#### 502143236 11/28/2012

### PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
Hyun Duk Kim	11/20/2012
ChengXiang Zhai	11/26/2012
Meichun Hsu	11/19/2012
Maria Guadalupe Castellanos	11/20/2012

### **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**

Property Type	Number
Application Number:	13686297

## **CORRESPONDENCE DATA**

Fax Number: 9707784063

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

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Email: pto.assignments@hp.com Correspondent Name: **Hewlett-Packard Company** 3404 E. Harmony Road MS 35 Address Line 1: Intellectual Property Administration Address Line 2: Address Line 4: Fort Collins, COLORADO 80528

NAME OF SUBMITTER: Jason P. Lorfing

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REEL: 029368 FRAME: 0177

HEWLETT-PACKARD COMPANY

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3404 E. Harmony Road Mail Stop 35	RECORD ID:	83108377
Fort Collins, Colorado 80528		
	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 entitled:

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 **CAUSAL TOPIC MINER** Filing Date: HEREWITH 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 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): Date Assignment Signed Inventor's Signature Hyun Duk Kim Inventor's Typed Name 11/26/2012 Date Assignment Signed Date Application Signed ChengXiang Zhai Inventor's Typed Name

Rev 10/2012 (Assignment)

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HEWLETT-PACKARD COMPANY Intellectual Property Administrator 3404 E. Harmony Road Mail Stop 35

# PATENT APPLICATION

Mail Stop 35	RECORD ID: 83108377
Fort Collins, Colorado 80528	
ASSIGNMENT	OF PATENT APPLICATION (cont.)
0000 M	Nov 19, 2012
Inventor's Signature	Date Assignment Signed
~	NOV 10 2x12
Meichun Hsu	NOV 19, 2 to 1 2 Date Application Signed
Inventor's Typed Name	
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Inventor's Signature	Date Assignment Signed
And the second s	11-20-12
Maria Guadalupe Castellanos 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
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Inventor's Typed Name	Date Application Signed
Inventor's Signature	Date Assignment Signed
Inventor's Typed Name	Date Application Signed

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PATENT REEL: 029368 FRAME: 0179