

# PATENT ASSIGNMENT

Electronic Version v1.1  
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SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
<b>CONVEYING PARTY DATA</b>											
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;">Name</th> <th style="width: 30%;">Execution Date</th> </tr> </thead> <tbody> <tr> <td>Lidia WARNES</td> <td>07/24/2009</td> </tr> <tr> <td>Dennis CARR</td> <td>07/24/2009</td> </tr> <tr> <td>Michael B. CALHOUN</td> <td>07/24/2009</td> </tr> <tr> <td>Aaron R. MANDLE</td> <td>07/24/2009</td> </tr> </tbody> </table>		Name	Execution Date	Lidia WARNES	07/24/2009	Dennis CARR	07/24/2009	Michael B. CALHOUN	07/24/2009	Aaron R. MANDLE	07/24/2009
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<b>RECEIVING PARTY DATA</b>											
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Name:</td> <td>HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P.</td> </tr> <tr> <td>Street Address:</td> <td>11445 Compaq Center Drive</td> </tr> <tr> <td>City:</td> <td>Houston</td> </tr> <tr> <td>State/Country:</td> <td>TEXAS</td> </tr> <tr> <td>Postal Code:</td> <td>77070</td> </tr> </table>		Name:	HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P.	Street Address:	11445 Compaq Center Drive	City:	Houston	State/Country:	TEXAS	Postal Code:	77070
Name:	HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P.										
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PROPERTY NUMBERS Total: 1											
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<b>CORRESPONDENCE DATA</b>											
<p>Fax Number: (970)778-4063</p> <p><i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 970 898-4728</p> <p>Email: jerry.shorma@hp.com</p> <p>Correspondent Name: Hewlett-Packard Company</p> <p>Address Line 1: P.O. Box 272400, 3404 E. Harmony Road</p> <p>Address Line 2: Intellectual Property Administration</p> <p>Address Line 4: Fort Collins, COLORADO 80527-2400</p>											
NAME OF SUBMITTER:	Ilene L. Fish										
<p>Total Attachments: 2</p> <p>source=200803198-1-A#page1.tif</p> <p>source=200803198-1-A#page2.tif</p>											

CH \$40.00 12510822

**PATENT**

**500931561**

**REEL: 023068 FRAME: 0228**

PATENT APPLICATION

ATTORNEY DOCKET NO. 200803198-1

## 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:

## INCREASING THE NUMBER OF RANKS PER CHANNEL

Filing Date: \_\_\_\_\_ Application No.: \_\_\_\_\_

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 therefore; 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 (Seal):

04/24/2003  
Date Assignment Signed

Lidia WARNES  
Inventor's Typed Name

04/24/2009  
Date Application Signed

State of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) ss. \_\_\_\_\_

Before me this \_\_\_\_\_ day of \_\_\_\_\_, personally appeared \_\_\_\_\_ Lidia WARNES \_\_\_\_\_ 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:

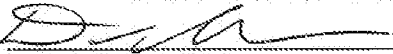
HEWLETT-PACKARD COMPANY  
Intellectual Property Administrator  
P.O. Box 272400  
Fort Collins, Colorado 80527-2400

PATENT APPLICATION

ATTORNEY DOCKET NO. 200803198-1

ASSIGNMENT OF PATENT APPLICATION (cont.)

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

  
Inventor's Signature (Seal)

7/24/09  
Date Assignment Signed

Dennis CARR  
Inventor's Typed Name

7/24/09  
Date Application Signed

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

Before me this \_\_\_\_\_ day of \_\_\_\_\_, personally appeared Dennis CARR 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)

7/24/09  
Date Assignment Signed


Michael B. CALHOUN  
Inventor's Typed Name

7/24/09  
Date Application Signed

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

Before me this \_\_\_\_\_ day of \_\_\_\_\_, personally appeared Michael B. CALHOUN 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)

7/24/09  
Date Assignment Signed

Aaron R. MANDLE  
Inventor's Typed Name

7/24/09  
Date Application Signed

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

Before me this \_\_\_\_\_ day of \_\_\_\_\_, personally appeared Aaron R. MANDLE 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: \_\_\_\_\_