# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT4478559

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
KULVIR S. BHOGAL	02/11/2015
NITIN GAUR	02/10/2015
CHRISTOPHER D. JOHNSON	02/10/2015
BRIAN K. MARTIN	02/11/2015

## **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:	15633669

# **CORRESPONDENCE DATA**

Fax Number: (919)542-1956

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: 919-542-1956

Email: docketing@leelawpllc.com

LEE LAW, PLLC IBM ENDICOTT IP **Correspondent Name:** 

P.O. BOX 189 Address Line 1:

Address Line 4: PITTSBORO, NORTH CAROLINA 27312

ATTORNEY DOCKET NUMBER:	RSW920140192US02
NAME OF SUBMITTER:	CHRISTOPHER B. LEE
SIGNATURE:	/Christopher B. Lee/
DATE SIGNED:	06/26/2017
	This document serves as an Oath/Declaration (37 CFR 1.63).

**Total Attachments: 8** 

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**PATENT REEL: 042820 FRAME: 0165** 

504431858

PATENT REEL: 042820 FRAME: 0166

Title of Invention: SPARSE OBJECT INSTANTIATION

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):
[ ] United States application or PCT international application number
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.

### IBM DOCKET NUMBER: RSW920140192US1

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: Kulvir S. Bhogal	:		
	Signature:	_Date:_	Fe6	<u>11,201</u> 5
(2)	Legal Name of Inventor: Nitin Gaur			
	Signature:	Date:		
(3)	Legal Name of Inventor: Christopher D. Johnson			
	Signature:	_Date:_	······································	
(4)	Legal Name of Inventor: Brian K. Martin			
	Signature:	_Date:_		

[IF MORE INVENTORS, ADDITIONAL SIGNATURE PAGE(S) FOLLOWS]

### THE OF INCOMES SPARSE OBJECT INSTANTIATION

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Whereas, LCASSIGNOR's have made certain inventions, improvements, and discoveries therein referred to as the "Invention" classlosed in the above identified patent application and further identified by the IBM Dacket Number provided above in the header of this document:

Whereas, Increasional Business Machines Corporation therein 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 ASSIGNLE, 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 receips and sufficiency thereof being hereby acknowledged. I hereby self or have sold, assign or have assigned, and otherwise transfer or have transferred to the ASSIGNEE, as successors, legal representatives, and assigns, any entire workloade 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 eranged therefor in the United States and in all foreign countries and jurisdictions, including all divisions, combinations, reissues, reexaminations, renewals, extensions, commercians, substitutes, and extensions thereof, and all rights of priority resulting from the filling of such applications and granting of such patents. In addition, I hereby authorize and request the Director of the United States Patent and Tradensirk Office to issue any United States Patent, and foreign patent authorities to issue any foreign parent, granted for the Invention, to the ASSIGNEE, its successors, legal representatives, and assigns, inv 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 parents may be granted, as fully and entirely as would have been held and enjoyed by me had this Assignment not been made; and Lagree 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 ASSRAVEL, its successors, legal representatives, or assigns,

Page 1 of 2

## IBM DOCKET NUMBER: RSW920140192USI

I acknowledge my prior and ongoing obligations to sell, assign, and transfer my rights under this Assignment to the ASSIGNLE and am unaware of any reason why I may not have the full and unenconsecred 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 ASSIGNLE its successors, legal representatives, and assigns, the right to users in this Assignment any further identification (including, but not limited to, patent Application Number) which may be necessary or desirable for reconsisting or this Assignment. This Assignment is governed by the substitute laws of the State of New York, and any disputes will be resolved in a New York state court or tokeral court and in New York.

I bereby acknowledge that ony willful false statement made in this declaration is ponishable under 18 U.S.C. 1001 by fine or impresonment of not more than five (5) years, or both

(1) Legal Name of Inventor: Kulvir S. Bhogal

Signature;		Date:	
(2) Tegal Name of Inventor: Nit			
Signature:	<u>y-</u>	Date: <u>FC &amp; 15 Z</u>	) ا <u>م</u>
(3) Legal Name of Inventor: Chi	ristopher D. Johnson		
Signature		Date:	
(4) Legal Name of Inventor: Brid	an K, Martin		
Signature		Date	

HE MORE INVENTORS, ADDITIONAL SIGNATURE PAGES) FOLLOWS:

Page 2 (6/2

Title of Invention: SPARSE OBJECT INSTANTIATION

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This declaration is directed to the attached application, or (if following box is checked):	
United States application or PCT international application number	
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Signature:	Date:
(2) Legal Name of Inventor: <b>Nitin Gaur</b>	
Signature:	Date:
(3) Legal Name of Inventor: Christopher D. Johnson	
Signature: Witch Delwe	Date: 2-10-2015
(4) Legal Name of Inventor: <b>Brian K. Martin</b>	
Signature:	Date:

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Signature:	Date:
(2) Legal Name of Inventor: <b>Nitin Gaur</b>	
Signature:	Date:
(3) Legal Name of Inventor: Christopher D. Johnson	
Signature:	Date:
(4) Legal Name of Inventor: <b>Brian K. Martin</b>	
S	Du 2/11/15

[IF MORE INVENTORS, ADDITIONAL SIGNATURE PAGE(S) FOLLOWS]

RECORDED: 06/26/2017