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1. Name of conveying party(ies): 15/22/01
Martin Franz, Jeffrey S. McCarley
Additional name(s) of conveying party(ies) attached? Yes No

2. Name and address of receiving party(ies):
Name: International Business Machines Corporation
Armonk, New York 10504

J1036 U.S. PTO
09/862524



3. Nature of conveyance:
 Assignment Merger
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 Other _____
Execution Date: May 18, 2001

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 Yes No

4. Application number(s) or patent number(s):
If this document is being filed together with a new application, the execution date of the application is: May 18, 2001
A. Patent Application No. (s) 09/862 524
B. Patent No. (s)
Additional numbers attached? Yes No

5. Name and address of party to whom correspondence concerning document should be mailed:
Name: Frank Chau, Esq.
Street Address: F. CHAU & ASSOCIATES, LLP
1900 Hempstead Turnpike, Suite 501
City: East Meadow State: NY Zip: 11554

6. Total number of applications and patents involved: 1
7. Total fee (37 C.F.R. \$3.41): \$40.00
 Enclosed
 Authorized to be charged to deposit account
8. Deposit account number:
50-0510/IBM (Yorktown Heights)
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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.
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Assignment

Whereas, I/we

INVENTOR
AND CITY

(1) **Martin Franz**
County of **Westchester**

of **Yorktown Heights**
and State of **New York**

INVENTOR
AND CITY

(2) **Jeffrey S. McCarley**
County of **Westchester**

of **Bedford Hills**
and State of **New York**

have invented certain improvements in

TITLE

**INFORMATION RETRIEVAL WITH NON-NEGATIVE MATRIX
FACTORIZATION**

DATES THAT
INVENTORS
SIGNED THE
DECLARATION

and executed, respectively, a United States patent application therefor on (1) 5/19, 2001; and (2) 5-18, 2001.

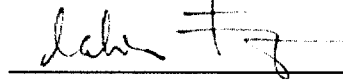
Whereas, **INTERNATIONAL BUSINESS MACHINES CORPORATION**, a corporation of New York, having a place of business at Armonk, New York 10504, (hereinafter called **IBM**), desires to acquire the entire right, title and interest in the said application and invention, and to any United States and foreign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

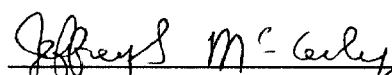
CITY AND
DATE

(1) at YORKTOWN HEIGHTS
on 5/18

2001,  SIGNATURE
(**Martin Franz**) INVENTOR
FIRST NAME MIDDLE INITIAL LAST NAME

CITY AND
DATE

(2) at
on

2001,  SIGNATURE
(**Jeffrey S. McCarley**) INVENTOR
FIRST NAME MIDDLE INITIAL LAST NAME

Yorktown Heights, 5-18-2001