

MRD  
8-21-98

08-31-1998



Docket No. Y0998-037

100810497

To The Honorable Commissioner of Patents and Trademarks:  
Please record the attached original documents or copy thereof.

jc549 U.S. PTO  
09/138442  
08/21/98

<p>1. Name of conveying party(ies) Emanuel I. Cooper Madhav Datta Thomas E. Dinan, Jr. Thomas S. Kanarsky Michael B. Pike Ravindra V. Shenoy</p> <p>Additional name(s) of conveying party(ies) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>2. Name and address of receiving party(ies):</p> <p>Name: IBM Corporation Address: New Orchard Road Armonk, NY 10504</p> <p>Additional name(s) &amp; addresses attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p>3. Nature of conveyance:</p> <p><input checked="" type="checkbox"/> Assignment</p> <p>Execution Date(s): <u>08/19/98 08/18/98 07/30/98</u> <u>08/04/98 08/03/98 07/21/98</u> respectively</p>	<p>Patent Application number(s)</p> <p>S.N.</p> <p>Execution Date(s): <u>08/19/98 08/18/98 07/30/98</u> <u>08/04/98 08/03/98 07/21/98</u> respectively</p>
<p>5. Name and address of party to whom correspondence concerning document should be mailed:</p> <p>Name: Robert M. Trepp Address: IBM Corporation Intellectual Property Law P.O. Box 218 Yorktown Heights, NY 10598</p>	<p>6. Total number of applications involved: 1</p> <p>7. Total fee (37 CFR 3.41): \$40.00</p> <p><input checked="" type="checkbox"/> Charge to Deposit Account No.: <u>09-0468</u></p> <p>(A duplicate copy of this sheet is enclosed)</p>

08/28/1998 JSHARAZZ 00000150 090468 09138442

DO NOT USE THIS SPACE

01 FC:581 40.00 CH

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.

Robert M. Trepp

*Robert M. Trepp* Aug 21, 1998

Name of Person Signing Signature Date  
Total number of pages comprising cover sheet 1

DO NOT DETACH THIS PORTION

Mail documents to be recorded with required cover sheet information to:

Assistant Commissioner of Patents  
Box Assignments  
Washington, DC 20231

Public burden reporting for this sample cover sheet is estimated to average about 30 minutes per document to be recorded, including time for reviewing the document and gathering the data needed, and completing and reviewing the sample cover sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, Office of Information Systems, PK2-1000C, Washington, DC 20231, and to the Office of Management and Budget, Paperwork Reduction Project (0651-0011), Washington, DC 20503.

# Assignment

Whereas, we

Inventor  
and City

(1) Emanuel I. Cooper  
County of ~~Bronx~~ Westchester E.C. 8/19/98

of ~~Bronx~~ Scarsdale E.C. 8/19/98  
and State of New York

and (2) Madhav Datta  
County of Westchester

of Yorktown Heights  
and State of New York

and (3) Thomas E. Dinan, Jr.  
County of Santa Clara

of San Jose  
and State of California

and (4) Thomas S. Kanarsky  
County of Dutchess

of Hopewell Junction  
and State of New York

and (5) Michael B. Pike  
County of Dutchess

of Hopewell Junction  
and State of New York

and (6) Ravindra V. Shenoy  
County of Santa Clara

of Santa Clara  
and State of California

have invented certain improvements in

TITLE METHODS FOR MONITORING COMPONENTS IN THE TiW ETCHING BATH USED IN THE FABRICATION OF C4s

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

DATES THAT (1) August 19, 1998 and (2) August 18, 1998 and (3) July 30, 1998

INVENTORS (4) 8/4/98, 1998, and (5) August 3, 1998, and (6) July 21, 1998.

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 Yorktown Heights, NY  
DATE on 8/19, 1998,

Emanuel I. Cooper SIGNATURE  
( Emanuel I. Cooper ) INVENTOR  
FIRST NAME MIDDLE INITIAL LAST NAME

CITY and (2) at Yorktown Heights, NY  
DATE on August 18, 1998,

Madhav Datta SIGNATURE  
( Madhav Datta ) INVENTOR  
FIRST NAME MIDDLE INITIAL LAST NAME

CITY and (3) at SAN JOSE, CA  
DATE on July 30, 1998,

Thomas E. Dinan, Jr. SIGNATURE  
( Thomas E. Dinan, Jr. ) INVENTOR  
FIRST NAME MIDDLE INITIAL LAST NAME

CITY and (4) at East Fishkill, N.Y. Signed and sealed  
DATE on 8/4/98, 1998, Thomas S. Kanarsky SIGNATURE  
( Thomas S. Kanarsky ) INVENTOR  
FIRST NAME MIDDLE INITIAL LAST NAME

CITY and (5) at East Fishkill, NY Signed and sealed  
DATE on 8, 3, 1998, Michael B. Pike SIGNATURE  
( Michael B. Pike ) INVENTOR  
FIRST NAME MIDDLE INITIAL LAST NAME

CITY and (6) at MILPITAS, CA Signed and sealed  
DATE 21st on 21st July, 1998, Ravindra V. Shenoy SIGNATURE  
( Ravindra V. Shenoy ) INVENTOR  
FIRST NAME MIDDLE INITIAL LAST NAME

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

INVENTOR (1) On this 19th day of August 1998, before me personally came Emanuel I. Cooper to me personally know, 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.

Michelle Parra  
Notary  
**MICHELLE PARRA**  
Notary Public, State of New York  
No. 01PA5089349  
Qualified in Dutchess County  
Commission Expires December 8, 1999

State of ) SS.:  
County of )

INVENTOR (2) On this 18th day of August 1998, before me personally came Madhav Datta to me personally know, 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.

Michelle Parra  
Notary  
**MICHELLE PARRA**  
Notary Public, State of New York  
No. 01PA5089349  
Qualified in Dutchess County  
Commission Expires December 8, 1999

State of CALIFORNIA ) ss.: 557-15-9715  
County of SANTA CLARA )

INVENTOR (3) On this 30<sup>th</sup> day of JULY 1998, before me personally came Thomas E. Dinan, Jr. to me personally know, 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.

LORETTA J SANDOVAL  
COMM. # 1051138  
Notary Public - California  
SANTA CLARA COUNTY  
MY COMM. EXPIRES 08/31/2000

Loretta J. Sandoval  
Notary

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

INVENTOR (4) On this 4<sup>th</sup> day of August 1998, before me personally came Thomas S. Kanarsky to me personally know, 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.

Linda L. Gray

State of NEW YORK ) SS.:  
County of DUTCHESS )

LINDA L. GRAY  
Notary Public, State of New York  
No. 01GR5012090  
Qualified in Dutchess County  
Term Expires: 06/15/99

INVENTOR (5) On this 3<sup>rd</sup> day of August 1998, before me personally came Michael B. Pike to me personally know, 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.

Linda L. Gray

State of CALIFORNIA ) ss.: 553-53-2152  
County of SANTA CLARA )

LINDA L. GRAY  
Notary Public, State of New York  
No. 01GR5012090  
Qualified in Dutchess County  
Term Expires: 06/15/99

INVENTOR (6) On this 21<sup>st</sup> day of JULY 1998, before me personally came Ravindra V. Shenoy to me personally know, 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.

Ravindra V. Shenoy  
Notary