884.889US1 Patent and Trademark Office 102617067 Ed Original documents.

2. Name and address of receiving party(ies): o the Honorable Commissioner of Patents a ed original documents or copy thereof. 1. Name of conveying party(ies): Kalyan Muthukumar, Gautam Doshi and Dattatraya Name: Intel Corporation Kulkarni Street Address: 2200 Mission College Blvd. Additional name(s) of conveying party(ies) attached? []Yes [X]No City: Santa Clara State: CA Zip: 95052 3. Nature of conveyance: Additional name(s) & address(es) attached? [ ]Yes [X]No [X] Assignment [] Merger [] Security Agreement [] Change of Name [] Other Execution Date: October 27, 2003, November 5, 2003, November 20, 2003 4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is A. Patent Application No.(s) B. Patent No.(s) Serial No. 10/612724, filed June 30, 2003 Additional numbers attached? []Yes [X]No 6. Total number of applications and patents involved: 1 5. Name and address of party to whom correspondence concerning document should be mailed: Name: Ann M. McCrackin 7. Total fee (37 CFR 3.41):\$ 40.00 Address: [X]Enclosed Schwegman, Lundberg, Woessner & Kluth, P.A. [ ] Authorized to be charged to deposit account P.O. Box 2938 Minneapolis, MN 55402 Please charge any additional fees or credit any over payments to our Deposit account number: 19-0743 DO NOT USE THIS SPACE 9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true

Name of Person Signing 12/05/2003 LNSELLER 00000048 10612724

copy of the original document.

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Total number of pages including cover sheet: 7

Mail documents to be recorded with required cover sheet information to:

Mail Ston Assignment Recordation Services Commissioner for Patents P.O.Box 1450 Alexandria, VA 22313-1450

Charles E. Steffey/Reg. No. 25,179

## ASSIGNMENT

WHEREAS, We, Kalyan Muthukumar, residing at 204/4 " Chinar Mansion", 3rd Main, Defence Colony, Indiranagar, Bangalore, 560038, and Gautam Doshi, residing at 3819 Hancock Drive, Santa Clara, CA 95051, and Dattatraya Kulkarni, residing at 3480 Granada Avenue, #308, Santa Clara, CA 95051, made certain new and useful inventions and improvements for which we filed an application for Letters Patent of the United States on June 30, 2003, which application was assigned U.S. patent application serial number 10/612724, and is entitled SYSTEM AND METHOD FOR SOFTWARE-PIPELINING OF LOOPS WITH SPARSE MATRIX ROUTINES;

AND WHEREAS, <u>Intel Corporation</u>, a corporation organized and existing under and by virtue of the laws of the State of <u>Delaware</u>, and having an office and place of business at <u>2200 Mission College Blvd.</u>, Santa Clara, CA 95052 (hereinafter "Assignee"), is desirous of acquiring the entire right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefor;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid application, and in and to the said application, all divisions, continuations, continuations-in-part, or renewals thereof, all Letters Patent which may be granted there from, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted there from; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the aforesaid inventions and improvements to the said Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the said Assignee, its successors and assigns.

Docket No: 884 889US1 Serial Number: 10/612724 Filing Date: June 30, 2003 Page 2 of 2

AND, for the consideration aforesaid, we do hereby agree that we and our executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the said improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

AND, furthermore, we covenant and agree with said Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by us and that full right to convey the same as herein expressed is possessed by us.

IN TESTIMONY WHEREOF, I have hereunto set my hand this	27 day of	october, 2003.	
<u>Whothslem</u> Kalyan Muthukumar	mal		
Kalyan Muthukumar	January .		
IN TESTIMONY WHEREOF, I have hereunto set my hand this	day of	, 2003.	
Gautam Doshi	NAME OF BRIDE		<u>.:</u>
IN TESTIMONY WHEREOF, I have hereunto set my hand this	day of	2003.	
Dattatraya Kulkarni			

## ASSIGNMENT

WHEREAS, We, Kalyan Muthukumar, residing at 204/4 " Chinar Mansion", 3rd Main, Defence Colony, Indiranagar, Bangalore, 560038, and Gautam Doshi, residing at 3819 Hancock Drive, Santa Clara, CA 95051, and Dattatraya Kulkarni, residing at 3480 Granada Avenue, #308, Santa Clara, CA 95051, made certain new and useful inventions and improvements for which we filed an application for Letters Patent of the United States on June 30, 2003, which application was assigned U.S. patent application serial number 10/612724, and is entitled SYSTEM AND METHOD FOR SOFTWARE-PIPELINING OF LOOPS WITH SPARSE MATRIX ROUTINES;

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NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid application, and in and to the said application, all divisions, continuations, continuations-in-part, or renewals thereof, all Letters Patent which may be granted there from, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted there from; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the aforesaid inventions and improvements to the said Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the said Assignee, its successors and assigns.

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Docket No: 884.889US1 Serial Number: 10/612724 Filing Date: June 30, 2003 Page 2 of 2

AND, for the consideration aforesaid, we do hereby agree that we and our executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the said improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

AND, furthermore, we covenant and agree with said Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by us and that full right to convey the same as herein expressed is possessed by us.

IN TESTIMONY WHEREOF, I have he	reunto set my hand this	day of	_, 2003
	Kalyan Muthukumar		
IN TESTIMONY WHEREOF, I have he	reunto set my hand this	day of Novembra	_, 2003
IN TESTIMONY WHEREOF, I have he	reunto set my hand this	day of	_, 2003
	Dattatraya Kulkarni		

REEL: 014753 FRAME: 0125

## **ASSIGNMENT**

WHEREAS, We, Kalyan Muthukumar, residing at 204/4 " Chinar Mansion", 3rd Main, Defence Colony, Indiranagar, Bangalore, 560038, and Gautam Doshi, residing at 3819 Hancock Drive, Santa Clara, CA 95051, and Dattatraya Kulkarni, residing at 3480 Granada Avenue, #308, Santa Clara, CA 95051, made certain new and useful inventions and improvements for which we filed an application for Letters Patent of the United States on June 30, 2003, which application was assigned U.S. patent application serial number 10/612724, and is entitled SYSTEM AND METHOD FOR SOFTWARE-PIPELINING OF LOOPS WITH SPARSE MATRIX ROUTINES;

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Docket No. 884.889US1 Serial Number: 10/612724 Filing Date: June 30, 2003

**RECORDED: 12/04/2003** 

Page 2 of 2

AND, for the consideration aforesaid, we do hereby agree that we and our executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the said improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

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IN TESTIMONY WHEREOF, I have hereunto set my hand this	day of	, 2003
Kalyan Muthukumar		
IN TESTIMONY WHEREOF, I have hereunto set my hand this	day of	, 2003.
Gautam Doshi		
IN TESTIMONY WHEREOF, I have hereunto set my hand this	% day of	November, 2003.
Dattatrava Kulkarni		