504308103 04/05/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4354784

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
DAVID BRADLEY SHORT	07/31/2014
JINMAN KANG	07/29/2014
BEN WYNNE	07/29/2014
JAMIE ETCHESON	08/04/2014

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		
PCT Number:	US2014049657		

CORRESPONDENCE DATA

Fax Number: (970)778-4063

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: (541)715-8443 **Email:** ipa.mail@hp.com

Correspondent Name: HP INC.

Address Line 1: 3390 E. HARMONY ROAD MS 35
Address Line 2: INTELLECTUAL PROPERTY

Address Line 4: FORT COLLINS, COLORADO 80528

ATTORNEY DOCKET NUMBER:	84595878
NAME OF SUBMITTER:	ANN WEBSTER JESUS
SIGNATURE:	/Ann Webster Jesus/
DATE SIGNED:	04/05/2017

Total Attachments: 4

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

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83961041 RECORD ID:

ASSIGNMENT OF PATENT APPLICATION

I/We, the undersigned (each), for good and valuable consideration, the receipt of which is hereby acknowledged,

and in furtherance of my/our obligations to HEWLETT-PACKARE Limited Partnership having its principal place of business in Ho subsidiaries and affiliates, agree to assign and transfer and hereby a assigns, the entire right, title and interest, including the right of pricentitled:	uston, Texas, (hereinafter HPDC), and to its assign and transfer to HPDC, its successors and
DETERMINING A POSITION OF AN INPUT OBJECT	
Filing Date: August 05, 2014 Applica	tion No.: PCT/US2014/049657
and the invention(s) and improvement(s) set forth therein, and any an divisionals, and renewals of and substitutes for said application for secountries thereto which may be granted thereon or therefore; and any Patent.	aid Patent, and any and all other Patent of any
I/we additionally authorize HPDC to file applications in my/our name by HPDC, its successors, assigns, nominees or legal representatives, Patent respectively may be granted, reissued or extended, as fully and enjoyed by me/us had this assignment, and transfer not been made;	to the full end of the term or terms for which said
AND I/we hereby covenant that I/we have full right to convey the entexecuted and will not execute any agreement in conflict herewith, and I/witime a request is made, and without undue delay, execute and deliver all perfect the title to said invention(s) or improvement(s), said application anominees or legal representatives, and I/we agree to communicate to Hisaid invention(s) or improvement(s), said application and said Patent, to papers, to execute all disclaimers and divisionals, continuations, C-I-frightful oaths and declarations, and generally to do everything possible and legal representatives to obtain and enforce, for its or their own benefimprovement(s) in any and all countries provided the expenses who cooperation and assistance are paid by HPDC;	we further covenant and agree that I/we will, each I such papers as may be necessary or desirable to and said Patent, to HPDC, its successors, assigns, PDC, or to its nominee, all known facts respecting testify in any legal proceedings, to sign all lawful P's, reissue and foreign applications, to make all to aid HPDC, its successors, assigns, nominees efit, proper patent protection for said invention(s) or
AND I/we hereby authorize and request the official of any country applications as aforesaid, to issue to HPDC, as assignee of the entire invention(s) or improvement(s) which may be issued and granted or accordance with the terms of this assignment.	right, title and interest, any and all Patent for said
I/we further authorize and direct the attorneys of record to inseapplication for Patent, now identified by the Record ID and title set forth a known to them.	
IN WITNESS WHEREOF, I/we hereunto set my/our hand(s) and	l seal(s):
DBS	7/31/2014
Inventor's Signature	Date
David Bradley Short Inventor's Typed Name	·
inventor's Signature	Date
Jinman Kang	
Inventor's Typed Name	•

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:	83961041

ASSIGNMENT OF PATENT APPLICATION

I/We, the undersigned (each), 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, agree to assign and transfer and 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 Patent entitled:

entitled:	ing, in to area areast on appropriate to the total
DETERMINING A POSITION OF AN INPUT OBJECT	
Filing Date: Applicat	ion No.:
and the invention(s) and improvement(s) set forth therein, and any and divisionals, and renewals of and substitutes for said application for se countries thereto which may be granted thereon or therefore; and any repatent.	aid Patent, and any and all other Patent of any
I/we additionally authorize HPDC to file applications in my/our name by HPDC, its successors, assigns, nominees or legal representatives, to Patent respectively may be granted, reissued or extended, as fully and enjoyed by me/us had this assignment, and transfer not been made;	the full end of the term or terms for which said
AND I/we hereby covenant that I/we have full right to convey the enti- executed and will not execute any agreement in conflict herewith, and I/v time a request is made, and without undue delay, execute and deliver all perfect the title to said invention(s) or improvement(s), said application an nominees or legal representatives, and I/we agree to communicate to HF said invention(s) or improvement(s), said application and said Patent, to papers, to execute all disclaimers and divisionals, continuations, C-I-P rightful oaths and declarations, and generally to do everything possible and legal representatives to obtain and enforce, for its or their own benef improvement(s) in any and all countries provided the expenses whice cooperation and assistance are paid by HPDC; AND I/we hereby authorize and request the official of any country applications as aforesaid, to issue to HPDC, as assignee of the entire re-	ve further covenant and agree that I/we will, each such papers as may be necessary or desirable to not said Patent, to HPDC, its successors, assigns, PDC, or to its nominee, all known facts respecting testify in any legal proceedings, to sign all lawful 's, reissue and foreign applications, to make all to aid HPDC, its successors, assigns, nominees it, proper patent protection for said invention(s) or ch may be incurred by me/us in lending such or countries whose duty it is to issue patents on ight, title and interest, any and all Patent for said
invention(s) or improvement(s) which may be issued and granted on accordance with the terms of this assignment.	or as a result of the application aforesaid, in
I/we further authorize and direct the attorneys of record to insert application for Patent, now identified by the Record ID and title set forth a known to them.	
IN WITNESS WHEREOF, I/we hereunto set my/our hand(s) and	seal(s):
Inventor's Signature	Date
David Bradley Short Inventor's Typed Name	
leh:	0 7/2 g / 1 4
Inventor's Signature	Date /
Jinman Kang Inventor's Typed Name	

PATENT REEL: 041862 FRAME: 0619 HEWLETT-PACKARD COMPANY Intellectual Property Administrator 3404 E. Harmony Road Mail Stop 35

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PATENT APPLICATION

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Ben Wynne			
Inventor's Typed Name		gamenaman gamen en menerala an menerala	
			again tagain da an
Inventor's Signature		Date	
Jamle Etcheson			
Inventor's Typed Name			
			en de rando de mentre de la companie
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Inventor's Signature		Date	
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Inventor's Typed Name			
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Inventor's Typed Name			

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PATENT APPLICATION

Fort Collins, Colorado 80528	* *** ****** * *	DELLO ATTONI (
ASSIGNMENT	I UF PATENT AL	PPLICATION (cont.)
Inventor's Signature		Date
Ben Wynne		
Inventor's Typed Name		
		of let land
		3/4/2014
Miventor' & Signature	***************************************	Date
Jamie Etcheson		
Inventor's Typed Name	CONTRACTOR	
Inventor's Signature		Date
Inventor's Typed Name		AMAGANO MANONANA
inventors Typed Name		
Inventor's Signature		Date
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