## 506402724 12/15/2020

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6449480

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
DAVID JAMES TUCKER	03/29/2019
DAVID WOODLOCK	04/22/2019
JUN ZENG	03/29/2019
MICHELLE LYNN BOCKMAN	03/28/2019

### **RECEIVING PARTY DATA**

Name:	Hewlett-Packard Development Company, L.P.
Street Address:	10300 Energy Drive
City:	Spring
State/Country:	TEXAS
Postal Code:	77389

### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	17252318

### **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)360-4450 **Email:** ipa.mail@hp.com

Correspondent Name: HP INC.

Address Line 1: 3390 E. HARMONY ROAD MS 35
Address Line 4: FORT COLLINS, COLORADO 80528

ATTORNEY DOCKET NUMBER:	85960447
NAME OF SUBMITTER:	CARRIE A. MILANO
SIGNATURE:	/Carrie A. Milano/
DATE SIGNED:	12/15/2020

### **Total Attachments: 4**

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PATENT 506402724 REEL: 054645 FRAME: 0509

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PATENT REEL: 054645 FRAME: 0510 HP Inc. 3390 E. Harmony Road Mail Stop 35 Fort Collins, Colorado 80528

RECORD	ID:	856877	85

### **ASSIGNMENT OF PATENT APPLICATION**

I, the undersigned, for good and valuable consideration, the receipt of which is hereby acknowledged, agree to assign and transfer and hereby assign and transfer to HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P., a Texas Limited Partnership having its principal place of business in Spring, Texas, (hereinafter "HPDC"), its successors, and its assigns, my entire right, title, and interest, including all rights of priority, in, to, and under an application for patent entitled (English-language title in parentheses if said application for patent is in another language):

if said applicat	tion for patent is in a	nother language);		. •	
GENERATIO	N OF DESIGNS F	OR MULTI-FUNCTIONAL C	BJECTS		
Filing Date:	March 29, 201	Application	No.: PCT/U	S2019/025019	Patent Office: US
herein "patent" design rights, country or regipatent, any an said Inventions indirectly claim of, divisional a application for on or as a resi	' refers to any form of and utility model ri- ion or under any inte d all applications for s, any and all appli as priority or benefit, applications of, nation patent for any of sa	and all inventions, improvement of intellectual property protecting this (hereinafter "Inventions ernational agreement for any expetent directly or indirectly of cations for patent from which and any and all continuation and-phase applications of, region in the continuation of the cont	on including, with "); any and all exof said Inventions laiming priority to any application applications of, con gional-phase app pplications for Pa	out limitation, invention xisting and future app (including, without lin or benefit of any appl for patent for any of continuation-in-part app lications of, renewals tent"); any and all pat	n rights, utility patent rights blications for patent of an nitation, said application fo ication for patent for any o said Inventions directly o blications (hereinafter CIPs of, and substitutes for an ents which may be granted
I HEREB' entire right, title conflict herewit	e, and interest herei	onvey my full rights in all coun assigned and transferred, a	untries and regior nd that I have no	ns and under all interi t executed and will not	national agreements to the execute any agreement in
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IN WITHE	SS WHEREOF) I he	ereunto set my hand and seal	: 29	MARCH	2419
Inventor's Sign	ature		Day	Month	Year
David James		Tucker	and the same of		
Given (First and	d Middle) Name(s)	Family Name			

Rev 8/2018 (HPDC Assignment)

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

RECORD	ID:	85687785

#### **ASSIGNMENT OF PATENT APPLICATION**

I, the undersigned, for good and valuable consideration, the receipt of which is hereby acknowledged, agree to assign and transfer and hereby assign and transfer to HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P., a Texas Limited Partnership having its principal place of business in Spring, Texas, (hereinafter "HPDC"), its successors, and its assigns, my entire right, title, and interest, including all rights of priority, in, to, and under an application for patent entitled (English-language title in parentheses if said application for patent is in another language):

GENERATIO	N OF DESIGNS FOR MULTI-	FUNCTIONAL OBJEC	CTS	
Filing Date:	March 29, 2019	Application No.:	PCT/US2019/025019	Patent Office: <u>US</u> ;
herein "patent" design rights, a country or regio patent, any and said Inventions indirectly claims of, divisional a application for a on or as a resu	refers to any form of intellectual and utility model rights) (herein on or under any international ago all applications for patent direct, any and all applications for patent or patent or patent or patent or patent or patent or patent for any and all applications of, national-phase appatent for any of said Inventions	I property protection incl nafter "Inventions"); any greement for any of said ctly or indirectly claiming patent from which any d all continuation applic applications of, regional- s) (hereinafter "Applicat	d discoveries, set forth in said app juding, without limitation, invention of and all existing and future app I Inventions (including, without lim g priority to or benefit of any appli application for patent for any of ations of, continuation-in-part app phase applications of, renewals of ions for Patent"); any and all pate b); and any and all reissues, reexa	n rights, utility patent rights, lications for patent of any litation, said application for cation for patent for any of said Inventions directly or lications (hereinafter CIPs) of, and substitutes for any ents which may be granted
	e, and interest herein assigned a		and regions and under all intern t I have not executed and will not	
Applications for authorize HPD	r Patent in its name or in my C, its successors, its assigns,	name in any country o its nominees, and its	, its nominees, and its legal re r region or under any internation legal representatives to insert to it by the Record ID and title set for	al agreement, and further the filing date, application
duty it is to issu	REBY authorize and request the up patents, to issue to HPDC, its ordance with the terms of this as	ts successors, or its ass	s and regions and under all intern signs, as assignee of my entire rig	ational agreements whose ght, title, and interest, said
AND I HEF	REBY covenant and agree that	I will, each time a reque	st is made, and without undue del	lav. execute and deliver all

such papers as may be necessary or desirable to perfect the title in said Inventions, Applications for Patent, and Patents, to HPDC, its successors, or its assigns; communicate to HPDC, its successors, its assigns, its nominees, or its legal representatives, all known facts respecting said Inventions, Applications for Patent, and Patents; testify in any legal or administrative proceedings and sign all lawful papers (including, without limitation, divisional applications, continuation applications, CIPs, and reissue applications) relating to said Inventions, Applications for Patent, and Patents; and make all rightful oaths and declarations and generally to do everything possible to aid HPDC, its successors, its assigns, its nominees, and its legal representatives to obtain, maintain, and enforce, for its or their own benefit, proper intellectual property protection for said Inventions, Applications for Patent, and Patents, provided the expenses which may be incurred by me in lending such cooperation and assistance are paid by HPDC.

IN WITNESS WHEREOF, I hereunto set my hand and seal:

its successors, its assigns, its nominees, or its legal representatives.

for woodly -		22	April	2019
Inventor's Signature		Day	Month	Year
David	Woodlock			
Given (First and Middle) Name(s)	Family Name			

Patent Office: US

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

Filing Date: March 29, 2019

of said Applications for Patent or said Patents.

RECORD	ID:_	85687	78	5
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#### ASSIGNMENT OF PATENT APPLICATION

I, the undersigned, for good and valuable consideration, the receipt of which is hereby acknowledged, agree to assign and transfer and hereby assign and transfer to HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P., a Texas Limited Partnership having its principal place of business in Spring, Texas, (hereinafter "HPDC"), its successors, and its assigns, my entire right, title, and interest, including all rights of priority, in, to, and under an application for patent entitled (English-language title in parentheses if said application for patent is in another language):

### GENERATION OF DESIGNS FOR MULTI-FUNCTIONAL OBJECTS

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the subject m	natter, including any and all inventions, in	provements, and d	iscoveries, set forth in said	application for pate	ent (as used
herein "pater	nt" refers to any form of intellectual proper	ty protection includ	ing, without limitation, inve	ention rights, utility p	atent rights.
	s, and utility model rights) (hereinafter "				
country or re	gion or under any international agreeme	nt for any of said In	ventions (including, withou	ut limitation, said ap	plication for
patent, any a	and all applications for patent directly or i	ndirectly claiming p	nority to or benefit of any	application for pater	nt for any of
said Inventio	ons, any and all applications for patent t	from which any ap	plication for patent for an	y of said Inventions	s directly or
indirectly clai	ims priority or benefit, and any and all co	ntinuation application	ons of, continuation-in-part	t applications (herei	nafter CIPs)
	applications of, national-phase applicati				
application fo	or patent for any of said Inventions) (here	inafter "Application	is for Patent"); any and all	patents which may	be granted
on or as a re	esult of said Applications for Patent (here	inafter "Patents"): a	and any and all reissues, r	eevaminations and	encionatva

PCT/US2019/025019

Application No.:

I HEREBY represent that I convey my full rights in all countries and regions and under all international agreements to the entire right, title, and interest herein assigned and transferred, and that I have not executed and will not execute any agreement in conflict herewith:

AND I HEREBY authorize HPDC, its successors, its assigns, its nominees, and its legal representatives to file said Applications for Patent in its name or in my name in any country or region or under any international agreement, and further authorize HPDC, its successors, its assigns, its nominees, and its legal representatives to insert the filing date, application number, and patent office of said application for patent, now identified by the Record ID and title set forth above, when known to them;

AND I HEREBY authorize and request the officials of all countries and regions and under all international agreements whose duty it is to issue patents, to issue to HPDC, its successors, or its assigns, as assignee of my entire right, title, and interest, said Patents, in accordance with the terms of this assignment and transfer;

AND I HEREBY covenant and agree that I 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 in said Inventions, Applications for Patent, and Patents, to HPDC, its successors, or its assigns; communicate to HPDC, its successors, its assigns, its nominees, or its legal representatives, all known facts respecting said Inventions, Applications for Patent, and Patents; testify in any legal or administrative proceedings and sign all lawful papers (including, without limitation, divisional applications, continuation applications, CIPs, and reissue applications) relating to said Inventions, Applications for Patent, and Patents; and make all rightful oaths and declarations and generally to do everything possible to aid HPDC, its successors, its assigns, its nominees, and its legal representatives to obtain, maintain, and enforce, for its or their own benefit, proper intellectual property protection for said Inventions, Applications for Patent, and Patents, provided the expenses which may be incurred by me in lending such cooperation and assistance are paid by HPDC, its successors, its assigns, its nominees, or its legal representatives.

IN WITNESS WHEREOF, I hereunto set my hand and seal:	29	03	Z0/J
Inventor's Signature	Day	Month	Year /
Jun Zeng			;
Given (First and Middle) Name(s) Family Name	•		

PATENT APPLICATION

3390 E. Harmony Road Mail Stop 35 Fort Collins, Colorado 80526

RECORD ID: 85687785

#### **ASSIGNMENT OF PATENT APPLICATION**

I, the undersigned, for good and valuable consideration, the receipt of which is hereby acknowledged, agree to assign and transfer and hereby assign and transfer to HEVILETT-PACKARO DEVELOPMENT COMPANY, L.P., a Texas Limited Partnership having its principal place of business in Spring, Texas, (hereinafter "HPDC"), its successors, and its assigns, my entire right, fills, and interest, including all rights of priority, in, to, and under an application for patent entitled (English-language title in parentheses if said application for patent is in another language):

#### GENERATION OF DESIGNS FOR MULTI-FUNCTIONAL OBJECTS

Filing Date: March 29, 2019 Application No.: PCT/US2019/025019 Patent Office: US

the subject matter, including any and all inventions, improvements, and discoveries, set forth in said application for patent (as used herein "patent" refers to any form of intellectual property protection including, without limitation, invention rights, utility patent rights, design rights, and utility model rights) (hereinafter "inventions"); any and all existing and future applications for patent of any country or region or under any international agreement for any of said inventions (including, without limitation, said application for patent, any and all applications for patent directly or indirectly claiming priority to or benefit of any application for patent for any of said Inventions, any and all applications for patent from which any application for patent for any of said Inventions directly or indirectly claims priority or benefit, and any and all continuation applications of, continuation-in-part applications (hereinafter CIPs) of, divisional applications of national-phase applications of regional-phase applications of, renewals of, and substitutes for any application for patent for any of said inventions) (hereinafter "Applications for Patent"), any and all petents which may be granted on or as a result of said Applications for Patent (hereinafter "Patents"), and any and all reissues, reexaminations; and extensions of soid Anglications for Petent or soid Petents

I HEREBY represent that I convey my full rights in all countries and regions and under all international agreements to the entire right, title, and interest herein assigned and transferred, and that I have not executed and will not execute any agreement in conflict herewith;

AND I HEREBY authorize HPDC, its successors, its assigns, its nominees, and its legal representatives to file said Applications for Patent in its name or in my name in any country or region or under any international agreement, and further authorize HPDC, its successors, its assigns, its nominees, and its legal representatives to insert the filing date, application number, and patent office of said application for patent, now identified by the Record (I) and title set forth above, when known to

AND I HEREBY authorize and request the officials of all countries and regions and under all international agreements whose duty it is to issue patents, to issue to HFDC, its successors, or its assigns, as assignee of my entire right, title, and interest, said Patents, in accordance with the terms of this assignment and transfer,

AND I HERESY covenant and some that I will, each time a request is made, and without undue delay, execute and deliver all such papers as may be necessary or destrable to perfect the title in said Inventions, Applications for Patent, and Patents, to HPDC, its successors, or its assigns, communicate to HPDC, its successors, its essigns, its nominees, or its legal representatives. all known facts respecting said Inventions, Applications for Patent, and Patents, teatify in any legal or administrative proceedings and sign all tawful papers (including, without limitation, divisional applications, continuation applications, CIPs, and reissue applications) relating to said inventions. Applications for Patent, and Patents; and make all rightful paths and declarations and generally to do everything possible to aid HPDC, its successors, its assigns, its nominees, and its legal representatives to obtain, maintain, and enforce, for its or their own banefit, proper intellectual property protection for said Inventions, Applications for Patent, and Patents, provided the expenses which may be incurred by me in landing such cooperation and assistance are paid by HPDC. its successors, its assigns, its nominees, or its legal representatives.

IN WITNESS WHEREOF, I hereunto set my hand and seek

OCKNIM ZX MONTH YEAR YEAR

Michelle Lynn BOCKMAN

Given (First and Middle) Name(s)

Family Name

Plev 9/2018 (HPDC Assignment)

**PATENT** REEL: 054645 FRAME: 0514

**RECORDED: 12/15/2020**