# Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYP	E:		NEW ASSIGNMENT		
NATURE OF CONVEYANCE:			ASSIGNMENT		
CONVEYING PAR	ΓΥ DATA				
		N	lame	Execution Date	
Jaione Tirapu-Azpiroz			01/07/2008		
Kafai Lai			01/14/2008		
David O. Melville				01/02/2008	
Alan E. Rosenbluth	า			01/12/2008	
Kehan Tian	-			01/07/2008	
RECEIVING PART	Y DATA				
Name:	International	Busines	ss Machines Corporation		
Street Address:	New Orchard	New Orchard Road			
City:	Armonk				
State/Country:	NEW YORK				
Postal Code:	10504				
PROPERTY NUMB			Number		
Application Numbe	er:	12015	768		
CORRESPONDEN					
Fax Number:	(845)89				
<i>Correspondence w</i> Phone:	<i>ill be sent via US</i> 845-894		hen the fax attempt is unsuccessful.		
Email:			om		
	mail: md@us.ibm.com Correspondent Name: INTERNATIONAL BUSINESS MACHINES CORPORAT				
Address Line 1:					
Address Line 2:					
Address Line 4:	HOPEW	/ELL JU	UNCTION, NEW YORK 12533		
ATTORNEY DOCKET NUMBER:			FIS920070350US1		
NAME OF SUBMITTER:			Yuanmin Cai		
		1		PATENT	
500442130				REEL: 020378 FRAME: 0440	)

# Total Attachments: 3 source=FIS920070350US1\_SIGNEDASSIGNMENT#page1.tif source=FIS920070350US1\_SIGNEDASSIGNMENT#page2.tif source=FIS920070350US1\_SIGNEDASSIGNMENT#page3.tif

# ASSIGNMENT

INVENTOR AND CITY	<ul> <li>Whereas, we TirapU - (1) Jaione ■ Azpiroz, City of Poughkeepsie, County of Dutchess and State of New York; (2) Kafai Lai, City of Poughkeepsie, County of Dutchess and State of New York; (3) David O. S. Melville, City of New York, County of New York and State of New York; (4) Alan E. Rosenbluth, City of Yorktown Heights, County of Westchester and State of New York; and (5) Kehan Tian, City of Poughkeepsie, County of Dutchess, and State of New York.</li></ul>			
	have invented certain improvements in			
TITLE	CALCULATING IMAGE INTENSITY OF MASK BY DECOMPOSING MANHATTAN POLYGON BASED ON PARALLEL EDGE			
DATES THAT INVENTORS SIGNED THE DECLARATION	and executed, respectively, a United States patent application therefor on (1) $0/107$ , 2008, (2) $1/14$ , 2008, (3), 2007, (4), 2008, (5) $0/107/2008$ .			

Whereas, INTERNATIONAL BUSINESS MACHINES CORPORATION, a corporation of New York, having a place of business at Armonk, New York 10504, (hereinafter called IBM), desires to acquire the entire right, title and interest in the said application and invention, and to any United States and foreign patents to be obtained therefor;

Now therefore, for a valuable consideration, receipt whereof is hereby acknowledged, we, the above named, hereby sell, assign, and transfer to IBM, its successors and assigns, the entire right, title and interest in the said application and invention therein disclosed for the United States and foreign countries, and in all foreign countries, and all rights of priority resulting from the filing of said United States application, and we request the Commissioner of Patents to issue any Letters Patent granted upon the inventions set forth in said application to IBM, its successors and assigns; and we hereby agree that IBM may apply for foreign Letters Patent on said invention and we will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by IBM.

Signed and sealed
(1)
Jaione F. Azpiroz Tirapu - Azpiroz
(2) JTA, 01/07/08 Kafai Lai
(3) David O. S. Melville
(4) Alan E. Rosenbluth
(5) Kehan Tian

on 01/07/2008 , 2007 on 1/14/2008, 2007

on \_\_\_\_\_, 2007

on\_\_\_\_\_, 2007

on 01/07/2008 ......

PATENT REEL: 020378 FRAME: 0442

#### Docket No.: FIS920070350US1

# ASSIGNMENT

	Whereas, we			
INVENTOR				
AND CITY	<ol> <li>Jaione T. Azpiroz, City of Poughkeepsie, County of Dutchess and State of New York;</li> <li>Kafai Lai, City of Poughkeepsie, County of Dutchess and State of New York;</li> <li>David O. S. Melville, City of New York, County of New York and State of New York;</li> <li>Alan E. Rosenbluth, City of Yorktown Heights, County of Westchester and State of New York; and</li> <li>Kehan Tian, City of Poughkeepsie, County of Dutchess, and State of New York.</li> </ol>			
	have invented certain improvements in			
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DATES THAT	and executed, respectively, a United States patent application therefor on			
SIGNED THE	(1), 2007, (2), 2007,			
DECLARATION	(3) 61 / 62 /, 2008, (4)			
	(5)			

Whereas, INTERNATIONAL BUSINESS MACHINES CORPORATION, a corporation of New York, having a place of business at Armonk, New York 10504, (hereinafter called IBM), desires to acquire the entire right, title and interest in the said application and invention, and to any United States and foreign patents to be obtained therefor;

Now therefore, for a valuable consideration, receipt whereof is hereby acknowledged, we, the above named, hereby sell, assign, and transfer to IBM, its successors and assigns, the entire right, title and interest in the said application and invention therein disclosed for the United States and foreign countries, and in all foreign countries, and all rights of priority resulting from the filing of said United States application, and we request the Commissioner of Patents to issue any Letters Patent granted upon the inventions set forth in said application to IBM, its successors and assigns; and we hereby agree that IBM may apply for foreign Letters Patent on said invention and we will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by IBM.

Signed	and	sea	ed
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(1) Jaione T. Azpiroz	on, 2007
(2) Kafai Lai	on, 2007
(3) <u>LQLLL</u> . David O. S. Melville	on 01/02/ ,2008
(4) Alan E. Rosenbluth	on, 2007
(5) Kehan Tian	on, 2007.

PATENT REEL: 020378 FRAME: 0443

# ASSIGNMENT

	Whereas, we				
INVENTOR AND CITY	<ol> <li>Jaione T. Azpiroz, City of Poughkeepsie, County of Dutchess and State of New York;</li> <li>Kafai Lai, City of Poughkeepsie, County of Dutchess and State of New York;</li> <li>David O. S. Melville, City of New York, County of New York and State of New York;</li> <li>Alan E. Rosenbluth, City of Yorktown Heights, County of Westchester and State of New York; and</li> <li>Kehan Tian, City of Poughkeepsie, County of Dutchess, and State of New York.</li> </ol>				
	have invented certain improvements in				
TITLE	CALCULATING IMAGE INTENSITY OF MASK BY DECOMPOSING MANHATTAN POLYGON BASED ON PARALLEL EDGE				
DATES THAT	and executed, respectively, a United States patent application therefor on				
SIGNED THE	(1), 2007, (2), 2007,				
DECLARATION	(3), 2007, (4) Jan. 12 2003				

Whereas, INTERNATIONAL BUSINESS MACHINES CORPORATION, a corporation of New York, having a place of business at Armonk, New York 10504, (hereinafter called IBM), desires to acquire the entire right, title and interest in the said application and invention, and to any United States and foreign patents to be obtained therefor;

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(1) Jaione T. Azpiroz	on	_, 2007
(2) Kafai Lai	on	. 2007
(3) David O. S. Melville	on	, 2007
(4) <u>Alan E. Rosenbluth</u>	on Jan. 12	200 <b>%</b>
(5) Kehan Tian	on	, 2007.

Signed and sealed