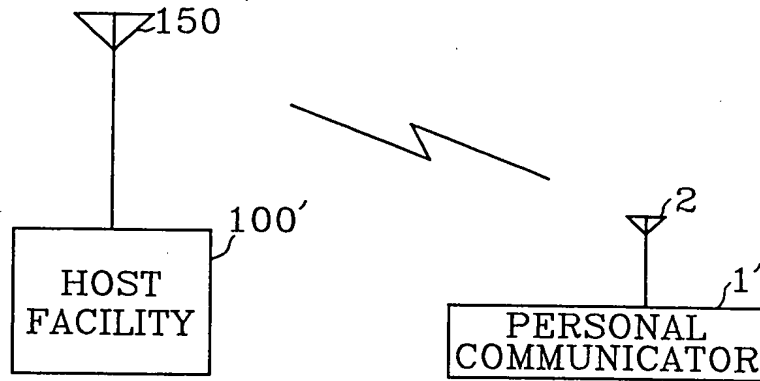


FIG.11

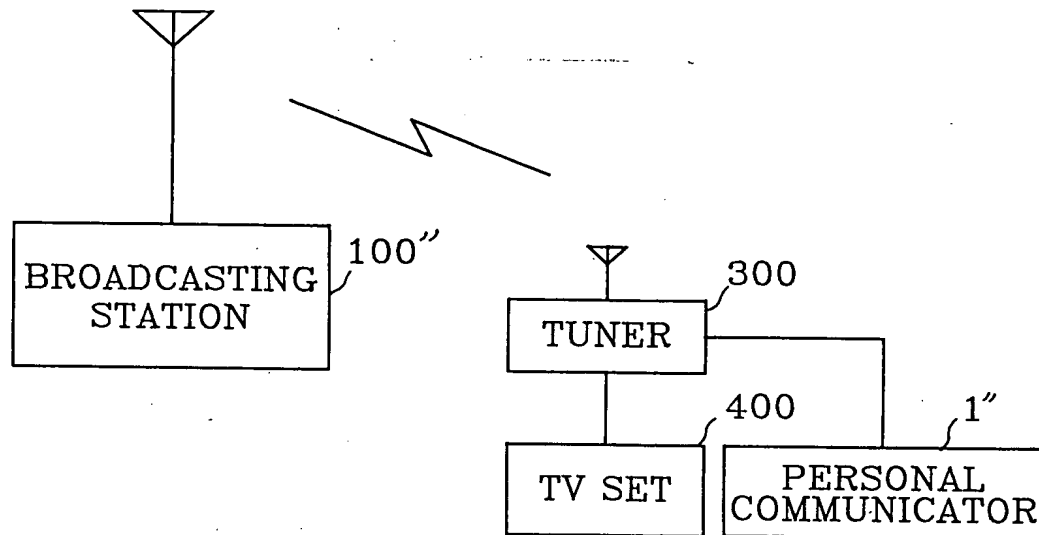
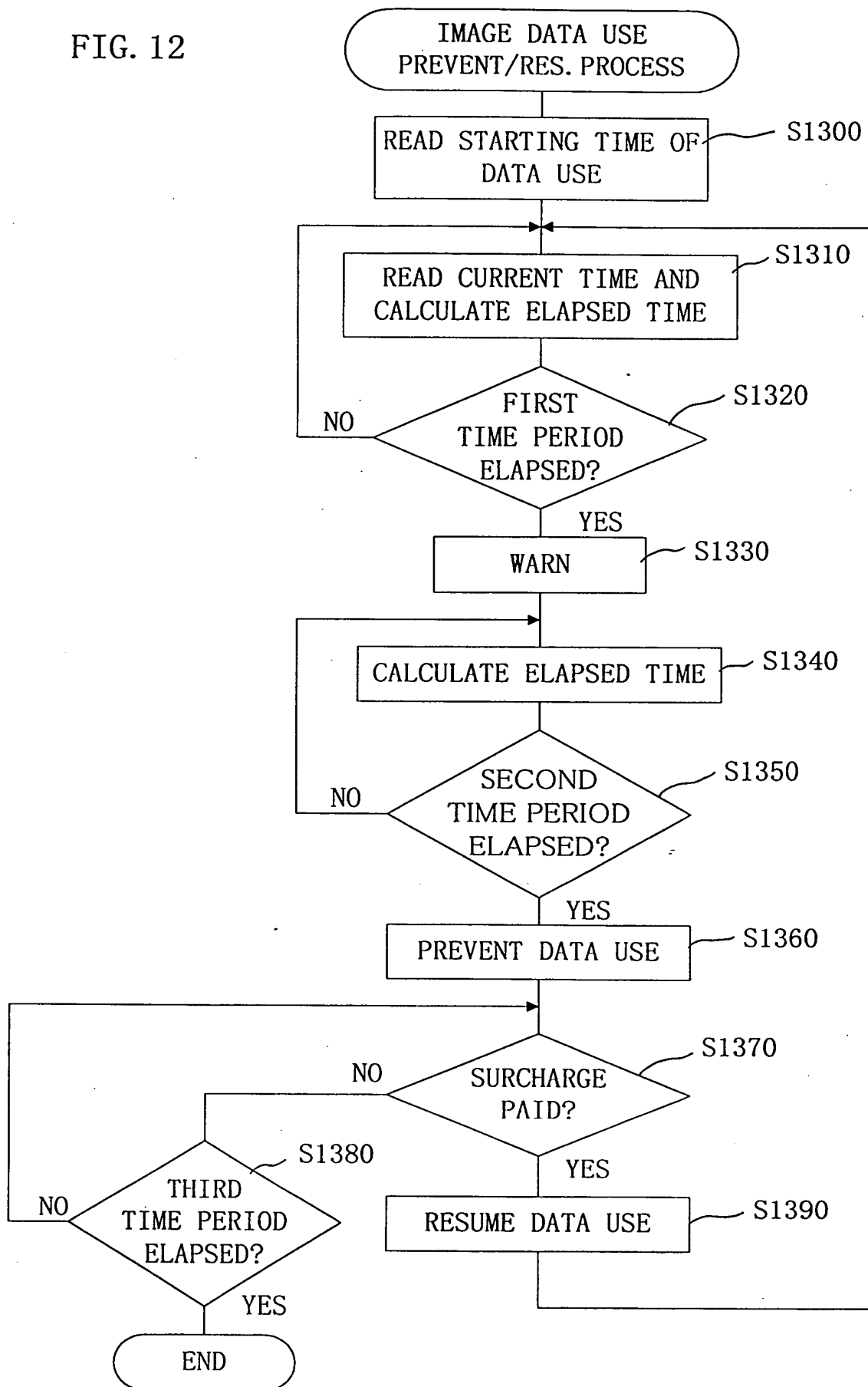


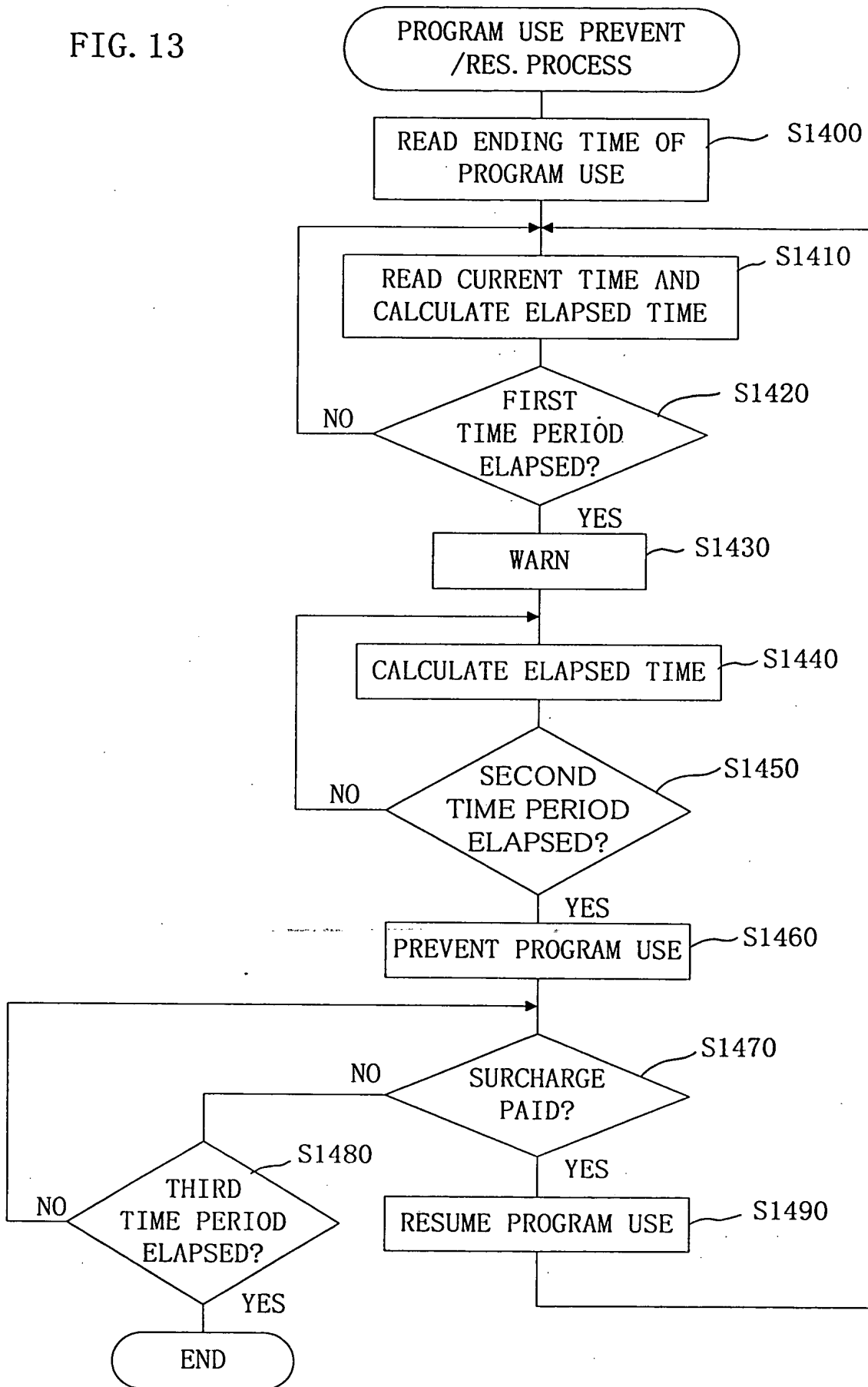
FIG. 12



APPROVED	O.G. FIG.	CLASS	SUBCLASS
BY	DATE		
DRAFTSMAN			

862020-432607

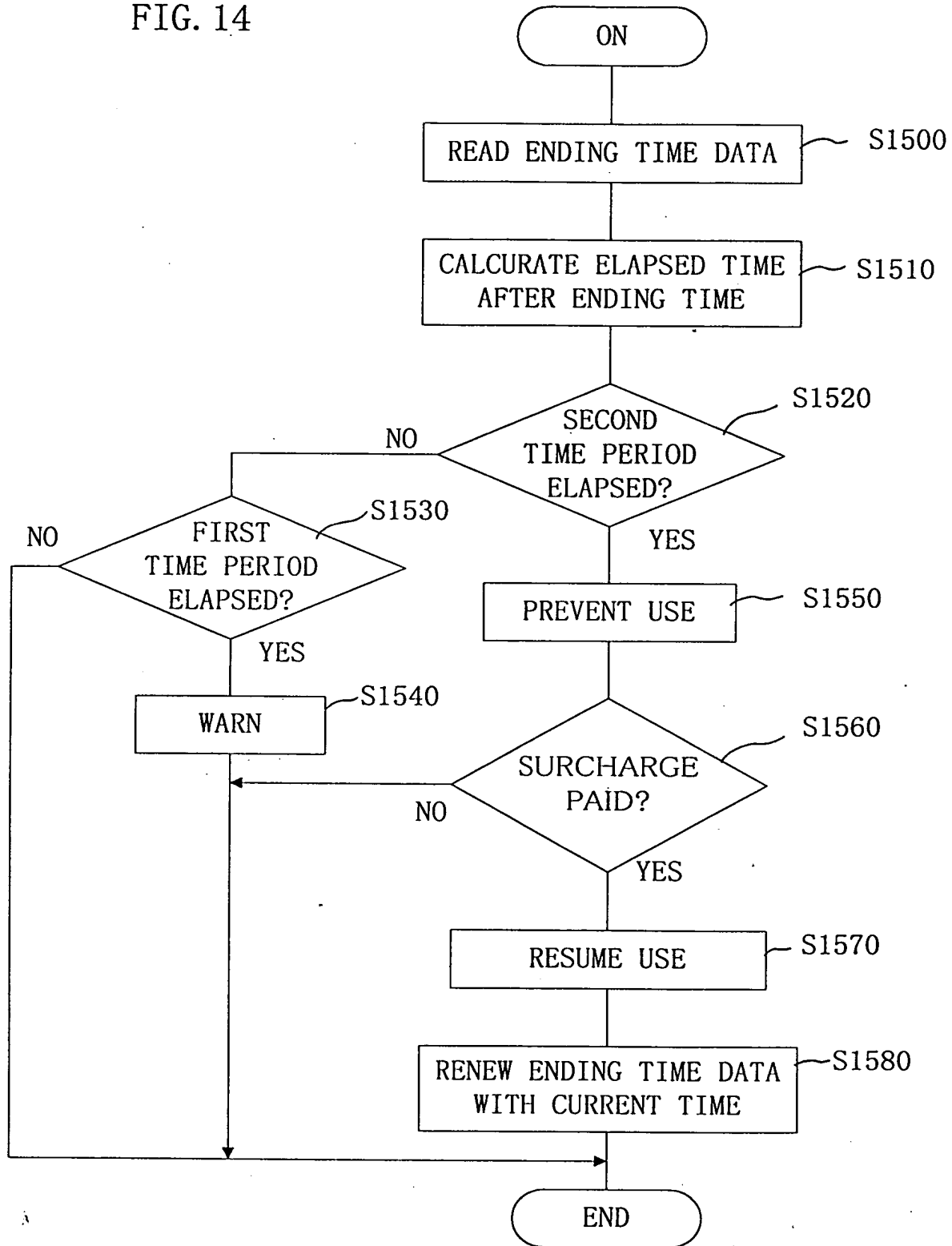
FIG. 13



APPROVED O.G. FIG. CLASS SUBCLASS
BY DRAFTSMAN

862020-48260760

FIG. 14



INTERACTIVE COMMUNICATION SYSTEM FOR
COMMUNICATING VIDEO GAME AND KARAOKE
SOFTWARE

5 This is a Continuation-in-Part of Application Ser. No.
08/642,560 filed May 3, 1996.

Field of the Invention

10 This invention relates to an interactive communication
system for transmitting video game and karaoke software from a
host facility to communication terminal devices.

Background of the Invention

15 Video games have become a very popular form of family
entertainment. In order to play a video game, a game cassette
is first installed in a video game machine body. Game data,
contained in the cassette and including video information and
usually audio information, is read and outputted to a common
television receiver. Accordingly, the one who wishes to play a
20 video game must have a video game machine and a game cassette,
besides a television set. Once the game cassette is installed,
the player can play the game whenever and as many times as the
player wishes.

25 However, therein lies a problem: the player has to
purchase each and every game cassette he wishes to play,

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which can be very costly. For all the advantage that the player can play the game repeatedly, he may soon get tired of the game, or the game content may not be oriented for repeated play.

Another form of entertainment increasing in popularity is "karaoke", i.e. singing to recorded instrumental accompaniment. More and more "karaoke bars" can be seen in major cities, and karaoke machines for domestic use are becoming widely accepted. Such family karaoke machines need, by definition, karaoke music software, which can be found, for example, on video disk, video tape containing video and audio information, and music tape containing only audio information. Karaoke singers, tempted by changing trends in music, tend to purchase newly available karaoke programs, one after another. Thus, there arise problems of accumulated expenditure and limited storage space for the increasing number of karaoke programs.

Summary of the Invention

Wherefore, an object of this invention is to provide an interactive communication system in which video game and karaoke software is transmitted via communication lines from a host facility to a calling communication terminal device at each individual home.

In order to attain the stated object, a communication terminal device according to the present invention includes communication means, connected to communication lines, for

3

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5 sending out or receiving data, and a computer for outputting control instructions to the communication means, and outputting or inputting data to or from the communication lines via the communication means. The communication terminal device further includes temporary storage means for temporarily storing the data inputted from the communication lines if the data inputted is game data including video information or video plus audio information, and game data outputting means included in the computer, for outputting, if the data stored in the temporary storage means is game data, the game data to integral or external display means, and, if the game data also includes audio information, to integral or external sound generating means.

15 In this way, the computer controls the communication means by supplying control instructions thereto. Data is thus sent out, under the control by the computer, via the communication means and the communication lines, or received via the communication lines and the communication means.

20 From another aspect of the invention, the computer may also include a printer, provided on the computer or provided externally, whereby, the data stored in the computer can be printed. For example, when the player wishes to quit game play, the current status of the game progress, e. g. which player corresponds to which character in the game, or the top scorer at 25 the time, can be stored. When resuming the game, the player

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can refer to the printed data.

From still another aspect of the invention, a communication system according to the present invention includes the above described communication terminal device and
5 a host facility intercommunicably connected to the communication terminal device. When the communication terminal device requests the host facility to provide game data, the host facility sends out the corresponding game data to the communication terminal device via the communication lines.
10 The game data, received at the communication terminal device, is temporarily stored in the temporary storage means.

From a further aspect of the invention, the game data stored in the temporary storage means is deleted after a predetermined amount of time passes after the game data was
15 received at the communication terminal device. In order to effect this deletion, the communication terminal device may include control means which operates, responsive to receipt of the game data, to delete the game data after a predetermined time period. Alternatively, the host facility may send an
20 instruction concerning the time period, in addition to each game data it sends out. The latter alternative permits alteration of the time period with respect to each game.

By utilizing the communication system, the player need not purchase a game cassette or other software for playing video
25 games, since the game data is provided by the host facility, which

5

received the game data request sent by the player from his communication terminal device. Further, the game data provided to the player is temporarily stored in the temporary storage means of the communication terminal device, thereby releasing the host facility to serve other communication terminal devices requesting game data. The host facility is thus able to respond to a greater number of callers having communication terminal devices.

Furthermore, the game data stored in the temporary storage means is deleted in a predetermined time period after it was received at the communication terminal device. In other words, the useful life of the game data at the communication terminal devices is limited. As a result of this arrangement, in order to continue the game play at the end of the predetermined time period, the player again needs to request the game data from the host facility. This arrangement is therefore prerequisite so long as the game data transmission service is not free of charge. In contrast, if it were possible to keep the game data at the communication terminal device at the end of game play, the player could play the game permanently without calling the host facility. Consequently, the service cost per each transmission would be higher than the normal price of the game cassettes. The above described arrangement solves this problem and meets the need of software distributors.

The arrangement is also beneficial to players since the

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service cost per each transmission can be considerably lower than the price of each game cassette. Therefore, the game player who conventionally has to buy an expensive game cassette, even if he plays the game only once, can be satisfied with the reasonable cost of the transmission. The arrangement is also superior with respect to child discipline, since children can only play a limited time.

From still another aspect of the invention, the communication terminal device according to the present invention may be adapted for karaoke.

When the data input from the communication lines is a karaoke data, the temporary storage means temporarily stores the karaoke data, which is then outputted to a sound output device. The sound output device may be provided on the communication terminal device or provided externally. If the karaoke data also includes video information, the karaoke data is also output to a display. The display may also be provided on the communication terminal device or provided externally.

The communication system according to the present invention includes the above described communication terminal device and a host facility intercommunicably connected to the communication terminal device. Karaoke data is sent and received in a manner similar to the one described above for video games. The system may be configured so that the karaoke data is erased after a certain time period.

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Other objects, advantages and novel features of the invention will become apparent from the following detailed description of the invention when considered in conjunction with the accompanying drawings, in which like reference characters
 5 designate the same or similar parts through the figures thereof.

Brief Description of the Drawings

FIG. 1 is a block diagram of a communication terminal device according to the present invention;

10 FIG. 2 is a block diagram of a communication system including the communication terminal device shown in FIG. 1;

FIG. 3 is a flowchart of the process to call a host facility;

FIG. 4 is an example of screen display in accordance with the method of operation selection in the embodiment;

15 FIG. 5 is an example of screen display in accordance with the method of further operation selection in the embodiment;

FIG. 6 is a flowchart of the process to be effected when playing a game is requested at the communication terminal device;

20 FIG. 7 is a flowchart of the process to effect deletion of the game data;

FIGS. 8A through 8D are illustrations showing various forms of modified interference means which interfere with the progress of a game;

25 FIG. 9 is a flowchart of the game data deletion/restoration

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process;

FIG. 10 is a block diagram schematically showing the system consisting of a host facility and the communication terminal device for receiving the game data from the host facility via wireless transmission;

FIG. 11 is a block diagram schematically showing the system consisting of a broadcasting station and the communication terminal device for receiving the game data from the broadcasting station;

FIG. 12 is a flowchart showing another embodiment;

FIG. 13 is a flowchart showing a further embodiment;

and

FIG. 14 is a flowchart showing a still further embodiment.

Detailed Description of the Preferred Embodiment

In the embodiment of the invention, data, a program, or a combination of the two is transmitted from a host facility to a communicator as a communication terminal device. The data can be game data for playing games, karaoke data for playing karaoke music, image data for displaying static images like still pictures or dynamic images like movies, audio data for reproducing sound or playing music, character data for composing documents, and the like. The program includes a large-scale program, such as a program for word processing, a program for computing with a spread sheet, or a program for

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communication, and a plug-in-program to be incorporated in a main program. Transmitting a combination of the program and data means, for instance, transmitting a karaoke executing program and the data indicative of karaoke music to be played, or a set of a word processing program and the data indicative of document examples.

In the embodiment of the invention, when a predetermined time has elapsed after the host facility sends out the transmission to the communicator, the data or the program becomes unusable, preferably after a warning has been given. It is also preferable to have a way to resume the use in accordance with the user's instruction, even after the data or program becomes unusable.

As shown in FIG. 2, the communication system according to the present invention includes a host facility 100, a personal communicator 1 as a communication terminal device, and transmission paths 200 as communication lines.

The host facility 100 has game data base 101, karaoke data base 103 and other data base 105. The host facility 100 also has game data transmitter 111, karaoke data transmitter 113 and other data transmitter 115 to retrieve data from corresponding data base and transmit them. The host facility 100 further has control unit 120 to control the transmitters 111, 113 and 115, and a headend 130 to output or input signals.

When a request data is sent out from the personal

10

communicator 1 via the transmission paths 200, the request data is received through the headend 130 and input by the control unit 120. The control unit 120 then controls one of the transmitters 111, 113 and 115 to retrieve data corresponding to the request, and the retrieved data is sent out via the headend 130 to the transmission paths 200.

The transmission paths 200 is coaxial cables and connected to a plurality of personal communicators 1.

As shown in FIG. 1, the personal communicator 1 includes a terminal modem 3, timer 4, CPU 5, input device 6, ROM 7, memory 8, video image circuit 9, sound source 10, audio amplifier 11, speaker 13, image composite circuit 15, monitor 16, controller connector 21, microphone connector 23, data input/output controller 25 and data input/output connector 27.

The terminal modem 3 is connected to the transmission paths 200 and includes modulator/demodulator 3a and video tuner 3b which selects a channel of the image to be projected.

The input device 6 may be a keyboard or mouse, and is used for inputting a designation of a desired game or karaoke data or other instructions. When a controller 31, which is exclusively used for playing video games, is connected to the controller connector 21, the controller 31 can be operated only for playing games. The controller 31 is provided with joy sticks or other control buttons commonly provided on conventional video game machines.

By connecting a microphone 33 to the microphone connector 23, the user can have his voice output to the speaker 13.

The data input/output connector 27 is connected via data output cable 37 to a printer 40, personal computer 41, or other apparatus.

The operation effected on the CPU 5 will be now explained referring to the flowchart of FIG. 3.

When power is supplied, a main menu is displayed, offering various selections, including "call host facility", which is selected by a user.

First, category selection pages are displayed at step S1000. The display includes the instruction of "select a category" and a list of available categories such as game and karaoke. The selected category is next determined at step S1010. Subsequently, an operation selection page corresponding to the selected category is displayed at step S1020. The display of the operation selection page includes an instruction to the operator and the list of available operations in the selected category. When the operator inputs direction responsive to this instruction, the corresponding respective operation process is performed at step S1030. In preparation for the respective operation process, the personal communicator 1 is connected to the host facility 100 such that the interactive communication can be performed between the personal communicator 1 and the host

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facility 100.

The above procedure is further explained in detail, only for exemplification purpose, hereinafter referring to FIGS. 4, 5, and 6.

5 When "game" category is selected at step S1000, operation selection page shown in FIG. 4 is displayed, with an instruction 301 and operation list 303 shown on the screen. The operation list has three items of item A, item B and item C. Item A has a first game number box 305, into which the operator can directly
10 input a game number representative of a specific game the operator desires to receive. Item B is the operation to display the list of the game numbers now available from the game data base 101 of the host facility 100. Item C is the operation to display charges, for example the accumulated cost for the month
15 or the past month(s).

 When the operator wishes to play a game, item A or B is selected. For example, if the operator knows the game number of the game he wishes to play, the operator moves the cursor on the screen to the first game number input box 305, and inputs
20 the desired game number therein. If the operator does not know the game number, he selects item B.

 When item B is selected, data in the form of the list of game numbers is sent from the host facility 100 and displayed on the screen. As shown in FIG. 5, the list displayed by selecting
25 item B has an input part 311 and display part 313. The display

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of the game list 313 can be scrolled to display further the list of games. The display part 313 displays the number of players able to participate in the play and the charge, in addition to the game numbers and the game name. The operator, referring to these information on the screen, inputs his desired game number into a second game number input box 315 of the input part 311.

When selecting a game for the first time, the operator may wish to know the feature or outline of the game. In this case, the operator inputs the selected game number into an explanation box 317 of item Y of the input part 311. As a result, the outline of the game is explained on the display part 313.

The game list can be printed out such that the operator can refer to the printed game list when he selects a game on other occasions. For printing, item Z of "print" in the input part 311 is selected. In response, the game list is printed, via the data input/output connector 27 and data output cable 37 shown in FIG. 1, at the printer 40. The process which is effected when a game number is input in the first game number box 305 of item A shown in FIG. 4 or in the second game number box 315 of item X shown in FIG. 5 will be now explained referring to FIG. 6.

First, game request data is generated at step S1100. The game request data includes the identification number of the calling personal communicator 1 and the desired game number. The generated game request data is then sent out to the host facility 100 at step S1110.

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At the host facility 100, the received request data is input by the control unit 120 through the headend 130. Subsequently, game data corresponding to the request is retrieved from the game data base 101 by the game data transmitter 111. The
5 retrieved game data is sent out via the headend 130 to the transmission paths 200 and to the corresponding personal communicator 1. First, second, and third predetermined time periods, which will be described later in detail, are also sent out to the personal communicator 1.

10 Turning back to FIG. 6, the game data is received at the personal communicator 1 at step S1120 and stored in the memory 8 at step S1130. When the storage of the game data into the memory 8 is completed, the completion is indicated on the monitor 16 at step S1140. Further, data indicative of the
15 completion of the game data transmission is sent out to the host facility 100 at step S1150 as the last step of the instant process step, and the personal communicator 1 awaits the next operation. When, for example, game play is instructed as the next operation, the game stored in the memory 8 is started.

20 The game data received by the process shown in FIG. 6 and the game data stored in the memory 8 is automatically deleted, as shown in the flowchart of FIG. 7, in the following manner. First, the time when the data receipt is completed is read out at step S1200. The current time is also read out and the
25 time period which has elapsed after the completion of the data

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receipt is calculated at step S1210. Next, it is determined, at step S1220, whether or not a first predetermined time period has elapsed. If "NO" is determined at the step S1220, the flow goes back to the step S1210. Thus, when the first predetermined time period has elapsed, a warning is given at step S1230. Further elapsing time period is calculated at step S1240. When it is determined, at step S1250, that a second predetermined time period has elapsed, the game data stored in the memory 8 is deleted at step S1260, and the instant process ends.

10 The warning given at step S1230 may be a various form of warning, such as a message reading "Time Out in Five Minutes!" on the monitor 16, or an alarming sound. Therefore, the total of the first predetermined time period of the step S1220 and the second predetermined time period of the step S1250 is the useful life period of the received game data. The warning may be provided a plurality of times, such as five minutes, two minutes and one minute before the deletion of the game data. Warned by this warning, the player can print the current status of the game progress, for example, which player corresponds to which character in the game or the top scorer at the time, at the printer 40 before quitting the game play. The printed data is useful when the player resumes the game play.

Furthermore, when the host facility 100 receives the data indicative of the transmission completion at the step S1150, the host facility 100 performs the charging process to accumulate the

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cost for its data transmission service. There are two known cost charging systems. One is the fixed amount system and the other is the pay-per-play system. In the fixed amount system, the fixed cost amount per-time period, for example monthly, is predetermined. In the pay-per-play system, the cost is charged per each play.

The charging system is dependent on the form or condition of the communication service to be rendered. In a practical charging system, the cost would be varied with respect to the complicatedness or scale of the game data provided. The cost would also vary depending on whether the game is new or old in the market. In the present embodiment, the pay-per-play system is adopted and the cost for the data service to each terminal communicator is charged every time the data indicative of the transmission completion is sent from the personal communicator 1 at step S1150. The payment would be made, using the automatic transfer system, by debiting the amount to the bank account of the players.

However, the pay-per-play system has a problem: the player cannot know the total amount of the accumulated cost before actual payment. If the payment is made using the automatic transfer system, the player may not even notice his considerable expenditure on the game play. This problem is solved by the arrangement shown in FIG. 4. If the player selects item C of the operation list 303, the present accumulated

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cost and the previous cost, such as the payment made previously or the cost accumulated in the past half or whole year, are shown on the screen. Thus, parents can know the accumulated cost of their child's video game play.

5 By utilizing the communication system, the player need not purchase a game cassette or other software for playing video games, since the game data is provided by the host facility which received the game data request sent by the player from his personal communicator 1. Further, the game data provided to
10 the player is temporarily stored in the memory 8 serving as temporary storage means of the personal communicator 1, thereby releasing the host facility to serve other personal communicators 1 requesting game data. The host facility is thus enabled to respond to a greater number of callers having
15 personal communicators 1.

Furthermore, the game data stored in the memory 8 is deleted in a predetermined time period after it was received at the personal communicator 1. In other words, the useful life of the game data at the personal communicator 1 is limited. As a
20 result of this arrangement, in order to continue the game play at the end of the predetermined time period, the player again needs to request the game data from the host facility 100. This arrangement is therefore prerequisite so long as the game data transmission service is not free of charge. In contrast, if it were
25 possible to keep the game data at the communication terminal

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device at the end of game play, the player could play the game permanently without calling the host facility 100. Consequently, the service cost per each transmission would be higher than the normal price of the game cassettes. The
5 above described arrangement solves this problem and meets the need of the software distributors.

The arrangement is also beneficial to the players since the service cost per each transmission can be considerably lower than the price of each game cassette. Therefore, the
10 player who conventionally has to buy an expensive game cassette, even if he plays the game only once, can be satisfied with the reasonable cost of the transmission.

The arrangement is also superior with respect to child discipline. Video game players are in most cases younger
15 children, who often become too absorbed in playing video games to quit in the middle thereof. The above arrangement according to the present invention leaves these children no other choice but to quit the play when a predetermined time period has elapsed. Thus, the arrangement meets the rising demand of parents.

20 The above embodiment is explained on the premise that the game is played by a single player using only a single personal communicator 1. However, a plurality of players in remote places can play the same game together.

For example, the transmission paths 200 or
25 telecommunication lines is utilized to connect a plurality of

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personal communicators 1 to one another such that the interactive communication can be performed therebetween. When the plurality of personal communicators 1 are supplied with the same game data, the players have the same game characters in common. Therefore, the data to be transmitted among the plurality of personal communicators 1 are only character number data and the position data. Thus, the players together participate, on a real time basis, in the same game on the monitor 16 of respective personal communicators 1.

Map data of a role-playing game may be divided according to the progress degree of the story and the divided map data be sold separately. When the game progresses and the player wishes to play on a more advanced map data, the player purchases and downloads the advanced map data. In this case, arrangement is provided such that the player cannot purchase the advanced map data until the "capacity" or the progress degree of the characters in the game reaches a predetermined degree or level. Accordingly, using the interactive communication system, the player is to ask the host facility 100 for the proof of the capacity. In response, data proving the capacity or level of the characters may be transmitted from the host facility 100. The capacity proof sent from the host facility 100 would be printed out by the printer 40 or transmitted to the player's facsimile machine, as a certificate.

It will be now explained how the communication system of

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the present invention is adopted to karaoke. The procedure to communicate the karaoke data is basically similar to the above described procedure to communicate the game data. Therefore, the explanation of the similar portion of the procedure are
5 omitted for simplification. When using the system for karaoke, the microphone 33 is connected to the microphone connector 23 of the personal communicator 1.

When "karaoke" is selected on the category selection page at step S1000, an operation selection page similar to that of FIG.
10 4 is displayed on the screen. Specifically, an item A of a desired karaoke number, item B of the karaoke number list, and item C of charge are displayed. If the operator wishes to start karaoke, the operator inputs the desired karaoke number in the corresponding box at item A or B.

15 Karaoke request data is then generated at the personal communicator 1 and sent out to the host facility 100. The host facility 100, receiving the request, controls the karaoke data transmitter 113 to retrieve corresponding karaoke data from the karaoke data base 103, and sends out the retrieved karaoke data
20 to the personal communicator 1.

The karaoke data received at the personal communicator 1 is stored, as song data, in the memory 8 via the modulator/demodulator 3a. At the same time, the CPU 5 sends song selection data, which is predetermined according to the type
25 of each song, to the video tuner 3b in order to select visual data

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suitable to the selected song. Further, the CPU 5 synchronously outputs to the video image circuit 9 and the sound source 10, respectively, words data and accompaniment data included in the song data stored in the memory 8. The video
 5 image circuit 9 converts the information concerning the words and other elements of the song into word/image data and outputs the word/image data to the monitor 16.

The sound source 10 converts the accompaniment data into audio signals, and outputs the audio signals to the audio
 10 amplifier 11. Subsequently, the audio amplifier 11 synthesizes the audio signals and the voice signals sent from the microphone 12, amplifies these synthesized signals and outputs them to the speaker 13 as sound signals. The video tuner 3b reads out background visual data selected according to the song selection
 15 data, and outputs to the image composite circuit 15. Then, the image composite circuit 15 synthesizes the background visual data and the words/image data and outputs the video signals to the monitor 16.

The procedure for playing karaoke music will be further
 20 explained in detail.

The song data sent out from the host facility 100 via the co-axial cables as transmission paths 200 includes multiplied RF signals of video information and RF signals converted from the song data. The CPU 5 of the personal communicator 1
 25 sends the song selection data to the video tuner 3b of the

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terminal modem 3 in order to select the video channel according to the received song data. The song selection data is predetermined according to the genre of songs. Consequently, the song data is sent to the sound source 10 and the karaoke music is played.

When the karaoke music is ended, data indicative of the end of the play is sent to the host facility 100. In response, the host facility 100 performs the charging process. In contrast to the pay-per-play system of the game data service, the cost for providing the karaoke music may be charged, for example per hour, since a single piece of karaoke music is only several minutes long.

In the case of karaoke data, as in the case of game data, a predetermined time is counted after the karaoke data is received from the host facility, and when the predetermined time has elapsed, the karaoke data is deleted.

By utilizing the communication system, the karaoke singer need not purchase a video disk or other karaoke software, since the karaoke data is provided by the host facility 100, which received the karaoke data request sent by the karaoke singer from his personal communicator 1. Further, the karaoke data provided to the karaoke singer is temporarily stored in the memory 8 serving as temporary storage means for the personal communicator 1, thereby releasing the host facility 100 to serve other personal communicators 1 requesting karaoke

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data. The host facility 100 is thus able to respond to a greater number of callers having personal communicators 1. This invention has been described above with reference to the preferred embodiment as shown in the drawings. Modifications and alterations may become apparent to one who skilled in the art upon reading and understanding the specification. Despite the use of the embodiment for illustration purposes, it is intended to include all such modifications and alterations within the scope and spirit of the appended claims.

10 In this spirit, it should also be noted that in the embodiment, the personal communicator 1 is integrally provided with the monitor 16 and the speaker 13. However, any other external monitor or speaker may be connected to the personal communicator 1 and utilized. For example, a television receiver
15 may be connected to the personal communicator 1, thereby outputting the video information and the audio information on the television receiver. In this case, the personal communicator 1 may be provided with a small display, on which the selection pages as those shown in FIGS. 4 and 5 would be displayed.

20 Furthermore, the transmission paths 200 may be existing co-axial cables for cable television system, thereby structuring the communication system of the present invention as a multimedia interactive communication system. In this way, the video and audio information of satellite television services,
25 video disks, radio programs, and other various forms of available

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software are equated to the other data base shown in FIG. 2. Such personal communicators 1 of the present invention can be provided in each individual's home or hotel room and in other various situations and places.

5 As mentioned, the stored data is deleted in a predetermined time period after it was received. This arrangement is beneficial to the data distributors since repeated game or karaoke play using the same game data or karaoke data is prevented.

10 In the above described embodiment, the game data stored in the memory 8 is deleted in order to interfere with the progress of game. Alternative arrangements to this are provided by the present invention, as shown in FIGS. 8A through 8D. In the arrangement of FIG. 8A, the view on a screen 161 of the monitor
 15 16 is blocked with patterns of stripes 162 displayed thereon. Instead, the view displayed on the screen may be partly deleted. In the arrangement shown in FIG. 8B, only an opponent of a boxing game, who is to be displayed on an area 163 of the screen 161, is deleted. Still another alternative is provision of a switch
 20 131 shown in FIG. 8C for a speaker circuit, which, when turned off, withholds the sound that would otherwise be issued from the speaker 13 during the game. Further alternative is provision of a switch 61 shown in FIG. 8D which invalidates the operation on the input device 6 or the controller 31. The
 25 switches 131 and 61 may be mechanical components or may be

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software operations. For instance, actuation of the sound source 10 may be halted by the CPU 5, or the CPU 5 may reject signals from the input device 6 or the controller 31. As still another alternative, the power of the personal communicator 5 may be turned off when the CPU 5 determines that a predetermined time has elapsed after the game data was received.

In the described embodiment, when a predetermined time has passed after the game data was received from the host facility 100, the game data stored in the memory 8 is deleted. However, it may be arranged so that the player can resume playing the game by paying a surcharge. Specifically, the process steps shown in FIG. 9 may be taken. As will be noted, the process steps S1200 through S1250 in FIG. 9 are identical to those in FIG. 7, whereas at step S1260' the deletion of the game data is effected only after it is stored in a temporary storage device, different from the process at step S1260. At next step S1270, it is determined whether or not a surcharge has been paid. If the answer to the step S1270 is negative, it is next determined, at step S1280, whether or not a predetermined time has elapsed after the game data in the memory 8 was deleted. If the answer to the step S1280 is negative, the flow returns to step S1270. If the answer to the step S1280 is affirmative, the process step ends.

If "YES" is determined at the step S1270, the game data

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stored in the temporary storage device is restored into the memory 8 to permit resumption of game play, at step S1290. The flow then goes back to step S1210. In the process after the resumption of game play, the elapsed time after the time of
 5 paying the surcharge is calculated at step 1210.

The arrangement shown in FIG. 9 allows a player to continue playing a game as long as the player pays a surcharge. An instruction to pay the surcharge can be given through the keys on the input device 6. In response, the host facility 100
 10 effects the charging process against the player.

In the embodiment shown in FIGS. 1 and 2, game data and karaoke data are transmitted via communication lines, which may be public telephone lines, dedicated communication lines, cables for community antenna television system. Instead
 15 of such communication lines, as shown in FIG. 10, the data may be sent via wireless transmission from a host facility 100' to a personal communicator 1'. In this case, the host facility 100' is provided with a not-shown wireless transmission circuit including a transmitting/receiving antenna 150, and the
 20 personal communicator 1' is provided with a not-shown transmitter/receiver circuit including a transmitting/receiving antenna 2.

Turning to FIG. 11, a further modification is proposed in which the game data is sent from a ground broadcasting station
 25 100" or a satellite broadcasting station. The game data, as it is

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received, is stored in the memory 8 of the personal communicator 1". In this case, the personal communicator 1" is connected with a tuner 300 so that the game is displayed on a screen of a home TV set 400. Alternatively, the broadcasting may be performed preferably via two-way communication through cables, or via Internet. In the communication system disclosed in this specification, the data to be transmitted may be either analog or digital.

In both modifications shown in FIGS. 10 and 11, the game play is interrupted when a predetermined time has elapsed after the game data was received at the personal communicators 1', 1". Of course, the arrangement shown in FIG. 9 may be incorporated into these arrangements of FIGS. 10 and 11 to allow the player to continue playing a game by paying a surcharge.

FIG. 12 is a flowchart showing another embodiment. In this embodiment, a predetermined time period to prevent further use of the image data is counted from the starting time of use of the data, not from the receiving time of the data from the host facility.

This embodiment is explained in detail hereinafter referring to FIG. 12. When the use of the image data sent from the host facility starts, the starting time is read out at step S1300. The current time is also read out, and the elapsed time after the starting time is calculated at step S1310. Then it is determined, at step S1320, whether or not a first predetermined

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time period has elapsed. If "NO" is determined at step S1320, the flow returns to step S1310. If "YES" is determined, a warning is given at step S1330, and the elapsed time continues to be calculated at step S1340 until the end of a second
5 predetermined time period. When it is determined, at step S1350, that the second predetermined time period has elapsed, a process to prevent further use of the above image data is performed at step S1360. There may be various means to prevent further use of the image data, such as deleting the image
10 data stored in the memory 8, blocking, as shown in FIG. 8A or 8B, the view on the screen of the monitor 16 in accordance with the progress of the image data processing, stopping, as shown in FIG. 8C, the sound generated in accordance with the progress of the image data processing and invalidating, as shown in FIG. 8D,
15 any operation of the input device 6 or the controller 31 for instruction.

At next step S1370, it is determined whether or not a surcharge is paid. If the answer to step S1370 is negative, it is next determined, at step S1380, whether or not a third
20 predetermined time has elapsed after the process to prevent further use of the image data is performed. If the answer to step S 1380 is negative, the flow returns to step S1370. If the answer to step S1380 is affirmative, the process step ends.

If "YES" is determined at step S1370, the image data is
25 permitted to be continuously used at step S1390, then the flow

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returns to step S1310. In the process after the resumption of use, the elapsed time after the payment of the surcharge is calculated at step S1310. In the case where deletion of the image data stored in the memory is used as a means of preventing further use of the image data, it is preferable to preserve the image data in a not-shown temporary storage device before deleting it from the memory, and to restore it from the temporary storage device into the memory after the surcharge is paid.

As in the above embodiment, instructions to pay the surcharge can be given by operating the keyboard of the communicator 1, and in response to the key operation, the host facility 100 performs the charging process.

FIG. 13 is a flowchart of a further embodiment. In this embodiment, when the program sent from the host facility is continuously unused for a predetermined time period, a process to prevent further use of the program is performed.

The procedure of this embodiment is explained in detail, hereinafter referring to FIG. 13. When the program sent from the host facility is used for some time and then the use ends, the ending time is read out at step S1400. Next, the current time is also read out and the elapsed time after the ending time is calculated at step S1410. Then it is determined, at step S1420, whether or not a first predetermined time period has elapsed. If "NO" is determined at step S1420, the flow returns to step

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S1410. If "YES" is determined, a warning is given at step S1430, and the elapsed time continues to be calculated at step S1440 until the end of a second predetermined time period. When it is determined, at step S1450, that the second
5 predetermined time period has elapsed, a process to prevent further use of the above program is performed at step S1460. There may be various means to prevent further use of the program, such as deleting the program stored in the memory 8, blocking, as shown in FIG. 8A or 8B, the view on the screen of the
10 monitor 16 in accordance with the progress of the program, stopping, as shown in FIG. 8C, the sound generated in accordance with the progress of the program, and invalidating, as shown in FIG. 8D, any operation of the input device 6 or the controller 31 for instructions.

15 At next step S1470, it is determined whether or not a surcharge is paid. If the answer to step S1470 is negative, it is next determined, at step S1480, whether or not a third predetermined time has elapsed after the process to prevent further use of the program is performed. If the answer to step
20 S1480 is negative, the flow returns to step S1470. If the answer to step S1480 is affirmative, the process step ends.

If "YES" is determined at step S1470, the program is permitted to be continuously used at step S1490, then the flow returns to step S1410. In the process after the resumption of
25 use, the elapsed time after the payment of the surcharge is

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calculated at step S1410. In the case where deletion of the program stored in the memory is used as a means of preventing further use of the program, it is preferable to preserve the program in a not-shown temporary storage device before deleting it from the memory, and to restore it from the temporary storage device into the memory after the surcharge is paid.

As in the above embodiment, instructions to pay the surcharge can be given by operating the keyboard of the communicator 1, and in response to the key operation, the host facility 100 performs the charging process.

If the program is used while a process shown in FIG. 13 is in progress, the above process is ended by a not-shown interrupt handling, and at the next cycle time the process at step S1400 starts again.

In the embodiments shown in FIG.13, the elapsed time period, during which a program is continuously unused, is preferably counted in the background by a backup power source even when the power of the personal communicator 1 is off. The processes to give a warning and to prevent further use may be performed when the power switch of the personal communicator 1 is turned on next time.

In addition to the above described case, it may be considered that the elapsed time is calculated each time the power switch of the personal communicator 1 is turned on. Such an embodiment is shown in FIG. 14. In this embodiment,

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concerning each program or data stored in the memory 8, the ending time of use of the program or the data is stored in a specific storage region of the memory 8. When the program or the data is used, the ending time data is renewed at the time of
5 end of use. The procedure is explained hereinafter with respect to the case where a program is received by a personal communicator. In the case where image data, game data, or karaoke data is received, the same procedure is also taken.

In FIG.14, when the power switch of the personal
10 communicator 1 is turned on, the ending time data concerning every stored program is read out, at step S1500, from the above specific storage region of the memory 8. Next, at step S1510, the elapsed time after the ending time is calculated. It is next determined, at step S1520, whether or not the elapsed time has
15 exceeded a predetermined time period to prevent further use of the program, and at step S1530, whether or not the elapsed time has exceeded another predetermined time period to give a warning. If the elapsed time has exceeded the predetermined time period (a first time period) to give a warning (the answer to
20 step S1530: "YES"), a warning is given at step S1540. If the elapsed time has exceeded the predetermined time period (a second time period) to prevent further use of the program (the answer to step S1520: YES), the process to prevent further use of the program is performed at step S1550. If the elapsed time
25 has not exceeded either of the above predetermined time periods,

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the process step shown in FIG.14 ends.

When the process to prevent further use is performed, it is determined, at step S1560, whether or not a surcharge has been paid within a predetermined time period (a third time period). If the answer to step S1560 is negative, the process step ends. If the answer to step S1560 is affirmative, the process to allow resumption of use of the program is performed at step S1570. Next, the process to renew the ending time data with the current time concerning the program is performed at step S1580, and then the process step ends.

As in the above embodiment, instructions to pay the surcharge can be given by operating the keyboard of the communicator 1, and in response to the key operation, the host facility 100 performs the charging process.

In order to enable the choice between two modes, one of which is to calculate the elapsed time when the power switch of the personal communicator 1 is turned on as shown in FIG.14, and the other of which is to calculate the elapsed time in the background as shown in FIG.13, the input device 6 or the controller 25 of the personal communicator 1 may be used by the user for choosing.

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Wherefore, having described the present invention, what is claimed is:

1. A communication system for transmitting at least one of the program, the data, and a combination of the program and data from a host facility to a communication terminal device, said communication terminal device comprising:

an input device for inputting instructions to execute the program or to process the data,

receiving means for receiving one of the program, the data, and a combination of the program and data as sent out from said host facility,

storage means for storing the program, the data, or a combination of the program and data received by said receiving means,

executing means for executing the program stored in said storage means or executing data processing by using the data stored in said storage means, in accordance with instructions from said input device,

clock means for keeping a predetermined time period after said receiving means receives the transmission, and

interference means for interfering with execution of said executing means when said clock means counts said predetermined time period; and

said host facility comprising:

storage means for storing at least one of the program, the

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data, and a combination of the program and data together with the duration data indicative of the predetermined time period to be counted by said clock means, and

5 sending out means for sending out at least one of the program, the data, and a combination of the program and data together with the duration data stored in said storage means to said communication terminal device.

10 2. The communication system according to Claim 1, said communication terminal device further comprising:

second clock means for keeping a second predetermined time period shorter than said predetermined time period counted by said clock means, and

15 alarm means for issuing an alarm when said second clock means counts said second predetermined time period, and thereby informing that interference by said interference means with execution of said executing means will soon be performed.

20 3. The communication terminal device according to Claim ²₁, further comprising:

third clock means for keeping a third predetermined time period after said interference means interferes with execution of said executing means,

25 interference stop instruction means for instructing to stop the interference performed by said interference means, and

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means for stopping the interference performed by said interference means and thereby allowing resumption of execution of the program or data processing performed by said executing means when said interference stop instruction means
5 receives the instruction before said third clock means counts said third predetermined time period.

4. The communication system according to Claim 1, wherein said interference means comprises means for deleting at least
10 one of the program, the data, and a combination of the program and data stored in said storage means.

5. The communication system according to Claim 1, wherein said communication terminal device comprises display means
15 having a screen on which the progress of execution of the program or data processing is displayed, and

said interference means comprises means for blocking the view of what is displayed on said screen.

20 6. The communication system according to Claim 1, wherein said interference means comprises means for invalidating the operation of said input device.

7. The communication system according to Claim 1, further
25 comprising sound generating means for generating a

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predetermined sound in accordance with the progress of execution of the program or data processing, wherein said interference means comprises means for preventing said sound generating means from generating the sound.

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8. A communication system for transmitting at least one of the program, the data, and a combination of the program and data from a host facility to a communication terminal device, said communication terminal device comprising:

10 an input device for inputting instructions to execute the program or to process the data,

receiving means for receiving one of the program, the data, and a combination of the program and data as sent out from said host facility,

15 storage means for storing the program, the data, or a combination of the program and data received by said receiving means,

executing means for executing the program stored in said storage means or executing data processing by using the data stored in said storage means, in accordance with instructions from said input device,

20 clock means for keeping a predetermined time period after said executing means starts execution of the program or data processing, and

25 interference means for interfering with execution of said

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executing means when said clock means counts said predetermined time period; and

said host facility comprising:

storage means for storing at least one of the program, the
5 data, and a combination of the program and data together with
the duration data indicative of the predetermined time period to
be counted by said clock means, and

10 sending out means for sending out at least one of the
program, the data, and a combination of the program and data
together with the duration data stored in said storage means to
said communication terminal device.

9. The communication system according to Claim 8, said communication terminal device further comprising:

15 second clock means for keeping a second predetermined
time period shorter than said predetermined time period counted
by said clock means, and

alarm means for issuing an alarm when said second clock
means counts said second predetermined time period, and
20 thereby informing that interference by said interference means
with execution of said executing means will soon be performed.

a 10. The communication terminal device according to Claim ⁹~~8~~,
further comprising:
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25 third clock means for keeping a third predetermined time

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period after said interference means interferes with execution of said executing means,

interference stop instruction means for instructing to stop the interference performed by said interference means, and

5 means for stopping the interference performed by said interference means and thereby allowing resumption of execution of the program or data processing performed by said executing means when said interference stop instruction means receives the instruction before said third clock means counts said
10 third predetermined time period.

11. The communication system according to Claim 8, wherein said interference means comprises means for deleting at least one of the program, the data, and a combination of the program
15 and data stored in said storage means.

12. The communication system according to Claim 8, wherein said communication terminal device comprises display means having a screen on which the progress of execution of program or
20 data processing is displayed,

said interference means comprises means for blocking the view of what is displayed on said screen.

13. The communication system according to Claim 8, wherein
25 said interference means comprises means for invalidating the

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operation of said input device.

14. The communication system according to Claim 8, further comprising sound generating means for generating a predetermined sound in accordance with the progress of execution of the program or data processing, wherein said interference means comprises means for preventing said sound generating means from generating the sound.

15. A communication system for transmitting at least one of the program, the data, and a combination of the program and data from a host facility to a communication terminal device, said communication terminal device comprising:

an input device for inputting instructions to execute the program or to process the data,

receiving means for receiving one of the program, the data, and a combination of the program and data as sent out from said host facility,

storage means for storing the program, the data, or a combination of the program and data received by said receiving means,

executing means for executing the program stored in said storage means or executing data processing by using the data stored in said storage means, in accordance with instructions from said input device,

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clock means for keeping a predetermined time period after
 said execution means ends the execution of the program or data
 processing to count a time period during which at least one of the
 program, the data, and a combination of the program and data is
 5 continuously unused, and

interference means for interfering with execution of said
 executing means when said clock means counts a predetermined
 time period; and

said host facility comprising:

10 storage means for storing at least one of the program, the
 data, and a combination of the program and data together with
 duration data indicative of the predetermined time period to be
 counted by said clock means, and

15 sending out means for sending out at least one of the
 program, the data, and a combination of the program and data
 together with the duration data stored in said storage means to
 said communication terminal device.

16. The communication system according to Claim 15, said
 20 communication terminal device further comprising:

second clock means for keeping a second predetermined
 time period shorter than said predetermined time period counted
 by said clock means, and

25 alarm means for issuing an alarm when said second clock
 means counts said second predetermined time period, and

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thereby informing that interference by said interference means with execution of said executing means will soon be performed.

a 17. The communication terminal device according to Claim ¹⁶~~15~~,
5 further comprising:

third clock means for keeping a third predetermined time period after said interference means interferes with execution of said executing means,

10 interference stop instruction means for instructing to stop the interference performed by said interference means, and

means for stopping the interference performed by said interference means and thereby allowing resumption of execution of the program or data processing performed by said executing means when said interference stop instruction means
15 receives the instruction before said third clock means counts said third predetermined time period.

18. The communication system according to Claim 15, wherein said interference means comprises means for deleting at
20 least one of the program, the data, and a combination of the program and data stored in said storage means.

19. The communication system according to Claim 15, wherein said communication terminal device comprises display
25 means having a screen on which the progress of execution of

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program or data processing is displayed,

said interference means comprises means for blocking the view of what is displayed on said screen.

- 5 20. The communication system according to Claim 15, wherein said interference means comprises means for invalidating the operation of said input device.

- 10 21. The communication system according to Claim 15, further comprising sound generating means for generating a predetermined sound in accordance with the progress of execution of the program or data processing, wherein said interference means comprises means for preventing said sound generating means from generating the sound.

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Abstract of the Disclosure

A communication system is proposed for transmitting at least one of the data, the program, and a combination of them from a host facility to a communicator such as a communication terminal device. In this communication system, the data or the program becomes unable to be used when a predetermined time has elapsed after it is transmitted from the host facility to the communicator. This communication system is provided with the function of giving a warning before the use of the transmission becomes unable and the function of resuming the use in accordance with the user's instruction even after the use becomes unable.

09109784-070298

COMBINED DECLARATION AND POWER OF ATTORNEY
(Original, Design, National Stage of PCT, Supplemental)

As a below named inventor, I hereby declare that:

TYPE OF DECLARATION

This declaration is of the following type: (check one applicable item below)

- ☐ original
☐ design
☐ supplemental
☐ National Stage of PCT
☐ divisional (see added page)
☐ continuation (see added page)
☒ continuation-in-part (see added page)

INVENTORSHIP IDENTIFICATION

My residence, post office address and citizenship are as stated below next to my name, I believe I am the original, first/and sole/inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

TITLE OF INVENTION

INTERACTIVE COMMUNICATION SYSTEM FOR COMMUNICATING

VIDEO GAME AND KARAOKE SOFTWARE

SPECIFICATION IDENTIFICATION

The specification of which: (complete (a), (b) or (c))

- (a) ☒ is attached hereto.
(b) ☐ was filed on _____ as ☐ Serial No. _____
0 / _____ or ☐ Express Mail No. _____
(as Serial No. not yet known) _____
and was amended on _____ (if applicable).
(c) ☐ was described and claimed in PCT International
Application No. _____ filed on _____
and as amended under PCT
Article 19 on _____ (if any).

POWER OF ATTORNEY

As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (list name(s) and registration number(s))

Anthony G. M. Davis Registration No. 27,868
Michael J. Bujold Registration No. 32,018

☐ Attached as part of this Declaration and Power of Attorney is the authorization of the above-named attorney(s) to accept and follow instructions from my representative(s).

Send Correspondence to

Davis and Bujold
Fourth Floor
500 N. Commercial Street
Manchester, NH 03101

Direct Telephone Calls to:

(603) 624-9220

Direct Telefaxes to:

(603) 624-9229

ACKNOWLEDGEMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR

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

I acknowledge the duty to disclose to the United States Patent Office all information which is known to be material to patentability of this application as defined in § 1.56 of Title 37 of the Code of Federal Regulations.

PRIORITY CLAIM

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed.

EARLIEST FOREIGN APPLICATION(S), IF ANY FILED WITHIN 12 MONTHS (6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION

COUNTRY	APPLICATION NO.	DATE OF FILING (day,month,year)	PRIORITY CLAIMED UNDER 37 USC 119
Japan	5-108303	10/05/1993	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO

ALL FOREIGN APPLICATION(S), IF ANY FILED MORE THAN 12 MONTHS (6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION

Japan Appln.No.5-108303(10,May,1993) Priority Claimed: YES

DECLARATION

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

Signature(s)

1-00

Full name of sole or first inventor Takeya OKAMOTO
 Inventor's signature Takeya Okamoto
 Date June 26, 1998 Country of Citizenship Japan
 Residence Nagoya, Japan JPX
 Post Office Address c/o ADACHI INTERNATIONAL, Nagoyaseni Bldg.,
9-27, Nishiki 2-chome, Naka-ku, Nagoya, 460-0003 Japan
 Full name of second joint inventor (if any) _____
 Inventor's signature _____
 Date _____ Country of Citizenship _____
 Residence _____
 Post Office Address _____

ADDED PAGE TO COMBINED DECLARATION AND POWER OF ATTORNEY FOR
DIVISIONAL, CONTINUATION, OR CONTINUATION-IN-PART APPLICATION

CLAIM FOR BENEFIT OF EARLIER U.S./PCT APPLICATION(S) UNDER
35 U.S.C. 120

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose information that is material to the examination of this application, namely, informative where there is substantial likelihood that a reasonable Examiner would consider it important in deciding whether to allow the application to issue as a patent, which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application.

PRIOR U.S. APPLICATIONS OR PCT INTERNATIONAL APPLICATIONS DESIGNATING THE U.S. FOR BENEFIT UNDER 35 USC 120:					
U.S. APPLICATIONS			STATUS (CHECK ONE)		
U.S. APPLICATIONS	U.S. FILING DATE		Patented	Pending	Abandoned
1. 08 /232,862	April 25, 1994		X		
2. 08 /555,400	November 9, 1995		X		
3. 08 /642,560	May 3, 1996			X	
PCT APPLICATIONS DESIGNATING THE U.S.					
PCT APPLI- GATION NO.	PCT FILING DATE	U.S. SERIAL NOS. ASSIGNED (if any)			

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

☒ In re Application of: Takeya OKAMOTO
 Serial no.: _____ Group No.: _____
 Filed: _____ Examiner: _____
 For: INTERACTIVE COMMUNICATION SYSTEM FOR COMMUNICATING
 VIDEO GAME AND KARAOKE SOFTWARE
☐ Patent No.: _____ Issued: _____

* NOTE: Insert name(s) of inventor(s) and title also for patent. Where statement is with respect to a maintenance fee payment also insert application serial number and filing date and add Box M. Fee to address.

VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS (37 CFR 1.9(c-f) and 1.27(b-d))

With respect to the invention described in

- ☒ the specification filed herewith.
☐ application serial no. _____ filed _____
☐ patent no. _____ issued _____

I. IDENTIFICATION OF DECLARANT AND RIGHTS AS A SMALL ENTITY

I hereby declare that I am

(complete either (a), (b), (c) or (d) below):

(a) Independent Inventor

- ☐ a below named independent inventor and that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees under Section 41(a) and (b) of Title 35, United States Code to the Patent and Trademark Office.

(b) Non-inventor Supporting a Claim By Another

- ☐ making this verified statement to support a claim by _____

for a small entity status for purposes of paying reduced fees under Section 41(a) and (b) of Title 35, United States Code and I hereby declare that I would qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees under 41(a) and (b) of Title 35, United States Code, if I had made the above identified invention.

(c) Small Business Concern

- ☒ the owner of the small business concern identified below:
☐ an official of the small business concern empowered to act on behalf of the concern identified below:

NAME OF CONCERN YUGENGAISHA ADACHI INTERNATIONAL

ADDRESS OF CONCERN Nagoyaseni Bldg., 9-27, Nishiki 2-chome,
Naka-ku, Nagoya, 460-0003 Japan and

that the above identified small business concern qualifies as a small business concern as defined in 13 CFR 121.3-18, and reproduced in 37 CFR 1.9(d), for purposes of paying reduced fees under Section 41(a) and (b) of the Title 35, United States Code, in that the number of employees of the concern, including those of its affiliates, does not exceed 500 persons. For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay periods of the fiscal year, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both.

09109784-070288

(d) Non-Profit Organization

☐ an official empowered to act on behalf of the nonprofit identified below:

NAME OF ORGANIZATION _____

ADDRESS OF ORGANIZATION _____

TYPE OR ORGANIZATION

- ☐ UNIVERSITY OR OTHER INSTITUTION OF HIGHER EDUCATION
- ☐ TAX EXEMPT UNDER INTERNAL REVENUE SERVICE CODE (26 USC 501(a) and 501(c)(3))
- ☐ NONPROFIT SCIENTIFIC OR EDUCATIONAL UNDER STATUTE OF STATE OF THE UNITED STATES OF AMERICA

(NAME OF STATE _____)

(CITATION OF STATUTE _____)

- ☐ WOULD QUALIFY AS TAX EXEMPT UNDER INTERNAL REVENUE SERVICE CODE (26 USC 501(a) and 501(c) (3)) IF LOCATED IN THE UNITED STATES OF AMERICA
- ☐ WOULD QUALIFY AS NONPROFIT SCIENTIFIC OR EDUCATIONAL UNDER STATUTE OF STATE OF THE UNITED STATES OF AMERICA IF LOCATED IN THE UNITED STATES OF AMERICA

(NAME OF STATE _____)

(CITATION OF STATUTE _____)

and that the nonprofit organization identified above qualifies as a nonprofit organization as defined in 37 CFR 1.9(e) for purposes of paying reduced fees under Section 41(a) and (b) of Title 35, United States Code.

II. OWNERSHIP OF INVENTION BY DECLARANT

I hereby declare that rights under contract or law remain with and/or have been conveyed to the above identified

- ☐ person (item (a) or (b) above) ☒ concern (item (c) above) ☐ organization (item (d) above)

EXCEPT, that if the rights held are not exclusive, each individual, concern or organization having rights to the invention is listed below* and no rights to the invention are held (1) by any person who could not be classified as an independent inventor under 37 CFR 1.9(c) if that person had made the invention, (2) any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or (3) a non-profit organization under 37 CFR 1.9(e).

- ☒ no such person, concern, or organization
- ☐ person, concerns or organizations listed below*

***NOTE:** *Separate verified statements are required from each named person, concern organization having rights to the invention averring to their status as small entities (37 CFR 1.27).*

FULL NAME _____

ADDRESS _____

- ☐ Individual ☐ Small Business Concern ☐ Nonprofit Organization

FULL NAME _____

ADDRESS _____

- ☐ Individual ☐ Small Business Concern ☐ Nonprofit Organization

III. ACKNOWLEDGEMENT OF DUTY TO NOTIFY PTO OF STATUS CHANGE

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate (37 CFR 1.28(b)).

09109784-020258

IV. DECLARATION

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

V. SIGNATURES (complete only (e) or (f) below)

(e) NOTE: All inventors must sign the verified statement

Name of Inventor

Signature of Inventor

Date

Name of Inventor

Signature of Inventor

Date

Name of Inventor

Signature of Inventor

Date

Name of Inventor

Signature of Inventor

Date

Name of Inventor

Signature of Inventor

Date

Name of Inventor

Signature of Inventor

Date

OR

(f) NOTE: The title of the person signing on behalf of a concern or non-profit organization should be specified.

NAME OF PERSON SIGNING Sumiko ADACHI

TITLE OF PERSON President of YUGENGAISHA ADACHI INTERNATIONAL

(if signing on behalf of a concern or non-profit organization)

ADDRESS OF PERSON SIGNING c/o ADACHI INTERNATIONAL, Nagoyaseni Bldg.,

9-27, Nishiki 2-chome, Naka-ku, Nagoya, 460-0003 Japan

SIGNATURE

正金 壽子

DATE June 26, 1998

SERIAL NUMBER 09/109,784	FILING DATE 07/02/98	CLASS 463	GROUP ART UNIT 3711	ATTORNEY DOCKET NO. ADACHI-P134U
-----------------------------	-------------------------	--------------	------------------------	-------------------------------------

APPLICANT

TAKEYA OKAMOTO, NAGOYA, JAPAN.

CONTINUING DOMESTIC DATA***

VERIFIED THIS APPLN IS A CIP OF 08/642,560 05/03/96 PAT 5,775,995

371 (NAT'L STAGE) DATA***

VERIFIED

FOREIGN APPLICATIONS***

VERIFIED JAPAN 5-108303 05/10/93

***** SMALL ENTITY *****

Foreign Priority claimed 35 USC 119 (a-d) conditions met	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Met after Allowance	STATE OR COUNTRY JPX	SHEETS DRAWING 12	TOTAL CLAIMS 21	INDEPENDENT CLAIMS 3
Verified and Acknowledged Examiner's Initials _____		Initials _____			

ADDRESS
DAVIS AND BUJOLD
FOURTH FLOOR
500 N COMMERCIAL STREET
MANCHESTER NH 03101

TITLE
INTERACTIVE COMMUNICATION SYSTEM FOR COMMUNICATING VIDEO GAME AND
KARAOKE SOFTWARE

FILING FEE RECEIVED \$406	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT NO. _____ for the following:	<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees (Filing) <input type="checkbox"/> 1.17 Fees (Processing Ext. of time) <input type="checkbox"/> 1.18 Fees (Issue) <input type="checkbox"/> Other _____ <input type="checkbox"/> Credit
------------------------------	---	---

PATENT APPLICATION SERIAL NO. _____

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

07/15/1998 GURSHING 00000010 09109784

01 FC:201	395.00 OP
02 FC:203	11.00 OP

PATENT APPLICATION FEE DETERMINATION RECORD

Effective October 1, 1997

Application or Docket Number

09/109784

CLAIMS AS FILED - PART I

(Column 1)

(Column 2)

SMALL ENTITY TYPE ☒ 2

OR

OTHER THAN SMALL ENTITY

FOR	NUMBER FILED	NUMBER EXTRA
BASIC FEE		
TOTAL CLAIMS	21 minus 20 =	* 1
INDEPENDENT CLAIMS	3 minus 3 =	*
MULTIPLE DEPENDENT CLAIM PRESENT		

RATE	FEE
	395.00
x\$11=	11
x41=	
+135=	
TOTAL	406

OR

RATE	FEE
	790.00
x\$22=	
x82=	
+270=	
TOTAL	

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

CLAIMS 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
	Total *	Minus **	=
	Independent *	Minus ***	=
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM		

RATE	ADDITIONAL FEE
x\$11=	
x41=	
+135=	
TOTAL ADDIT. FEE	

OR

RATE	ADDITIONAL FEE
x\$22=	
x82=	
+270=	
TOTAL ADDIT. FEE	

(Column 1)

(Column 2)

(Column 3)

AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
	Total *	Minus **	=
	Independent *	Minus ***	=
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM		

RATE	ADDITIONAL FEE
x\$11=	
x41=	
+135=	
TOTAL ADDIT. FEE	

OR

RATE	ADDITIONAL FEE
x\$22=	
x82=	
+270=	
TOTAL ADDIT. FEE	

(Column 1)

(Column 2)

(Column 3)

AMENDMENT C	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
	Total *	Minus **	=
	Independent *	Minus ***	=
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM		

RATE	ADDITIONAL FEE
x\$11=	
x41=	
+135=	
TOTAL ADDIT. FEE	

OR

RATE	ADDITIONAL FEE
x\$22=	
x82=	
+270=	
TOTAL ADDIT. FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20."

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3."

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

JC135 U.S. PTO
09/109784
07/02/98

434	307A	Subclass
Class	ISSUE	

PATENT NUMBER

6193520

6193520

U.S. UTILITY PATENT APPLICATION

SCANNED	O.I.P.E. Jm	PATENT DATE. FEB 27 2002
---------	----------------	-----------------------------

SECTOR	CLASS 434	SUBCLASS 307A	ART UNIT 3113	EXAMINER Cheng
--------	--------------	------------------	------------------	-------------------

FILED WITH: ☐ DISK (CRK) ☐ FICHE
(Attached in pocket on right inside flap)

Certificate

MAR 25 2000

of Correction

Certificate

MAR 15 2000

of Correction

PREPARED AND APPROVED FOR ISSUE

ISSUING CLASSIFICATION

ORIGINAL		CROSS REFERENCE(S)	
CLASS	SUBCLASS	CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)
434	307A	434	307A
INTERNATIONAL CLASSIFICATION		463	40
609B	5/08	84	610
610A	3/18		
610A	2/00		
A63F	9/22		

Formal Drawings (sheet)
Formal Drawings (sheet)

☐ Continued on Issue Slip Inside File Jacket

<input checked="" type="checkbox"/> TERMINAL DISCLAIMER	DRAWINGS			CLAIMS ALLOWED	
	Sheets Drwg. 12	Figs. Drwg. 17	Print Fig. 1002	Total Claims 21	Print Claim for O.G. 1
<input type="checkbox"/> a) The term of this patent subsequent to _____ (date) has been disclaimed.	(Assistant Examiner) _____ (Date)			NOTICE OF ALLOWANCE MAILED 8/25/00	
<input checked="" type="checkbox"/> b) The term of this patent shall not extend beyond the expiration date of U.S. Patent. No. 5773,445.	Joe H. Cheng Primary Examiner (Primary Examiner) _____ (Date)			ISSUE FEE Amount Due 600.00 Date Paid 11/27/00	
<input type="checkbox"/> c) The terminal _____ months of this patent have been disclaimed.	Legal Instruments Examined 9/29/00 (Date)			ISSUE BATCH NUMBER B19	

WARNING:

The information disclosed herein may be restricted. Unauthorized disclosure may be prohibited by the United States Code Title 35, Sections 122, 181 and 368. Possession outside the U.S. Patent & Trademark Office is restricted to authorized employees and contractors only.

Form PTO-436A
(Rev. 10/97)

(LABEL AREA)

(FACE)

SEARCHED				SEARCH NOTED (INCLUDING SEARCH STR)	
Class	Sub.	Date	Exmr.		Date
434	118, 307R-308, 350, 365				
84	477R, 610				
386	105, 126				
463	40-42				
455.	6.3, 39, 66				
		4/28/00	/		
update march		8/24/00	/		

[illegible]

INTERFERENCE SEARCHED			
Class	Sub.	Date	Exmr.
Same as above		8/25/00	js

(RIGHT OUTSIDE)

POSITION	INITIALS	ID NO.	DATE
FEE DETERMINATION			
O.I.P.E. CLASSIFIER			
FORMALITY REVIEW	7/1/14	7/1/14	7/1/14

INDEX OF CLAIMS

Rejected: N
 Allowed: I
 (Through numeral) Canceled: A
 Restricted: R
 Non-selected: N
 Interference: I
 Appeal: A
 Objected: O

Claim	Date	Claim	Date	Claim	Date
1		51		101	
2		52		102	
3		53		103	
4		54		104	
5		55		105	
6		56		106	
7		57		107	
8		58		108	
9		59		109	
10		60		110	
11		61		111	
12		62		112	
13		63		113	
14		64		114	
15		65		115	
16		66		116	
17		67		117	
18		68		118	
19		69		119	
20		70		120	
21		71		121	
22		72		122	
23		73		123	
24		74		124	
25		75		125	
26		76		126	
27		77		127	
28		78		128	
29		79		129	
30		80		130	
31		81		131	
32		82		132	
33		83		133	
34		84		134	
35		85		135	
36		86		136	
37		87		137	
38		88		138	
39		89		139	
40		90		140	
41		91		141	
42		92		142	
43		93		143	
44		94		144	
45		95		145	
46		96		146	
47		97		147	
48		98		148	
49		99		149	
50		100		150	

If more than 150 claims or 10 actions
staple additional sheet here

(LEFT INSIDE)

07/02/98

PATENT APPLICATION

#2



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
In re Application of : Takeya OKAMOTO
Serial no. :
Filed :
For : INTERACTIVE COMMUNICATION
SYSTEM FOR COMMUNICATING
VIDEO AND KARAOKE SOFTWARE
Group Art Unit : 3304
Examiner : M. O'Neil
Docket : ADACHI P134USP1

The Commissioner of Patents and Trademarks
Washington, D.C. 20231

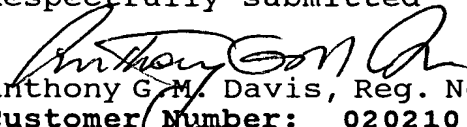
INFORMATION DISCLOSURE STATEMENT

Dear Sir:

In connection with this matter, the Applicant hereby attaches one (1) U.S. Patent Office Form PTO-1449 and copies of the information listed in the enclosed PTO-1449 Form, unless otherwise indicated on such Form.

In the event that there are any fee deficiencies or additional fees are payable, please charge the same or credit any overpayment to our Deposit Account (Account No. 04-0213).

Respectfully submitted


Anthony G. M. Davis, Reg. No. 27,868
Customer Number: 020210
Davis and Bujold
Fourth Floor
500 North Commercial Street
Manchester, NH 03101
Telephone 603-624-9220
Facsimile 603-624-9229
E-mail: patent@tiac.net