Form PTO-1595 (Rev. 10/02) OMB No. 0651-0027 (exp. 6/30/2005) Tab settings	TS ONLY U.S. DEPARTMENT OF COMMERCE U.S. Patent and Trademark Office				
To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.					
Name of conveying party(ies): Brian Eugene Lockyear James Herbert Kukula Robert F. Damiano Carl Preston Pixley Additional name(s) of conveying party(ies) attached? □ Yes ১ No	2. Name and address of receiving party(ies) Name: Synopsys, Inc. Internal Address:				
3. Nature of conveyance:					
🔀 Assignment 🖵 Merger	Ctrack Address				
Security Agreement	Street Address:				
☐ Other	Mountain View City:State:_CA				
Execution Date: 03/02/04; 01/16/04; 02/11/04; 03/04/04 4. Application number(s) or patent number(s): App. No	Additional name(s) & address(es) attached? Yes No				
If this document is being filed together with a new app A. Patent Application No.(s) Additional numbers a	B. Patent No.(s) ttached? Yes No.				
5. Name and address of party to whom correspondence					
concerning document should be mailed: Name: Jonathan T. Kaplan	7. Total fee (37 CFR 3.41)\$ 40.00				
Internal Address:	⊑ Enclosed				
	Authorized to be charged to deposit account				
Street Address:	8. Deposit account number: 502584				
140 Nassau Street	302304				
New York City: NY Zip: 10038	(Attach duplicate copy of this page if paying by deposit account)				
DO NOT US	E THIS SPACE				
is a true copy of the original document. Jonathan T. Kaplan, Reg.No. 38,935 Name of Person Signing	information is true and correct and any attached copy than I. Kaplan 03/25/04 Signature Date The sheet, attachments, and documents:				

Mail documents to be recorded with required cover sheet information to: Commissioner of Patents & Trademarks, Box Assignments Washington, D.C. 20231

PATENT

REEL: 014461 FRAME: 0006

Appl. No. 10/642,885 B.E. Lockyear Page 1 of 2

ASSIGNMENT

WHEREAS, I Brian Eugene Lockyear, a citizen of the United States of America, residing at 3045 NW Thurman St., Portland, OR 97210, have invented one or more inventions (hereinafter referred to as "said invention(s)") disclosed in an application for Letters Patent of the United States titled "Method and Apparatus for Solving Constraints" (hereinafter referred to as "said application"), said application having been filed on 08/18/03 and assigned Application No. 10/642,885.

WHEREAS, Synopsys, Inc. (hereinafter together with its successors and assigns referred to as "the Assignee"), a **Delaware corporation**, having a place of business at 700 East **Middlefield Road**, **Mountain View**, CA 94043, is desirous of obtaining all right, title and interest in, to and under said invention(s) and said application; and

NOW, THEREFORE, for good and valuable considerations, the receipt and sufficiency of which I hereby acknowledge, I have sold, assigned, transferred and set over, and by these presents hereby sell, assign, transfer and set over to the Assignee all right, title and interest in, to and under said invention(s) and said application, including the right to apply for any Letters Patent of the United States of America and in any and all foreign countries on said invention(s), and any and all other applications for Letters Patent on said invention(s), in whatsoever countries, including all divisional, renewal, substitute, continuation, continuation-inpart and convention applications based in whole or in part upon said invention(s) or upon said application, and any and all Letters Patent which may issue thereon in the United States and foreign countries, and any and all reissues, reexaminations, extensions, renewals, divisions, continuations or continuations-in-part of Letters Patent granted for said invention(s) or upon said applications, to the full term or terms for which said Letters Patent may be issued, and every priority right that is or may be predicated upon or arise from said invention(s), said application and said Letters Patent, the same to be held and enjoyed by the Assignee for its own use and benefit fully and entirely as if the same would have been held and enjoyed by me had this Assignment not been made. I hereby authorize the Assignee to file patent applications in any and all countries on any or all of said invention(s) in my name, or in its name, or otherwise as the Assignee may deem advisable, under the International Convention or otherwise.

I hereby authorize the Commissioner of Patents and Trademarks of the United States, and any official of any other country empowered to issue patents, to record this Assignment, and to issue or transfer all said Letters Patent on said invention(s) to the Assignee as owner of all right, title and interest therein, or otherwise as the Assignee may direct, in accordance with the terms of this Assignment.

I hereby represent and warrant that I have the full right to convey the entire right and interest herein assigned, that there are no rights or interests outstanding inconsistent with the rights and interests granted herein, and that I will not execute any instrument or grant or transfer any rights or interests inconsistent with the rights and interests granted herein.

Page 1 of 2

PATENT REEL: 014461 FRAME: 0007

Appl. No. 10/642,885 B.E. Lockyear Page 2 of 2

ASSIGNMENT

IN TESTIMONY WHEREOF, I ha	ave executed this document on the date
----------------------------	--

indicated below.

ignature) Brian Eugene Lockyear

On this 2 h day of March , 200 4, before me came Brian Eugene Lockyear, to me known and known to me to be the individual described in, and who executed

the foregoing instrument, and he/she has acknowledged to me that he/she has executed the same.

ROSEMARY E. NICHOLS

NOTARY PUBLIC-OREGON
COMMISSION NO. 346718
MY COMMISSION EXPIRES JUNE 11, 2005

Page 2 of 2

Appl. No. 10/642,885 J.H. Kukula Page 1 of 2

ASSIGNMENT

WHEREAS, I James Herbert Kukula, a citizen of the United States of America, residing at 3027 NW Overlook Dr., Hillsboro, OR 97124, have invented one or more inventions (hereinafter referred to as "said invention(s)") disclosed in an application for Letters Patent of the United States titled "Method and Apparatus for Solving Constraints" (hereinafter referred to as "said application"), said application having been filed on 08/18/03 and assigned Application No. 10/642,885.

WHEREAS, Synopsys, Inc. (hereinafter together with its successors and assigns referred to as "the Assignee"), a **Delaware corporation**, having a place of business at **700 East Middlefield Road**, **Mountain View**, **CA 94043**, is desirous of obtaining all right, title and interest in, to and under said invention(s) and said application; and

NOW, THEREFORE, for good and valuable considerations, the receipt and sufficiency of which I hereby acknowledge, I have sold, assigned, transferred and set over, and by these presents hereby sell, assign, transfer and set over to the Assignee all right, title and interest in, to and under said invention(s) and said application, including the right to apply for any Letters Patent of the United States of America and in any and all foreign countries on said invention(s), and any and all other applications for Letters Patent on said invention(s), in whatsoever countries, including all divisional, renewal, substitute, continuation, continuation-inpart and convention applications based in whole or in part upon said invention(s) or upon said application, and any and all Letters Patent which may issue thereon in the United States and foreign countries, and any and all reissues, reexaminations, extensions, renewals, divisions, continuations or continuations-in-part of Letters Patent granted for said invention(s) or upon said applications, to the full term or terms for which said Letters Patent may be issued, and every priority right that is or may be predicated upon or arise from said invention(s), said application and said Letters Patent, the same to be held and enjoyed by the Assignee for its own use and benefit fully and entirely as if the same would have been held and enjoyed by me had this Assignment not been made. I hereby authorize the Assignee to file patent applications in any and all countries on any or all of said invention(s) in my name, or in its name, or otherwise as the Assignee may deem advisable, under the International Convention or otherwise.

I hereby authorize the Commissioner of Patents and Trademarks of the United States, and any official of any other country empowered to issue patents, to record this Assignment, and to issue or transfer all said Letters Patent on said invention(s) to the Assignee as owner of all right, title and interest therein, or otherwise as the Assignee may direct, in accordance with the terms of this Assignment.

I hereby represent and warrant that I have the full right to convey the entire right and interest herein assigned, that there are no rights or interests outstanding inconsistent with the rights and interests granted herein, and that I will not execute any instrument or grant or transfer any rights or interests inconsistent with the rights and interests granted herein.

Page 1 of 2

Appl. No. 10/642,885 J.H. Kukula Page 2 of 2

ASSIGNMENT

	IN.	TESTIMONY	WHEREOF,	I have executed	this d	locument (on the	date
indicated belo	w.							

Date: 1/16/2004

gnature) James Herbert Kukula

STATE OF

COUNTY OF,

ss.:

On this 6 day of <u>fauctory</u>, 2004, before me came James Herbert Kukula, to me known and known to me to be the individual described in, and who executed the

foregoing instrument, and he/she has acknowledged to me that he/she has executed the same.

Toregoing instrument, and ne/site has acknow

OFFICIAL SEAL ROSEMARY E. NICHOI

Notary Public

Appl. No. 10/642,885 R.F. Damiano Page 1 of 2

ASSIGNMENT

WHEREAS, I Robert F. Damiano, a citizen of the United States of America, residing at 2650 Lookout Court, Lake Oswego, Oregon 97034, have invented one or more inventions (hereinafter referred to as "said invention(s)") disclosed in an application for Letters Patent of the United States titled "Method and Apparatus for Solving Constraints" (hereinafter referred to as "said application"), said application having been filed on 08/18/03 and assigned Application No. 10/642,885.

WHEREAS, Synopsys, Inc. (hereinafter together with its successors and assigns referred to as "the Assignee"), a Delaware corporation, having a place of business at 700 East Middlefield Road, Mountain View, CA 94043, is desirous of obtaining all right, title and interest in, to and under said invention(s) and said application; and

NOW, THEREFORE, for good and valuable considerations, the receipt and sufficiency of which I hereby acknowledge, I have sold, assigned, transferred and set over, and by these presents hereby sell, assign, transfer and set over to the Assignee all right, title and interest in, to and under said invention(s) and said application, including the right to apply for any Letters Patent of the United States of America and in any and all foreign countries on said invention(s), and any and all other applications for Letters Patent on said invention(s), in whatsoever countries, including all divisional, renewal, substitute, continuation, continuation-inpart and convention applications based in whole or in part upon said invention(s) or upon said application, and any and all Letters Patent which may issue thereon in the United States and foreign countries, and any and all reissues, reexaminations, extensions, renewals, divisions, continuations or continuations-in-part of Letters Patent granted for said invention(s) or upon said applications, to the full term or terms for which said Letters Patent may be issued, and every priority right that is or may be predicated upon or arise from said invention(s), said application and said Letters Patent, the same to be held and enjoyed by the Assignee for its own use and benefit fully and entirely as if the same would have been held and enjoyed by me had this Assignment not been made. I hereby authorize the Assignee to file patent applications in any and all countries on any or all of said invention(s) in my name, or in its name, or otherwise as the Assignee may deem advisable, under the International Convention or otherwise.

I hereby authorize the Commissioner of Patents and Trademarks of the United States, and any official of any other country empowered to issue patents, to record this Assignment, and to issue or transfer all said Letters Patent on said invention(s) to the Assignee as owner of all right, title and interest therein, or otherwise as the Assignee may direct, in accordance with the terms of this Assignment.

I hereby represent and warrant that I have the full right to convey the entire right and interest herein assigned, that there are no rights or interests outstanding inconsistent with the rights and interests granted herein, and that I will not execute any instrument or grant or transfer any rights or interests inconsistent with the rights and interests granted herein.

Page 1 of 2

Appl. No. 10/642,885 R.F. Damiano Page 2 of 2

ASSIGNMENT

	IN TESTIMONY	WHEREOF,	I have executed	this documen	t on the	date
ndicated below	w.					

Date: 2/11/64

(Signature) Robert F. Damiano

STATE OF

COUNTY OF

ss.:

On this // day of <u>lessuary</u>, 200 /, before me came Robert F.

Damiano, to me known and known to me to be the individual described in, and who executed the foregoing instrument, and he/she has acknowledged to me that he/she has executed the same.

OFFICIAL SEAL

ROSEMARY E. NICHOLS

NOTARY PUBLIC-OREGON
COMMISSION NO. 346718
MY COMMISSION EXPIRES JUNE 11, 2005

Page 2 of 2

Appl. No. **10/642,885 C.P. Pixley** *Page 1 of 2*

ASSIGNMENT

WHEREAS, I Carl Preston Pixley, a citizen of the United States of America, residing at 16670 NW Mission Oaks Drive, Beaverton, Oregon 97006, have invented one or more inventions (hereinafter referred to as "said invention(s)") disclosed in an application for Letters Patent of the United States titled "Method and Apparatus for Solving Constraints" (hereinafter referred to as "said application"), said application having been filed on 08/18/03 and assigned Application No. 10/642,885.

WHEREAS, Synopsys, Inc. (hereinafter together with its successors and assigns referred to as "the Assignee"), a **Delaware corporation**, having a place of business at **700 East Middlefield Road**, **Mountain View**, **CA 94043**, is desirous of obtaining all right, title and interest in, to and under said invention(s) and said application; and

NOW, THEREFORE, for good and valuable considerations, the receipt and sufficiency of which I hereby acknowledge, I have sold, assigned, transferred and set over, and by these presents hereby sell, assign, transfer and set over to the Assignee all right, title and interest in, to and under said invention(s) and said application, including the right to apply for any Letters Patent of the United States of America and in any and all foreign countries on said invention(s), and any and all other applications for Letters Patent on said invention(s), in whatsoever countries, including all divisional, renewal, substitute, continuation, continuation-inpart and convention applications based in whole or in part upon said invention(s) or upon said application, and any and all Letters Patent which may issue thereon in the United States and foreign countries, and any and all reissues, reexaminations, extensions, renewals, divisions, continuations or continuations-in-part of Letters Patent granted for said invention(s) or upon said applications, to the full term or terms for which said Letters Patent may be issued, and every priority right that is or may be predicated upon or arise from said invention(s), said application and said Letters Patent, the same to be held and enjoyed by the Assignee for its own use and benefit fully and entirely as if the same would have been held and enjoyed by me had this Assignment not been made. I hereby authorize the Assignee to file patent applications in any and all countries on any or all of said invention(s) in my name, or in its name, or otherwise as the Assignee may deem advisable, under the International Convention or otherwise.

I hereby authorize the Commissioner of Patents and Trademarks of the United States, and any official of any other country empowered to issue patents, to record this Assignment, and to issue or transfer all said Letters Patent on said invention(s) to the Assignee as owner of all right, title and interest therein, or otherwise as the Assignee may direct, in accordance with the terms of this Assignment.

I hereby represent and warrant that I have the full right to convey the entire right and interest herein assigned, that there are no rights or interests outstanding inconsistent with the rights and interests granted herein, and that I will not execute any instrument or grant or transfer any rights or interests inconsistent with the rights and interests granted herein.

Page 1 of 2

PATENT REEL: 014461 FRAME: 0013

Appl. No. **10/642,885 C.P. Pixley** Page 2 of 2

ASSIGNMENT

IN TESTIMONY WHEREOF, I have executed this document on the date indicated below.

Date: 4 Much 2004

(Signature) Carl Preston Pixley

STATE OF

COUNTY OF

SS.

On this \mathcal{L} day of

_, 2004, before me came Carl Preston

Pixley, to me known and known to me to be the individual described in, and who executed the foregoing instrument, and he/she has acknowledged to me that he/she has executed the same.

ROSEMA NOTARY NOTARY MY COMMISSION F

ROSEMARY E. NICHOLS
NOTARY PUBLIC-OREGON
COMMISSION NO. 346718
MY COMMISSION EXPIRES JUNE 11, 2005

RECORDED: 03/25/2004

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Page 2 of 2

PATENT REEL: 014461 FRAME: 0014