PATENT ASSIGNMENT

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SUBMISSION TYPE:		NEW ASSIGNMENT					
NATURE OF CONVEYANCE:			ASSIGNMENT				
CONVEYING PARTY DATA							
Ν			lame	Execution Date			
Takeshi Kunihiro				09/28/2012			
Masashi Uchida				10/03/2012			
Eriko Matsui				10/03/2012			
Tomohiro Hayakawa				10/15/2012			
RECEIVING PARTY DATA							
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Postal Code:	108-0075						
PROPERTY NUMBERS Total: 1							
Property Type		Number					
Application Number: 136372		233					
Fax Number: 6176468646 Correspondence will be sent via US Mail when the fax attempt is unsuccessful. Phone: 6176468000 Email: patents_SonyAdmins@wolfgreenfield.com Correspondent Name: Wolf Greenfield & Sacks, P.C. Address Line 1: 600 Atlantic Avenue Address Line 4: Boston, MASSACHUSETTS 02210							
ATTORNEY DOCKET NUMBER:			S1459.70940US00				
NAME OF SUBMITTER:			Tim L. Lanning				
Total Attachments: 2 source=S145970940US00-Executed Assignment#page1.tif source=S145970940US00-Executed Assignment#page2.tif							

Attorney Docket No. S1459.70940US00 SONY Ref. No.: S11P0536US00 SP263427US00

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 PROCESSING APPARATUS, DATA PROCESSING METHOD, IMAGE PROCESSING APPARATUS AND METHOD, AND PROGRAM

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 1-7-1 Konan, Minato-ku, Tokyo, 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: PCT/JP2011/054557 Filing Date: February 28, 2011

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This assignment executed on the dates indicated below.

TAKESHI KUNIHIRO

Name of first or sole inventor KANAGAWA JAPAN Residence of First or sole inventor Takechi Kumhiro

Signature of first or sole inventor

MASASHI UCHIDA Name of second inventor TOKYO JAPAN Residence of second inventor Macashi Uchida

Signature of second inventor

ERIKO MATSUI

Name of third inventor TOKYO JAPAN Residence of third inventor

Signature of third inventor

Execution date of U.S. Patent Application

September 28, 2012

Execution date of U.S. Patent Application

October 3, 2012

Date of this assignment

Execution date of U.S. Patent Application

October 3, 2012 Date of this assignment

PATENT REEL: 029981 FRAME: 0495

Attorney Docket No. S1459.70940US00 SONY Ref. No.:S11P0536US00 SP263427US00

ADDITIONAL INVENTOR(S)

TOMOHIRO HAYAKAWA	
Name of fourth inventor	Execution date of U.S. Patent Application
SAITAMA JAPAN	
Residence of fourth inventor	October 15. 2012
<u>Jomohivo</u> HayaKaWa Signature of fourth inventor	Date of this assignment
Signature of Journ Inventor	Date of this assignment
Name of fifth inventor	Execution date of U.S. Patent Application
Residence of fifth inventor	
Signature of fifth inventor	Date of this assignment
Name of sixth inventor	Execution date of U.S. Patent Application
Residence of sixth inventor	
Signature of sixth inventor	Date of this assignment
Name of seventh inventor	Execution date of U.S. Patent Application
Residence of seventh inventor	
Signature of seventh inventor	Date of this assignment
Name of eighth inventor	Execution date of U.S. Patent Application
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N. C. 1.1.	
Name of ninth inventor	Execution date of U.S. Patent Application
Residence of ninth inventor	
Signature of ninth inventor	Date of this assignment

PATENT REEL: 029981 FRAME: 0496