

## PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT						
NATURE OF CONVEYANCE:	ASSIGNMENT						
CONVEYING PARTY DATA							
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Bin Zhang</td> <td>07/26/2012</td> </tr> <tr> <td>Meichun Hsu</td> <td>07/26/2012</td> </tr> </tbody> </table>		Name	Execution Date	Bin Zhang	07/26/2012	Meichun Hsu	07/26/2012
Name	Execution Date						
Bin Zhang	07/26/2012						
Meichun Hsu	07/26/2012						
RECEIVING PARTY DATA							
Name:	Hewlett-Packard Development Company, L.P.						
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City:	Houston						
State/Country:	TEXAS						
Postal Code:	77070						
PROPERTY NUMBERS Total: 1							
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13562598</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13562598		
Property Type	Number						
Application Number:	13562598						
CORRESPONDENCE DATA							
Fax Number:	9707784063						
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Correspondent Name:	Hewlett-Packard Company						
Address Line 1:	3404 E. Harmony Road MS 35						
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Address Line 4:	Fort Collins, COLORADO 80528						
NAME OF SUBMITTER:	Michael Dryja						
Total Attachments: 1 source=704asgn#page1.tif							

CH \$40.00 13562598

HEWLETT-PACKARD COMPANY  
Intellectual Property Administrator  
3404 E. Harmony Road  
Mail Stop 35  
Fort Collins, Colorado 80528

PATENT APPLICATION

RECORD ID: 83013819

**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:

**Hierarchical cluster determination based on subgraph density**

Filing Date: 7/31/2012 Application No.: 13/562,598

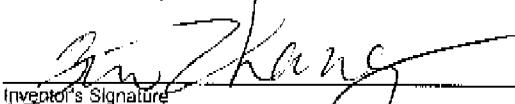
and the invention(s) and improvement(s) set forth therein, and any and all continuations, continuations-in-part (C-I-P's), divisionals, and renewals of and substitutes for said application for said Letters Patent, and any and all Letters Patent of the United States and of countries foreign thereto which 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.

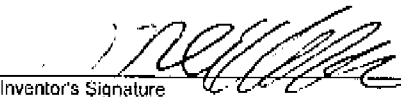
I/we further authorize and direct the attorneys of record to insert the serial number and filing date of said application now identified by the Record ID and title set forth above as soon as the same shall have been made known to them by the United States Patent and Trademark Office.

  
\_\_\_\_\_  
Inventor's Signature

7/26/12  
\_\_\_\_\_  
Date Assignment Signed

Bin Zhang  
\_\_\_\_\_  
Inventor's Typed Name

7/26/12  
\_\_\_\_\_  
Date Application Signed

  
\_\_\_\_\_  
Inventor's Signature

7/26/12  
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Date Assignment Signed

Meichun Hsu  
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Inventor's Typed Name

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