

## PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

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>Ming C. Hao</td> <td>01/17/2013</td> </tr> <tr> <td>Sebastian Mittelstaedt</td> <td>01/15/2013</td> </tr> <tr> <td>Umeshwar Dayal</td> <td>01/18/2013</td> </tr> <tr> <td>Meichun Hsu</td> <td>01/18/2013</td> </tr> <tr> <td>Daniel Keim</td> <td>01/15/2013</td> </tr> </tbody> </table>		Name	Execution Date	Ming C. Hao	01/17/2013	Sebastian Mittelstaedt	01/15/2013	Umeshwar Dayal	01/18/2013	Meichun Hsu	01/18/2013	Daniel Keim	01/15/2013
Name	Execution Date												
Ming C. Hao	01/17/2013												
Sebastian Mittelstaedt	01/15/2013												
Umeshwar Dayal	01/18/2013												
Meichun Hsu	01/18/2013												
Daniel Keim	01/15/2013												
RECEIVING PARTY DATA													
Name:	Hewlett-Packard Development Company, L.P.												
Street Address:	11445 Compaq Center Drive West												
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>13745985</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13745985								
Property Type	Number												
Application Number:	13745985												
CORRESPONDENCE DATA													
Fax Number:	9707784063												
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>													
Phone:	(541)715-8443												
Email:	pto.assignments@hp.com												
Correspondent Name:	Hewlett-Packard Company												
Address Line 1:	3404 E. Harmony Road MS 35												
Address Line 2:	Intellectual Property Administration												
Address Line 4:	Fort Collins, COLORADO 80528												
NAME OF SUBMITTER:	Dan C. Hu												
Total Attachments: 4 source=83108365-Assignment-signed#page1.tif source=83108365-Assignment-signed#page2.tif source=83108365-Assignment-signed#page3.tif source=83108365-Assignment-signed#page4.tif													

CH \$40.00 13745985

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

PATENT APPLICATION

RECORD ID: 83108365

**ASSIGNMENT OF PATENT APPLICATION**

I/We, the undersigned (each) have agreed and hereby agree, that for good and valuable consideration, the receipt of which is hereby acknowledged, and in furtherance of my/our obligations to HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P., a Texas Limited Partnership having its principal place of business in Houston, Texas, (hereinafter HPDC), and to its subsidiaries and affiliates, to 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 Patent entitled:

**VISUALIZATION THAT INDICATES EVENT SIGNIFICANCE REPRESENTED BY A DISCRIMINATIVE METRIC COMPUTED USING A CONTINGENCY CALCULATION**

Filing Date: January 21, 2013 Application No.: 13/745,985

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 Patent, and any and all other Patent of any countries thereto which may be granted thereon or therefore; and any reissues, or reexaminations, or extensions of said Patent.

I/we additionally authorize HPDC to file applications in my/our name for 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 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 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 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 official of any country or countries 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 Patent for said invention(s) or improvement(s) 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 filing date and application number of said application for Patent, now identified by the Record ID and title set forth above, as soon as the same shall have been made known to them.

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

Ming C. Hao  
Inventor's Signature

January 17, 2013  
Date Assignment Signed

Ming C. Hao  
Inventor's Typed Name

January 17, 2013  
Date Application Signed

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

\_\_\_\_\_  
Date Assignment Signed

Sebastian Mittelsaedt  
Inventor's Typed Name

\_\_\_\_\_  
Date Application Signed

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

PATENT APPLICATION

RECORD ID: 83108365

**ASSIGNMENT OF PATENT APPLICATION**

I/We, the undersigned (each) have agreed and hereby agree, that for good and valuable consideration, the receipt of which is hereby acknowledged, and in furtherance of my/our obligations to HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P., a Texas Limited Partnership having its principal place of business in Houston, Texas, (hereinafter HPDC), and to its subsidiaries and affiliates, to 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 Patent entitled:

VISUALIZATION THAT INDICATES EVENT SIGNIFICANCE REPRESENTED BY A DISCRIMINATIVE METRIC COMPUTED USING A CONTINGENCY CALCULATION

Filing Date: January 21, 2013

Application No.: 13/745,985

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 Patent, and any and all other Patent of any countries thereto which may be granted thereon or therefore; and any reissues, or reexaminations, or extensions of said Patent.

I/we additionally authorize HPDC to file applications in my/our name for 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 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 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 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 official of any country or countries 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 Patent for said invention(s) or improvement(s) 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 filing date and application number of said application for Patent, now identified by the Record ID and title set forth above, as soon as the same shall have been made known to them.

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

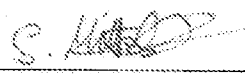
\_\_\_\_\_  
Inventor's Signature:

\_\_\_\_\_  
Date Assignment Signed

Ming C. Hao

\_\_\_\_\_  
Inventor's Typed Name

\_\_\_\_\_  
Date Application Signed

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

15.01.2013

\_\_\_\_\_  
Date Assignment Signed

Sebastian Mittelstaedt

\_\_\_\_\_  
Inventor's Typed Name

15.01.2013

\_\_\_\_\_  
Date Application Signed

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

PATENT APPLICATION

RECORD ID: 83108365

ASSIGNMENT OF PATENT APPLICATION (cont.)

Umeshwar Dayal  
Inventor's Signature 18 January 2012  
Date Assignment Signed

Umeshwar Dayal  
Inventor's Typed Name 18 January 2012  
Date Application Signed

Meichun Hsu  
Inventor's Signature 18 Jan 2012  
Date Assignment Signed

Meichun Hsu  
Inventor's Typed Name 18 Jan 2012  
Date Application Signed

\_\_\_\_\_  
Inventor's Signature \_\_\_\_\_  
Date Assignment Signed

Daniel Keim  
Inventor's Typed Name \_\_\_\_\_  
Date Application Signed

\_\_\_\_\_  
Inventor's Signature \_\_\_\_\_  
Date Assignment Signed

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

\_\_\_\_\_  
Inventor's Signature \_\_\_\_\_  
Date Assignment Signed

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

\_\_\_\_\_  
Inventor's Signature \_\_\_\_\_  
Date Assignment Signed

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

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

PATENT APPLICATION

RECORD ID: 83108365


ASSIGNMENT OF PATENT APPLICATION (cont.)

Inventor's Signature \_\_\_\_\_ Date Assignment Signed \_\_\_\_\_

Umeshwar Dayal  
Inventor's Typed Name \_\_\_\_\_ Date Application Signed \_\_\_\_\_

Inventor's Signature \_\_\_\_\_ Date Assignment Signed \_\_\_\_\_

Meichun Hsu  
Inventor's Typed Name \_\_\_\_\_ Date Application Signed \_\_\_\_\_

  
Inventor's Signature \_\_\_\_\_ Date Assignment Signed 01/15/2013

Daniel Keim  
Inventor's Typed Name \_\_\_\_\_ Date Application Signed 01/15/2013

Inventor's Signature \_\_\_\_\_ Date Assignment Signed \_\_\_\_\_

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

Inventor's Signature \_\_\_\_\_ Date Assignment Signed \_\_\_\_\_

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

Inventor's Signature \_\_\_\_\_ Date Assignment Signed \_\_\_\_\_

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