504520750 08/25/2017

EPAS ID: PAT4567455

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

SUBMISSION TYPE: NEW ASSIGNMENT NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
K. ERIC BOWMAN	06/27/2017
JOSHUA COBURN	06/28/2017
C. GREG JENSEN	06/11/2014

RECEIVING PARTY DATA

Name:	Brigham Young University
Street Address:	3760 Harold B. Lee Library
City:	Provo
State/Country:	UTAH
Postal Code:	84602-6844

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15621929

CORRESPONDENCE DATA

Fax Number: (801)531-1929

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.

801-994-4646 Phone:

Email: heather@kunzlerlaw.com **Correspondent Name:** BRIAN C. KUNZLER

Address Line 1: 50 WEST BROADWAY, 10TH FLOOR

Address Line 4: SALT LAKE CITY, UTAH 84101

ATTORNEY DOCKET NUMBER:	3090-01
NAME OF SUBMITTER:	BRIAN C. KUNZLER
SIGNATURE:	/Brian C. Kunzler/
DATE SIGNED:	08/25/2017

Total Attachments: 7

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KLG DOCKET NUMBER: 3090-01

DECLARATION (37 C.F.R. 1.63) FOR UTILITY PATENT APPLICATION USING AN APPLICATION DATA SHEET (37 C.F.R. 1.76) AND ASSIGNMENT

Title of Invention: OPERATION SERIALIZATION IN A PARALLEL WORKFLOW ENVIRONMENT

As a below named 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
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.

Whereas, the undersigned inventor(s) has/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 Utah Valley Patent Docket Number provided above in the header of this document;

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, Brigham Young University, a corporation of Utah having a place of business at 3760 HBLL, Technology Transfer Office, Brigham Young University, Provo, Utah 84602-6844 (herein referred to as "Brigham Young University"), desires to acquire, and each undersigned inventor desires to grant to Brigham Young University, the 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, each undersigned inventor ("ASSIGNOR") hereby sells or has sold, assigns or has assigned, and otherwise transfers or has transferred to Brigham Young University (the "ASSIGNEE"), its successors, legal representatives, and assigns, the 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, each undersigned inventor hereby authorizes and requests 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 Brigham Young University, its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the same to be held and enjoyed by Brigham Young University, 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 the undersigned had this Assignment not been made; and each undersigned inventor agrees to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting

Page 1 of 2

title to the Invention and all related patents and applications, in Brigham Young University, its successors, legal representatives, and assigns, whenever requested by Brigham Young University, its successors, legal representatives, or assigns.

Each undersigned inventor acknowledges their prior and ongoing obligations to sell, assign, and transfer the rights under this Assignment to Brigham Young University and is unaware of any reason why they may not have the full and unencumbered right to sell, assign, and transfer the rights hereby sold, assigned, and transferred, and has not executed, and will not execute, any document or instrument in conflict herewith. Each undersigned inventor also hereby grants Brigham Young University, 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 Utah, and any disputes will be resolved in a Utah state court or federal court sited in Utah.

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: K. Eric Bowman	
	Signature: Kelly Tric Bowman	Date: 6/27/2017
(2)	Legal Name of Inventor: Joshua Coburn	
	Signature:	_Date:
(3)	Legal Name of Inventor: C. Greg Jensen	
	Signature:	Date:

KLG DOCKET NUMBER: 3090-01

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[X] United States application or PCT international application numberfiled on
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

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Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, each undersigned inventor ("ASSIGNOR") hereby sells or has sold, assigns or has assigned, and otherwise transfers or has transferred to Brigham Young University (the "ASSIGNEE"), its successors, legal representatives, and assigns, the 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, each undersigned inventor hereby authorizes and requests 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 Brigham Young University, its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the same to be held and enjoyed by Brigham Young University, 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 the undersigned had this Assignment not been made; and each undersigned inventor agrees to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting

Page 1 of 2

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Each undersigned inventor acknowledges their prior and ongoing obligations to sell, assign, and transfer the rights under this Assignment to Brigham Young University and is unaware of any reason why they may not have the full and unencumbered right to sell, assign, and transfer the rights hereby sold, assigned, and transferred, and has not executed, and will not execute, any document or instrument in conflict herewith. Each undersigned inventor also hereby grants Brigham Young University, 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 Utah, and any disputes will be resolved in a Utah state court or federal court sited in Utah.

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: K. Eric Bowman	
	Signature:	_ Date:
(2)	Legal Name of Inventor: Joshua Coburn	
	Signature: Joshua Q. Coburn	_Date:28 JUN 2017
(3)	Legal Name of Inventor: C. Greg Jensen	
	Signatura	Data

ASSIGNMENT

WHE	DEAR the A	lecionar(e)	(listed b	alow and	each refer	red to ac	"Accionar"	have made an
44 8 3 8 7	acerso, mer	rasignor(s)	(Hateu o	ciów ana	cacii icici	rea to as	rissignoi)	nave made an
invention(s) (the '	'Invention(s)	"), entitled						

Eric Bowman, Joshua Coburn, Greg Jensen	
and described in the attached Invention Disclosu	re Form. If the Invention(s) described in the Invention
Disclosure Form are included in a patent applicat ("Filed Application") is provided below:	ion, the identifying information of the patent application
Application No15/621,929	
Filed on June 13, 2017	and,

WHEREAS, <u>Brigham Young University</u>, a corporation duly organized under and pursuant to the laws of Utah, and having its principal place of business at 3760 Harold B. Lee Library, Provo, UT 84602 (the "Assignee"), is desirous of acquiring the entire right, title, and interest in: the Invention(s); the right to file applications for patent of the United States or other countries on the Invention(s); any application(s) for patent of the United States or other countries claiming priority to these application(s); any provisional or other right to recover damages, including royalties, for prior infringements of these applications; and any patent(s) of the United States or other countries that may be granted therefor or thereon.

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, and to the extent that the Assignor has not done so already via a prior agreement with the Assignee, or if the Assignor has already done so via a prior agreement with the Assignee then in confirmation of any obligation to do so in said prior agreement, the Assignor has sold, assigned, transferred, and set over, and by these presents does sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns, the Assignor's entire right, title, and interest in:

(a) the Invention(s);

Attorney Docket No.______.

- (b) the Filed Application identified above;
- (c) the right to file applications for patent of the United States or other countries on the Invention(s), including all rights under the Paris Convention for the Protection of Industrial Property and under the Patent Cooperation Treaty;
- (d) any application(s) for patent of the United States or other countries claiming the Invention(s);
- (e) any application(s) for patent of the United States or other countries claiming priority to the Filed Application identified above or any application(s) for patent claiming the Invention(s), including any division(s), continuation(s), and continuation(s)-in-part; and
- (f) any provisional or other right to recover damages, including royalties, for prior infringements of any application for patent identified in the preceding paragraphs (b) (e); and

(g) any patent(s) of the United States or other countries that may be granted for or on any application for patent identified in the preceding paragraphs (b) - (e), including any reissue(s) and extension(s) of said patent(s).

The above-granted rights, titles, and interests are to be held and enjoyed by the Assignee, for its own use and behalf and the use and behalf of its successors, legal representatives, and assigns, as fully and entirely as the same would have been held and enjoyed by the Assignor had this sale and assignment not been made.

The Assignor hereby represents to the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, or if applicable, at such time said prior agreement was executed, the Assignor is a lawful owner of an undivided interest in the entire right, title, and interest in and to the invention(s), that the invention(s) are unencumbered, except, if applicable, by obligation to assign in accordance with said prior agreement, and that the Assignor has good and full right and lawful authority to sell and convey the same in the manner set forth herein.

The Assignor hereby covenants and agrees to and with the Assignee, its successors, legal representatives, and assigns, that the Assignor will sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done in connection with any and all proceedings for the procurement, maintenance, enforcement and defense of the Invention(s), said applications, and said patents, including interference proceedings, without charge to the Assignor, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns.

The Assignor hereby authorizes and requests that the Assignee, or a duly appointed representative, insert in the spaces provided above the filing date, the application number, and the attorney docket number of the Filed Application when known.

The Assignor hereby requests the Commissioner of Patents to issue said patents of the United States to the Assignee for the sole use and behalf of the Assignee, its successors, legal representatives, and assigns.

Signature of Brigham Young University Technology Transfer Representative:

Signature: 6/12/14

Name (Printed): Oavel U. Brown

Page 3 of 3 Assignment

	Assignor(s):		
1.	Signature: 4 hh	6/10/14	_
	Name (Printed): Kelly Enc Bowers	Date	
2.	Signature: Adam Allan	6/11/14	
	Name (Printed) Os shun (shun	Date	
3.	Signature; Ospony come by Goog Jansen On confidence of the confide		
	Name (Printed): 6 - 2 Tenger	Date	
4.	Signature:		-
	Name (Printed):	Date	
5.	Signature:	*	u.
	Name (Printed);	Date	
6,	Signature:		
	Name (Printed):	Date	
7.	Signature:		. .
	Name (Printed):	Date	H 9
8,	Signature:		
	N. 707 A	Date	

NOTE: Inventor(s) should initial and date the bottom of each page.

PATENT REEL: 043407 FRAME: 0286

RECORDED: 08/25/2017