Electronic Version v1.1 Stylesheet Version v1.1

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|-------------------------|----------------|
| Hong Min | 08/06/2008 |
| Yefim Shuf | 08/06/2008 |
| Terence Patrick Purcell | 08/06/2008 |
| You-Chin Fuh | 08/09/2008 |
| Chufeng Pei | 08/07/2008 |
| Ou Jin | 08/08/2008 |

RECEIVING PARTY DATA

| Name: | International Business Machines International |
|-----------------|---|
| Street Address: | New Orchard Road |
| City: | Armonk |
| State/Country: | NEW YORK |
| Postal Code: | 10504 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 12190057 |

CORRESPONDENCE DATA

Fax Number: (203)255-6570

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 203-255-6560

Email: car@rml-law.com

Correspondent Name: Paul J. Otterstedt

Address Line 1: Ryan, Mason & Lewis, LLP
Address Line 2: 1300 Post Road, Suite 205
Address Line 4: Fairfield, CONNECTICUT 06824

ATTORNEY DOCKET NUMBER: YOR920080363US1

PATENT

REEL: 021374 FRAME: 0154

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NAME OF SUBMITTER: Paul J. Otterstedt Total Attachments: 13

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RECORDATION FORM COVER SHEET U.S. DEPARTMENT OF COMMERCE

| (Rev.6-93) PATEN | 15 UNLY Patent and Trademark Office | | |
|---|--|--|--|
| To the Honorable Commissioner of Patents and Tradems | rks: Please record the attached original documents or copy thereof. | | |
| 1. Name of conveying party(ies): Hong Min, Yefim Shuf, Terence Patrick Purcell, You-Chin Fuh, Chufeng Pei, Ou Jin Additional name(s) of conveying party(ies) attached? Yes X No | 2. Name and address of receiving party(ies) Name: International Business Machines Corporation Internal Address: | | |
| 3. Nature of conveyance: X Assignment Merger Security Agreement Change of Name Other Execution Date: August 6, 2008, August 6, 2008, August 6, 2008, August 9, 2008, August 7, 2008, August 8, 2008 | Street Address: New Orchard Road City: Armonk State: NY ZIP: 10504 Additional name(s) & address(es) attached? _ Yes X No | | |
| 4. Application number(s) or patent number(s): If this document is being filed together with a new A. Patent Application No.(s) 12/190,057, Filed Aug Additional numbers attached?Yes X_No | application, the execution date of the application is: sust 12, 2008 B. Patent No.(s) | | |
| 5. Name and address of party to whom correspondence concerning document should be mailed: Name: Paul J. Otterstedt Internal Address: Ryan, Mason & Lewis, LLP Street Address: 1300 Post Road, Suite 205 City: Fairfield State: CT ZIP: 06824 | 6. Total number of applications and patents involved: 1 7. Total Fee (37 CFR 3.41) \$ 40.00 Enclosed X Authorized to be charged to deposit account 8. Deposit account number 50-0510 | | |
| 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. Paul J. Otterstedt Reg. No. 37,411 Signature Date | | | |
| | er sheet, attachments, and document: <u>13</u> | | |
| Mail documents to be recorded with required cover sheet information to: Commissioner of Patents and Trademarks 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. | | | |

YOR920080363US1

Whereas, we

ASSIGNMENT

Docket No. YOR920080363US1

| INVENTOR | | |
|--|--|--|
| AND CITY | (1) Hong Min County of Dutchess | of Poughkeepsie, and State of New York, |
| | and (2) Yefim Shuf County of Westchester | of Ossining, and State of New York, |
| | and (3) Terence Patrick Purcell County of Sangamon | of Springfield, and State of Illinois, |
| | and (4) You-Chin Fuh County of Santa Clara | of San Jose, and State of California, |
| | and (5) Chufeng Pei County of Santa Clara | of San Jose, and State of California, |
| | and (6) Ou Jin County of Santa Clara | of Morgan Hill, and State of Califomia |
| | have invented certain improvements in | |
| TITLE | METHOD, APPARATUS, AND COMPUTER PROGRAM PRODUC PARALLELISM PARTITIONING WITH LOOK-AHEAD PROBING A | T FOR ADAPTIVE QUERY AND FEEDBACK |
| DATES THAT | ······································ | |
| INVENTORS SIGNED THE DECLARATION | (1), 2008, (2) Aug s st 6 . 2008, (3), (4), 2008, (5), 2008, (6) | , 2008, , 2008. |
| | | |

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 in all 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.

| Signed and sealed Hong Min | on Bugust 6, 200 | |
|----------------------------|------------------|--------|
| Yelim Shuf | on | _, 200 |

PATENT

| Terence Patrick Purcell | on | , 2008 |
|-------------------------|----|--------|
| You-Chin Fuh | on | , 2008 |
| Chufeng Pei | on | , 2008 |

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2008-08-06 17:08

Ou Jin

PATENT

Docket No. YOR920080363US1

| INVENITOR | Whereas, we | | 7 | |
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| AND CITY | (1) Hong Min County of Dutchess | | of Poughkeepsie, and State of New York, | |
| | and (2) Yefim Shuf County of Westchester | | of Ossining, and State of New York, | |
| | and (3) Terence Patrick Purcell County of Sangamon | | of Springfield, and State of Illinois, | |
| | and (4) You-Chin Fuh County of Santa Clara | | of San Jose, and State of California, | |
| | and (5) Chufeng Pei County of Santa Clara | | of San Jose, and State of California, | |
| | and (6) Ou Jin County of Santa Clara | | of Morgan Hill, and State of California | |
| | have invented certain improvements in | | | |
| TITLE | METHOD, APPARATUS, AND COMP PARALLELISM PARTITIONING WITH | | | |
| DATES THAT | IVENTORS | | | |
| SIGNED THE DECLARATION | (1) | , 2008, (3) , 2008, (6) | , 2008, , 2008. | |
| business at Arm | RNATIONAL BUSINESS MACHINES Cononk, New York 10504, (hereinafter calletion and invention, and to any United St | ed IBM), desires to acquire th | e entire right, title and interest in | |
| sell, assign, and and invention th priority resulting any Letters Pate hereby agree th | for a valuable consideration, receipt when transfer to IBM, its successors and assisterein disclosed for the United States and from the filing of said United States appent granted upon the inventions set forth at IBM may apply for foreign Letters Patith the United States and foreign application. | signs, the entire right, title and d foreign countries, and in all plication, and we request the in said application to IBM, its ent on said invention and we | d interest in the said application foreign countries, and all rights of Commissioner of Patents to issue s successors and assigns; and we will execute all papers necessary | |
| Signed and sealed | | | | |
| | | on, 20 | 08 | |
| Hong Min | Control of the contro | Å / | | |
| Yefim Shuf | Shere | on <u>Aug</u> (-, 200 | טע | |

| | on | , 2008 |
|-------------------------|----|--------|
| Terence Patrick Purcell | | |
| | on | , 2008 |
| You-Chin Fuh | | |
| | on | , 2008 |
| Chufeng Pei | | |
| | on | , 2008 |
| Ou Jin | | |

Docket No. YOR920080363US1

Whereas, we **INVENTOR** AND CITY (1) Hong Min of Poughkeepsie. County of Dutchess and State of New York, and (2) Yefim Shuf of Ossining, County of Westchester and State of New York, and (3) Terence Patrick Purcell of Springfield. County of Sangamon and State of Illinois. and (4) You-Chin Fuh of San Jose. County of Santa Clara and State of California. and (5) Chufeng Pel of San Jose, County of Santa Clara and State of California. and (6) Ou Jin of Morgan Hill, County of Santa Clara and State of California have invented certain improvements in TITLE METHOD, APPARATUS, AND COMPUTER PROGRAM PRODUCT FOR ADAPTIVE QUERY PARALLELISM PARTITIONING WITH LOOK-AHEAD PROBING AND FEEDBACK **DATES THAT** and executed, respectively, a United States patent application therefor on **INVENTORS** ____, 2008, (2) _____, 2008, (3) 6thAUGUST, 2008, ____, 2008, (5) _____, 2008, (6) _____, 2008. 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 in all foreign countries, and all rights of priority resulting from the filling 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.

| Signed and sealed | | |
|-------------------|----|--------|
| Hong Min | on | , 2008 |
| Yefim Shuf | on | , 2008 |

PATENT

| Terence Patrick Purcell | on 6th AUGUS Zoon |
|-------------------------|-------------------|
| You-Chin Fuh | on, 2006 |
| Chufeng Pei | on, 200 |
| Ou Jin | on 200 |

Whereas, we

Hong Min

Yefim Shuf

Docket No. YOR920080363US1

| INVENTOR AND CITY | (1) Hong Min County of Dutchess | of Poughkeepsie, and State of New York, | |
|--|--|--|--|
| | and (2) Yefim Shuf County of Westchester | of Ossining, and State of New York, | |
| | and (3) Terence Patrick Purcell County of Sangamon | of Springfield, and State of Illinois, | |
| | and (4) You-Chin Fuh County of Santa Clara | of San Jose, and State of California, | |
| | and (5) Chufeng Pei County of Santa Clara | of San Jose, and State of California, | |
| | and (6) Ou Jin County of Santa Clara | of Morgan Hill, and State of California | |
| | have invented certain improvements in | | |
| TITLE | METHOD, APPARATUS, AND COMPUTER PROGRAM PRODUCT FOR ADAPTIVE QUERY PARALLELISM PARTITIONING WITH LOOK-AHEAD PROBING AND FEEDBACK | | |
| DATES THAT | and executed, respectively, a United States patent application the | | |
| INVENTORS SIGNED THE DECLARATION | (1) | , 2008, , 2008. | |
| business at A the said appli | ERNATIONAL BUSINESS MACHINES CORPORATION, a corporate rmonk, New York 10504, (hereinafter called IBM), desires to acquire cation and invention, and to any United States and foreign patents to | be obtained therefor; | |
| sell, assign, a and invention priority resulti any Letters Pa | e, for a valuable consideration, receipt whereof is hereby acknowledge and transfer to IBM, its successors and assigns, the entire right, title at therein disclosed for the United States and foreign countries, and in any from the filing of said United States application, and we request the atent granted upon the inventions set forth in said application to IBM, that IBM may apply for foreign Letters Patent on said invention and with the United States and foreign applications when called upon to | all foreign countries, and all rights of ne Commissioner of Patents to issue, its successors and assigns; and we we will execute all papers necessary | |
| Signed and seale | d | | |

PATENT

| | On | |
|--------------------------------------|-------------|-----------|
| Terence Patrick Purcell You-Chin Fun | - Augus | £ 9. 2008 |
| You-Chin Fun | 011 110 110 | |
| | on | , 2006 |
| Chufeng Pei | | |
| | on | , 2006 |
| Ou lin | | |

Docket No. YOR920080363US1

| INVENTOR | Whereas, we | |
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| AND CITY | (1) Hong Min | of Poughkeepsie, |
| | County of Dutchess | and State of New York, |
| | and (2) Yefim Shuf | of Ossining. |
| | County of Westchester | and State of New York. |
| | | |
| | and (3) Terence Patrick Purcell | of Springfield, |
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| | A Principal Control of the Control o | |
| | and (4) You-Chin Fuh | of San Jose, |
| | County of Santa Clara | and State of California, |
| | and (5) Chufeng Pei | of San Jose. |
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| • | | |
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| DATES THAT | and executed, respectively, a United States paten | application therefor on |
| SIGNED THE | (1) , 2008, (2) | . 2008. (3) |
| DECLARATION | (1) 2008, (2) (4) 2008, (5) 28/07 | 2008, (6), 2008. |
| | | |
| business at Air the said applic Now therefore sell, assign, ar and invention priority resulting any Letters Pa hereby agree | ERNATIONAL BUSINESS MACHINES CORPORAT rmonk, New York 10504, (hereinafter called IBM), decation and invention, and to any United States and for a valuable consideration, receipt whereof is here not transfer to IBM, its successors and assigns, the extherein disclosed for the United States and foreign or agreement the filing of said United States application, aratent granted upon the inventions set forth in said application and the United States applications when with the United States and foreign applications when | sires to acquire the entire right, title and interest in reign patents to be obtained therefor; eby acknowledged, we, the above named, hereby ntire right, title and interest in the said application ountries; and in all foreign countries, and all rights o ad we request the Commissioner of Patents to Issue plication to IBM, its successors and assigns; and we Invention and we will execute all papers necessary |
| business at Air the said applic Now therefore sell, assign, ar and invention priority resulting any Letters Pa hereby agree | rmonk, New York 10504, (hereinafter called IBM), decation and invention, and to any United States and for a valuable consideration, receipt whereof is hereind transfer to IBM, its successors and assigns, the extherein disclosed for the United States and foreign or grow the filing of said United States application, are altert granted upon the inventions set forth in said application are the United States and foreign applications when with the United States and foreign applications when | sires to acquire the entire right, title and interest in reign patents to be obtained therefor; eby acknowledged, we, the above named, hereby ntire right, title and interest in the said application ountries; and in all foreign countries, and all rights o ad we request the Commissioner of Patents to Issue plication to IBM, its successors and assigns; and we Invention and we will execute all papers necessary |
| business at Air the said applications with the said application of the said application and invention priority resulting any Letters Pathereby agree in connection of the said application of the said | rmonk, New York 10504, (hereinafter called IBM), decation and invention, and to any United States and for a valuable consideration, receipt whereof is here not transfer to IBM, its successors and assigns, the extherein disclosed for the United States and foreign on a from the filing of said United States application, an atent granted upon the inventions set forth in said application may apply for foreign Letters Petent on said with the United States and foreign applications when | sires to acquire the entire right, title and interest in reign patents to be obtained therefor; eby acknowledged, we, the above named, hereby intire right, title and interest in the said application ountries, and in all foreign countries, and all rights on divergences the Commissioner of Patents to Issue plication to IBM, its successors and assigns; and we invention and we will execute all papers necessary called upon to do so by IBM. |
| Now therefore sell, assign, as and invention priority resulting any Letters Pahereby agree in connection | rmonk, New York 10504, (hereinafter called IBM), decation and invention, and to any United States and for a valuable consideration, receipt whereof is hereind transfer to IBM, its successors and assigns, the extherein disclosed for the United States and foreign or grow the filing of said United States application, are altert granted upon the inventions set forth in said application. BM may apply for foreign Letters Petent on said with the United States and foreign applications when | sires to acquire the entire right, title and interest in reign patents to be obtained therefor; eby acknowledged, we, the above named, hereby ntire right, title and interest in the said application ountries; and in all foreign countries, and all rights or ind we request the Commissioner of Patents to Issue plication to IBM, its successors and assigns; and we I invention and we will execute all papers necessary |
| business at Air the said application of the said application of the said application of the said assign, as and invention priority resulting any Letters Pathereby agree in connection. Signed and sealed | rmonk, New York 10504, (hereinafter called IBM), decation and invention, and to any United States and for a valuable consideration, receipt whereof is here not transfer to IBM, its successors and assigns, the extherein disclosed for the United States and foreign on a from the filing of said United States application, an atent granted upon the inventions set forth in said application may apply for foreign Letters Petent on said with the United States and foreign applications when | sires to acquire the entire right, title and interest in reign patents to be obtained therefor; eby acknowledged, we, the above named, hereby intire right, title and interest in the said application ountries, and in all foreign countries, and all rights or of we request the Commissioner of Patents to issue plication to IBM, its successors and assigns; and we il invention and we will execute all papers necessary called upon to do so by IBM. |

PATENT

| Terence Patrick Purcell | on | , 2008 |
|-------------------------|----------------|---------|
| | on | , 2008: |
| You-Chin Fuh | | |
| | on <u>08/0</u> | 7 2008 |
| Chufeng Pei | | |
| | on | , 2008 |
| Ou Jin | | |

PATENT

Signed and sealed

Hong Min

Yefim Shuf

ASSIGNMENT

Docket No. YOR920080363US1

| INVENTOR | Whereas, we | |
|--|---|---|
| AND CITY | (1) Hong Min County of Dutchess | of Poughkeepsie, and State of New York, |
| | and (2) Yefim Shuf County of Westchester | of Ossining, and State of New York, |
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| DATES THAT | and executed, respectively, a United States patent appli | ication therefor on |
| SIGNED THE DECLARATION | (1), 2008, (2), 2008 (4), 2008, (5), 2008 | (3) 2008, (6) August 9, 2008. |
| business at Ar | ERNATIONAL BUSINESS MACHINES CORPORATION, monk, New York 10504, (hereinafter called IBM), desires ation and invention, and to any United States and foreign | to acquire the entire right, title and interest in |
| sell, assign, an and invention t priority resulting any Letters Pa hereby agree to | , for a valuable consideration, receipt whereof is hereby and transfer to iBM, its successors and assigns, the entire referein disclosed for the United States and foreign countring from the filing of said United States application, and we tent granted upon the inventions set forth in said applicational IBM may apply for foreign Letters Patent on said inverwith the United States and foreign applications when called | ight, title and interest in the said application es, and in all foreign countries, and all rights o request the Commissioner of Patents to Issue on to IBM, its successors and assigns; and we ation and we will execute all papers necessary |
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| | on | , 2008 |
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| Terence Patrick Purcell | | _ |
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