

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
CONVEYING PARTY DATA											
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Chai Wah Wu</td> <td>02/22/2013</td> </tr> <tr> <td>Barry M. Trager</td> <td>02/25/2013</td> </tr> <tr> <td>Mikel J. Stanich</td> <td>02/25/2013</td> </tr> <tr> <td>Kartheek Chandu</td> <td>02/25/2013</td> </tr> </tbody> </table>		Name	Execution Date	Chai Wah Wu	02/22/2013	Barry M. Trager	02/25/2013	Mikel J. Stanich	02/25/2013	Kartheek Chandu	02/25/2013
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RECEIVING PARTY DATA											
<table border="1"> <tr> <td>Name:</td> <td>Ricoh Company, Ltd.</td> </tr> <tr> <td>Street Address:</td> <td>3-6, Nakagome 1-Chome,</td> </tr> <tr> <td>City:</td> <td>Ohta-Ku, Tokyo,</td> </tr> <tr> <td>State/Country:</td> <td>JAPAN</td> </tr> <tr> <td>Postal Code:</td> <td>143-8555</td> </tr> </table>		Name:	Ricoh Company, Ltd.	Street Address:	3-6, Nakagome 1-Chome,	City:	Ohta-Ku, Tokyo,	State/Country:	JAPAN	Postal Code:	143-8555
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PROPERTY NUMBERS Total: 1											
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13773017</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13773017						
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CORRESPONDENCE DATA											
<p>Fax Number: 3037406962 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 408-720-8300 Email: april_worley@bstz.com Correspondent Name: InfoPrint Solutions/ Blakely Address Line 1: 1279 Oakmead Parkway Address Line 4: Sunnyvale, CALIFORNIA 94085-4040</p>											
ATTORNEY DOCKET NUMBER:	9503P002										
NAME OF SUBMITTER:	April Worley										
	This document serves as an Oath/Declaration (37 CFR 1.63).										

CH \$40.00 13773017

Total Attachments: 5

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PATENT

REEL: 029971 FRAME: 0851

**DECLARATION, ASSIGNMENT AND
POWER OF ATTORNEY FOR
UTILITY OR DESIGN PATENT APPLICATION
(37 CFR 1.63)**

☐ Declaration Submitted with Initial Filing OR ☒ Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16(f)) required)

Attorney Docket Number 9503P002

First Named Inventor Chai Wah Wu

COMPLETE IF KNOWN

Application Number 13/773,017

Filing Date February 21, 2013

Art Unit

Examiner Name

METHOD AND SYSTEM FOR HALFTONING USING ENERGY MINIMIZATION

(Title of the Invention)

As a below named inventor, I hereby declare that:

This declaration is directed to:

☐ The attached application,

OR

☒ United States Application Number or PCT International Application Number 13/773,017

filed on 02/21/2013

The above-identified application was made or authorized to be made by me.

I believe I am the original inventor or an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the above-identified application, including the claim(s).

I am aware of the duty to disclose to the Patent and Trademark Office all information known to me to be material to patentability as defined in 37 C.F.R. 1.56, including for a continuation-in-part application, information material to patentability that became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

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.

Willful false statements and the like are punishable by fine or imprisonment, or both (18 U.S.C. 1001), and may jeopardize the validity of the application or any patent issuing thereon. I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true.

Authorization To Permit Access to Application by Participating Offices

☒ If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the above-identified patent application is filed access to the above-identified patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, WIPO, or other intellectual property office in which a foreign application claiming priority to the above-identified patent application is filed to have access to the above-identified patent application.

In accordance with 37 CFR 1.14(h)(3), access will be provided to a copy of the above-identified patent application with respect to: 1) the above-identified patent application-as-filed; 2) any foreign application to which the above-identified patent application claims priority under 35 U.S.C. 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the above-identified patent application; and 3) any U.S. application-as-filed from which benefit is sought in the above-identified patent application.

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing the Authorization to Permit Access to Application by Participating Offices.

DECLARATION, ASSIGNMENT, AND POWER OF ATTORNEY -- Utility or Design Patent Application**Appointment of Practitioners:**

☒ I hereby appoint Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s) to prosecute this application and to transact all business in the United States Patent and Trademark Office connected therewith:

76073

If this patent application is assigned, then each of the undersigned hereby authorizes the patent attorneys and patent agents named herein to accept and follow instructions from the assignee(s) as to any action to be taken in the Patent and Trademark Office regarding this application without direct communication between (1) the patent attorneys and patent agents and (2) each of the undersigned. In the event of a change in the persons from whom instructions may be taken, at least one patent attorney or patent agent named herein will be so notified by at least one of the undersigned.

Direct all correspondence to: ☒ The address associated with 76073 OR ☐ Correspondence address below:
Customer Number:

Name

Address **BLAKELY SOKOLOFF TAYLOR & ZAFMAN LLP**
1279 Oakmead Parkway

City **Sunnyvale** State **California** Zip **94085-4040**

Country **U.S.A.** Telephone **(408) 720-8300** Email **MAIL@BSTZ.com**

Assignment of Patent Application:

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we, the below-named inventor(s): hereby sell, assign, and transfer to

Ricoh Company, Ltd.

having a principal place of business at 3-6, Nakagome 1-Chome , Ohta-Ku, Tokyo, 143-8555 Japan

("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all inventions or improvements that are disclosed in the above identified application and in and to said application and all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said inventions or improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions, that have been or shall be issued in the United States and all foreign countries on said inventions or improvements; and in and to all rights of priority resulting from the filing of said United States application;

agree that said Assignee may apply for and receive a patent or patents for said inventions or improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said inventions or improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said inventions or improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining proper patent protection for said inventions or improvements and for vesting title to said inventions or improvements, and all applications for patents and all patents on said inventions or improvements, in said Assignee, its successors,

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the below named inventor(s).

DECLARATION, ASSIGNMENT, AND POWER OF ATTORNEY -- Utility or Design Patent Application**WARNING:**

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available. Petitioner/applicant is advised that documents which form the record of a patent application (such as the PTO/SB/01) are placed into the Privacy Act system of records DEPARTMENT OF COMMERCE, COMMERCE-PAT-7, System name: *Patent Application File*. Documents not retained in an application file (such as the PTO-2038) are placed into the Privacy Act system of COMMERCE/PAT-TM-10, System name: *Deposit Accounts and Electronic Funds Transfer Profiles*.

Legal Name of Sole or First Inventor:

(E.g., Given Name (first and middle (if any)) and Family Name or Surname)

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[Page 3]

Prepared by Blakely, Sokoloff, Taylor & Zafman LLP on 09/17/2012.

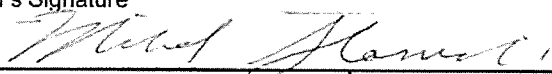
PATENT
REEL: 029971 FRAME: 0855

DECLARATION, ASSIGNMENT, AND POWER OF ATTORNEY -- Utility or Design Patent Application**Legal Name of Additional Joint Inventor, if any:**

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