

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT3370082

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
ALONGKRIT CHUTINAN	05/26/2015
RAMAMURTHY MANI	05/21/2015
SRINATH AVADHANULA	05/21/2015
FU ZHANG	05/26/2015
JING XU	05/20/2015
QU ZHANG	05/21/2015
JOHN E. CIOLFI	05/20/2015
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	THE MATHWORKS, INC.
<b>Street Address:</b>	3 APPLE HILL DRIVE
<b>City:</b>	NATICK
<b>State/Country:</b>	MASSACHUSETTS
<b>Postal Code:</b>	01760-2098
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	14722487
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(571)432-0808
<i>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.</i>	
<b>Phone:</b>	5714320800
<b>Email:</b>	jrountree-jablin@harrityllp.com
<b>Correspondent Name:</b>	HARRITY & HARRITY LLP
<b>Address Line 1:</b>	11350 RANDOM HILLS ROAD
<b>Address Line 2:</b>	SUITE 600
<b>Address Line 4:</b>	FAIRFAX, VIRGINIA 22030
<b>ATTORNEY DOCKET NUMBER:</b>	0069-0339
<b>NAME OF SUBMITTER:</b>	PETER B. GLASER
<b>SIGNATURE:</b>	/Peter B. Glaser, Reg. No. 71,371/
<b>DATE SIGNED:</b>	05/27/2015

PATENT

**Total Attachments: 9**

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**ASSIGNMENT  
(Joint)  
Worldwide Rights**

THIS ASSIGNMENT, by Alongkrit CHUTINAN, Ramamurthy MANI, Srinath AVADHANULA, Fu ZHANG, Jing XU, Ou ZHANG, and John E. CIOLFI, residing at 2 Tisdale Drive, Dover, MA 02030 US; 48 Highland Circle, Wayland, MA 01778 US; 5 Ames Road, Apartment 210, Sudbury, MA 01776 US; 44 Russett Hill Road, Sherborn, MA 01770 US; 44 Pettee Street, Newton, MA 02464 US; 7 Francine Drive, Holliston, MA 01746 US; and 32 Pickerel Road, Wellesley, MA 02482 US (hereinafter referred to as "the Assignors"), respectively, witnesseth:

WHEREAS, the Assignors have invented certain new and useful improvements in GRAPHICAL MODELING FOR ACCESSING DYNAMIC SYSTEM STATES ACROSS DIFFERENT COMPONENTS set forth in an application for Letters Patent of the United States,

- (1)  which is a provisional application  
(a)  filed herewith; or  
(b)  bearing Application No. \_\_\_\_\_, and filed on \_\_\_\_\_; or
- (2)  which is a non-provisional application  
(a)  bearing Application No. 14/722,487, and filed on May 27, 2015; or  
(b)  filed herewith; and

We hereby authorize Applicants' representative to fill in the preceding information relating to the filing date and/or serial number, as appropriate.

WHEREAS, The MathWorks, Inc., a corporation of the state of Delaware, having its principal place of business at 3 Apple Hill Drive, Natick, Massachusetts 01760-2098 (hereinafter referred to as "the Assignee"), is desirous of acquiring the entire right, title, and interest in and to said inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications, including provisional applications for Letters Patent of the United States or other countries claiming priority to said application or from which said application claims priority, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon.

NOW, THEREFORE, be it known that for good and valuable consideration, the receipt of which is hereby acknowledged, the Assignor has sold, assigned, transferred, and set over, and by these presents do sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns the entire right, title, and interest in and to the above-mentioned inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications for Letters Patent of the United States or other countries claiming priority to said applications, and any and all Letters Patent or Patents of the United States of America and all foreign countries that may be granted therefor and thereon, any previously or subsequently filed provisional applications, and in and to any and all applications claiming priority to said applications, including divisions, continuations, and continuations-in-part of said applications, and reissues and extensions of said Letters Patent or Patents, and all rights under the International Convention for the Protection of Industrial Property, the same 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, to the full end of the term or terms for which Letters Patent or Patents may be granted as fully and entirely as the same would have been held and enjoyed by the Assignor had this sale and assignment not been made;

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, the Assignors are the sole and lawful owners of the entire right, title, and interest in and to the inventions set forth in said applications and said applications, including provisional applications, above-mentioned, and that the same are

unencumbered, and that the Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth;

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns that the Assignors will, whenever counsel of the Assignee, or the counsel of its successors, legal representatives, and assigns, shall advise that any proceeding in connection with said inventions or said applications for Letters Patent or Patents, or any proceeding in connection with Letters Patent or Patents for said inventions in any country, including interference proceedings, is lawful and desirable, or that any application claiming priority to said application, division, continuation, or continuation-in-part of any applications for Letters Patent or Patents, or any reissue or extension of any Letters Patent or Patents to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement, and defense of Letters Patent or Patents for said inventions, without charge to the Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns;

AND the Assignors hereby request the Commissioner of Patents to issue any and all said Letters Patent of the United States to the Assignee as the Assignee of said inventions, the Letters Patent to be issued for the sole use and behalf of the Assignee, its successors, legal representatives, and assigns.

IN TESTIMONY WHEREOF, I have hereunto set my hand.

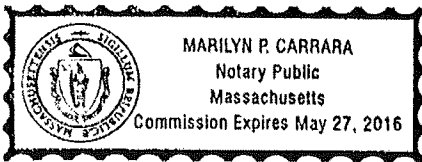
IN WITNESS WHEREOF, I hereto set my hand.

Alongkri CHUTINAN  
2 Tisdale Drive  
Dover, MA 02030 US

Signature: Alongkri Chutinan  
Date: 5/26/15

State of Massachusetts )  
County of Middlesex ) ss:

Chutinan  
On this 26<sup>th</sup> day of May, 2015, before me, Marilyn P. Carrara, Notary Public, personally appeared Alongkri personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity, and that by his/her/their signature on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



[Notary's Seal Here]

WITNESS my hand and official seal.

Marilyn P. Carrara  
Signature of Notary Public  
My Commission Expires: May 27, 2016

IN TESTIMONY WHEREOF, I have hereunto set my hand.

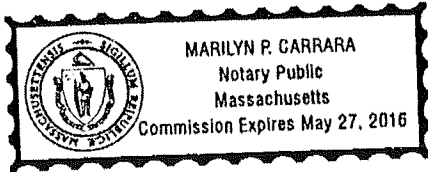
IN WITNESS WHEREOF, I hereto set my hand.

Ramamurthy MANI  
48 Highland Circle  
Wayland, MA 01778 US

Signature: [Handwritten Signature]  
Date: 5/21/15

State of Massachusetts )  
County of Middlesex ) ss:

On this 21<sup>st</sup> day of May, 2015, before me, Marilyn P. Carrara, Notary Public, personally appeared Ramamurthy Mani personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity, and that by his/her/their signature on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



[Notary's Seal Here]

WITNESS my hand and official seal.

[Handwritten Signature]  
Signature of Notary Public  
My Commission Expires: May 27, 2016

IN TESTIMONY WHEREOF, I have hereunto set my hand.

IN WITNESS WHEREOF, I hereto set my hand.

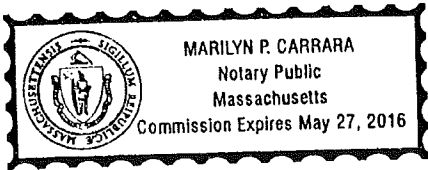
Srinath AVADHANULA  
5 Ames Road  
Apartment 210  
Sudbury, MA 01776 US

Signature: *Srinath*

Date: 5/21/15

State of Massachusetts )  
County of Middlesex ) ss:

Srinath Avadhanula  
On this 21<sup>st</sup> day of May, 2015, before me, Marilyn P. Carrara, Notary Public,  
personally appeared Srinath personally known to me (or proved to me on the basis of satisfactory evidence)  
to be the person(s) whose name is/are subscribed to the within instrument and acknowledged to me that he/she/they  
executed the same in his/hers/their authorized capacity, and that by his/hers/their signature on the instrument the  
person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



[Notary's Seal Here]

WITNESS my hand and official seal.

*Marilyn P. Carrara*  
Signature of Notary Public  
My Commission Expires: May 27, 2016

IN TESTIMONY WHEREOF, I have hereunto set my hand.

IN WITNESS WHEREOF, I hereto set my hand.

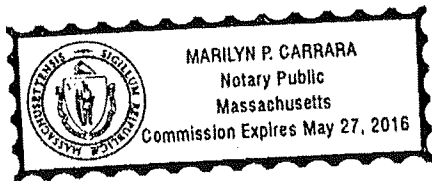
Fu ZHANG  
44 Russett Hill Road  
Sherborn, MA 01770 US

Signature: [Handwritten Signature]

Date: 05/26/2015

State of Massachusetts )  
County of Middlesex ) ss:

On this 26 day of May, 2015, before me, Marilyn P. Carrara, Notary Public, personally appeared Fu Zhang personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity, and that by his/her/their signature on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



[Notary's Seal Here]

WITNESS my hand and official seal.

[Handwritten Signature]  
Signature of Notary Public  
My Commission Expires: May 27, 2016



IN TESTIMONY WHEREOF, I have hereunto set my hand.

IN WITNESS WHEREOF, I hereto set my hand.

Jing XU  
44 Pettee Street  
Newton, MA 02464 US

Signature: [Handwritten Signature]  
Date: 05/20/2015

State of Massachusetts )  
  ) ss:  
County of Middlesex

On this 20<sup>th</sup> day of May, 2015, before me, Marilyn P. Carrara, Notary Public, personally appeared Jing Xu personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity, and that by his/her/their signature on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



[Notary's Seal Here]

WITNESS my hand and official seal.

[Handwritten Signature]  
Signature of Notary Public  
My Commission Expires: May 27, 2016

IN TESTIMONY WHEREOF, I have hereunto set my hand.

IN WITNESS WHEREOF, I hereto set my hand.

Qu ZHANG  
7 Francine Drive  
Holliston, MA 01746 US

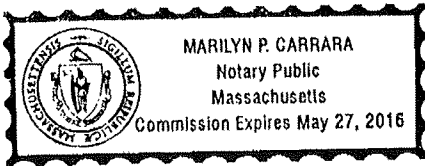
Signature:

Date:

*[Handwritten Signature]*  
05/21/2015

State of Massachusetts )  
County of Middlesex ) ss:

On this 21<sup>ST</sup> day of May, 2015, before me, Marilyn P. Carrara, Notary Public, personally appeared Qu Zhang, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity, and that by his/her/their signature on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



[Notary's Seal Here]

WITNESS my hand and official seal.

Marilyn P. Carrara  
Signature of Notary Public  
My Commission Expires: May 27, 2016

IN TESTIMONY WHEREOF, I have hereunto set my hand.

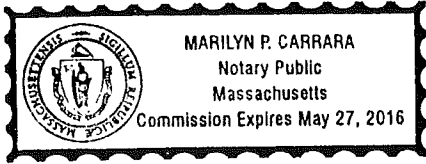
IN WITNESS WHEREOF, I hereto set my hand.

John E. CIOLFI  
32 Pickerel Road  
Wellesley, MA 02482 US

Signature: J E Ciolfi  
Date: MAY-20-2015

State of Massachusetts )  
County of Middlesex ) ss:

On this 20<sup>th</sup> day of May, 2015, before me, Marilyn P. Carrara, Notary Public, personally appeared John E. Ciolfi personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity, and that by his/her/their signature on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



[Notary's Seal Here]

WITNESS my hand and official seal.

Marilyn P. Carrara  
Signature of Notary Public  
My Commission Expires: May 27 2016