

PATENT ASSIGNMENT

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Stylesheet Version v1.1

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>ALLEN KEITH BATES</td><td>09/06/2006</td></tr><tr><td>NILS HAUSTEIN</td><td>09/18/2006</td></tr><tr><td>CRAIG ANTHONY KLEIN</td><td>09/07/2006</td></tr><tr><td>HENRY ZHENG LIU</td><td>09/12/2006</td></tr><tr><td>DANIEL JAMES WINARSKI</td><td>09/07/2006</td></tr></tbody></table>	Name	Execution Date	ALLEN KEITH BATES	09/06/2006	NILS HAUSTEIN	09/18/2006	CRAIG ANTHONY KLEIN	09/07/2006	HENRY ZHENG LIU	09/12/2006	DANIEL JAMES WINARSKI	09/07/2006	
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HENRY ZHENG LIU	09/12/2006												
DANIEL JAMES WINARSKI	09/07/2006												
RECEIVING PARTY DATA													
Name:	INTERNATIONAL BUSINESS MACHINES CORPORATION												
Street Address:	New Orchard Road												
City:	Armonk												
State/Country:	NEW YORK												
Postal Code:	10504												
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>11534588</td></tr></tbody></table>	Property Type	Number	Application Number:	11534588									
Property Type	Number												
Application Number:	11534588												
CORRESPONDENCE DATA													
Fax Number: (520)760-6651 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>													
Phone: 520-760-6629													
Email: jhholcombe@cox.net													
Correspondent Name: IBM Corporation													
Address Line 1: 9000 S. Rita Road (90A/9032)													
Address Line 2: Intellectual Property Law													
Address Line 4: Tucson, ARIZONA 85744													
ATTORNEY DOCKET NUMBER:	TUC920060117US1												
NAME OF SUBMITTER:	John H. Holcombe												

CH \$40.00 11534588

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PATENT
REEL: 018436 FRAME: 0309

Total Attachments: 5

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PATENT

REEL: 018436 FRAME: 0310

ASSIGNMENT

Docket No. TUC920060117US1
Page 1 of 2

Whereas, we

INVENTOR
AND CITY

(1)	ALLEN KEITH BATES	of Tucson,
	County of Pima	and State of Arizona,
(2)	NILS HAUSTEIN	of Soergenloch,
	Federal Republic of Germany,	
(3)	CRAIG ANTHONY KLEIN	of Tucson,
	County of Pima	and State of Arizona,
(4)	HENRY ZHENG LIU	of Tucson,
	County of Pima	and State of Arizona,
(5)	DANIEL JAMES WINARSKI	of Tucson,
	County of Pima	and State of Arizona,

have invented certain improvements in

TITLE

RUN LENGTH LIMITED ENCODING OF DATA INTO A 5X5 MATRIX FOR
RECORDING INTO A HOLOGRAPHIC MEDIUM

DATE THAT
INVENTOR
SIGNED THE
DECLARATION

and executed, respectively, a United States patent application therefor on

(1)	<u>9-6</u>	, 2006;	(2)		, 2006;	(3)	<u>7 Sept.</u>	, 2006;
(4)	<u>9-12</u>	, 2006;	(5)	<u>7 Sept.</u>	, 2006.			

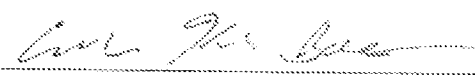
Whereas, INTERNATIONAL BUSINESS MACHINES CORPORATION, a corporation of New York, having a place of business at Armonk, New York 10504, (hereinafter called IBM), desires to acquire the entire right, title and interest in the said application and invention, and to any United States and foreign patents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

Now therefore, for a valuable consideration, receipt whereof is hereby acknowledged, I, 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 all rights of priority resulting from the filing of said United States application, and I request the

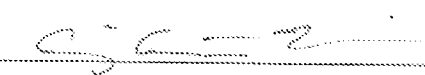
Commissioner of Patents to issue any Letters Patent granted upon the inventions set forth in said application to IBM, its successors and

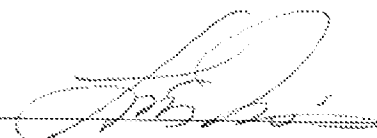
assigns; and I hereby agree that IBM may apply for foreign Letters Patent on said invention and I will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by IBM.

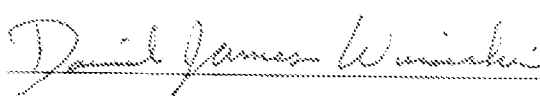
Signed

CITY	(1) at Tucson, AZ		SIGNATURE
DATE	on 9-6, 2006	ALLEN KEITH BATES	INVENTOR

CITY	(3) at _____	_____	SIGNATURE
DATE	on _____, 2006	NILS HAUSTEIN	INVENTOR

CITY	(3) at Tucson, AZ		SIGNATURE
DATE	on Sept 7, 2006	CRAIG ANTHONY KLEIN	INVENTOR

CITY	(4) at Tucson, AZ		SIGNATURE
DATE	on Sept 12, 2006	HENRY ZHENG LIU	INVENTOR

CITY	(5) at Tucson, AZ		SIGNATURE
DATE	on 7 Sept, 2006	DANIEL JAMES WINARSKI	INVENTOR

ASSIGNMENT

DocId: 30050170
Page 1 of 1

Whereas, we

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76

10) ALLEN KEITH BATES
County of Pima

of Tucson,
and State of Arizona,

(2) NILS HAUSTEIN
Federal Republic of Germany.

25 Soergenloch,

(3) CRAIG ANTHONY KLEIN
Country of Birth

of Tucson,
and State of Arizona.

(4) HENRY ZHENG LIU
County of Pima

of Tucson,
and State of Arizona.

(S) DANIEL JAMES WINARSKI
Country of Pima

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RECORDING INTO A HOLOGRAPHIC MEDIUM

THAT
FOR
O THE
NATION

[illegible]

(2) _____, 2006; (3) 12.09.06, 2006; (4) _____, 2006;

14) _____, 2006; 15) _____, 2006.

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 say, cause procure and cause to be procured therefor;

[illegible]

PATENT

REEL: 018436 FRAME: 0313

Docket No TUC920060117081

Page 2 of 2

Commissioner of Patents to issue any Letters Patent granted upon the inventions set forth in said application to IBM, its successors and

assigns; and I hereby agree that IBM may apply for foreign Letters Patent on said invention and I will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by IBM.

Signed

CITY	(1) at Tucson, AZ	_____	SIGNATURE
DATE	on _____, 2006	ALLEN KEITH BATES	INVENTOR

CITY	(2) at <u>Hainz</u>	<u>W. H. Haustein</u>	SIGNATURE
DATE	on <u>12.29.06</u> , 2006	NILS HAUSTEIN	INVENTOR

CITY	(3) at Tucson, AZ	_____	SIGNATURE
DATE	on _____, 2006	CRAIG ANTHONY FLEIN	INVENTOR

CITY	(4) at Tucson, AZ	_____	SIGNATURE
DATE	on _____, 2006	HENRY ZHENG LIU	INVENTOR

CITY	(5) at Tucson, AZ	_____	SIGNATURE
DATE	on _____, 2006	DANIEL JAMES WINARSKI	INVENTOR

PATENT

RECORDED: 10/25/2006

REEL: 018436 FRAME: 0314