Atty. Docket No. YO998-065

10-30-1998

EET

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Please record the

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s and Trademarks:
nts or copy thereof.

1. Name of conveying party(ies): Anil K. Jain, Lin Hong, Rudolf M. Bolle, Sharthchandra U. Pankanti	2. Name and address of receiving party(ies): Name: IBM Corporation Address: Old Orchard Road Armonk, NY 10504
Additional name(s) of conveying party(ies) attached? ___Yes ___x No	Additional name(s) & addresses attached? ___Yes ___x No
3. Nature of conveyance: X Assignment	4. Patent Application number(s) <u>09/030,595</u>
Execution Date(s): <u>March 7, 1998,</u> <u>March 20, 1998, February 20, 1998</u>	Execution Date(s): <u>March 7, 1998,</u> <u>March 20, 1998, February 20, 1998</u>
5. Name and address of party to whom correspondence concerning document should be mailed: Name: Louis J. Percello Address: IBM Corporation Intellectual Property Law P.O. Box 218 Yorktown Heights, NY 10598	6. Total number of applications involved: 1
	7. Total fee (37 CFR 3.41): \$40.00 X Charge to Deposit Account No.: <u>09-0468</u> (A duplicate copy of this sheet is enclosed)

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8. 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 original document.

Louis J. Percello

October 20, 1998

Name of Person Signing
Reg. No. 33,206

Signature

Date

Total number of pages including cover sheet, attachments, and document: 3

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10/29/1998 SBURNS 00000078 090468 09030595
01 FC:581 40.00 CH

PATENT
REEL: 9551 FRAME: 0952

Assignment

Whereas, we

Inventor
and City

(1) Anil K. Jain
County of Ingham

of Okemosng
and State of Michigan

and (2) Lin Hong
County of Ingham

of Lansing
and State of Michigan

and (3) Rudolf M. Bolle
County of Westchester

of Bedford Hills
and State of New York

and (4) Sharathchandra U. Pankanti
County of Westchester

of Mt. Kisco
and State of New York

and (5)
County of

of
and State of

and (6)
County of

of
and State of

have invented certain improvements in

TITLE: SYSTEM AND METHOD FOR DERIVING A STRING-BASED REPRESENTATION OF AN (FINGERPRINT) IMAGE

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

DATES THAT (1) March 7, 1998, and (2) March 7, 1998, and (3) March 20, 1998, and
INVENTORS (4) February 20, 1998, and (5) 199 , and (6) March 20, 199 .
SIGNED THE
DECLARATION

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 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.

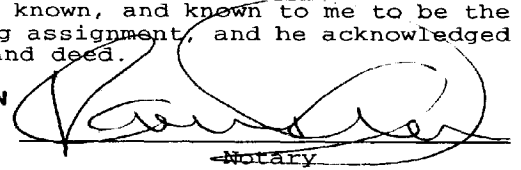
CITY	(1) at	Signed and sealed							
DATE	on	March 7	1998,	(	Anil	K.	Jain	)	SIGNATURE
					FIRST NAME	MIDDLE INITIAL	LAST NAME		INVENTOR
CITY	and (2) at	Signed and sealed							
DATE	on	March 7	1998,	(	Lin		Hong	)	SIGNATURE
					FIRST NAME	MIDDLE INITIAL	LAST NAME		INVENTOR
CITY	and (3) at	Signed and sealed							
DATE	on	March 20,	1998,	(	Rudolf	M.	Bolle	)	SIGNATURE
					FIRST NAME	MIDDLE INITIAL	LAST NAME		INVENTOR
CITY	and (4) at	Signed and sealed							
DATE	on	February 20,	1998,	(	Sharathchandra	U.	Pankanti	)	SIGNATURE
					FIRST NAME	MIDDLE INITIAL	LAST NAME		INVENTOR
CITY	and (5) at	Signed and sealed							
DATE	on		1998,	(				)	SIGNATURE
					FIRST NAME	MIDDLE INITIAL	LAST NAME		INVENTOR
CITY	and (6) at	Signed and sealed							
DATE	on		1998,	(				)	SIGNATURE
					FIRST NAME	MIDDLE INITIAL	LAST NAME		INVENTOR

State of Michigan) SS.:
 County of Ingham)

INVENTOR
 (1)

On this 7th day of march 1998, before me personally came
 Anil K. Jain to me personally known, and known to me to be the
 person described in and who executed the foregoing assignment, and he acknowledged
 to me that he executed the same as his free act and deed.

KAREN DEAN, NOTARY PUBLIC
 CLINTON COUNTY, STATE OF MICHIGAN
 AGENT IN INGHAM COUNTY
 MY COMMISSION EXPIRES 4/11/2001


 Notary

State of Michigan) SS.:
 County of Ingham)

INVENTOR
 (2)

On this 7th day of march 1998, before me personally came
 Lin Hong to me personally known, and known to me to be the
 person described in and who executed the foregoing assignment, and he acknowledged
 to me that he executed the same as his free act and deed.

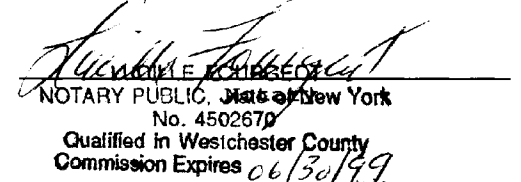
KAREN DEAN, NOTARY PUBLIC
 CLINTON COUNTY, STATE OF MICHIGAN
 AGENT IN INGHAM COUNTY
 MY COMMISSION EXPIRES 4/11/2001


 Notary

State of New York) SS.:
 County of Westchester)

INVENTOR
 (3)

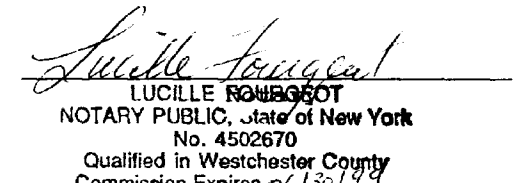
On this 20th day of March 1998, before me personally came
 Rudolf M. Bolle to me personally known, and known to me to be the
 person described in and who executed the foregoing assignment, and he acknowledged
 to me that he executed the same as his free act and deed.


 LUCILLE FOUGERE
 NOTARY PUBLIC, State of New York
 No. 4502670
 Qualified in Westchester County
 Commission Expires 06/30/99

State of New York) SS.:
 County of Westchester)

INVENTOR
 (4)

On this 20th day of February 1998, before me personally came
 Sharthchandra U. Pankanti to me personally known, and known to me to be the
 person described in and who executed the foregoing assignment, and he acknowledged
 to me that he executed the same as his free act and deed.


 LUCILLE FOUGERE
 NOTARY PUBLIC, State of New York
 No. 4502670
 Qualified in Westchester County
 Commission Expires 06/30/99

State of) SS.:
 County of)

INVENTOR
 (5)

On this day of 199 , before me personally came
 to me personally known, and known to me to be the
 person described in and who executed the foregoing assignment, and he acknowledged
 to me that he executed the same as his free act and deed.

 Notary

State of) SS.:
 County of)

INVENTOR
 (6)

On this day of 199 , before me personally came
 to me personally known, and known to me to be the
 person described in and who executed the foregoing assignment, and he acknowledged
 to me that he executed the same as his free act and deed.

 Notary

Assignment Attached

D

Assistant Commissioner for Patents
Washington, D.C. 20231

CASE DOCKET NO. YO998-065
Date: February 25, 1998

Submitted herewith for filing is the Patent Application of:

Inventors: Anil K. Jain, Lin Hong, Rudolf M. Bolle and
Sharathchandra U. Pankanti

FOR: SYSTEM AND METHOD FOR DERIVING A STRING-BASED REPRESENTATION
OF AN (FINGERPRINT) IMAGE

Enclosed are:

Express Mail Label No.: EM455586541US

Date Deposited: February 25, 1998

- ☒ 20 Sheets of Informal Drawings.
- ☐ An assignment of the invention to International Business Machines Corporation and the assignment recordation form cover sheet.
- ☐ Petition to Convert _____ application.
- ☐ Declaration and Power of Attorney.

The filing fee has been calculated as shown below:

	(Col. 1)	(Col. 2)
FOR:	NO. FILED	NO. EXTRA
BASIC FEE		
TOTAL CLAIMS	14-20 =	0
INDEP CLAIMS	1- 3 =	0
____ MULTIPLE DEPENDENT CLAIM PRESENTED		

If the difference in Col. 1 is less than zero, enter "0" in Col. 2.

OTHER THAN A SMALL ENTITY	
RATE	FEE
	\$790.00
X \$ 22 =	
X \$ 82 =	
+ \$ 240 =	\$
SUBTOTAL	\$ 790.00
	\$
TOTAL	\$ 790.00

- ☒ Please charge my Deposit Account No. 09-0468 in the amount of \$ 790.00.
- ☒ The Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. 09-0468. A duplicate copy of this sheet is enclosed.
- ☒ Any additional filing fees required under 37 CFR 1.16.
- ☒ Any patent application processing fees under 35 CFR 1.17.

Respectfully submitted,

BY Louis J. Percello
Attorney: Louis J. Percello
Registration No.: 33,206
Tel. (914) 945-3244

IBM CORPORATION
INTELLECTUAL PROPERTY LAW DEPT.
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