06-12-2003 **FORM PTO - 1595** U.S. DEPARTMENT OF RECORDA Γ COMMERCE To the Honorable Commissioner of Patents an Patent and Trademark Office 102470851 al documents or copy thereof 1. Name(s) of conveying party/parties: 2. Name and address of receiving party Kerry A. Kravec Ali G. Saidi International Business Machines Corporation Jan M. Slyfield **New Orchard Road** Pascal R. Tannhof Armonk, New York 10504 Additional Names Attached? Yes X No 3. Nature of Conveyance X Assignment Merger Security Agreement Change of Name Other: Execution 5/15/2003 Additional Names Attached? Date(s): 5/14/2003 Yes X No 5/30/2003 5/14/2003 4. Application number(s) or patent number(s): If this document is being filed with a new application, the execution date of the application is: A. Patent Application No(s) B. Patent No(s) 10/393146 Additional Numbers Attached? X No Yes 5. Name and Address of party to whom correspondence 6. Total Number of applications and patents 1 concerning the document should be sent: involved: 7. Total fee (37 CFR 3.41)\$ Name: Joscelyn G. Cockburn 40 Internal Address: **Enclosed** X IBM Corporation, 9CCA/B002 Charge to deposit account Street Address: 8. Deposit account Number: 09-1990 PO Box 12195 (Attach duplicate copy of this page if paying by deposit account City/State/Zip: Res. Tri. Park, NC 27709 DO NOT USE THIS SPACE 9. Statement and signature: 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. Jos**€**elyn G. Cockburn June 5, 2003 Name of Person Signing Signature Date Total Number of pages including cover sheet, attachments and document Mail documents to be recorded with required cover sheet information to:

Assistant Commissioner for Patents; Box Assignments; Washington, D.C. 20231

06/12/2003 GTOH11 00000008 091990 10393146 01 FC:8021

40.00 CH

PATENT

REEL: 014150 FRAME: 0978

ASSIGNMENT

City of Bethel Park State of Pennsylvania
City of Austin State of Texas
City of San Jose State of California
City of 77300 Fontainebleau Country of France
MING FAST CLOSEST MATCH IN PATTERN

(3) ______, (4) ______, and

and executed a United States patent application therefor on the following date(s):

5/15/03

(1)

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 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/we, the above named, hereby acknowledge my/our prior existing obligation and hereby sell, assign, and transfer to IBM, its successors and assigns, the entire right, title and interest in the application and invention therein disclosed for the United States and foreign countries, and all rights of priority resulting from the filing of the United States application, and I/we request the Commissioner of Patents to issue any Letters Patent granted upon the invention set forth in the application to IBM, its successors and assigns; and I/we hereby agree that IBM may apply for foreign Letters Patent on the invention and I/we will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by IBM.

RPS920020181US1

Whereas, I/ we.

-1-

PATENT REEL: 014150 FRAME: 0979

CITY/STATE	DATE	<u>SIGNATURE</u>
Bethel Park, PA	5/15/03	Kerry a. Krawc
		′Kerry A. Kravec ′
		Ali G. Saidi
		Jan M. Slyfield
		Pascal R. Tannhof

ASSIGNMENT

City of Bethel Park

,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Sta	te of Pennsylvania	
Ali G. Saidi		y of Austin ite of Texas	
Jan M. Slyfield		y of San Jose ite of California	
Pascal R. Tannhof		y of 77300 Fontainebleau untry of France	
have invented certain improvements in			
Title: METHOD AND APPARATUS FOR PERF	ORMIN	G FAST CLOSEST MATC	H IN PATTERN
and executed a United States patent application there	efor on the	e following date(s):	
(1),	(2)	5/14/2003	,
(3)	(4)		, and
Whereas, INTERNATIONAL BUSINESS MACI of business at Armonk, New York 10504, (hereinafter in the application and invention, and to any United Standard Now therefore, for a valuable consideration, refereby acknowledge my/our prior existing obligation as	called IB ates and f eceipt wh	M), desires to acquire the entire oreign patents to be obtained the ereof is hereby acknowledged,	e right, title and interest herefor; I/we, the above named,

RPS920020181US1

so by IBM.

Whereas, I/ we,

Kerry A Krayec

-1-

assigns, the entire right, title and interest in the application and invention therein disclosed for the United States and foreign countries, and all rights of priority resulting from the filing of the United States application, and I/we request the Commissioner of Patents to issue any Letters Patent granted upon the invention set forth in the application to IBM, its successors and assigns; and I/we hereby agree that IBM may apply for foreign Letters Patent on the invention and I/we will execute all papers necessary in connection with the United States and foreign applications when called upon to do

PATENT REEL: 014150 FRAME: 0981

<u>CITY/STATE</u>	<u>DATE</u>	<u>SIGNATURE</u>
Austin, Texas	5/14/2003	Kerry A. Kravec Ali/G. Saidi
		Jan M. Slyfield
		Pascal R. Tannhof

ASSIGNMENT

Whereas, I/ we,

City of Bethel Park Kerry A. Kravec

State of Pennsylvania

Ali G. Saidi City of Austin

State of Texas

City of San Jose Jan M. Slyfield

State of California

Pascal R. Tannhof City of 77300 Fontainebleau

Country of France

have invented certain improvements in

Title: METHOD AND APPARATUS FOR PERFORMING FAST CLOSEST MATCH IN PATTERN RECOGNITION

and executed a United States patent application therefor on the following date(s):

(1))	(2)	 _1
(3)	may 30, 2003	(4)	 _, and

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 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/we, the above named, hereby acknowledge my/our prior existing obligation and hereby sell, assign, and transfer to IBM, its successors and assigns, the entire right, title and interest in the application and invention therein disclosed for the United States and foreign countries, and all rights of priority resulting from the filing of the United States application, and I/we request the Commissioner of Patents to issue any Letters Patent granted upon the invention set forth in the application to IBM, its successors and assigns; and I/we hereby agree that IBM may apply for foreign Letters Patent on the invention and I/we will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by IBM.

> **PATENT** REEL: 014150 FRAME: 0983

<u>CITY/STATE</u>	<u>DATE</u>	<u>SIGNATURE</u>
		Kerry A. Kravec
San Jose CA	May 30, 2003	Ali G. Saidi
		Jan M. Slyfield Pascal R. Tannhof

PATENT

ASSIGNMENT

Whereas, I/ we,	
Kerry A. Kravec	City of Bethel Park State of Pennsylvania
All G. Saldi	City of Austin State of Texas
Jan M. Slyfleld	City of San Jose State of California
Pascal R. Tannhof	City of 77300 Fontainebleau Country of France
have invented certain improvements in	
Title: METHOD AND APPARATUS FOR RECOGNITION	PERFORMING FAST CLOSEST MATCH IN PATTERN
and executed a United States patent applicat	ion therefor on the following date(s):
(1)	
(3)	

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 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/we, the above named, hereby acknowledge my/our prior existing obligation and hereby sell, assign, and transfer to IBM, its successors and assigns, the entire right, title and interest in the application and invention therein disclosed for the United States and foreign countries, and all rights of priority resulting from the filing of the United States application, and I/we request the Commissioner of Patents to issue any Letters Patent granted upon the invention set forth in the application to IBM, its successors and assigns; and I/we hereby agree that IBM may apply for foreign Letters Patent on the invention and I/we will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by IBM.

RPS920020181US1

-1-

Signed and sealed:

CITY/STATE	DATE	SIGNATURE
		Kerry A. Kravec
		All G. Saidi
		Jan M. Slyfield
Corbeil Essonnes, France	5/14/2003	Jascal R. I make

RPS920020181US1