U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office

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

 Name of conveying party(ies) 2. Name and address of receiving party(ies) Name: SONY CORPORATION Taizo SHIRAI, Yoshihito ISHIBASHI, Kenji YOSHINO, Toru 7-35 Kitashinagawa 6-chome AKISHITA Shinagawa-Ku, Tokyo 141-0001, Japan Additional name(s) of conveying party(ies) attached? Additional name(s) & address(es) attached? Yes x No _X_ No 3. Nature of conveyance: X Assignment Security Agreement Merger Change of Name Execution Date(s): December 17, December 17, December 19 and <u>December 17, 2001</u> 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: Patent Application No.(s) 09/982,624 filed October 18, 2001 Additional numbers attached? __Yes X No 5. Name and address of party to whom correspondence 6. Total number of applications and concerning document should be mailed: Name: WILLIAM S. FROMMER 7. Total fee (37 CFR 3.41) \$ 40.00 Enclosed _X_ Internal Address: FROMMER LAWRENCE & HAUG LLP Authorized to be charged to deposit account 50-0320 Street Address: 745 FIFTH AVENUE 8. Deposit account number: City: NEW YORK State: N.Y. Zip: 10151 (Attach duplicate copy of this page if paying by deposit account) Do not use this space 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. GLENN F. SAVIT January 11, 2002 Name of Person Signing Date Total number of pages including cover 02/119/2002 LINUELLER 00000102 09982624 sheet, attachments, and document: 2 FC:581 40.00 OP Do not detach this portion

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

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ASSIGNMENT

WHEREAS, I, as below named inventors, residing at the addresses stated next to our names, 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

DATA STORAGE DEVICE, DATA RECORDING METHOD, DATA PLAYBACK METHOD, AND PROGRAM PROVIDING MEDIUM

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 141, Japan (hereinafter referred to as ASSIGNEE) is desirous of acquiring 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 ASSIGNEE, 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 ASSIGNEE, as the assignee 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 ASSIGNEE or its designee, as ASSIGNEE or its successors, assigns and legal representatives may from time-to-time present to me and 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 and 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 ASSIGNEE thereof shall hereafter require and prepare at its own expense;

And I further agree that ASSIGNEE will, upon its 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: <u>09/982,624</u>, Filing Date: <u>October 18, 2001</u>.

This assignment executed on the dates indicated below.

Taizo SHIRAI	
Name of first or sole inventor	Execution date of U.S. Patent Application
Tokyo, Japan	
Residence of first or sole inventor Tayy Shray	Pecember 17, 2001
Signature of first or sole inventor	Date of this assignment
Yoshihito ISHIBASHI	
Name of second inventor	Execution date of U.S. Patent Application
Tokyo, Japan	
Residence of second inventor Jestinito Isinbashi	December 17, 2001
Signature of second inventor	Date of this assignment
Kenji YOSHINO	
Name of third inventor	Execution date of U.S. Patent Application
Tokyo, Japan	
Residence of third inventor Kenni Yoshino	December 19, 2001
Signature of third inventor	Date of this assignment

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ADDITIONAL INVENTORS

Toru AKISHITA		
Name of fourth inventor	Execution date of U.S. Patent Application	
Chiba, Japan		
Residence of fourth inventor Donu Akishita	December 17, 2001	
Signature of fourth inventor	Date of this assignment	

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