

09-21-2001



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To the Honorable Commissioner of Patent

Attached original documents or copy thereof.

1. Name of conveying party(ies) **9-17-01**
 LOUIS L. HSU; LI-KONG WANG;
 TOSHIAKI K. KIRIHATA; and GREGORY J. FREDEMAN

Additional name(s) of conveying party(ies) attached?
 Yes No

2. Name and address of receiving party(ies)
 Name: IBM CORPORATION
 Internal Address:
 Street Address: New Orchard Road
 City: Armonk State: New York Zip Code: 10504
 Additional name(s) & address(es) attached? Yes No

3. Nature of conveyance:
 Assignment
 Security Agreement
 Merger
 Change of Name
 Other

SEP 17 2001

Execution Date(s): July 2, 2001 and July 11, 2001

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: _____

A. Patent Application No.(s) 09/898,434 B. Patent No.(s) _____

Additional numbers attached? Yes No

5. Name and address of party to whom correspondence concerning document should be mailed:
 Name: Paul J. Farrell, Esq., DILWORTH & BARRESE
 Internal Address: _____
 Street Address: 333 Earle Ovington Boulevard
 City: Uniondale State: NY Zip: 11553

6. Total number of applications and patents involved 1

7. Total fee (37 CFR 3.41) \$ 40.00
 Enclosed
 Authorized to be charged to deposit account

8. Deposit account number: 50-0510 (IBM - Yorktown Heights)
 (Attach duplicate copy of this page if paying by deposit account)

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9. Statement and signature.
 To the best of my knowledge and belief, the foregoing information is true and correction and any attached copy is a true copy of the original document.

Reg. No. 40,067
George Likourezos, Esq.
 Name of Person Signing

George Likourezos Signature 9/11/01 Date

Total number of pages (Including cover sheet): 6

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PATENT

For: U.S. and/or Foreign Rights
For: U.S. Application or U.S. Patent
By: Inventor(s) or Present Owner

ASSIGNMENT OF INVENTION

In consideration of the payment by ASSIGNEE to ASSIGNOR of the sum of One Dollar (\$1.00), the receipt of which is hereby acknowledged, and for other good and valuable consideration,

ASSIGNOR(S): **LOUIS L. HSU; LI-KONG WANG; TOSHIAKI K. KIRIHATA; and
GREGORY J. FREDEMAN**

(Inventor(s) or
person(s) or entity(es)
who own the invention)

(If assignment is by person or entity to whom invention was previously assigned and this
was recorded in PTO add the following)

Recorded on

Reel

Frame

hereby sells, assigns and transfers to

ASSIGNEE:

International Business Machines Corporation
(Type or print name of ASSIGNEE)

New Orchard Road
Address

Armonk, New York 10504

U.S.A.
Nationality

(Assignment of Invention [16-3]-- page 1 of 3)

PATENT
REEL: 012171 FRAME: 0991

and the successors, assigns and legal representatives of the ASSIGNEE
(complete one of the following)

the entire right, title and interest

an undivided _____ percent (_____ %) interest for the United States and its territorial possessions

(check the following box if foreign rights are also to be assigned)

and in all foreign countries, including all rights to claim priority, in and to any and all improvements which are disclosed in the invention entitled:

**INTEGRATED REDUNDANCY ARCHITECTURE SYSTEM
FOR AN EMBEDDED DRAM**

(check and complete (a), (b), (c) or (d))

and which is found in

- (a) U.S. patent application executed on even date herewith
(b) U.S. patent application executed on _____
(c) U.S. application Serial No. **09 / 898,434** filed on **July 3, 2001**.
(d) U.S. provisional application No. **60/**
filed on _____
(e) U.S. Patent No. _____ issued
(f) PCT application No. _____
filed on _____

A change of address to which correspondence is to be sent regarding patent maintenance fees is being sent separately.

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(g) and any legal equivalent thereof in a foreign country, including the right to claim priority

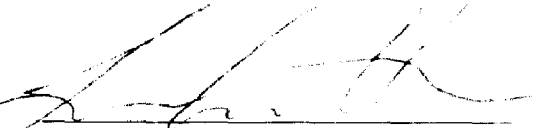
and, in and to, all Letters Patent to be obtained for said invention by the above application or any continuation, continuation-in-part, division, renewal, or substitute thereof, and as to letters patent any reissue or re-examination thereof.

ASSIGNOR hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment,

ASSIGNOR further covenants that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR and will testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to ASSIGNEE or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof.

IN WITNESS WHEREOF, I/We have hereunto set hand and seal this _____
(Date of signing).

WARNING: Date of signing must be the same as the date of execution of the application if item (a) was checked above.



LOUIS L. HSU

9/2/01

Dated

LI-KONG WANG

Dated

TOSHIAKI K. KIRIHATA

Dated



GREGORY J. FREDEMAN

7/2/01

Dated

Dated

If ASSIGNOR is a legal entity complete the following information

Type or print the name of the above person
authorized to sign on behalf of ASSIGNOR

Title

NOTE: No witnessing, notarization or legalization is necessary. If the assignment is notarized or legalized then it will only be prima facie evidence of execution 35 USC 261. Use next page if notarization is desired.

ASSIGNOR further covenants that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR and will testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to ASSIGNEE or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof.

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LOUIS L. HSU

Dated

7/2/2001



LI-KONG WANG

Dated

TOSHIAKI K. KIRIHATA

Dated

GREGORY J. FREDEMAN

Dated

Dated

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(Assignment of Invention [16-3]-- page 3 of 3)

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WARNING: Date of signing must be the same as the date of execution of the application if item (a) was checked above.

LOUIS L. HSU

Dated

LI-KONG WANG

Dated

Toshiaki Kirihata

TOSHIAKI K. KIRIHATA

9/11/01

Dated

GREGORY J. FREDEMAN

Dated

Dated

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