Form <b>PTQ-1595</b> (Rev. 03-11) OMB No. 0651-0027 (exp. 03/31/2015)	U.S. DEPARTMENT OF COMM United States Patent and Trademar	
RECORDATION FOR		
PATENTS	SUNLY	
To the Director of the U.S. Patent and Trademark Office: Please	record the attached documents or the new address(es) be	low.
1. Name of conveying party(ies):	2. Name and address of receiving party(les)	
Yoichiro Sako (02/21/2013), Takatoshi Nakamura (02/24/2013), Aklra Tange (02/26/2013), and Ichiro Mayama (02/28/2013)  Additional name(s) of conveying party(les) siteched? Yes X No	Name: Sony Corporation Internal Address: Street Address:	
3. Nature of conveyance/Execution Date(s):	1-7-1 Konan, Minato-ku	
Execution Date(s): In parentheses after inventor name  X Assignment Merger Change of Name  Security Agreement Joint Research Agreement	Tokyo 108-0075 JAPAN	
Government Interest Assignment		
	State:	
Executive Order 9424, Confirmatory License  Other	Country: Zip:  Additional name(s) & address(es) Yes X No attached?	<del></del>
A. Patent Application No.(s) 13/861,666  Additional numbers attached	ļ <sub>.</sub>	
5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved:	7
Name: Dennis M. Smid, Esq. LERNER, DAVID, LITTENBERG, KRUMHOLZ & MENTLIK, LLP	7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00	
Internal Address: Atty. Dkt.: SONYJP 3.0-3035		
Street Address: 600 South Avenue West	Authorized to be charged to deposit account     Enclosed     None required (government Interest not affecting	g title)
City: Westfield	8. Payment Information	
State: NJ Zip: 07090		
Phone Number: 908-654-5000		
Fax Number: 908-654-7866	Deposit Account Number 12-1095	
Email Address: ataylor@ldlkm.com	Authorized User Name Dennis M. Smid, Esq.	
9. Signature: Signature	April 12, 2013	
Dennis M. Smid, Esq 34,930	Total accept on a financial acceptance of	
Name of Person Signing	sheet, attachments, and documents:	5

3105153

PATENT REEL: 030213 FRAME: 0820

700503766

Attorney Docket No.: SQNYJP 3.0-3035 Sony Ref. No.: SP345475US00

## DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR SINGLE ASSIGNEE

Title of Invention	SYSTEM, ELECTRONIC APPARATUS, AND RECORDING MEDIUM
As the below	named inventor, I hereby declare that:
This declarati	The attached application, or
	United States application or PCT international application number filed on
	entified application was made or authorized to be made by me.
WHEREAS,	am the original inventor or an original joint inventor of a claimed invention in the application.  SONY CORPORATION , with offices at NAN, MINATO-KU, TOKYO, 108-0075, JAPAN (hereinafter referred to as ASSIGNEE), is desirous of
acquiring all	nterest in, to and under said invention, said application disclosing the invention and in, to and under any Letters Patent or similar on which may be granted therefor in the United States and in any and all foreign countries;
of which are legal represent in and to any any and all pro- Convention Readheres, and United States	FORE, in consideration of the sum of One Dollar (\$1.00), and other good and valuable consideration, the receipt and sufficiency hereby acknowledged. I by these presents do hereby assign, sell and transfer unto said ASSIGNEE, its successors, assigns, and latives, the entire right, title and interest in said invention, said application, including any divisions and continuations thereof, and and all Letters Patent of the United States, and countries foreign thereto, which may be granted for said invention, and in and to iority rights and/or convention rights under the International Convention for the Protection of Industrial Property, Inter-American clating to Patents, Designs and Industrial Models, and any other international agreements to which the United States of American of any other benefits accruing or to accrue to me with respect to the filing of applications for patents or securing of patents in the and countries foreign thereto, and I hereby authorize and request the Commissioner of Patents to issue said United States Letters ASSIGNEE, as the assigned of the whole right, title and interest thereto;
designee, as remuneration,	agree to execute all necessary or desirable and lawful future documents, including assignments in favor of ASSIGNEE or its ASSIGNEE or its successors, assigns and legal representatives may from time-to-time present to me and without further in order to perfect title in said invention, modifications, and improvements in said invention, applications and Letters Patent of ites and countries foreign thereto;
emplication fo	agree to properly execute and deliver and without further remuneration, such necessary or desirable and lawful papers for r foreign patents, for filing subdivisions of said application for patent, and or, for obtaining any reissue or reissues of any Letters may be granted for my aforesaid invention, as said ASSIGNEE thereof shall hereafter require and prepare at its own expense;
application, a	agree that ASSIGNEE will, upon its request, he provided promptly with all pertinent facts and documents relating to said aid invention and said Letters Patent and legal equivalents in foreign countries as may be known and accessible to me and will e same in any interference or litigation related thereto;
And I hereby this assignme	covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with at and sale.
	owledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of five (5) years, or both.
LEGAL NAN	IE OF INVENTOR
Inventor:	YOICHIRO SAKO Date: February 21, 2013
Signature:	(piching total

Attorney Docket No.: SONYJP 3.0-3035 Sony Ref. No.: SP345475US00

## DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR SINGLE ASSIGNEE

LDLKM

Title of Invention	SYSTEM, ELECTRONIC APPARATUS, AND RECORDING MEDIUM
As the below	named inventor, I hereby declare that:
This declarati	X The attached application At
	United States application or PCT international application number
	filed on
The above-ide	entified application was made or authorized to be made by me.
I believe that WHEREAS.	I am the original inventor or an original joint inventor of a claimed invention in the application.  SONY CORPORATION with offices at
	NAN, MINATO-KU, TOKYO, 108-0075, JAPAN (hereinafter referred to as ASSIGNEE), is desirous of
acquiring all i	interest in, to and under said invention, said application disclosing the invention and in, to and under any Letters Patent or similar on which may be granted therefor in the United States and in any and all foreign countries;
of which are legal represent in and to any any and all proceed to adheres, and the United States	EFORE, in consideration of the sum of One Dollar (\$1.00), and other good and valuable consideration, the receipt and sufficiency hereby acknowledged. I by these presents do hereby assign, sell and transfer unto said ASSIGNEE, its successors, assigns, and statives, the entire right, title and interest in said invention, said application, including any divisions and continuations thereof, and and all Letters Patent of the United States, and countries foreign thereto, which may be granted for said invention, and in and to iority rights and/or convention rights under the International Convention for the Protection of Industrial Property, Inter-American selating to Patents, Designs and Industrial Models, and any other international agreements to which the United States of America to any other benefits accruing or to accrue to me with respect to the filling of applications for patents or securing of patents in the and countries foreign thereto, and I hereby authorize and request the Commissioner of Patents to issue said United States Letters ASSIGNEE, as the assignee of the whole right, title and interest thereto;
designee, as remuneration,	agree to execute all necessary or desirable and lawful future documents, including assignments in favor of ASSIGNEE or its ASSIGNEE or its successors, assigns and legal representatives may from time-to-time present to me and without further, in order to perfect title in said invention, modifications, and improvements in said invention, applications and Letters Patent of sites and countries foreign thereto;
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application, sa	agree that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said aid invention and said Letters Patent and legal equivalents in foreign countries as may be known and accessible to me and will be same in any interference or litigation related thereto;
And I hereby this assignmen	covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with on and sale.
	owledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of five (5) years, or both.
LEGAL NAM	1E OF INVENTOR
Inventor:	TAKATOSHI NAKAMURA Date: February 24, 2013
Signature:	Lakatoshi Nekamura

Attorney Docket No.: SONYJP 3.0-3035 Sony Ref. No.: SP345475US00

## DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR SINGLE ASSIGNEE

LDLKM

As the below named inventor, I hereby declare that:  This declaration is directed to:  The attached application, or  United States application or PCT international application number filed on  The above-identified application was made or authorized to be made by me.  I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.  WHEREAS, SONY CORPORATION
United States application or PCT international application number    The above-identified application was made or authorized to be made by me.   I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.   WHEREAS, SONY CORPORATION
The above-identified application was made or authorized to be made by mo.  I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.  WHEREAS, SONY CORPORATION, with offices at 1-7-1 KONAN, MINATO-K.U, TOKYO, 108-0075, JAPAN, (hereinafter referred to as ASSIGNEE), is desirous of acquiring all linerest 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 by these presents do hereby assign, sell and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, the entire right, title and interest in 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 said United States 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 m
The above-identified application was made or authorized to be made by me.  I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.  WHEREAS, SONY CORPORATION  1-7-1 KONAN, MINATO-KU, TOKYO, 108-0075, 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 by these presents do hereby assign, sell and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, the entire right title and interest in said invention, asid 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 applicationsifor 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 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 desirable.
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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 said 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 hitigation 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.
I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or impresonment of not more than five (5) years, or both.
LEGAL NAME OF INVENTOR
Inventor: AKIRA TANGE Date: February 26, 20/3
Signature: April Tonge

**RECORDED: 04/12/2013** 

Attorney Docket No.: SONYJP 3.0-3035 Suny Ref. No.: SP345475US00

## DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR SINGLE ASSIGNEE

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As the below named inventor, I hereby declare that:	
This declaration is directed to:	
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acquiring all interest in, to and under said invention, said application disclosing the invention and in, to and under any Leners 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 sofficioney of which are hereby acknowledged, I by these presents do hereby assign, sell and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, the entire right, title and interest in said invention, said application, including anyidivisions 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 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;	
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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.	
I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.	
LEGAL NAME OF INVENTOR	
Inventor: ICHIRO MAYAMA Date: February 28, 2013	
Signature:	