

## PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT												
NATURE OF CONVEYANCE:	ASSIGNMENT												
CONVEYING PARTY DATA													
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Charles C. Chiang</td> <td>08/03/2013</td> </tr> <tr> <td>Jing Guo</td> <td>08/07/2013</td> </tr> <tr> <td>Fan Yang</td> <td>08/04/2013</td> </tr> <tr> <td>Subarnarekha Sinha</td> <td>08/14/2013</td> </tr> <tr> <td>Xuan Zeng</td> <td>08/04/2013</td> </tr> </tbody> </table>		Name	Execution Date	Charles C. Chiang	08/03/2013	Jing Guo	08/07/2013	Fan Yang	08/04/2013	Subarnarekha Sinha	08/14/2013	Xuan Zeng	08/04/2013
Name	Execution Date												
Charles C. Chiang	08/03/2013												
Jing Guo	08/07/2013												
Fan Yang	08/04/2013												
Subarnarekha Sinha	08/14/2013												
Xuan Zeng	08/04/2013												
RECEIVING PARTY DATA													
Name:	Synopsys, Inc.												
Street Address:	700 East Middlefield Rd., Bldg. C												
City:	Mountain View												
State/Country:	CALIFORNIA												
Postal Code:	94043												
PROPERTY NUMBERS Total: 1													
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13920045</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13920045								
Property Type	Number												
Application Number:	13920045												
CORRESPONDENCE DATA													
Fax Number:	4084515908												
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>													
Phone:	408-451-5900												
Email:	bbaumann@beverlaw.com												
Correspondent Name:	BEVER, HOFFMAN & HARMS, LLP												
Address Line 1:	901 CAMPISI WAY												
Address Line 2:	SUITE 370												
Address Line 4:	CAMPBELL, CALIFORNIA 95008												
ATTORNEY DOCKET NUMBER:	SYN-1841-1C												
NAME OF SUBMITTER:	Jeanette S. Harms												

OP \$40.00 13920045

Signature:	/Jeanette S. Harms Reg. 35,537/
Date:	08/20/2013
Total Attachments: 5 source=SYN-1841-1C-ExecutedInventorAssignments#page1.tif source=SYN-1841-1C-ExecutedInventorAssignments#page2.tif source=SYN-1841-1C-ExecutedInventorAssignments#page3.tif source=SYN-1841-1C-ExecutedInventorAssignments#page4.tif source=SYN-1841-1C-ExecutedInventorAssignments#page5.tif	

ASSIGNMENT

For good and valuable consideration, receipt of which is hereby acknowledged, we

Charles C. Chiang of 19488 Dorchester Dr. Saratoga, CA 95070  
Jing Guo of Room 306, Microelectronics Building 825 Zhangheng Road Pudong  
District Shanghai China 201203  
Fan Yang of Room 319, Microelectronics Building 825 Zhangheng Road Pudong  
District Shanghai China 201203  
Subarnarekha Sinha of 4317 Silva Avenue Palo Alto, Ca 94306  
Xuan Zeng of Room 329, Microelectronics Building 825 Zhangheng Road Pudong  
District Shanghai China 201203

hereby sell, assign and transfer to **Synopsys, Inc.**, a Delaware corporation, having a place of business at 700 East Middlefield Rd., Bldg. C. Mountain View, CA 94043, its successors and assigns, the entire right, title and interest throughout the world in our invention in

**"DISTANCE METRIC FOR ACCURATE LITHOGRAPHIC HOTSPOT CLASSIFICATION USING RADIAL AND ANGULAR FUNCTIONS"**

for which United States patent application serial no. 13/920,045 was filed on June 17, 2013, and all patent applications and patents of every country for said invention, including divisions, reissues, continuations and extensions thereof, and all rights of priority resulting from the filing of said applications; we authorize the above-named assignee to apply for patents of foreign countries for said invention, and to claim all rights of priority without further authorization from us; we agree to execute all papers useful in connection with said United States and foreign applications, and generally to do everything possible to aid said assignee, their successors, assigns and nominees, at their request and expense, in obtaining and enforcing patents for said invention in all countries; and we request the Commissioner of Patents and Trademarks to issue all patents granted for said invention to the above-named assignee, its successors and assigns.

Executed this 3rd day of August, 2013.

  
Charles C. Chiang

Executed this \_\_\_\_\_ day of \_\_\_\_\_, 2013.

\_\_\_\_\_  
Jing Guo

Executed this \_\_\_\_\_ day of \_\_\_\_\_, 2013.

\_\_\_\_\_  
Fan Yang

Executed this \_\_\_\_\_ day of \_\_\_\_\_, 2013.

\_\_\_\_\_  
Subarnarekha Sinha

Executed this \_\_\_\_\_ day of \_\_\_\_\_, 2013.

\_\_\_\_\_  
Xuan Zeng

ASSIGNMENT

For good and valuable consideration, receipt of which is hereby acknowledged, we

<u>Charles C. Chiang</u>	of <u>19488 Dorchester Dr. Saratoga, CA 95070</u>
<u>Jing Guo</u>	of <u>Room 306, Microelectronics Building 825 Zhangheng Road Pudong</u> <u>District Shanghai China 201203</u>
<u>Fan Yang</u>	of <u>Room 319, Microelectronics Building 825 Zhangheng Road Pudong</u> <u>District Shanghai China 201203</u>
<u>Subarnarekha Sinha</u>	of <u>4317 Silva Avenue Palo Alto, Ca 94306</u>
<u>Xuan Zeng</u>	of <u>Room 329, Microelectronics Building 825 Zhangheng Road Pudong</u> <u>District Shanghai China 201203</u>

hereby sell, assign and transfer to Synopsys, Inc., a Delaware corporation, having a place of business at 700 East Middlefield Rd., Bldg. C. Mountain View, CA 94043, its successors and assigns, the entire right, title and interest throughout the world in our invention in

**“DISTANCE METRIC FOR ACCURATE LITHOGRAPHIC HOTSPOT CLASSIFICATION USING RADIAL AND ANGULAR FUNCTIONS”**

for which United States patent application serial no. 13/920,045 was filed on June 17, 2013, and all patent applications and patents of every country for said invention, including divisions, reissues, continuations and extensions thereof, and all rights of priority resulting from the filing of said applications; we authorize the above-named assignee to apply for patents of foreign countries for said invention, and to claim all rights of priority without further authorization from us; we agree to execute all papers useful in connection with said United States and foreign applications, and generally to do everything possible to aid said assignee, their successors, assigns and nominees, at their request and expense, in obtaining and enforcing patents for said invention in all countries; and we request the Commissioner of Patents and Trademarks to issue all patents granted for said invention to the above-named assignee, its successors and assigns.

Executed this \_\_\_\_\_ day of \_\_\_\_\_, 2013.

\_\_\_\_\_  
Charles C. Chiang

Executed this 7<sup>th</sup> day of August, 2013.

Jing Guo  
\_\_\_\_\_  
Jing Guo

Executed this \_\_\_\_\_ day of \_\_\_\_\_, 2013.

\_\_\_\_\_  
Fan Yang

Executed this \_\_\_\_\_ day of \_\_\_\_\_, 2013.

\_\_\_\_\_  
Subarnarekha Sinha

Executed this \_\_\_\_\_ day of \_\_\_\_\_, 2013.

\_\_\_\_\_  
Xuan Zeng

ASSIGNMENT

For good and valuable consideration, receipt of which is hereby acknowledged, we

<u>Charles C. Chiang</u>	of <u>19488 Dorchester Dr. Saratoga, CA 95070</u>
<u>Jing Guo</u>	of <u>Room 306, Microelectronics Building 825 Zhangheng Road Pudong District Shanghai China 201203</u>
<u>Fan Yang</u>	of <u>Room 319, Microelectronics Building 825 Zhangheng Road Pudong District Shanghai China 201203</u>
<u>Subarnarekha Sinha</u>	of <u>4317 Silva Avenue Palo Alto, Ca 94306</u>
<u>Xuan Zeng</u>	of <u>Room 329, Microelectronics Building 825 Zhangheng Road Pudong District Shanghai China 201203</u>

hereby sell, assign and transfer to **Synopsys, Inc.**, a Delaware corporation, having a place of business at 700 East Middlefield Rd., Bldg. C. Mountain View, CA 94043, its successors and assigns, the entire right, title and interest throughout the world in our invention in

**“DISTANCE METRIC FOR ACCURATE LITHOGRAPHIC HOTSPOT CLASSIFICATION USING RADIAL AND ANGULAR FUNCTIONS”**

for which United States patent application serial no. 13/920,045 was filed on June 17, 2013, and all patent applications and patents of every country for said invention, including divisions, reissues, continuations and extensions thereof, and all rights of priority resulting from the filing of said applications; we authorize the above-named assignee to apply for patents of foreign countries for said invention, and to claim all rights of priority without further authorization from us; we agree to execute all papers useful in connection with said United States and foreign applications, and generally to do everything possible to aid said assignee, their successors, assigns and nominees, at their request and expense, in obtaining and enforcing patents for said invention in all countries; and we request the Commissioner of Patents and Trademarks to issue all patents granted for said invention to the above-named assignee, its successors and assigns.

Executed this \_\_\_\_\_ day of \_\_\_\_\_, 2013.

\_\_\_\_\_  
Charles C. Chiang

Executed this \_\_\_\_\_ day of \_\_\_\_\_, 2013.

\_\_\_\_\_  
Jing Guo

Executed this 4 day of August, 2013.

Fan Yang  
\_\_\_\_\_  
Fan Yang

Executed this \_\_\_\_\_ day of \_\_\_\_\_, 2013.

\_\_\_\_\_  
Subarnarekha Sinha

Executed this \_\_\_\_\_ day of \_\_\_\_\_, 2013.

\_\_\_\_\_  
Xuan Zeng

ASSIGNMENT

For good and valuable consideration, receipt of which is hereby acknowledged, we

<u>Charles C. Chiang</u>	of <u>19488 Dorchester Dr. Saratoga, CA 95070</u>	
<u>Jing Guo</u>	of <u>Room 306, Microelectronics Building 825 Zhangheng Road Pudong</u>	
	<u>District Shanghai China 201203</u>	
<u>Fan Yang</u>	of <u>Room 319, Microelectronics Building 825 Zhangheng Road Pudong</u>	
	<u>District Shanghai China 201203</u>	
<u>Subarnarekha Sinha</u>	of <u>4317 Silva Avenue Palo Alto, Ca 94306</u>	<u>1447 WESSEX AVENUE, LOS ALTOS,</u>
<u>Xuan Zeng</u>	of <u>Room 329, Microelectronics Building 825 Zhangheng Road Pudong</u>	<u>CA 94024</u>
	<u>District Shanghai China 201203</u>	<u>(S.S.)</u>

hereby sell, assign and transfer to Synopsys, Inc., a Delaware corporation, having a place of business at 700 East Middlefield Rd., Bldg. C. Mountain View, CA 94043, its successors and assigns, the entire right, title and interest throughout the world in our invention in

**“DISTANCE METRIC FOR ACCURATE LITHOGRAPHIC HOTSPOT CLASSIFICATION USING RADIAL AND ANGULAR FUNCTIONS”**

for which United States patent application serial no. 13/920,045 was filed on June 17, 2013, and all patent applications and patents of every country for said invention, including divisions, reissues, continuations and extensions thereof, and all rights of priority resulting from the filing of said applications; we authorize the above-named assignee to apply for patents of foreign countries for said invention, and to claim all rights of priority without further authorization from us; we agree to execute all papers useful in connection with said United States and foreign applications, and generally to do everything possible to aid said assignee, their successors, assigns and nominees, at their request and expense, in obtaining and enforcing patents for said invention in all countries; and we request the Commissioner of Patents and Trademarks to issue all patents granted for said invention to the above-named assignee, its successors and assigns.

Executed this \_\_\_\_\_ day of \_\_\_\_\_, 2013.

\_\_\_\_\_  
Charles C. Chiang

Executed this \_\_\_\_\_ day of \_\_\_\_\_, 2013.

\_\_\_\_\_  
Jing Guo

Executed this \_\_\_\_\_ day of \_\_\_\_\_, 2013.

\_\_\_\_\_  
Fan Yang

Executed this 14 day of August, 2013.

Subarnarekha Sinha  
Subarnarekha Sinha

Executed this \_\_\_\_\_ day of \_\_\_\_\_, 2013.

\_\_\_\_\_  
Xuan Zeng

ASSIGNMENT

For good and valuable consideration, receipt of which is hereby acknowledged, we

Charles C. Chiang of 19488 Dorchester Dr. Saratoga, CA 95070  
Jing Guo of Room 306, Microelectronics Building 825 Zhangheng Road Pudong  
District Shanghai China 201203  
Fan Yang of Room 319, Microelectronics Building 825 Zhangheng Road Pudong  
District Shanghai China 201203  
Subarnarekha Sinha of 4317 Silva Avenue Palo Alto, Ca 94306  
Xuan Zeng of Room 329, Microelectronics Building 825 Zhangheng Road Pudong  
District Shanghai China 201203

hereby sell, assign and transfer to **Synopsys, Inc.**, a Delaware corporation, having a place of business at 700 East Middlefield Rd., Bldg. C. Mountain View, CA 94043, its successors and assigns, the entire right, title and interest throughout the world in our invention in

**“DISTANCE METRIC FOR ACCURATE LITHOGRAPHIC HOTSPOT CLASSIFICATION USING RADIAL AND ANGULAR FUNCTIONS”**

for which United States patent application serial no. 13/920,045 was filed on June 17, 2013, and all patent applications and patents of every country for said invention, including divisions, reissues, continuations and extensions thereof, and all rights of priority resulting from the filing of said applications; we authorize the above-named assignee to apply for patents of foreign countries for said invention, and to claim all rights of priority without further authorization from us; we agree to execute all papers useful in connection with said United States and foreign applications, and generally to do everything possible to aid said assignee, their successors, assigns and nominees, at their request and expense, in obtaining and enforcing patents for said invention in all countries; and we request the Commissioner of Patents and Trademarks to issue all patents granted for said invention to the above-named assignee, its successors and assigns.

Executed this \_\_\_\_\_ day of \_\_\_\_\_, 2013.

\_\_\_\_\_  
Charles C. Chiang

Executed this \_\_\_\_\_ day of \_\_\_\_\_, 2013.

\_\_\_\_\_  
Jing Guo

Executed this \_\_\_\_\_ day of \_\_\_\_\_, 2013.

\_\_\_\_\_  
Fan Yang

Executed this \_\_\_\_\_ day of \_\_\_\_\_, 2013.

\_\_\_\_\_  
Subarnarekha Sinha

Executed this 4 day of Aug., 2013.

Xuan Zeng  
\_\_\_\_\_  
Xuan Zeng