10/21/2015 503533174

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT3579800

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
BRIAN L. BAGGETT	10/20/2015
PATRICK D. BOSSMAN	10/15/2015
SHUANGLIN GUO	10/20/2015
ANDREI F. LURIE	10/15/2015
TERENCE P. PURCELL	10/16/2015
MARTINA SIMOVA	10/20/2015

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14919026

CORRESPONDENCE DATA

503533174

Fax Number: (301)762-4056

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 301-424-3640

Email: epatent@usiplaw.com

EDELL, SHAPIRO & FINNAN, LLC **Correspondent Name:** 9801 WASHINGTONIAN BOULEVARD Address Line 1:

Address Line 2: SUITE 750

Address Line 4: GAITHERSBURG, MARYLAND 20878

ATTORNEY DOCKET NUMBER:	SVL920150102US1/0920.0414
NAME OF SUBMITTER:	DAVID R. WOOD
SIGNATURE:	/David R. Wood/
DATE SIGNED:	10/21/2015
	This document serves as an Oath/Declaration (37 CFR 1.63).

REEL: 036846 FRAME: 0473

PAIENI

Total Attachments: 15 source=SVL920150102US1_ExecutedAssignmentDeclaration_10-21-2015#page1.tif source=SVL920150102US1 ExecutedAssignmentDeclaration 10-21-2015#page2.tif source=SVL920150102US1 ExecutedAssignmentDeclaration 10-21-2015#page3.tif source=SVL920150102US1 ExecutedAssignmentDeclaration 10-21-2015#page4.tif source=SVL920150102US1 ExecutedAssignmentDeclaration 10-21-2015#page5.tif source=SVL920150102US1 ExecutedAssignmentDeclaration 10-21-2015#page6.tif source=SVL920150102US1 ExecutedAssignmentDeclaration 10-21-2015#page7.tif source=SVL920150102US1 ExecutedAssignmentDeclaration 10-21-2015#page8.tif source=SVL920150102US1 ExecutedAssignmentDeclaration 10-21-2015#page9.tif source=SVL920150102US1 ExecutedAssignmentDeclaration 10-21-2015#page10.tif source=SVL920150102US1 ExecutedAssignmentDeclaration 10-21-2015#page11.tif source=SVL920150102US1 ExecutedAssignmentDeclaration 10-21-2015#page12.tif source=SVL920150102US1 ExecutedAssignmentDeclaration 10-21-2015#page13.tif source=SVL920150102US1_ExecutedAssignmentDeclaration_10-21-2015#page14.tif source=SVL920150102US1 ExecutedAssignmentDeclaration 10-21-2015#page15.tif

PATENT REEL: 036846 FRAME: 0474

Title of Invention: ADAPTIVE MULTI-INDEX ACCESS PLAN FOR DATABASE QUERIES

As a below named and undersigned inventor, I hereby declare that:

This declaration is directed to t	he attached application,	, or (if following box is	checked):

[X] United States application or PCT international application number 14/919,026 filed on October 21, 2015

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the application, including the claims.

I am aware of the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR § Section 1.56.

Whereas, I ("ASSIGNOR") have made certain inventions, improvements, and discoveries (herein referred to as the "Invention") disclosed in the above-identified patent application and further identified by the IBM Docket Number provided above in the header of this document;

Whereas, International Business Machines Corporation (herein referred to as the "ASSIGNEE"), a corporation of New York having a place of business at Armonk, New York, desires to acquire, and I desire to grant to the ASSIGNEE, my entire worldwide right, title, and interest in and to the Invention and in and to any and all patent applications and patents directed thereto;

Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, I hereby sell or have sold, assign or have assigned, and otherwise transfer or have transferred to the ASSIGNEE, its successors, legal representatives, and assigns, my entire worldwide right, title, and interest in and to the Invention, the above-identified United States patent application, and any and all other patent applications and patents for the Invention which may be applied for or granted therefor in the United States and in all foreign countries and jurisdictions, including all divisions, continuations, reissues, reexaminations, renewals, extensions, counterparts, substitutes, and extensions thereof, and all rights of priority resulting from the filing of such applications and granting of such patents. In addition, I hereby authorize and request the Director of the United States Patent and Trademark Office to issue any United States Patent, and foreign patent authorities to issue any foreign patent, granted for the Invention, to the ASSIGNEE, its successors, legal representatives, and assigns, my entire worldwide right, title, and interest in and to the same to be held and enjoyed by the ASSIGNEE, its successors, legal representatives, and assigns to the full end of the terms for which any and all such patents may be granted, as fully and entirely as would have been held and enjoyed by me had this Assignment not been made; and I agree to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related patents and applications, in the ASSIGNEE, its successors, legal representatives, and assigns, whenever requested by the ASSIGNEE, its successors, legal representatives, or assigns.

Page Lof 3

I acknowledge my prior and ongoing obligations to sell, assign, and transfer my rights under this Assignment to the ASSIGNEE and am unaware of any reason why I may not have the full and unencumbered right to sell, assign, and transfer my rights hereby sold, assigned, and transferred, and have not executed, and will not execute, any document or instrument in conflict herewith. I also hereby grant the ASSIGNEE, its successors, legal representatives, and assigns, the right to insert in this Assignment any further identification (including, but not limited to, patent Application Number) which may be necessary or desirable for recordation of this Assignment. This Assignment is governed by the substantive laws of the State of New York, and any disputes will be resolved in a New York state court or federal court sited in New York.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or imprisonment of not more than five (5) years, or both.

(1)	Legal Name of Inventor: Brian L. Baggett	
	Signature: Brand Buggett	Date: 10-70 -201
(2)	Legal Name of Inventor: Patrick D. Bossman	
	Signature:	Date:
(3)	Legal Name of Inventor: Shuanglin Guo	
	Signature:	Date:
(4)	Legal Name of Inventor: Andrei F. Lurie	
	Signature:	Date:

(5)	Legal Name of Inventor: Terence P. Purcell	
	Signature:	Date:
(6)	Legal Name of Inventor: Martina Simova	
	Simphine	Datai

Title of Invention: ADAPTIVE MULTI-INDEX ACCESS PLAN FOR DATABASE QUERIES

This declaration	ic	directed to	adt r	attached	application	or (if follow	ring hax i	is checked):

[X] United States application or PCT international application number 14/919,026 filed on October 21, 2015

The above-identified application was made or authorized to be made by me.

As a below named and undersigned inventor, I hereby declare that:

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the application, including the claims.

I am aware of the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR § Section 1.56.

Whereas, I ("ASSIGNOR") have made certain inventions, improvements, and discoveries (herein referred to as the "Invention") disclosed in the above-identified patent application and further identified by the IBM Docket Number provided above in the header of this document;

Whereas, International Business Machines Corporation (herein referred to as the "ASSIGNEE"), a corporation of New York having a place of business at Armonk, New York, desires to acquire, and I desire to grant to the ASSIGNEE, my entire worldwide right, title, and interest in and to the Invention and in and to any and all patent applications and patents directed thereto;

Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, I hereby sell or bave sold, assign or have assigned, and otherwise transfer or have transferred to the ASSIGNEE, its successors, legal representatives, and assigns, my entire worldwide right, title, and interest in and to the Invention, the above-identified United States patent application, and any and all other patent applications and patents for the Invention which may be applied for or granted therefor in the United States and in all foreign countries and jurisdictions, including all divisions, continuations, reissues, reexaminations, renewals, extensions, counterparts, substitutes, and extensions thereof, and all rights of priority resulting from the filing of such applications and granting of such patents. In addition, I hereby authorize and request the Director of the United States Patent and Trademark Office to issue any United States Patent, and foreign patent authorities to issue any foreign patent, granted for the Invention, to the ASSIGNEE, its successors, legal representatives, and assigns, my entire worldwide right, title, and interest in and to the same to be held and enjoyed by the ASSIGNEE, its successors, legal representatives, and assigns to the full end of the terms for which any and all such patents may be granted, as fully and entirely as would have been held and enjoyed by me had this Assignment not been made; and I agree to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related patents and applications, in the ASSIGNEE, its successors, legal representatives, and assigns, whenever requested by the ASSIGNEE, its successors, legal representatives, or assigns.

Page 1 of 3

Lacknowledge my prior and engoing obligations to sell, assign, and transfer my rights under this Assignment to the ASSIGNEE and am unuware of any reason why I may not have the full and unencumbered right to sell, assign, and transfer my rights hereby sold, assigned, and transferred, and have not executed, and will not execute, any document or instrument in conflict herewith. I also hereby grant the ASSIGNEE, its successors, legal representatives, and assigns, the right to insert in this Assignment any further identification (including, but not limited to, patent Application Number) which may be necessary or desirable for recordation of this Assignment. This Assignment is governed by the substantive laws of the State of New York, and any disputes will be resolved in a New York state court or federal court sited in New York.

Thereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or imprisonment of not more than five (5) years, or both.

(1) Legal Name of Inventor:	Brian L. Baggett			
Signature:			Date:	
(2) Legal Name of Inventor	A			g j
Signature: Mr. O	<u> </u>		Date: <i>[</i>	<u>u/15/20</u> 15
(3) Legul Name of Inventor	: Shuangtin Guo			
Signature:		<u> </u>	Date:	
(4) Legal Name of Inventor	; Andrei F. Lurie			
Sjgnature:			Date:	

(5)	Legal Name of Inventor: Terence I	. Purcell	
	Signature:		Date:
(6)	Legal Name of Inventor: Martina 5	Simova	
	Sionature		Duta

Title of Invention: ADAPTIVE MULTI-INDEX ACCESS PLAN FOR DATABASE QUERIES

As a below named and undersigned inventor, I hereby declare that:

This declaration is directed to the attached application, or (if following box is checked):

[X] United	States application or PCT international application number	14/919,026
	October 21, 2015	

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the application, including the claims.

I am aware of the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR § Section 1.56.

Whereas, I ("ASSIGNOR") have made certain inventions, improvements, and discoveries (herein referred to as the "Invention") disclosed in the above-identified patent application and further identified by the IBM Docket Number provided above in the header of this document;

Whereas, International Business Machines Corporation (herein referred to as the "ASSIGNEE"), a corporation of New York having a place of business at Armonk, New York, desires to acquire, and I desire to grant to the ASSIGNEE, my entire worldwide right, title, and interest in and to the Invention and in and to any and all patent applications and patents directed thereto;

Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, I hereby sell or have sold, assign or have assigned, and otherwise transfer or have transferred to the ASSIGNEE, its successors, legal representatives, and assigns, my entire worldwide right, title, and interest in and to the Invention, the above-identified United States patent application, and any and all other patent applications and patents for the Invention which may be applied for or granted therefor in the United States and in all foreign countries and jurisdictions, including all divisions, continuations, reissues, reexaminations, renewals, extensions, counterparts, substitutes, and extensions thereof, and all rights of priority resulting from the filing of such applications and granting of such patents. In addition, I hereby authorize and request the Director of the United States Patent and Trademark Office to issue any United States Patent, and foreign patent authorities to issue any foreign patent, granted for the Invention, to the ASSIGNEE, its successors, legal representatives, and assigns, my entire worldwide right, title, and interest in and to the same to be held and enjoyed by the ASSIGNEE, its successors, legal representatives, and assigns to the full end of the terms for which any and all such patents may be granted, as fully and entirely as would have been held and enjoyed by me had this Assignment not been made; and I agree to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related patents and applications, in the ASSIGNEE, its successors, legal representatives, and assigns, whenever requested by the ASSIGNEE, its successors, legal representatives, or assigns.

Page 1 of 3

I acknowledge my prior and ongoing obligations to sell, assign, and transfer my rights under this Assignment to the ASSIGNEE and am unaware of any reason why I may not have the full and unencumbered right to sell, assign, and transfer my rights hereby sold, assigned, and transferred, and have not executed, and will not execute, any document or instrument in conflict herewith. I also hereby grant the ASSIGNEE, its successors, legal representatives, and assigns, the right to insert in this Assignment any further identification (including, but not limited to, patent Application Number) which may be necessary or desirable for recordation of this Assignment. This Assignment is governed by the substantive laws of the State of New York, and any disputes will be resolved in a New York state court or federal court sited in New York.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or imprisonment of not more than five (5) years, or both.

(1) Legal Name of Inventor	: Orian L. Baggett		
Signature:		Date:	
(2) Legal Name of Inventor	: Patrick D. Bossman		*
Signature:		Date:	
(3) Legal Name of Inventor	: Shuanglin Guo		
Signature:		Date: 19/2/	1201
(4) Legal Name of Inventor	: Angrei F. Lurie		
Signature:		Date:	

(5)	Legal Name of Inventor: Terence P. Purcell
	Signature:
(6)	Legal Name of Inventor: Martina Simova
	Signature

Title of Invention: ADAPTIVE MULTI-INDEX ACCESS PLAN FOR DATABASE QUERIES

This declaration is directed to the attached application, or (if following box is checked):
[X] United States application or PCT international application number 14/919,026
filed on October 21, 2015 .

The above-identified application was made or authorized to be made by me.

As a below named and undersigned inventor, I hereby declare that:

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the application, including the claims.

I am aware of the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR § Section 1.56.

Whereas, I ("ASSIGNOR") have made certain inventions, improvements, and discoveries (herein referred to as the "Invention") disclosed in the above-identified patent application and further identified by the IBM Docket Number provided above in the header of this document;

Whereas, International Business Machines Corporation (herein referred to as the "ASSIGNEE"), a corporation of New York having a place of business at Armonk, New York, desires to acquire, and I desire to grant to the ASSIGNEE, my entire worldwide right, title, and interest in and to the Invention and in and to any and all patent applications and patents directed thereto;

Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, I hereby sell or have sold, assign or have assigned, and otherwise transfer or have transferred to the ASSIGNEE, its successors, legal representatives, and assigns, my entire worldwide right, title, and interest in and to the Invention, the above-identified United States patent application, and any and all other patent applications and patents for the Invention which may be applied for or granted therefor in the United States and in all foreign countries and jurisdictions, including all divisions, continuations, reissues, reexaminations, renewals, extensions, counterparts, substitutes, and extensions thereof, and all rights of priority resulting from the filing of such applications and granting of such patents. In addition, I hereby authorize and request the Director of the United States Patent and Tradermark Office to issue any United States Patent, and foreign patent authorities to issue any foreign patent, granted for the Invention, to the ASSIGNEE, its successors, legal representatives, and assigns, my entire worldwide right, title, and interest in and to the same to be held and enjoyed by the ASSIGNEE, its successors, legal representatives, and assigns to the full end of the terms for which any and all such patents may be granted, as fully and entirely as would have been held and enjoyed by me had this Assignment not been made; and I agree to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related patents and applications, in the ASSIGNEE, its successors, legal representatives, and assigns, whenever requested by the ASSIGNEE, its successors, legal representatives, or assigns.

Page Lof 3

I acknowledge my prior and ongoing obligations to sell, assign, and transfer my rights under this Assignment to the ASSIGNEE and am unaware of any reason why I may not have the full and unencumbered right to sell, assign, and transfer my rights hereby sold, assigned, and transferred, and have not executed, and will not execute, any document or instrument in conflict herewith. I also hereby grant the ASSIGNEE, its successors, legal representatives, and assigns, the right to insert in this Assignment any further identification (including, but not limited to, patent Application Number) which may be necessary or desirable for recordation of this Assignment. This Assignment is governed by the substantive laws of the State of New York, and any disputes will be resolved in a New York state court or federal court sited in New York.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or imprisonment of not more than five (5) years, or both.

(1)	Legal Name of Inventor:	Brian L. Baggett	
	Signature:		Date:
(2)	Legal Name of inventor:	Patrick D. Bossman	
	Signature:		Date:
(3)	Legal Name of Inventor:	Shuanglin Guo	
	Signature:		Date
(4)	Legal Name of Inventor:	Andrei F. Lurie	
	Signature: 4 &		Date: 10/15/15

(5)	Legal Name of Inventor: Terence P. Purcell	
	Signature:	Date:
(6)	Legal Name of Inventor: Martina Simova	
	Similations	Parto:

Title of Invention: ADAPTIVE MULTI-INDEX ACCESS PLAN FOR DATABASE QUERIES

This declaration is directed to the attached application, or (if following both	x is checked):
[X] United States application or PCT international application number	14/919,026

The above-identified application was made or authorized to be made by me.

As a below named and undersigned inventor, I hereby declare that:

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the application, including the claims.

I am aware of the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR § Section 1.56.

Whereas, I ("ASSIGNOR") have made certain inventions, improvements, and discoveries (herein referred to as the "Invention") disclosed in the above-identified patent application and further identified by the IBM Docket Number provided above in the header of this document;

Whereas, International Business Machines Corporation (herein referred to as the "ASSIGNEE"), a corporation of New York having a place of business at Armonk, New York, desires to acquire, and I desire to grant to the ASSIGNEE, my entire worldwide right, title, and interest in and to the Invention and in and to any and all patent applications and patents directed thereto;

Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, I hereby sell or have sold, assign or have assigned, and otherwise transfer or have transferred to the ASSIGNEE, its successors, legal representatives, and assigns, my entire worldwide right, title, and interest in and to the Invention, the above-identified United States patent application, and any and all other patent applications and patents for the Invention which may be applied for or granted therefor in the United States and in all foreign countries and jurisdictions, including all divisions, continuations, reissues, reexaminations, renewals, extensions, counterparts, substitutes, and extensions thereof, and all rights of priority resulting from the filing of such applications and granting of such patents. In addition, I hereby authorize and request the Director of the United States Patent and Trademark Office to issue any United States Patent, and foreign patent authorities to issue any foreign patent, granted for the Invention, to the ASSIGNEE, its successors, legal representatives, and assigns, my entire worldwide right, title, and interest in and to the same to be held and enjoyed by the ASSIGNEE, its successors, legal representatives, and assigns to the full end of the terms for which any and all such patents may be granted, as fully and entirely as would have been held and enjoyed by me had this Assignment not been made; and I agree to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related patents and applications, in the ASSIGNEE, its successors, legal representatives, and assigns. whenever requested by the ASSIGNEE, its successors, legal representatives, or assigns.

Page 1 of 3

I acknowledge my prior and ongoing obligations to sell, assign, and transfer my rights under this Assignment to the ASSIGNEE and am unaware of any reason why I may not have the full and unencumbered right to sell, assign, and transfer my rights hereby sold, assigned, and transferred, and have not executed, and will not execute, any document or instrument in conflict herewith. I also hereby grant the ASSIGNEE, its successors, legal representatives, and assigns, the right to insert in this Assignment any further identification (including, but not limited to, patent Application Number) which may be necessary or desirable for recordation of this Assignment. This Assignment is governed by the substantive laws of the State of New York, and any disputes will be resolved in a New York state court or federal court sited in New York.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or imprisonment of not more than five (5) years, or both.

(1) Legal Name of Inventor: Brian L. Baggett

` '	Ü	war har	
	Signature:		Date:
(2)	Legal Name of Inventor:	Patrick D. Bossman	
	Signature:		Date:
(3)	Legal Name of Inventor:	Shuanglin Guo	
	Signature:		Date;
(4)	Legal Name of Inventor:	Andrei F. Lurie	
	Signature:		Date:

(5)	Legal Name of Inventor: Terence	e P. Purcell		
		Phillip	Date: 19/16/15	
(6)	Legal Name of Inventor: Martin	a Simov a		
	Signature		Date:	