502201622 01/21/2013

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|--------------------|----------------|
| Giordano B Beretta | 11/23/2012 |
| Samson J Liu | 11/26/2012 |
| Steven J Simske | 11/25/2012 |

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: | 13688782 |

CORRESPONDENCE DATA

Fax Number: 9707784063

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

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: | Debbie Syrmis |
|---------------------|----------------|
| INAME OF CODMITTER. | Debble Oylling |

Total Attachments: 4

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| RECORD ID: 83099330 |
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ASSIGNMENT OF PATENT APPLICATION

I/We, the undersigned (each) have agreed and hereby agree, that for good and valuable consideration, the ηt

| DEVELOPMENT COMPANY, L.P., a Texas Limite Texas, (hereinafter HPDC), and to its subsidiaries a | in furtherance of my/our obligations to HEWLETT-PACKAR d Partnership having its principal place of business in Houstor and affiliates, to assign and transfer to HPDC, its successors and the right of priority, in, to and under an application for Pater |
|--|--|
| Categorization Based on Word Distance | |
| Filing Date: Nov 29, 2012 | Application No.; 13/688782 |
| divisionals, and renewals of and substitutes for said | erein, and any and all continuations, continuations-in-part (C-I-P's application for said Patent, and any and all other Patent of ar erefore; and any reissues, or reexaminations, or extensions of said |
| by HPDC, its successors, assigns, nominees or legal | ns in my/our name for Patent in any country, to be held and enjoye representatives, to the full end of the term or terms for which sai nded, as fully and entirely as the same would have been held an t been made; |
| executed and will not execute any agreement in confliction a request is made, and without undue delay, execute are perfect the title to said invention(s) or improvement(s), nominees or legal representatives, and I/we agree to consider a said invention(s) or improvement(s), said application a papers, to execute all disclaimers and divisionals, conglittul oaths and declarations, and generally to do exand legal representatives to obtain and enforce, for its | to convey the entire interest herein assigned, and that I/we have not be the properties of the entitle and I/we further covenant and agree that I/we will, each pater and deliver all such papers as may be necessary or desirable to said application and said Patent, to HPDC, its successors, assigns communicate to HPDC, or to its nominee, all known facts respecting the said Patent, to testify in any legal proceedings, to sign all tawfunctions, C-I-P's, reissue and foreign applications, to make a verything possible to aid HPDC, its successors, assigns, nominee or their own benefit, proper patent protection for said invention(s) of the expenses which may be incurred by me/us in lending sucle |
| applications as aforesaid, to issue to HPUC, as assign | al of any country or countries whose duty it is to issue patents on nee of the entire right, title and interest, any and all Patent for said I and granted on or as a result of the application aforesaid, in |
| i/we further authorize and direct the attorneys o application for Patent, now identified by the Record ID a known to them. | of record to insert the filing date and application number of said and title set forth above, as soon as the same shall have been made |
| IN WITNESS WHEREOF, I/we bereunto set my/ | our hand(s) and seal(s): |
| 1 Streeth | Movember 23, 2012 |
| Inventor's Signature | Date Assignment Signed |
| | N 10.22 |
| Giordano B Beretta Inventor's Typed Name | Date Application Signed |
| | |
| nventor's Signature | Date Assignment Signed |
| Samson J Liu | |
| nventor's Typed Name | Date Application Signed |

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Page 1 of 2

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

PATENT APPLICATION

| RECORD ID: | 83099330 |
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ASSIGNMENT OF PATENT APPLICATION (cont.)

| Inventor's Signature | Date Assignment Signed |
|-----------------------|-------------------------|
| Steven J Simske | |
| Inventor's Typed Name | Date Application Signed |
| Inventor's Signature | Date Assignment Signed |
| trunch of Trunch Name | B. A. B. W. C. B. W. |
| 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 |
| Inventor's Signature | Date Assignment Signed |
| Inventor's Typed Name | Date Application Signed |

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HEWLETT-PACKARD COMPANY Intellectual Property Administrator

PATENT APPLICATION

| 3404 E. Harmon Mail Stop 35 Fort Collins, Col | *** | 528 | | | RECORD ID: | | 83099330 | |
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| receipt of whit DEVELOPMEN Texas, (herein) | ich is h VT CON after HP ntire rigt | ereby a IPANY, DC), an nt, title a | d (each) have icknowledged L.P., a Texas d to its subsit and interest, i | agreed and he l, and in furth s Limited Parth diaries and affili | TENT APPLICATION OF THE PROPERTY OF THE PROPER | good and va obligations to incipal place transfer to HI | o HEWLETT-P/ of business in I PDC, its succes | ACKARD Houston, sors and |
| Filing Date: | Nov | 29, | 2012 | *************************************** | Application No.: | 13/68 | 8782 | *********** |
| divisionals, and | renewa | ds of an | d substitutes | for said applica | nd any and all conti- dion for said Patent and any reissues, c | nuations, conti , and any and | inuations-in-part | nt of any |
| by HPDC, its si | uccessor vely may | rs, assig r be grai | ns, nominees nted, reissued | or legal represe or extended, a | /our name for Paten ntatives, to the full of fully and entirely a nade; | end of the terr | n or terms for w | dien said |
| executed and witime a request in perfect the title inominees or leg said invention(s papers, to execute rightful oaths are and legal repres | ill not ex s made, to said in pal repre; or impro sute all o not declar sentative in any | ecule ar and with rention sentative overnen disclaime rations, s to obta and all | ny agreement out undue dei (s) or improver is, and i/we ai it(s), said appli ers and division and generally in and enforce countries pro- | in conflict herew ay, execute and ment(s), said ap gree to commun ication and said anals, continuati to do everything a, for its or their avided the expe | ey the entire interest ith, and I/we further deliver all such pape plication and said Pa icate to HPDC, or to Patent, to testify in a cons, C-I-P's, reissue g possible to aid HP own benefit, proper panses which may be posses which may be | covenant and ars as may be stent, to HPDC its nominee, a any legal proces and foreign DC, its successatent protection | agree that live in necessary or de- c, its successors, all known facts re- eedings, to sign applications, to ssors, assigns, non for said inven- | will, each sirable to assigns, especting all lawful make all nominees |
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| l/we_further application for P known to them. | r authori atent, no | ze and w identi | direct the atte fied by the Re | omeys of recon cord ID and title | f to insert the filing set forth above, as s | date and ap oon as the sar | plication number ne shall have be | r of said en made |

Inventor's Signature Date Assignment Signed Giordano 8 Beretta Inventor's Typed Name Date Application Signed Inventor's Signature Samson J Liu Inventor's Typed Name Date Application Signed

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

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Page 1 of 2

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

PATENT APPLICATION

| Mail Stop 35 Fort Cellins, Colorado 80528 | REC | :ORD ID:8 | 3099330 |
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| Inventor's Signature | | Date Assignment Signed | } |
| Steven J Simske | | 25 Nov. | 2012 |
| Inventor's Typed Name | ······ | Date Application Signed | |
| | | | |
| Inventor's Signature | *************************************** | Date Assignment Signer | \$ |
| inventor's Typed Name | | Date Application Signed | |
| | | | |
| inventor's Signature | | Date Assignment Signer | |
| inventor's Typed Name | ······································ | Date Application Signed | |
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| inventor's Signature | | Date Assignment Signer | 3 |
| Inventor's Typed Name | | Date Application Signed | |
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