06-18-1998

FORM PTO-1595 (Rev. 6-93) OMB No. 0651-0011 (exp. 4/94) Tab settings 100742251	r Sheet Separtment of COMMERCE Patent and Trademark Office
To the Honorable Commissioner of Patents and Trademarks. In Name of conveying party(ies): Edward A. McDonald James M. Ottinger Harry W. Scrivener III	2. Name and address of receiving party(ies): Intel Corporation Internal Address:
Additional name(s) of conveying party(ies) attached? Yes No 3. Nature of conveyance: Assignment Merger Security Agreement Change of Name Other Execution Date: May 13, 14, & 20, 1998	Street Address: 2200 Mission College Boulevard City Santa Clara State CA ZIP 95052
4. Application number(s) or patent number(s): If this document is being filed together with a new application A. Patent Application No.(s) 08/989,371 Additional numbers att	B. Patent No.(s)
Name and address of party to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved:
Name: Blakely, Sokoloff, Taylor & Zafman, LLP Internal Address:	7. Total fee (37 CFR 3.41)\$ 40.00 Enclosed Authorized to be charged to deposit account
7th Floor City: Los Angeles State: CA ZIP: 90025	8. Deposit account number: 02-2666 (Attach duplicate copy of this page if paying by deposit account)
9. Statement and signature. To the best of my knowledge and belief, the foregoing copy is a true copy of the original document. Allan T. Sponseller (Reg. No. 38,318)	g information is true and correct and any attacheds
Name of Person Signing S Total number of pages comprising cover she	ignature Date State And document: 7

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

Attorney Docket No.: PATENT

REEL: 9241 FRAME: 0306

7398 42990 P589

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Attorney Docket No.:7398 (4	42390.P5890)	<u>PATEN</u>
	<u> ASSIGNMENT</u>	
	(For Execution After Filing Pate	nt Application)
In consideration of good and valu undersigned:	lable consideration, the receipt of w	hich is hereby acknowledged, we, the
Edward A. McDonald	James M. Ottinger Harry W.	Scrivener III
hereby sell, assign, and transfer t	to:	
	Intel Corporation	
a corporation ofDelaware	e , having a principal place o	of business at:
2200 Miss	ion College Boulevard, Santa Cla	ara, California, 95052
, -	ries, in and to any and all improvem	he entire right, title, and interest for the nents that are disclosed in the application

MULTIPROCESSOR COMPUTING APPARATUS WITH OPTIONAL COHERENCY DIRECTORY

and in and to said application and all divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions. that have been or shall be issued in the United States and all foreign countries on said improvements; and in and to all rights of priority resulting from the filing of said United States application;

agree that said Assignee may apply for and receive a patent or patents for said improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications. substitute applications, renewal applications, reissue applications, reexaminations, extensions and all other patent applications on any and all said improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining proper patent protection for said improvements and for vesting title to said improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

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

Each Inventor: Please Sign and Date Below:

and assigned Application No.: 08/989.371

and is entitled:

Edward G. Millowed

Phone: (503) 684-6200

REEL: 9241 FRAME: 0307

Each Inventor: Please Sign and Date Below:	
Date	Name: James M. Ottinger
Date	Name: Harry W. Scrivener III

Attorney Docket No.: 7398 (42390.P5890)

Assignment Document Return Address:
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN, L.L.P.
12400 Wilshire Boulevard, Seventh Floor
Los Angeles, CA 90025-1026
Phone: (503) 684-6200

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- 17	~		IV	

Attorney Docket No.: 7398 (42390.P5890)	PATENT
ASSIGNMENT (For Execution After Filing Patent Application)	
In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, we, t undersigned:	he
Edward A. McDonald James M. Ottinger Harry W. Scrivener III	
hereby sell, assign, and transfer to:	
Intel Corporation	
a corporation of	
("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for United States and all foreign countries, in and to any and all improvements that are disclosed in the applic for the United States patent that was filed: December 12, 1997	

MULTIPROCESSOR COMPUTING APPARATUS WITH OPTIONAL COHERENCY DIRECTORY

and in and to said application and all divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions, that have been or shall be issued in the United States and all foreign countries on said improvements; and in and to all rights of priority resulting from the filing of said United States application;

agree that said Assignee may apply for and receive a patent or patents for said improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions and all other patent applications on any and all said improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining proper patent protection for said improvements and for vesting title to said improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

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

Each Inventor: Please Sign and Date Below:		
Date	Name: Edward A. McDonald	

Assignment Document Return Address: BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN, L.L.P. 12400 Wilshire Boulevard, Seventh Floor Los Angeles, CA 90025-1026 Phone: (503) 684-6200

and assigned Application No.: 08/989.371

and is entitled:

13,1998 James M. Ottinger Name: James M. Ottinger	
Name: James M. Ottinger	
Name: Harry W. Scrivener III	

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12400 Wilshire Boulevard, Seventh Floor
Los Angeles, CA 90025-1026
Phone: (503) 684-6200

Attorney Docket No.: 7398 (42390.P5890)

Attorney De	ocket No.:	
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7398 (42390.P5890)

ASSIGNMENT (For Execution After Filing Patent Application)

(1 of Excountry Aming 1 atom Approacher)
In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, we, the undersigned:
Edward A. McDonald James M. Ottinger Harry W. Scrivener III
hereby sell, assign, and transfer to:
Intel Corporation
a corporation of, having a principal place of business at:
2200 Mission College Boulevard, Santa Clara, California, 95052
("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all improvements that are disclosed in the application for the United States patent that was filed: December 12, 1997 and assigned Application No.: 08/989,371 and is entitled:
MULTIPROCESSOR COMPUTING APPARATUS WITH OPTIONAL COHERENCY DIRECTORY
and in and to said application and all divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions, that have been or shall be issued in the United States and all foreign countries on said improvements; and in and to all rights of priority resulting from the filing of said United States application;
agree that said Assignee may apply for and receive a patent or patents for said improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all divisional applications, continuation applications, continuation applications, reissue applications, reexaminations, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions and all other patent applications on any and all said improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining proper patent protection for said improvements and for vesting title to said improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and
covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.
Each Inventor: Please Sign and Date Below:

Assignment Document Return Address: BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN, L.L.P. 12400 Wilshire Boulevard, Seventh Floor Los Angeles, CA 90025-1026 Phone: (503) 684-6200

Name: Edward A. McDonald

Date

Each Inventor: Please Sign and Date Below:	
Date	Name: James M. Ottinger
5/14/98 Date	Name: Marry W. Scrivener III

Attorney Docket No.: 7398 (42390.P5890)

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RECORDED: 06/03/1998