

05-11-2005

U.S. DEPARTMENT OF COMMERCE

Patent and Trademark Office

Attorney Docket No. 200315159-1



103000496

## 1. Name of conveying party(ies):

Brian M. Johnson  
John Nerl  
Ronald J. Bellomio  
Michael C. Day  
Richard A. Schumacher  
Rajakrishnan Radjassamy

## Name and address of receiving party(ies):

HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P.  
20555 SH 249  
Houston, TX 77070

Additional name(s) of conveying party(ies) attached ☒ Yes ☐ NoAdditional name(s) & address(es) attached? ☐ Yes ☒ No

## 3. Nature of Conveyance:

☒ Assignment☐ Merger☐ Change of Name☐ Security Agreement☐ Other

Execution Date(s): 3-16-05; 3-07-05; 3-07-05; 3-16-05; 3-16-05; 3-16-05; 3-16-05; 3-11-05

## 4. Application number(s) or patent number(s):

If this document is being filed together with a new application, execution date of the application is:

A. Patent Application No.(s)

B. Patent No.(s)

Application No.: 11/085,693

Date Filed: 03/21/2005

Confirmation No.: 4986

Additional numbers attached? NO

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

Records Manager  
Intellectual Property Administration  
HEWLETT-PACKARD COMPANY  
P.O. Box 272400  
Fort Collins, Colorado 80527-2400

6. Total number of applications and patents involved: 1

## 7. Total Fee (37 CFR 3.41): . . . \$40.00

☐ Enclosed☒ Authorization to be charged to deposit account.8. Deposit Account Number: 08-2025

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 copy of the original document.

David Rodack

Name of Person Signing

Signature

May 6, 2005

Date

Total number of pages including cover sheet, attachments, and document: 8

OMB No. 0651-0011 (exp. 4/94)

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## PATENTS ONLY

Attorney Docket No. 200315159-1

## 1. Name of conveying party(ies):

June E. Goodwin

Vicki L. Smith

## 2. Name and address of receiving party(ies):

**HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P.**  
**20555 SH 249**  
**Houston, TX 77070**

ATTORNEY DOCKET NO. 200315159-1

HEWLETT-PACKARD COMPANY  
Intellectual Property Administrator  
P. O. Box 272400  
Fort Collins, Colorado 80527-2400

## ASSIGNMENT OF PATENT APPLICATION

I/We, the undersigned (each) have agreed and hereby agree to assign to HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P., a Texas Limited Partnership having its principal place of business in Houston, Texas, (hereinafter HPDC), in furtherance of my/our obligations to the Hewlett-Packard Company and its subsidiaries and affiliates, and do hereby assign and transfer to HPDC, its successors and assigns, the entire right, title and interest, including the right of priority, in, to and under an application for Letters Patent of the United States entitled:

## MEMORY MODULES AND METHODS

Filing date: 03/21/2005 Application No.: 11/085,693

and the invention(s) and improvement(s) set forth therein, and any and all continuations, continuations-in-part (C-I-P's), divisionals, and renewals of and substitutes for said application for said Letters Patent, and any and all Letters Patent of the United States and of countries foreign thereto which may be granted thereon or therefor; and any reissues, or reexaminations, or extensions of said Letters Patent.

I/we additionally authorize HPDC to file applications in my/our name for Letters Patent in any country, to be held and enjoyed by HPDC, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by me/us had this assignment, and transfer not been made;

AND I/we hereby covenant that I/we have full right to convey the entire interest herein assigned, and that I/we have not executed and will not execute any agreement in conflict herewith, and I/we further covenant and agree that I/we will, each time a request is made, and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said invention(s) or improvement(s), said application and said Letters Patent, to HPDC, its successors, assigns, nominees or legal representatives, and I/we agree to communicate to HPDC, or to its nominee, all known facts respecting said invention(s) or improvement(s), said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers, to execute all disclaimers and divisionals, continuations, C-I-P's, reissue and foreign applications, to make all rightful oaths and declarations, and generally to do everything possible to aid HPDC, its successors, assigns, nominees and legal representatives to obtain and enforce, for its or their own benefit, proper patent protection for said invention(s) or improvement(s) in any and all countries provided the expenses which may be incurred by me/us in lending such cooperation and assistance are paid by HPDC;

AND I/we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue to HPDC, as assignee of the entire right, title and interest, any and all Letters Patent for said invention(s) or improvement(s), including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

I/we further authorize and direct the attorneys of record to insert the serial number and filing date of said application now identified by the attorney docket number and title set forth above as soon as the same shall have been made known to them by the United States Patent and Trademark Office.

IN WITNESS WHEREOF, I/we hereunto set my/our hand(s) and seal(s):

Inventor's Signature (Soal) \_\_\_\_\_ Date Assignment Signed: 3-16-65

Inventor's Typed Name: Brian M. Johnson Date Application Signed: 3-16-04

State of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) ss :

Before me this 11 day of February, personally appeared Brian M. Johnson who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed.

Notary Public  
My commission expires:

When recorded please return to:

HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P O Box 272400  
Fort Collins, Colorado 80527-2400

PATENT APPLICATION

ATTORNEY DOCKET NO. 200315159-1

ASSIGNMENT OF PATENT APPLICATION (cont.)

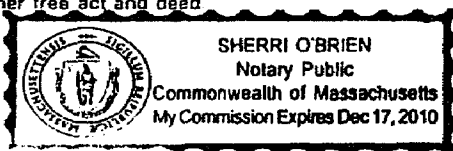
IN WITNESS WHEREOF, I/we hereunto set my/our hand(s) and seal(s):

John A. Nerl Date Assignment Signed: 3/7/05  
Inventor's Signature (Seal)

Inventor's Typed Name: John Nerl Date Application Signed: 3/7/05

State of Massachusetts )  
County of Middlesex ) ss :

Before me this 7 day of March, personally appeared John Nerl who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed.



Sherry O'Brien  
Notary Public  
My commission expires: 12-17-2010

\_\_\_\_\_  
Inventor's Signature (Seal) Date Assignment Signed: \_\_\_\_\_

Inventor's Typed Name: Ronald J. Bellomo Date Application Signed: \_\_\_\_\_

State of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) ss :

Before me this \_\_\_\_\_ day of \_\_\_\_\_, personally appeared Ronald J. Bellomo who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed.

\_\_\_\_\_  
Notary Public  
My commission expires: \_\_\_\_\_

\_\_\_\_\_  
Inventor's Signature (Seal) Date Assignment Signed: \_\_\_\_\_

Inventor's Typed Name: Michael C. Day Date Application Signed: \_\_\_\_\_

State of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) ss :

Before me this \_\_\_\_\_ day of \_\_\_\_\_, personally appeared Michael C. Day who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed.

\_\_\_\_\_  
Notary Public  
My commission expires: \_\_\_\_\_

(Use Page Three For Additional Inventor(s) Signature(s))

Page 2 of 7

HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P O Box 272400  
Fort Collins, Colorado 80527-2400

ATTORNEY DOCKET NO. 200315159-1

ASSIGNMENT OF PATENT APPLICATION (cont.)

IN WITNESS WHEREOF, I/we hereunto set my/our hand(s) and seal(s):

\_\_\_\_\_  
Inventor's Signature (Seal) Date Assignment Signed: \_\_\_\_\_

Inventor's Typed Name: John Nerl Date Application Signed: \_\_\_\_\_

State of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) ss: \_\_\_\_\_

Before me this \_\_\_\_\_ day of \_\_\_\_\_, personally appeared John Nerl who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed.

\_\_\_\_\_  
Notary Public  
My commission expires: \_\_\_\_\_

RON T M Date Assignment Signed: 3/7/05  
Inventor's Signature (Seal)

Inventor's Typed Name: Ronald J. Bellomo Date Application Signed: 3/7/05

State of Massachusetts )  
County of Middlesex ) ss: \_\_\_\_\_

Before me this 7 day of March, personally appeared Ronald J. Bellomo who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed.



SHERRIL O'BRIEN  
Notary Public  
Commonwealth of Massachusetts  
My Commission Expires Dec 17, 2010

Sherril O'Brien  
Notary Public  
My commission expires: 12-17-2010

\_\_\_\_\_  
Inventor's Signature (Seal) Date Assignment Signed: \_\_\_\_\_

Inventor's Typed Name: Michael C. Day Date Application Signed: \_\_\_\_\_

State of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) ss: \_\_\_\_\_

Before me this \_\_\_\_\_ day of \_\_\_\_\_, personally appeared Michael C. Day who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed.

\_\_\_\_\_  
Notary Public  
My commission expires: \_\_\_\_\_

(Use Page Three For Additional Inventor(s) Signature(s))

Page 3 of 7

Rev 12/04 (Assign)

LOCATION: 781 442 1671

RX TIME 03/07 '05 15:40

When recorded please return to:

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Fort Collins, Colorado 80527-2400

## PATENT APPLICATION

ATTORNEY DOCKET NO. 200315159-1

## ASSIGNMENT OF PATENT APPLICATION (cont.)

IN WITNESS WHEREOF, I/we hereunto set my/our hand(s) and seal(s):

\_\_\_\_\_  
Inventor's Signature (Seal) Date Assignment Signed: \_\_\_\_\_

Inventor's Typed Name: John Nerl Date Application Signed: \_\_\_\_\_

State of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) ss :  
\_\_\_\_\_ )

Before me this \_\_\_\_\_ day of \_\_\_\_\_, personally appeared John Nerl who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed.

\_\_\_\_\_  
Notary Public  
My commission expires: \_\_\_\_\_

\_\_\_\_\_  
Inventor's Signature (Seal) Date Assignment Signed: \_\_\_\_\_

Inventor's Typed Name: Ronald J. Bellomo Date Application Signed: \_\_\_\_\_

State of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) ss :  
\_\_\_\_\_ )

Before me this \_\_\_\_\_ day of \_\_\_\_\_, personally appeared Ronald J. Bellomo who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed.

\_\_\_\_\_  
Notary Public  
My commission expires: \_\_\_\_\_

Michael C. Day  
Inventor's Signature (Seal) Date Assignment Signed: 3/16/2005

Inventor's Typed Name: Michael C. Day Date Application Signed: 3/16/2005

State of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) ss :  
\_\_\_\_\_ )

Before me this \_\_\_\_\_ day of \_\_\_\_\_, personally appeared Michael C. Day who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed.

\_\_\_\_\_  
Notary Public  
My commission expires: \_\_\_\_\_

(Use Page Three For Additional Inventor(s) Signatures)

Page 4 of 7

Rev 12/04 (Assign)

LOCATION:0

RX TIME 03/16 '05 18:35

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Fort Collins, Colorado 80527-2400

PATENT APPLICATION

ATTORNEY DOCKET NO 200315159-1

ASSIGNMENT OF PATENT APPLICATION (cont.)

IN WITNESS WHEREOF, I we hereunto set my/our hand(s) and seal(s):

Inventor's Signature (Seal) \_\_\_\_\_ Date Assignment Signed: \_\_\_\_\_

Inventor's Typed Name: Vicki L. Smith Date Application Signed \_\_\_\_\_

State of \_\_\_\_\_ )  
 ) ss :  
County of \_\_\_\_\_ )

Before me this \_\_\_\_\_ day of \_\_\_\_\_, personally appeared Vicki L. Smith who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed

Notary Public  
My commission expires:

Richard A. Schumacher Date Assignment Signed: 16 MAR 2005  
Inventor's Signature (Seal) \_\_\_\_\_

Inventor's Typed Name: Richard A. Schumacher Date Application Signed 16 MAR 2005

State of \_\_\_\_\_ )  
 ) ss :  
County of \_\_\_\_\_ )

Before me this \_\_\_\_\_ day of \_\_\_\_\_, personally appeared Richard A. Schumacher who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed

Notary Public  
My commission expires:

Rajakrishnan Radjassamy Date Assignment Signed: 3/16/05  
Inventor's Signature (Seal) \_\_\_\_\_

Inventor's Typed Name: Rajakrishnan Radjassamy Date Application Signed 3/16/05

State of \_\_\_\_\_ )  
 ) ss :  
County of \_\_\_\_\_ )

Before me this \_\_\_\_\_ day of \_\_\_\_\_, personally appeared Rajakrishnan Radjassamy who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed

Notary Public  
My commission expires:

(Use Next Page For Additional Inventor(s) Signature(s))

Page 5 of 7

Rev 12/04 (Assign2)

LOCATION:0

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When recorded please return to:


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Fort Collins, Colorado 80527-2400

PATENT APPLICATION

ATTORNEY DOCKET NO. 200315159-1

ASSIGNMENT OF PATENT APPLICATION (cont.)

IN WITNESS WHEREOF, I we hereunto set my/our hand(s) and seal(s):

  
Inventor's Signature (Seal)

Date Assignment Signed: 3-16-05

Inventor's Typed Name: June E. Goodwin

Date Application Signed: 3-16-05

State of )  
 ) ss.:  
County of )

Before me this \_\_\_\_ day of \_\_\_\_, personally appeared June E. Goodwin who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed

Notary Public  
My commission expires:

\_\_\_\_\_  
Inventor's Signature (Seal) Date Assignment Signed: \_\_\_\_\_

Inventor's Typed Name: \_\_\_\_\_ Date Application Signed \_\_\_\_\_

State of )  
 ) ss.:  
County of )

Before me this \_\_\_\_ day of \_\_\_\_, personally appeared \_\_\_\_\_ who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed

Notary Public  
My commission expires:

\_\_\_\_\_  
Inventor's Signature (Seal) Date Assignment Signed: \_\_\_\_\_

Inventor's Typed Name: \_\_\_\_\_ Date Application Signed \_\_\_\_\_

State of )  
 ) ss.:  
County of )

Before me this \_\_\_\_ day of \_\_\_\_, personally appeared \_\_\_\_\_ who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed

Notary Public  
My commission expires:

(Use Next Page For Additional Inventor(s) Signature(s))

Page 6 of 7

Rev 12/04 1Aassign2)

LOCATION:0

RX TIME 03/16 '05 18:35

TOTAL P.07



HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P O Box 272400  
Fort Collins, Colorado 80527-2400

ASSIGNMENT OF PATENT APPLICATION (cont.)

IN WITNESS WHEREOF, I we hereunto set my/our hand(s) and seal(s):

*V. Smith* Date Assignment Signed: 3/11/05  
Inventor's Signature (Seal)  
Inventor's Typed Name: Vicki L. Smith Date Application Signed: 3/11/05

State of \_\_\_\_\_ )  
 ) ss:  
County of \_\_\_\_\_ )

Before me this \_\_\_\_\_ day of \_\_\_\_\_, personally appeared Vicki L. Smith who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed.

\_\_\_\_\_  
Notary Public  
My commission expires: \_\_\_\_\_

\_\_\_\_\_  
Inventor's Signature (Seal) Date Assignment Signed: \_\_\_\_\_  
Inventor's Typed Name: Richard A. Schumacher Date Application Signed: \_\_\_\_\_

State of \_\_\_\_\_ )  
 ) ss:  
County of \_\_\_\_\_ )

Before me this \_\_\_\_\_ day of \_\_\_\_\_, personally appeared Richard A. Schumacher who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed.

\_\_\_\_\_  
Notary Public  
My commission expires: \_\_\_\_\_

\_\_\_\_\_  
Inventor's Signature (Seal) Date Assignment Signed: \_\_\_\_\_  
Inventor's Typed Name: R-<sup>n</sup> Radjassamy Date Application Signed: \_\_\_\_\_

State of \_\_\_\_\_ )  
 ) ss:  
County of \_\_\_\_\_ )

Before me this \_\_\_\_\_ day of \_\_\_\_\_, personally appeared Rajakrishnan Radjassamy who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed.

\_\_\_\_\_  
Notary Public  
My commission expires: \_\_\_\_\_

(Use Next Page For Additional Inventor(s) Signature(s))

Page 7 of 7