

MR3529-47

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OMB No. 0651-0027 (exp. 03/31/2009)

U.S. DEPARTMENT OF COMMERCE
United States Patent and Trademark Office

RECORDATION FORM COVER SHEET PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies)

ABHISHEK KANUNGO; PHIL GIANGARRA; YONGHAO CHEN; FRANZ ERICH MARSCHNER

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance/Execution Date(s):

Execution Date(s) 1/4/10; 1/8/10; 1/4/10; 4/2/10

- ☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Joint Research Agreement
☐ Government Interest Assignment
☐ Executive Order 9424, Confirmatory License
☐ Other _____

2. Name and address of receiving party(ies)

Name: CADENCE DESIGN SYSTEMS, INC.

Internal Address: _____

Street Address: 2655 SEELY AVENUE

City: SAN JOSE

State: CALIFORNIA

Country: USA Zip 95134

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application or patent number(s):

☐ This document is being filed together with a new application.

A. Patent Application No.(s)

B. Patent No.(s)

12/640,601

Additional numbers attached? ☐ Yes ☒ No

5. Name and address to whom correspondence concerning document should be mailed:

Name: Jun Y. Lee

Internal Address: Rosenberg, Klein & Lee

Street Address: 3458 Ellicott Center Drive, Suite 101

City: Ellicott City

State: MD Zip 21043

Phone Number: 410-465-6678

Fax Number: 410-461-3067

Email Address: _____

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 1.21(h) & 3.41) \$40.00

- ☒ Authorized to be charged to deposit account
☐ Enclosed
☐ None required (government interest not affecting title)

8. Payment Information

Deposit Account Number 18-2011

Authorized User Name _____

9. Signature:

 Signature

4/6/2010

Date

Jun Y. Lee

Name of Person Signing

Total number of pages including cover sheet, attachments, and documents: 3

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O. Box 1450, Alexandria, V.A. 22313-1450

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PATENT TRADEMARK OFFICE

PATENT
REEL: 024196 FRAME: 0541

CH \$40.00 182011 12640601

MR3529-47

ASSIGNMENT DEED

This Assignment agreement is applicable to an invention entitled (Invention Title) **METHOD AND SYSTEM FOR PROVIDING AN IMPLICIT UNKNOWN VALUE TO USER ENUM DATA CONSTRUCTS IN AN HDL SYSTEM** TO

The PATENT RIGHTS referred to in this agreement are: **MODEL POWER SHUTOFF IN SIMULATION**
 (Check one) ☐ a Patent Application for this invention, executed by the ASSIGNOR(s) concurrently with this Assignment
☒ U.S. Patent Application Serial No. **12/640,601**, filed **12/17/2009**
☐ U.S. Patent No. _____, issued _____

The PATENT RIGHTS assigned under this agreement are:
 (Check one) ☐ U.S. Patent rights only
☒ worldwide Patent rights. In this case, the assignee shall have the right to claim the benefit of the filing date of any U.S. Patent Application identified above.

The ASSIGNOR(s) referred to in this agreement is (or are):

(Full name of first assignor) **Abhishek Kanungo**
 (Address) **105 Spit Brook Road, 15F**
Nashua, New Hampshire 03062
 (Full name of second assignor, if any) **Phil Giangarra**
 (Address) **24 Green Valley Rd.**
Medway, Massachusetts 02053
 (Full name of third assignor, if any) **Yonghao Chen**
 (Address) **3 Fawn Terrace Lane**
Groton, Massachusetts 01450
 (Full name of fourth assignor, if any) **Franz Erich Marschner**
 (Address) **3919 River Walk**
Ellicott City, Maryland 21042

The First ASSIGNEE referred to in this agreement is:

(Name of Assignee) **Cadence Design Systems, Inc.**
 (Address of Assignee) **2655 Seely Avenue**
San Jose, California 95134

The Second ASSIGNEE referred to in this agreement is:

(Name of Assignee) _____
 (Address of Assignee) _____

The First ASSIGNEE is:

(Check one) ☐ an individual
☐ a partnership
☒ a Corporation of **Delaware** (State or Country)

The Second ASSIGNEE is:

(Check one) ☐ an individual
☐ a partnership
☐ a Corporation of _____ (State or Country)

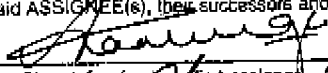
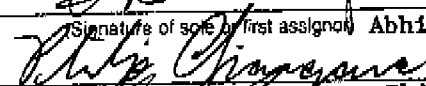
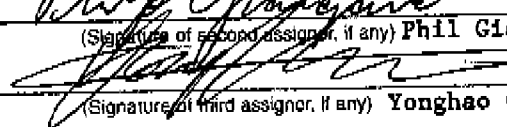
☐ Additional assignees are being named on separately numbered sheets attached hereto.

The ASSIGNOR(S), in consideration of \$1.00 paid by each ASSIGNEE, and other good and valuable consideration, receipt of which is acknowledged, have and do hereby assign the following to each ASSIGNEE, their successors and assigns:

the full and exclusive right to the invention;
 an equal interest in and to the entire right, title and interest in and to the PATENT RIGHTS in the invention, all continuations, continuations-in-part, divisionals, re-issues, and re-examination patents and patent applications; and the right to claim priority under 35 U.S.C. 119, based on any earlier foreign applications for this invention.

As to all U.S. Patent Applications assigned under this Agreement, the ASSIGNOR(S) hereby authorize(s) and requests the Director of Patents and Trademarks to issue all Letters Patent to the ASSIGNEE(s) as the ASSIGNEE(s) of an equal interest in the entire right, title and interest, for the sole use and enjoyment of said ASSIGNEE(s), their successors and assigns.

Further, the ASSIGNOR(s) agree(s) to communicate to said ASSIGNEE(s), or their representatives, any facts known to the ASSIGNOR(s) respecting said invention, and testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, continuation-in-part, substitute, renewal, reexamination and resubmission applications, execute all necessary assignment papers to cause any and all Letters Patent to be issued to said ASSIGNEE(s), make all rightful oaths and generally do everything necessary or desirable to aid said ASSIGNEE(s), their successors and assigns, to obtain and enforce proper protection for said invention.

 **Abhishek Kanungo** 01/04/2010 (Date)
 (Signature of second assignor, if any)  **Phil Giangarra** 01/08/2010 (Date)
 (Signature of third assignor, if any)  **Yonghao Chen** 01/04/2010 (Date)
 (Signature of fourth assignor, if any) **Franz Erich Marschner** (Date)

PATENT

REEL: 024196 FRAME: 0542

NR3529-47

ASSIGNMENT DEED

This Assignment agreement is applicable to an invention entitled (Invention Title) METHOD AND SYSTEM FOR PROVIDING AN IMPLICIT UNKNOWN VALUE TO USER ENUM DATA CONSTRUCTS IN AN HDL SYSTEM TO MODEL POWER SHUTOFF IN SIMULATION

The PATENT RIGHTS referred to in this agreement are: MODEL POWER SHUTOFF IN SIMULATION
 (Check one) ☐ a Patent Application for this invention, executed by the ASSIGNOR(s) concurrently with this Assignment
☒ U.S. Patent Application Serial No. 12/640,601 filed 12/17/2009
☐ U.S. Patent No. _____ issued _____

The PATENT RIGHTS assigned under this agreement are:
 (Check one) ☐ U.S. Patent rights only
☒ worldwide Patent rights in this case, the assignee shall have the right to claim the benefit of the filing date of any U.S. Patent Application identified above.

The ASSIGNOR(s) referred to in this agreement is (or are)

(Full name of first assignor) Abhishek Kanungo

(Address) 105 Spit Brook Road, 15F
Nashua, New Hampshire 03062

(Full name of second assignor, if any) Phil Giangarra

(Address) 24 Green Valley Rd.
Medway, Massachusetts 02053

(Full name of third assignor, if any) Yonghao Chen

(Address) 3 Fawn Terrace Lane
Groton, Massachusetts 01450

(Full name of fourth assignor, if any) Franz Erich Marschner

(Address) 3919 River Walk
Ellicott City, Maryland 21042 *F.F.M. Capital*

The First ASSIGNEE referred to in this agreement is

(Name of Assignee) Cadence Design, Inc.

(Address of Assignee) 2655 Seely Avenue
San Jose, California 95134

The Second ASSIGNEE referred to in this agreement is:

(Name of Assignee) _____

(Address of Assignee) _____

The First ASSIGNEE is:

(Check one) ☐ an individual
☐ a partnership
☒ a Corporation of Delaware (State or Country)

The Second ASSIGNEE is:

(Check one) ☐ an individual
☐ a partnership
☐ a Corporation of _____ (State or Country)

☐ Additional assignees are being named on separately numbered sheets attached hereto.

The ASSIGNOR(S), in consideration of \$1.00 paid by each ASSIGNEE, and other good and valuable consideration, receipt of which is acknowledged, have and do hereby assign the following to each ASSIGNEE: their successors and assigns:

the full and exclusive right to the invention;

an equal interest in and to the entire right, title and interest in and to the PATENT RIGHTS in the invention, all continuations, continuations-in-part, divisionals, re-issues, and re-examination patents and patent applications; and the right to claim priority under 35 U.S.C. 119, based on any earlier foreign applications for this invention.

As to all U.S. Patent Applications assigned under this Agreement, the ASSIGNOR(S) hereby authorize(s) and requests the Director of Patents and Trademarks to issue all Letters Patent to the ASSIGNEE(s) as the ASSIGNEE(s) of an equal interest in the entire right, title and interest, for the sole use and enjoyment of said ASSIGNEE(s), their successors and assigns.

Further, the ASSIGNOR(s) agree(s) to communicate to said ASSIGNEE(s), or their representatives, any facts known to the ASSIGNOR(s) respecting said invention, and testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, continuation-in-part, substitute, renewal, reexamination and reissue applications, execute all necessary assignment papers to cause any and all Letters Patent to be issued to said ASSIGNEE(s), make all rightful oaths and generally do everything necessary or desirable to aid said ASSIGNEE(s), their successors and assigns, to obtain and enforce proper protection for said invention.

(Signature of sole or first assignor) Abhishek Kanungo

(Date)

(Signature of second assignor, if any) Phil Giangarra

(Date)

(Signature of third assignor, if any) Yonghao Chen

(Date)

(Signature of fourth assignor, if any) Franz Erich Marschner

(Date)

2 April 2010

PATENT

RECORDED: 04/07/2010

REEL: 024196 FRAME: 0543

11/11/10 P.03