

07-19-2000

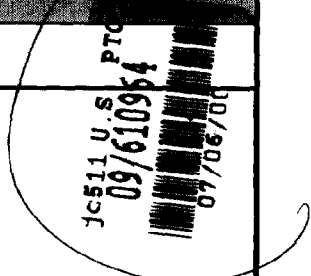
BOX ASSIGNMENTS



DO NOT USE FOR TRADEMARKS

101407698

TO THE ASSISTANT COMMISSIONER OF PATENTS AND TRADEMARKS.  
SIR: PLEASE RECORD THE ATTACHED ORIGINAL DOCUMENTS OR COPY THEREOF.



1. NAME OF CONVEYING PARTY(IES) (ASSIGNORS(S)):

- 1. David E. MORRIS
- 2. Thomas J. MELANSON
- 3. Christopher S. BONNI
- 4. Kevin P. FRENETTE
- 5. Thomas E. HIRSH III
- 6. Michael V. SAMMARCO
- 7. Francis J. CALABRESI
- 8.

ADDITIONAL NAME(S) OF CONVEYING PARTY(IES) ATTACHED?  YES  NO

2. PARTY(IES) (ASSIGNEE(S)) RECEIVING INTEREST:

NAME: Intel Corporation

ADDRESS: 2200 Mission College Blvd., Santa Clara, CA 95052

ADDITIONAL NAME(S) & ADDRESS(ES) ATTACHED?  YES  NO

3. NATURE OF CONVEYANCE (DOCUMENT):

(Submit herewith only one document for recordation—multiple copies of same Assignment signed by different inventors is one document)

- ASSIGNMENT OF  WHOLE  PART INTEREST
- ORIGINAL  FACSIMILE/PHOTOCOPY
- CHANGE OF NAME  VERIFIED TRANSLATION
- SECURITY  MERGER  OTHER:

EXEC. DATE: June 22 and June 27, 2000

EXECUTION DATE(S) ON THE DECLARATION IF FILED HEREWITH: (NOTE: IF DATES ON DECLARATION AND ASSIGNMENT DIFFER SEE ATTY!) June 22 and June 27, 2000

4.5 APPL. NO.(S) OR PAT NO.(S). OTHERS ON ADDITIONAL SHEET(S) attached?  YES  NO

A. PAT. APP. NO.(S) series code/serial no.	M#	1* INVENTOR if not in item 1	B. PATENT NO(S)	M#	1* INVENTOR if not in item 1
	265727				

5. Name & Address of Party to Whom Correspondence Concerning Document Should be Mailed:  Pillsbury Madison & Sutro LLP Intellectual Property Group 1100 New York Avenue, NW Ninth Floor Washington, DC 20005-3918	6. NUMBER INVOLVED: APPLNS <u>1</u> + PATS <u>0</u> = TOTAL <u>1</u>
	7. AMOUNT OF FEE ENCLOSED: (Code 581) ABOVE TOTAL x \$40 = \$40
5.5 ATTY DKT:  PMS 265727 MATTER NO.	8. IF ABOVE FEE IS MISSING OR INADEQUATE CHARGE INSUFFICIENCY TO DEPOSIT ACCOUNT NUMBER: 03-3975 UNDER ORDER NO 81674 dup. sheet not required
	CLIENT REF. P8396
	CLIENT NO. 265727
	MATTER NO.

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 copy of the original document.

10. Total number of pages including this cover sheet, attachments and document (do not file dup. Cover sheet) 9

07/14/2000 ASPELLNOM 00000050 09610964

03 C:581 40. 08 00  
Signature

Attorney: Glenn J. Perry Date: July 6, 2000  
Reg. No. 28458 FAX: (202) 822-0944  
Atty/Sec: GJP/ERH:rmb TEL: (202) 861-3070

FILE WITH PTO RETURN RECEIPT (PAT-103A)

No.: P8396 (For Execution Prior To Filing Patent Application)

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, \_\_\_\_\_,

the undersigned, David E. MORRIS, Lexington, MA; Thomas J. MELANSON, Revere, MA; Christopher BONNI, Bridgewater, MA; Kevin P. FRENETTE, Portsmouth, NH; Thomas E. HIRSH, Burlington, MA; Michael V. SAMMARCO, Stoughton, MA; and Frank J. CALABRESI, Harvard, MA

hereby sell, assign, and transfer to Intel Corporation  
 a corporation of California, having a principal place of business at  
2200 Mission College Blvd., Santa Clara, CA 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 has been executed by the undersigned prior hereto or  
 concurrently herewith on the dates indicated below and is entitled SYSTEM AND METHOD  
 IMPLEMENTING A SECONDARY BUS TO AVOID READ DATA LATENCY

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:

x 6/27, 2000      David E. Morris  
 Date                      Name: David E. MORRIS

\_\_\_\_\_, 20\_\_\_\_      \_\_\_\_\_  
 Date                      Name: Thomas J. MELANSON

\_\_\_\_\_, 20\_\_\_\_      \_\_\_\_\_  
 Date                      Name: Christopher BONNI

\_\_\_\_\_, 20\_\_\_\_      \_\_\_\_\_  
 Date                      Name: Kevin P. FRENETTE

\_\_\_\_\_, 20\_\_\_\_      \_\_\_\_\_  
 Date                      Name: Thomas E. HIRSH III

\_\_\_\_\_, 20\_\_\_\_      \_\_\_\_\_  
 Date                      Name: Michael V. SAMMARCO

\_\_\_\_\_, 20\_\_\_\_      \_\_\_\_\_  
 Date                      Name: Frank J. CALABRESI

Each Inventor: Please also list the date that you signed the accompanying DECLARATION AND POWER OF ATTORNEY:

x 6/27, 2000  
 Date

\_\_\_\_\_, 20\_\_\_\_  
 Date

\_\_\_\_\_, 20\_\_\_\_  
 Date

\_\_\_\_\_, 20\_\_\_\_  
 Date

\_\_\_\_\_, 20\_\_\_\_  
 Date

\_\_\_\_\_, 20\_\_\_\_  
 Date

\_\_\_\_\_, 20\_\_\_\_  
 Date

State of: \_\_\_\_\_ }  
 County of: \_\_\_\_\_ }

Assignment Document Return Address:  
 SS. PILLSBURY MADISON & SUTRO LLP  
 1100 New York Ave., N.W.  
 Washington, D.C. 20005  
 (202) 861-3000

On this 27 day of June, 2000, before me, Patricia Langston,  
 the undersigned Notary Public, personally appeared David Morris  
 personally known to me  proved to me on the basis of satisfactory evidence to be the  
 person(s) whose name(s) \_\_\_\_\_ subscribed to the within instrument, and acknowledged that  
 executed it.

WITNESS my hand and official seal.  
Patricia A. Langston  
 Notary's Signature

Commission Expires January 2001

Each Inventor: Please Sign and Date Below:

\_\_\_\_\_, 20\_\_\_\_  
Date Name: David E. MORRIS

x 6-27, 2000  
Date Name: Thomas J. MELANSON

\_\_\_\_\_, 20\_\_\_\_  
Date Name: Christopher BONNI

\_\_\_\_\_, 20\_\_\_\_  
Date Name: Kevin P. FRENETTE

\_\_\_\_\_, 20\_\_\_\_  
Date Name: Thomas E. HIRSH III

\_\_\_\_\_, 20\_\_\_\_  
Date Name: Michael V. SAMMARCO

\_\_\_\_\_, 20\_\_\_\_  
Date Name: Frank J. CALABRESI

Each Inventor: Please also list the date that you signed the accompanying DECLARATION AND POWER OF ATTORNEY:

\_\_\_\_\_, 20\_\_\_\_  
Date

x 6-27, 2000  
Date

\_\_\_\_\_, 20\_\_\_\_  
Date

\_\_\_\_\_, 20\_\_\_\_  
Date

\_\_\_\_\_, 20\_\_\_\_  
Date

\_\_\_\_\_, 20\_\_\_\_  
Date

\_\_\_\_\_, 20\_\_\_\_  
Date

State of: \_\_\_\_\_ }  
County of: \_\_\_\_\_ }

Assignment Document Return Address:  
SS. PILLSBURY MADISON & SUTRO LLP  
1100 New York Ave., N.W.  
Washington, D.C. 20005  
(202) 861-3000

On this 27 day of June, 2000, before me, Patricia A. Langston, the undersigned Notary Public, personally appeared \_\_\_\_\_  
 personally known to me  proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) \_\_\_\_\_ subscribed to the within instrument, and acknowledged that executed it.

WITNESS my hand and official seal.

Patricia A. Langston  
Notary's Signature

Commission expires January 2001

Each Inventor: Please Sign and Date Below:

\_\_\_\_\_, 20\_\_\_\_  
Date Name: David E. MORRIS

\_\_\_\_\_, 20\_\_\_\_  
Date Name: Thomas J. MELANSON

June 22, 2000  
Date Name: Chris & Bonni  
Christopher BONNI

\_\_\_\_\_, 20\_\_\_\_  
Date Name: Kevin P. FRENETTE

\_\_\_\_\_, 20\_\_\_\_  
Date Name: Thomas E. HIRSH III

\_\_\_\_\_, 20\_\_\_\_  
Date Name: Michael V. SAMMARCO

\_\_\_\_\_, 20\_\_\_\_  
Date Name: Frank J. CALABRESI

Each Inventor: Please also list the date that you signed the accompanying DECLARATION AND POWER OF ATTORNEY:

\_\_\_\_\_, 20\_\_\_\_  
Date

\_\_\_\_\_, 20\_\_\_\_  
Date

June 22, 2000  
Date

\_\_\_\_\_, 20\_\_\_\_  
Date

\_\_\_\_\_, 20\_\_\_\_  
Date

\_\_\_\_\_, 20\_\_\_\_  
Date

\_\_\_\_\_, 20\_\_\_\_  
Date

State of: Massachusetts }  
County of: Norfolk }

Assignment Document Return Address:  
PILLSBURY MADISON & SUTRO LLP  
1100 New York Ave., N.W.  
Washington, D.C. 20005  
(202) 861-3000

On this 22 day of June 2000, before me, Dawn M. Gaudet-Logan  
the undersigned Notary Public, personally appeared Christopher S Bonni  
 personally known to me  proved to me on the basis of satisfactory evidence to be the  
person(s) whose name(s) CS Bonni subscribed to the within instrument, and acknowledged that  
executed it.

WITNESS my hand and official seal.  
Dawn M. Gaudet-Logan  
Notary's Signature

Subscribed to and sworn before me  
this 22<sup>nd</sup> day of June, 2000.  
Dawn M. Gaudet-Logan  
Dawn M. Gaudet-Logan, Notary Public  
My commission expires Apr. 19, 2007

**Each Inventor: Please Sign and Date Below:**

\_\_\_\_\_, 20\_\_\_\_  
Date Name: David E. MORRIS

\_\_\_\_\_, 20\_\_\_\_  
Date Name: Thomas J. MELANSON

\_\_\_\_\_, 20\_\_\_\_  
Date Name: Christopher BONNI

X 06/27, 2000 X *Kevin P. Frenette*  
Date Name: Kevin P. FRENETTE

\_\_\_\_\_, 20\_\_\_\_  
Date Name: Thomas E. HIRSH III

\_\_\_\_\_, 20\_\_\_\_  
Date Name: Michael V. SAMMARCO

\_\_\_\_\_, 20\_\_\_\_  
Date Name: Frank J. CALABRESI

**Each Inventor: Please also list the date that you signed the accompanying DECLARATION AND POWER OF ATTORNEY:**

\_\_\_\_\_, 20\_\_\_\_  
Date

\_\_\_\_\_, 20\_\_\_\_  
Date

\_\_\_\_\_, 20\_\_\_\_  
Date

6/27, 2000  
Date

\_\_\_\_\_, 20\_\_\_\_  
Date

\_\_\_\_\_, 20\_\_\_\_  
Date

\_\_\_\_\_, 20\_\_\_\_  
Date

State of: Massachusetts }  
County of: Middlesex }

SS. **Assignment Document Return Address:**  
PILLSBURY MADISON & SUTRO LLP  
1100 New York Ave., N.W.  
Washington, D.C. 20005  
(202) 861-3000

On this 29th day of June, 2000, before me, Kevin Frenette (with arrow pointing to signature),  
the undersigned Notary Public, personally appeared Brynn Heathcock (with arrow pointing to signature) (with initials)  
 personally known to me  proved to me on the basis of satisfactory evidence to be the  
person(s) whose name(s) \_\_\_\_\_ subscribed to the within instrument, and acknowledged that  
executed it.

WITNESS my hand and official seal.

Brynn K. Heathcock, my commission expires 9/2/00.  
Notary's Signature

**Each Inventor: Please Sign and Date Below:**

\_\_\_\_\_, 20\_\_\_\_  
Date Name: David E. MORRIS

\_\_\_\_\_, 20\_\_\_\_  
Date Name: Thomas J. MELANSON

\_\_\_\_\_, 20\_\_\_\_  
Date Name: Christopher BONNI

\_\_\_\_\_, 20\_\_\_\_  
Date Name: Kevin P. FRENETTE

6-27, 2000  
Date Name: Thomas E. Hirsch III  
Name: Thomas E. HIRSH III

\_\_\_\_\_, 20\_\_\_\_  
Date Name: Michael V. SAMMARCO

\_\_\_\_\_, 20\_\_\_\_  
Date Name: Frank J. CALABRESI

**Each Inventor: Please also list the date that you signed the accompanying DECLARATION AND POWER OF ATTORNEY:**

\_\_\_\_\_, 20\_\_\_\_  
Date

\_\_\_\_\_, 20\_\_\_\_  
Date

\_\_\_\_\_, 20\_\_\_\_  
Date

\_\_\_\_\_, 20\_\_\_\_  
Date

6-27, 2000  
Date

\_\_\_\_\_, 20\_\_\_\_  
Date

\_\_\_\_\_, 20\_\_\_\_  
Date

State of: \_\_\_\_\_  
County of: \_\_\_\_\_

SS. Assignment Document Return Address:  
PILLSBURY MADISON & SUTRO LLP  
1100 New York Ave., N.W.  
Washington, D.C. 20005  
(202) 861-3000

On this 27th day of June, 2000, before me, Kathleen A. Kennedy  
the undersigned Notary Public, personally appeared Thomas E. Hirsch III  
 personally known to me  proved to me on the basis of satisfactory evidence to be the  
person(s) whose name(s) \_\_\_\_\_ subscribed to the within instrument, and acknowledged that  
executed it.

WITNESS my hand and official seal.

Kathleen A. Kennedy  
Notary's Signature

**KATHLEEN A. KENNEDY**  
Notary Public  
My Commission Expires November 15, 2002

Each Inventor: Please Sign and Date Below:

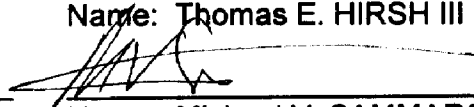
\_\_\_\_\_, 20\_\_\_\_  
Date Name: David E. MORRIS

\_\_\_\_\_, 20\_\_\_\_  
Date Name: Thomas J. MELANSON

\_\_\_\_\_, 20\_\_\_\_  
Date Name: Christopher BONNI

\_\_\_\_\_, 20\_\_\_\_  
Date Name: Kevin P. FRENETTE

\_\_\_\_\_, 20\_\_\_\_  
Date Name: Thomas E. HIRSH III

6/22, 2000   
Date Name: Michael V. SAMMARCO

\_\_\_\_\_, 20\_\_\_\_  
Date Name: Frank J. CALABRESI

Each Inventor: Please also list the date that you signed the accompanying DECLARATION AND POWER OF ATTORNEY:

\_\_\_\_\_, 20\_\_\_\_  
Date

\_\_\_\_\_, 20\_\_\_\_  
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\_\_\_\_\_, 20\_\_\_\_  
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\_\_\_\_\_, 20\_\_\_\_  
Date

6/22, 2000  
Date

\_\_\_\_\_, 20\_\_\_\_  
Date

State of: Massachusetts }  
County of: Norfolk }

Assignment Document Return Address:  
SS. PILLSBURY MADISON & SUTRO LLP  
1100 New York Ave., N.W.  
Washington, D.C. 20005  
(202) 861-3000

On this 22<sup>nd</sup> day of June, 2000, before me, Dawn M. Gaudet-Logan, the undersigned Notary Public, personally appeared Michael V. Sammarco  personally known to me  proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) MV. SAMMARCO subscribed to the within instrument, and acknowledged that executed it.

WITNESS my hand and official seal.

Dawn M. Gaudet-Logan  
Notary's Signature

Subscribed to and sworn before me  
this 22<sup>nd</sup> day of June, 2000.  
Dawn M. Gaudet-Logan  
Dawn M. Gaudet-Logan, Notary Public  
My commission expires Apr. 19, 2007



Each Inventor: Please Sign and Date Below:

\_\_\_\_\_, 20\_\_\_\_  
Date Name: David E. MORRIS

\_\_\_\_\_, 20\_\_\_\_  
Date Name: Thomas J. MELANSON

\_\_\_\_\_, 20\_\_\_\_  
Date Name: Christopher BONNI

\_\_\_\_\_, 20\_\_\_\_  
Date Name: Kevin P. FRENETTE

\_\_\_\_\_, 20\_\_\_\_  
Date Name: Thomas E. HIRSH III

\_\_\_\_\_, 20\_\_\_\_  
Date Name: Michael V. SAMMARCO

*June 27*, 20*00*  
Date Name: *Frank J. Galabresi*  
Name: Frank J. GALABRESI

Each Inventor: Please also list the date that you signed the accompanying DECLARATION AND POWER OF ATTORNEY:

\_\_\_\_\_, 20\_\_\_\_  
Date

\_\_\_\_\_, 20\_\_\_\_  
Date

\_\_\_\_\_, 20\_\_\_\_  
Date

\_\_\_\_\_, 20\_\_\_\_  
Date

\_\_\_\_\_, 20\_\_\_\_  
Date

\_\_\_\_\_, 20\_\_\_\_  
Date

*June 27*, 20*00*  
Date

State of: \_\_\_\_\_ }  
County of: \_\_\_\_\_ }

Assignment Document Return Address:  
SS. PILLSBURY MADISON & SUTRO LLP  
1100 New York Ave., N.W.  
Washington, D.C. 20005  
(202) 861-3000

On this *27* day of *June*, 20*00*, before me, *Patricia A. Langston*,  
the undersigned Notary Public, personally appeared *Frank J. Galabresi*.  
 personally known to me  proved to me on the basis of satisfactory evidence to be the  
person(s) whose name(s) \_\_\_\_\_ subscribed to the within instrument, and acknowledged that  
executed it.

WITNESS my hand and official seal.  
*Patricia A. Langston*  
Notary's Signature

*Commission expires June 2001*