| FORM PTO-1595 (Rev. 6-93) OMB No. 0651-0011 (exp. 4/94) | 06-25 | -2001 | U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office | |
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| Tab settings ⇔ ⇔ ♥ ▼ ▼ ▼ | | | | |
| To the Honorable Commissioner of Pater | | 19° 18'181 18'118 81181 1811 1882) | tached original documents or copy thereof. | |
| 1. Name of conveying party(ies): | 10175 | 8868 | :ess of receiving party(ies): | |
| | 5-18-01 | Name: SONY | Y CORPORATION | |
| MASAMI OGATA KAZUHIKO UEDA | | Internal Address | S: 7-35 Kitashinaqawa 6-Chome | |
| Additional name(s) of conveying party(ies) attached? | Yes X No | · · · · · · · · · · · · · · · · · · · | Shinagawa-Ku | |
| 3. Nature of conveyance: | | | Tokyo 141, JAPAN | |
| Assignment | | Street Address: ECEIVE City: JUN 1 8 2096ate: ZIP: | | |
| Execution Date: May 28, 2001 | | Additional name(s) & a | ddress(es) attached? Yes No | |
| Application number(s) or patent number(s): If this document is being filed together with A. Patent Application No.(s) | | B. Patent | | |
| Name and address of party to whom co- concerning document should be mailed: | rrespondence | 6. Total number of | f applications and patents involved: | |
| Name: SONNENSCHEIN NATH & ROSENTHAL | | 7. Total fee (37 C | FR 3.41) \$ _40.00 | |
| Internal Address: P.O. Box 061080 | | | | |
| Wacker Drive Station, Sears To | wer | ☑ Enclosed | | |
| Chicago, Illinois 60606-1080 | | Authorized | to be charged to deposit account | |
| Street Address: | | 8. Deposit accoun | t number: | |
| City: State: | | | e copy of this page if paying by deposit account) | |
| | DO NOT U | JSE 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. David R. Metzger Name of Person Signing Signature Date Total number of pages including cover sheet, attachments, and document: | | | | |
| Total number of pages including cover sheet, attachments, and document: Maildocuments to be recorded with required cover sheet information to: | | | | |

06/22/2001 TDIAZ1 00000131 09778309

Mail documents to be recorded with required cover sheet information to: Commissioner of Patents & Trademarks, Box Assignments Washington, D.C. 20231

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(Form PTO-1595-Recordation Form Cover Sheet - page 1 of 3)

| Docket | Number: | YNY- | E (3) |
|--------|---------|------|-------|
| | | | |

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 DEVICE AND METHOD FOR IMAGE PROCESSING

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, 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: 09/778,309, Filing Date: February 7, 2001.

This assignment executed on the dates indicated below.

| TAKASHI TSUCHIYA | |
|---------------------------------------------|-------------------------------------------|
| Name of first or sole inventor TOKYO, JAPAN | Execution date of U.S. Patent Application |
| Residence of first or sole inventor | |
| Jakash Tsuchiya | May 28, 2001 |
| Signature of tirst or sole inventor | Date of this assignment |

PATENT REEL: 011910 FRAME: 0153

| MASAMI OGATA | |
|------------------------------------------------------------------|-------------------------------------------|
| Name of second inventor KANAGAWA, JAPAN | Execution date of U.S. Patent Application |
| Residence of second inventor Masam Signature of second inventor | May 28,200 / Date of this assignment |
| Signature of second inventor | Date of this assignment |
| KAZUHIKO UEDA | |
| Name of third inventor | Execution date of U.S. Patent Application |
| KANAGAWA, JAPAN | Encounter date of old. I decire approach |
| Residence of third inventor | |
| Kazuhiko Ueda | Many 30, 200/ Date of this assignment |
| Signature of third inventor | Date of this assignment |
| | |
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| | |
| Name of fourth inventor | Execution date of U.S. Patent Application |
| Name of fourth inventor | execution date of 0.3. Fatent Application |
| Residence of fourth inventor | |
| | |
| Signature of fourth inventor | Date of this assignment |
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| | |
| Name of fifth inventor | Execution date of U.S. Patent Application |
| | |
| Residence of fifth inventor | |
| Signature of fifth inventor | Date of this assignment |
| Signature of fifth inventor | Date of this assignment |

RECORDED: 06/18/2001

PATENT REEL: 011910 FRAME: 0154