PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT5109409

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	

CONVEYING PARTY DATA

Name	Execution Date
MICHAEL G. MONROE	05/24/2016
VLADEK KASPERCHIK	05/04/2016
DAVID MICHAEL INGLE	04/27/2016

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:	16064098	

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.

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HP INC. **Correspondent Name:**

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

Address Line 4: FORT COLLINS, COLORADO 80528

ATTORNEY DOCKET NUMBER:	84976959
NAME OF SUBMITTER:	JESSICA MANIA
SIGNATURE:	/Jessica Mania/
DATE SIGNED:	08/24/2018

Total Attachments: 3

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> **PATENT** REEL: 046698 FRAME: 0015 505062654

HP Inc. 3390 E. Harmony Road Mail Stop 35 Fort Collins, Colorado 80528

PATENT		

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ASSIGNMENT OF PATENT APPLICATION

Patent. We additionally authorize H by HPDC, its successors, assign	PDC to file applications in r s, nominees or legal repre	e; and any reissues, or reexaminations, or extensions of said ny/our name for Patent in any country, to be held and enjoyed sentatives, to the full end of the term or terms for which said
enjoyed by me/us had this assign AND I/we hereby covenant the	ment, and transfer not been hat I/we have full right to co	as fully and entirely as the same would have been held and made; made; invey the entire interest herein assigned, and that the have not swith, and the further covenant and agree that the will, each
perfect the title to said invention() nominees or legal representative said invention(s) or improvement papers, to execute all disclaime rightful caths and declarations, ar legal representatives to obtain a improvement(s) in any and all count assistance are paid by HPDC AND I/we hereby authorize	a) or improvement(s), said as, and I/we agree to commit (s), said application and said application and said as and divisionals, continuing generally to do everything a denforce, for its or their intries provided the expensition request the official of and request the official of	nd deliver all such papers as may be necessary or desirable to application and said Patent, to HPDC, its successors, assigns, unicate to HPDC, or to its nominee, all known facts respecting id Patent, to testify in any legal proceedings, to sign all lawful ations, C-I-P's, reissue and foreign applications, to make all g possible to aid HPDC, its successors, assigns, nominees and own benefit, proper patent protection for said invention(s) or as which may be incurred by me/us in landing such cooperation any country or countries whose duty it is to issue patents on
invention(s) or improvement(s) accordance with the terms of this	which may be issued and assignment.	f the entire right, title and interest, any and all Patent for said granted on or as a result of the application aforesaid, in
		ord to insert the filing date and application number of said tie set forth above, as soon as the same shall have been made
IN WITNESS WHEREOF, I/V	ve hereunto set my/our h	and(s) and seal(s):
Montal II.	Manager	5/24/2016
Inventor's Signature		Date
Michael G.	Monroe	
First/Middle Name	Last Name	
inventor's Signature		Date
Inventor's Signature Vladek	Kasperchik	Date
**************************************	Kasperchik Last Name	Date

PATENT REEL: 046698 FRAME: 0016

HP Inc.
3390 E. Harmony Road
Mail Stop 35
Fort Collins, Colorado 80528

PATENT APPLICATION

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ort Collins, Colorado 80528	RECORD ID:	84449594

ASSIGNMENT OF PATENT APPLICATION

and in furtherance of m Limited Partnership hav subsidiaries and affiliates	ny/our obligations to HEV ing its principal place of s, agree to assign and tran	LETT-PACKARD DEVELOPMENT COMPANY, L.P., a Texas business in Houston, Texas, (hereinafter HPDC), and to its fer and hereby assign and transfer to HPDC, its successors and the right of priority, in, to and under an application for Patent
THREE-DIMENSIONAL	(3D) PRINTING	
Filing Date: April 13, 20	016	Application No.: PCT/US2016/027304
divisionals, and renewals	of and substitutes for said	rein, and any and all continuations, continuations-in-part (C-I-P's), application for said Patent, and any and all other Patent of any erefore; and any reissues, or reexaminations, or extensions of said
by HPDC, its successors, Patent respectively may be	assigns, nominees or lega	is in my/our name for Patent in any country, to be held and enjoyed representatives, to the full end of the term or terms for which said inded, as fully and entirely as the same would have been held and been made;
executed and will not executime a request is made, ar perfect the title to said invenominees or legal represe said invention(s) or improve papers, to execute all disrightful oaths and declaratilegal representatives to old	cute any agreement in confind without undue delay, exemention(s) or improvement(s) ntatives, and I/we agree to rement(s), said application acclaimers and divisionals, cons, and generally to do eventiain and enforce, for its or all countries provided the exements.	to convey the entire interest herein assigned, and that I/we have not to the herewith, and I/we further covenant and agree that I/we will, each ute and deliver all such papers as may be necessary or desirable to said application and said Patent, to HPDC, its successors, assigns, ommunicate to HPDC, or to its nominee, all known facts respecting and said Patent, to testify in any legal proceedings, to sign all lawful intinuations, C-I-P's, reissue and foreign applications, to make all ything possible to aid HPDC, its successors, assigns, nominees and their own benefit, proper patent protection for said invention(s) or penses which may be incurred by me/us in lending such cooperation
applications as aforesaid,	to issue to HPDC, as assigent(s) which may be issue	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
		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 WHERE	OF, I/we hereunto set my	our hand(s) and seal(s):
Inventor's Signature		Date
Michael G.	Monroe	
First/Middle Name	Last Name	
Madel (! Kespere	W4 05/04/16
Inventor's Signature		Date
Vladek	Kasperchik	
First/Middle Name	Last Name	

Rev 8/2014 (Assignment)

Page 1 of 2

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PATENT APPLICATION

Fort Collins, Colorado 80528		RECORD ID:	84449594
	ASSIGNMENT OF PA	ATENT APPLICATION (con	t.)
A Mak a	//		
Inventor's Signature	ty h		127, 2016
David Michael	Ingle		
First/Middle Name	Last Name		
Inventor's Signature		Date	
First/Middle Name	Last Name		
Inventor's Signature		Date	
First/Middle Name	Last Name		
Inventor's Signature		Date	
First/Middle Name	Last Name		
Inventor's Signature	·	Date	
First/Middle Name	Last Name		
Inventor's Signature		Date	
First/Middle Name	Last Name		
Rev 8/2014 (Assignment)	Р	age 2 of 2	

PATENT REEL: 046698 FRAME: 0018

RECORDED: 08/24/2018