09/890260 A 1258140 Atty Docket No.: 210146US2PCT 09-11-2001 FORM PTO-1595 U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office To the Honorable Commissioner of Pater d original documents or copy thereof. 101838885 1. Name of conveying party(ies): Name and address of receiving party(ies): Aki KOYABU, Mitsuru NAGASAKA, Tomoko OYABU, and Name: Sony Corporation Tomoko TERAKADO 7-35, Kitashinagawa 6-chome, Address: Shinagawa-ku, Tokyo 141-0001, Japan Additional name(s) of conveying party(ies) attached?

☐Yes ☒No 3. Nature of Conveyance: ☐ Security Agreement ☐ Change of Name ☐ Other Execution Date: July 9, 12, 25 and 13, 2001 Additional name(s) and address(es) attached? ☐Yes ☒No 4. Application number(s) or patent number(s): July 9, 12, and If this document is being filed together with a new application, the execution date of the application is: 25, 2001 A. Patent Application No.(s) B. Patent No.(s) 09/890260 5. Name and address of party to whom correspondence 6. Total applications and patents involved: concerning document should be mailed: 7. Total fee (37 CFR 3.41): \$40.00 ☐ Authorized to be charged to deposit account 8. Deposit account number: 15-0030 (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. 8-07-01 Marvin J. Spivak Signature Date Name of Person Signing Surinder Sachar Registration Number: 24,913 Registration No. 34,423 Total number of pages including this cover sheet: 3 Do not detach this portion Mail documents to be recorded with required cover sheet information to:

Vashington, D.C. 20231

Commissioner of Patents and Trademarks **Box Assignments**

MATERIAGOS ATRACA

PATENT

REEL: 012141 FRAME: 0905

Docket Number: 210146US2PCT

ASSIGNMENT

WHEREAS, I, as a below named inventor, residing at the address stated next to 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

INFORMATION SEARCHING DEVICE, INFORMATION RECEIVER, AND METHODS THEREFOR

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 (hereinafter referenced 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, is 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 atto number and filing date of this application in the space	rney(s) of record in this application to insert the serial est that follow: Serial Number:
Filing Date:	
This assignment executed on the dates indicated indicates and indicates are the controlled as a second of the controlled as a	cated below.
Aki KOYABU	
Name of first or sole inventor	Execution date of U.S. Patent Application
c/o SONY Corporation, 7-35, Kitashinagawa 6-chor	ne, Shinagawa-ku, Tokyo, 141-0001 Japan
Residence of first or sole inventor	. h 2)
Signature of first or sole inventor	J.J. 4. 2001
Signature of first or sole inventor	Date of this assignment

PATENT REEL: 012141 FRAME: 0906

Mitsuru NAGASAKA	
Name of second inventor	Execution date of U.S. Patent Application
c/o SONY Corporation, 7-35, Kitashinagawa 6-chome, Shina	agawa-ku, Tokyo, 141-0001 Japan
Residence of second inventor	
Mitswew nagasaka	Jul. 12. 2001
Signature of second inventor	Date of this assignment
Tomoko OYABU Name of third inventor	Execution date of U.S. Patent Application
Name of third inventor	Execution date of 0.3. I atent Application
c/o SONY Corporation, 7-35, Kitashinagawa 6-chome, Shina	agawa-ku, Tokyo 141-0001 Japan
Residence of third inventor	
Tomoko Oyabu	Jul, 25, 2001
Signature of third inventor	Date of this assignment
Tomoko TERAKADO	The state of the s
Name of fourth inventor	Execution date of U.S. Patent Application
c/o SONY Corporation, 7-35, Kitashinagawa 6-chome, Shina	grave ku Tokyo 141 0001 Japan
Residence of fourth inventor	gawa-ku, Tokyo, 141-0001 Japan
Tomobo Terapado	Jul. 13.200/
Signature of fourth 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

RECORDED: 08/07/2001

PATENT REEL: 012141 FRAME: 0907