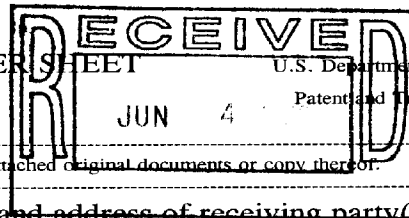


RECORDATION FORM COVER SHEET
PATENTS ONLY



To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Cem I. Duruöz
Taner Ozcelik
Pattabiraman Subramanian
Yoshinori Shimizu
Takayuki Ishida

Additional name(s) of conveying party(ies)

attached? Yes No

2. Name and address of receiving party(ies):

Name: Sony Corporation and Sony Electronics Inc., jointly.

As to Sony Corporation:
Street Address: 6-7-35 Katashinagawa, Shinagawa-Ku
City: Tokyo Country: JAPAN

As to Sony Electronics Inc.:
Street Address: 1 Sony Drive
City: Park Ridge State: NJ ZIP 07656-8003

06-08-1999



101056979

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

3. Nature of conveyance:

Assignment Merger

Security Agreement Change of Name

Other _____

Execution Date: As to Messrs. Duruoz & Ozcelik, 4/29/99; As to Mr. Subramanian, 5/10/99; As to Messrs. Shimizu & Ishida, 5/21/99

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)

B. Patent No.(s)

09/281,152

Additional numbers attached? Yes No

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

Thomas W. Humphrey
Wood, Herron & Evans, L.L.P.
2700 Carew Tower
Cincinnati, Ohio 45202

6. Total number of applications and patents involved: 1

7. Total Fee (37 CFR 3.41)-----\$ 40.00

Enclosed

Authorized to be charged to deposit account

8. Deposit Account Number: 23-3000

(Attach duplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Thomas W. Humphrey

Name of Person Signing

Signature & Reg. No.

34,353

Date

June 1, 1999

Total number of pages comprising cover sheet, attachments, and document: 6

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents and Trademarks, Box Assignments, Washington, D.C. 20231

ASSIGNMENT

WHEREAS, I, as a below named inventor, residing at the address stated below my name, am a sole inventor (if only one name is listed below) or a joint inventor (if plural names are listed below) of certain new and useful improvements in **TRICK PLAYBACK OF DIGITAL VIDEO DATA** for which application for Letters Patent of the United States of America was executed by me on the date indicated next to my name and address;

AND WHEREAS, SONY CORPORATION, a Japanese corporation with offices at 7-35 Kitashinagawa 6-Chome, Shinagawa-Ku, Tokyo, Japan, and **SONY ELECTRONICS INC.**, a corporation organized under the laws of the state of Delaware, and having its principal place of business at 1 Sony Drive, Park Ridge, New Jersey 07656 (hereinafter "**ASSIGNEES**"), desire to acquire all interest in, to and under said invention, said application disclosing the invention, and in, to and under any Letters Patent or similar legal protection which may be granted therefor in the United States and in any and all foreign countries;

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I, as a sole or joint inventor as indicated below, by these presents do hereby assign, sell and transfer unto the said ASSIGNEES, its successors, assigns, and legal representatives, the entire right, title and interest in the said invention, said application, including any divisions and continuations thereof, and in and to any and all Letters Patent of the United States and countries foreign thereto, which may be granted for said invention, and in and to any and all priority rights and/or convention rights under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States of America adheres, and to any other benefits accruing or to accrue to me with respect to the filing of applications for patents or securing of patents in the United States and countries foreign thereto, and I hereby authorize and request the Commissioner of Patents to issue the said United States Letters Patent to said ASSIGNEES, as the assignees of the whole right, title and interest thereto.

And I further agree to execute all necessary or desirable and lawful future documents, including assignments, in favor of ASSIGNEES or its designee, as ASSIGNEES or its successors, assigns and legal representatives may from time to time present to me, without further remuneration, in order to perfect title in said invention, modifications, and improvements in said invention, applications and Letters Patent of the United States and countries foreign thereto.

And I further agree to properly execute and deliver, without further remuneration, such necessary or desirable and lawful papers for application for foreign patents, for filing subdivisions of said application for patent, and/or for obtaining any reissue or reissues of any Letters Patent which may be granted for my aforesaid invention, as the ASSIGNEES thereof shall hereafter require and prepare at its own expense.

And I further agree that ASSIGNEES will, upon their request, be provided promptly with all pertinent facts and documents relating to said application, said invention and said Letters Patent and legal equivalents in foreign countries, as may be known and accessible to me, and will testify as to the same in any interference or litigation related thereto.

And I hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and sale.

And I hereby authorize and request my attorney(s) of record in this application to insert the serial number and filing date of this application in the spaces that follow:

Serial Number: 09/281.152

Filing Date: March 30, 1999

This assignment executed on the date(s) indicated below.

Cem I. Duruöz
Cem I. Duruöz, Sole or First Inventor

4/29/99
Execution Date of This Assignment

Residence Address:
1241 20th Avenue, Apt. 6
San Francisco, CA 94122

4/29/1999
Execution Date of U.S. Patent
Application

STATE OF California
COUNTY OF Santa Clara

Before me this 29 day of April, 1999, personally appeared Cem I. Duruöz, a citizen of Turkey residing in San Francisco, California and particularly at 1241 20th Avenue, Apt. 6, San Francisco, CA 94122, known to me to be the person whose name is subscribed to the foregoing Assignment and acknowledged that ~~he~~ she executed the same as his free act and deed for the purposes therein contained.



Connie C. del Castillo
Notary Public
My Commission Expires: 4/25/02

[Notary's Seal Here]

T. Ozcelik

Taner Ozcelik, Second Inventor

4/29/99

Execution Date of This Assignment

Residence Address:

1241 20th Avenue, Apt 6 542 military way
San Francisco, CA 94122 Palo Alto, CA 94306

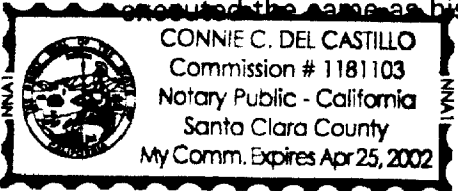
4/29/99

Execution Date of U.S. Patent Application

STATE OF California

COUNTY OF Santa Clara:ss.

Before me this 29 day of April, 1999, personally appeared Taner Ozcelik, a citizen of Turkey residing in San Francisco, California and particularly at 1241 20th Avenue, Apt 6, San Francisco, CA 94122, known to me to be the person whose name is subscribed to the foregoing Assignment and acknowledged that he executed the same as his free act and deed for the purposes therein contained.



Connie C. del Castillo

Notary Public
My Commission Expires: 4/25/02

[Notary's Seal Here]

S. P. Ramon

Pattabiraman Subramanian, Third Inventor

10th May '99

Execution Date of This Assignment

Residence Address:

1701 Warburton Ave., Apt. 5
Santa Clara, CA 95050

10th May '99

Execution Date of U.S. Patent Application

STATE OF California

COUNTY OF Santa Clara:ss.

Before me this 10th day of May, 1999, personally appeared Pattabiraman Subramanian, a citizen of India residing in Santa Clara, California and particularly at 1701 Warburton Ave., Apt. 5, Santa Clara, CA 95050, known to me to be the person whose name is subscribed to the foregoing Assignment and acknowledged that s/he executed the same as his free act and deed for the purposes therein contained.

Connie C. del Castillo

Notary Public
My Commission Expires: 4/25/02

[Notary's Seal Here]



Yoshinori Shimizu

Yoshinori Shimizu, Fourth Inventor

Residence Address:

2-5-5-308 nishinakanobu,

shinagawa-ku, 142-0054

21 May '99

Execution Date of This Assignment

21 May '99

Execution Date of U.S. Patent Application

STATE OF _____:

COUNTY OF Japan :ss.

Before me this 21 day of May, 1999, personally appeared Yoshinori Shimizu, a citizen of Japan residing in Japan and particularly at _____, known to me to be the person whose name is subscribed to the foregoing Assignment and acknowledged that s/he executed the same as his free act and deed for the purposes therein contained.

Notary Public
My Commission Expires:

[Notary's Seal Here]

Takayuki Ishida, Fifth Inventor

Residence Address:

Execution Date of This Assignment

Execution Date of U.S. Patent Application

STATE OF _____:

COUNTY OF _____ :ss.

Before me this _____ day of _____, 19____, personally appeared Takayuki Ishida, a citizen of Japan residing in Japan and particularly at at _____, known to me to be the person whose name is subscribed to the foregoing Assignment and acknowledged that s/he executed the same as his free act and deed for the purposes therein contained.

Notary Public
My Commission Expires:

[Notary's Seal Here]

Yoshinori Shimizu, Fourth Inventor
Residence Address:

Execution Date of This Assignment

Execution Date of U.S. Patent
Application

STATE OF _____ :
:ss.
COUNTY OF _____ :

Before me this _____ day of _____, 19____, personally appeared Yoshinori Shimizu, a citizen of Japan residing in Japan and particularly at _____, known to me to be the person whose name is subscribed to the foregoing Assignment and acknowledged that s/he executed the same as his free act and deed for the purposes therein contained.

Notary Public
My Commission Expires:

[Notary's Seal Here]

Takayuki Ishida
Takayuki Ishida, Fifth Inventor

5/21/99
Execution Date of This Assignment

Residence Address:
1-8-23 Yui-ga-Hama
Kamakura-shi 248-0014 JAPAN

5/21/99
Execution Date of U.S. Patent
Application

STATE OF _____ :
:ss.
COUNTY OF _____ :

Before me this 21 day of May, 1999, personally appeared Takayuki Ishida, a citizen of Japan residing in Japan and particularly at 1-8-23 Yui-ga-Hama Kamakura-shi 248-0014 JAPAN, known to me to be the person whose name is subscribed to the foregoing Assignment and acknowledged that s/he executed the same as his free act and deed for the purposes therein contained.

Notary Public
My Commission Expires:

[Notary's Seal Here]