PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Hua Song	07/20/2009
James P. Shiely	07/29/2009
Qiaolin Zhang	08/31/2009

RECEIVING PARTY DATA

Name:	SYNOPSYS, INC.
Street Address:	700 E. Middlefield Road
City:	Mountain View
State/Country:	CALIFORNIA
Postal Code:	94043

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12512677

CORRESPONDENCE DATA

Fax Number: (530)759-1665

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 530-759-1663

Email: edward@parklegal.com

Correspondent Name: Edward J. Grundler

Address Line 1: Park, Vaughan & Fleming, LLP

Address Line 2: 2820 Fifth Street

Address Line 4: Davis, CALIFORNIA 95618

ATTORNEY DOCKET NUMBER: SNPS-1188

NAME OF SUBMITTER: Edward J. Grundler, Reg. No. 47,615

Total Attachments: 6

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CORPORATE ASSIGNMENT

WHEREAS, the undersigned,

Hua Song James P. Shiely Qiaolin Zhang 1122 White Cliff Drive, San Jose, CA 95129 7200 SW 189th Street, Aloha, OR 97007 100 N. Whisman Road #3614, Mountain View, CA 94043

hereinafter termed "Inventor(s)", have invented certain new and useful improvements in

METHOD AND APPARATUS FOR MODELING THIN-FILM TOPOGRAPHY EFFECT ON A PHOTOLITHOGRAPHY PROCESS

and have executed a declaration or oath for an application for a United States patent disclosing and identifying the invention:

On the ____ day of ______, 20___;

Or

X Said application having Application Number 12/512,677 and filed on 30 July 2009; and

WHEREAS, SYNOPSYS, INC. a corporation of the State of <u>Delaware</u>, having a place of business at <u>700 E</u>. <u>Middlefield Road</u>, <u>Mountain View</u>, <u>CA 94043-4033</u>, (hereinafter termed "Assignee"), is desirous of acquiring the entire right, title and interest in and to said application and the invention disclosed therein, and in and to all embodiments of the invention, heretofore conceived, made or discovered jointly or severally by said Inventor(s) (all collectively hereinafter termed "said invention"), and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter termed "patents") thereon granted in the United States and foreign countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Inventor(s) to have been received in full from said Assignee:

- 1. Said Inventor(s) do hereby sell, assign, transfer and convey unto said Assignee the entire right, title and interest (a) in and to said application and said invention; (b) in and to all rights to apply for foreign patents on said invention pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all applications filed and any and all patents granted on said invention in the United States or any foreign country, including each and every application filed and each and every patent granted on any application which is a divisional, substitution, continuation, or continuation-in-part of any of said applications; and (d) in and to each and every reissue or extensions of any of said patents.
- 2. Said Inventor(s) hereby jointly and severally covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States and foreign countries. Such cooperation by said Inventor(s) shall include prompt production of pertinent facts and documents, giving of testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said invention; (d) for filing and prosecuting applications for reissuance of any said patents; (e) for interference or other priority proceedings involving said

invention; and (f) for legal proceedings involving said invention and any applications therefor and any patents granted thereon, including without limitation reissues and reexaminations, opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Inventor(s) in providing such cooperation shall be paid for by said Assignee.

- 3. The terms and covenants of this assignment shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Inventor(s), their respective heirs, legal representatives and assigns.
- 4. Said Inventor(s) hereby jointly and severally warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, said Inventors have executed and delivered this instrument to said Assignee as of the dates written below.

Hur Song	7/20/09
Hua Song	Date
James P. Shiely	Date
Qiaolin Zhang	Date
	Date

2

Date

CORPORATE ASSIGNMENT

WHEREAS, the undersigned,

Hua Song James P. Shiely Qiaolin Zhang 1122 White Cliff Drive, San Jose, CA 95129
7200 SW 189th Street, Aloha, OR 97007
100 N. Whisman Road #3614, Mountain View, CA 94043

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	On the day of	_, 20;
	Or	
<u>X</u>	Said application having Application Number 12/512,677	and filed on 30 July 2009; and
Middle	WHEREAS, SYNOPSYS, INC. a corporation of the State of the Road. Mountain View. CA 94043-4033. (hereinafter te	

WHEREAS, SYNOPSYS, INC. a corporation of the State of Delaware, having a place of business at 700 E. Middlefield Road, Mountain View, CA 94043-4033, (hereinafter termed "Assignee"), is desirous of acquiring the entire right, title and interest in and to said application and the invention disclosed therein, and in and to all embodiments of the invention, heretofore conceived, made or discovered jointly or severally by said Inventor(s) (all collectively hereinafter termed "said invention"), and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter termed "patents") thereon granted in the United States and foreign countries.

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Attorney Docket No. SNPS-1188

invention; and (f) for legal proceedings involving said invention and any applications therefor and any pate its granted thereon, including without limitation reissues and reexaminations, opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Inventor(s) in providing such cooperation shall be paid for by said Assignee.

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Hua Song	Date
 Janes Phiely	7-29-09
James P. Shiely	Date
Qiaolin Zhang	Date
	Date

Date

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<u>X</u>	Said application having Application Number 12/512,677	and filed on 30 July 2009; and
	WHEREAS SYNOPSYS INC a corporation of the State	of Delaware, having a place of husiness at 700 l

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invention; and (f) for legal proceedings involving said invention and any applications therefor and any patents granted thereon, including without limitation reissues and reexaminations, opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Inventor(s) in providing such cooperation shall be paid for by said Assignee.

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IN WITNESS WHEREOF, said Inventors have executed and delivered this instrument to said Assignee as of the dates written below.

Hua Song	Date
 James P. Shiely	Date
 Winth Z	08/31/2209
Qiaolin Zhang	Date
	Date
	Date

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RECORDED: 09/02/2009