

7-23-98  
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07-28-1998



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BOX ASSIGNMENTS  
PATENT  
33-SP591P

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Ricardo T. SHICHIKU et al.  
Serial No.: 09/078,491 Group: 2751  
Filed: May 14, 1998 Examiner: unassigned

For: IMAGE OPERATION PROCESSING APPARATUS STORING  
DISCRETE DATA EFFICIENTLY IN A MEMORY AND OPERATING  
METHOD THEREOF



Date: July 23, 1998

Docket No.: 33-SP591P

RECORDING OF ASSIGNMENT

**BOX ASSIGNMENTS**

Assistant Commissioner for Patents  
Washington, DC 20231

Sir:

Please record the attached original documents or copy thereof.

1. Name of Conveying party(ies) (e.g. inventor(s)):

Ricardo T. SHICHIKU, Tsuyoshi MURAMATSU and Shinichi YOSHIDA

2. Name and address of receiving party(ies) (e.g. assignee)

Sharp Kabushiki Kaisha  
22-22, Nagaike-cho, Abeno-ku  
Osaka-shi, Osaka, JAPAN

PATENT  
REEL: 9338 FRAME: 0140

07/27/1998 TTUML1 00000191-09078-491 40.00 CP  
01 FC:561

3. Nature of Conveyance:

- Assignment
- Security Agreement
- Merger
- Change of Name
- Other \_\_\_\_\_

Execution Date (e.g., Assignment): June 10, 1998

4. Application number(s) or patent number(s):

If this document is being filed together with a new patent application, the execution date(s) of the application (Declaration) is (are) June 10, 1998.

A. Patent Application Number(s):

09/078,491

B. Patent Number(s):

5. Name and address of party to whom correspondence concerning document should be mailed:

Birch, Stewart, Kolasch & Birch, LLP  
P.O. Box 747  
Falls Church, VA 22040-0747  
(703) 205-8000

6. Total number of applications and patents involved: 1

7.  The recording fee in the amount of \$ 40.00 is enclosed.

8.  Please charge Deposit Account No. 02-2448 in the amount of \$ \_\_\_\_\_. A duplicate copy of this request is enclosed.

SN: 09/078,491

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16-1.21(h); particularly, extension of time fees.

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.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

Date: 7/22/98

By 

Terrell C. Birch  
Reg. No. 19,382

TCB/AJT:11

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TOTAL NUMBER OF PAGES INCLUDING COVER SHEET,  
ATTACHMENTS, AND DOCUMENT: 5

Rev. 12/9/97  
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ATTORNEY DOCKET NO.

33-591P

## ASSIGNMENT

Application No. 09/078,491

Filed May 14, 1998

**Insert Name(s) of Inventor(s)** ➡ WHEREAS, Ricardo T. SHICHIKU, Tsuyoshi MURAMATSU and  
Shinichi YOSHIDA

(hereinafter designated as the undersigned) has (have) invented certain new and useful improvements in \_\_\_\_\_

**Insert Title of Invention** ➡ IMAGE OPERATION PROCESSING APPARATUS STORING DISCRETE DATA  
EFFICIENTLY IN A MEMORY AND OPERATING METHOD THEREOF

for which an application for Letters Patent of the United States of America has been executed by the undersigned

**Insert Date of Signing of Application** ➡ on June 10, 1998; and

**Insert Name of Assignee** ➡ WHEREAS, Sharp Kabushiki Kaisha

**Insert Address of Assignee** ➡ of 22-22, Nagaike-cho, Abeno-ku, Osaka-shi, Osaka, Japan

**CHECK BOX IF APPROPRIATE** ➡  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 in and to any Letters Patent(s) that may be granted therefor in the United States of America and  in any and all foreign countries.

NOW, THEREFORE, in consideration of the sum of Ten Dollars (\$10.00) to the undersigned in hand paid, the receipt of which is hereby acknowledged, and other good and valuable consideration, the undersigned has (have) sold, assigned and transferred, and by these presents does sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America, 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, its territories, dependencies and possessions, and if the box above is designated, in any and all foreign countries;

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 execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division or reissue thereof or Letter Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

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 of America patent(s) or a grant of a valid United States of America and any foreign 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.

The undersigned hereby authorize(s) and request(s) the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patents resulting from said application or any continuing, divisional or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) the full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grant(s) the law firm of Birch, Stewart, Kolasch & Birch, LLP 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 covenant(s) that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date June 10, 1998, Name of Inventor *Ricardo T. Shichiku*  
Ricardo T. SHICHIKU (signature)

Date June 10, 1998, Name of Inventor *Tsuyoshi Muramatsu*  
Tsuyoshi MURAMATSU (signature)

Date June 10, 1998, Name of Inventor *Shinichi Yoshida*  
Shinichi YOSHIDA (signature)

Date \_\_\_\_\_, Name of Inventor \_\_\_\_\_  
(signature)

Date \_\_\_\_\_, Name of Inventor \_\_\_\_\_  
(signature)

Date \_\_\_\_\_, Name of Inventor \_\_\_\_\_  
(signature)