Attorney Docket No.: 72039/58519 01-21-2003 FORM PTO-1595 U.S. DEPARTMENT OF COMMERCE (Rev. 6-93) Patent and Trademark Office ER SHEET .192342467 LY To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof. 2. Name and address of receiving party(ies): 1. Name of conveying party(ies): 1. Masakazu OHYAMA Name: Sharp Kabushiki Kaisha 2. Katsumi AMAKAWA 3. Takahiro DAIDO Address: 22-22, Nagaike-cho, Abeno-ku, Osaka-shi, 4. Yohsuke KONISHI 5. Hitoshi HIROHATA City/Country: Osaka-fu 545-8522, JAPAN 6. Hiroshi KAWAMURA Additional name(s) & address(es) attached? Additional name(s) of conveying party(ies) attached? Yes V No ☐ Yes ☑ No 3. Nature of Conveyance: ☐ Merger ✓ Assignment ☐ Security Agreement Change of Name Other: Execution Date: December 27, 2002 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: December 27, 2002. B. Patent No.(s) A. Patent Application No(s): 10/342018 Additional numbers attached? Yes 5. Name and address of party to whom correspondence 6. Total number of applications and patents involved: [1] concerning document should be mailed: David G. Conlin, Esq. (Reg. No.: 27,026) Name: Street Address: Dike, Bronstein, Roberts & Cushman Intellectual Property Group of EDWARDS & ANGELL, LLP P.O. Box 9169 City: State: MA Zip: 02209 Boston 7. Total fee (37 CFR 3.41):.....\$40.00 ☑ Enclosed 30000045 10342018 ☑ Authorized to charge deposit account for additional or excess fees. 8. Deposit account number: 04-1105 (Attach duplicate copy of this page if paying by deposit account) DO NOT USE THIS SPACE iggle . Statement and signature. To the best of my krowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document Richard J. Roos, Esq. (Reg. No.: 45,053) January 13, 2003 Name of Person Signing Date Total number of pages including cover sheet, attachments, and documents: 3 OMB No. 0651-0011 (exp. 4/94) < BOS2_323765.1>

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ASSIGNMENT

WHEREAS, the following inventor(s): Masakazu OHYAMA, Katsumi AMAKAWA, Takahiro DAIDO, Yohsuke KONISHI, Hitoshi HIROHATA, Hiroshi KAWAMURA, hereinafter designated as the undersigned) has (have) invented certain new and useful improvements in PRINTING SYSTEM, PRINTING METHOD, PROGRAM AND RECORDING MEDIUM, for which application for Letters Patent of the United States has been filed on January 13, 2003, Serial No._____; and

WHEREAS, **SHARP KABUSHIKI KAISHA**, a **Japanese Corporation**, having its principal place of business at **Osaka**, **Japan**, its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirous of acquiring the entire right, title and interest in and to said invention and to any Letters Patent(s) that may be granted therefor in the United States of America;

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) and other good and valuable consideration to the undersigned, the receipt of which is hereby acknowledged, the undersigned has (have) sold, assigned and transferred, and by these presents do sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America and its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America and its territories, dependencies and possessions, and in and to any and all divisions, reissues, continuations and extensions thereof for the full term or terms for which the same may be granted.

The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing, divisional or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agree(s) to furnish all pertinent facts and documents relating to said application, said invention and said patent(s) as may be known and accessible to the undersigned, and will testify as to the same in any interference or litigation related thereto, and will promptly execute and deliver to Assignee any and all papers, instruments or affidavits necessary or desirable to apply for, obtain, maintain or enforce said application or said patent(s) in connection with any interference which may be declared, and any litigation concerning this application or any continuation, division or reissue thereof or Patent(s) or reissue patent(s) issued thereon, and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference or litigation.

The undersigned agree(s) to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

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The undersigned hereby grant(s) the law firm of Edwards & Angell, LLP of 101 Federal Street, Boston, Massachusetts 02110, U.S.A. the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

The undersigned hereby authorize(s) and request(s) the Commissioner of Patents and Trademarks to issue any and all Letters Patents of the United States of America resulting from said application or any division or divisions or continuing or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he or she has the full right to convey the entire interest herein assigned, and that he or she has not executed, and will not execute, any agreement in conflict herewith.

In witness whereof, signed by the undersigned on the date(s) opposite the undersigned names.

Date: December 27, 2002	Signature of Inventor: masakagu Thyama
	Name: <u>Masakazu OHYAMA</u>
Date: December 27, 2002	Signature of Inventor: Katsumi Amakawa
	Name:Katsumi AMAKAWA
Date:December 27, 2002	Signature of Inventor: Jahaniro Laido
	Name:Takahiro DAIDO
Date: December 27, 2002	Signature of Inventor:
	Name:Yohsuke KONISHI
Date: December 27, 2002	Signature of Inventor: Hitoshi Himhata
	Name:Hitoshi HIROHATA
Date: December 27, 2002	Signature of Inventor: /biroshi Kawamura
	Name: Hiroshi KAWAMIIRA

RECORDED: 01/13/2003

PATENT REEL: 013664 FRAME: 0405