504637933 11/10/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 EPAS ID: PAT4684651 Stylesheet Version v1.2

SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ROBERT ULICHNEY	01/27/2014
MATTHEW D GAUBATZ	01/28/2014
STEPHEN POLLARD	01/29/2014

RECEIVING PARTY DATA

Name:	Hewlett-Packard Development Company, L.P.				
Street Address:	1445 Compaq Center Drive West				
City:	Houston				
State/Country:	TEXAS				
Postal Code:	77070				

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15114392

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: 84493668

NAME OF SUBMITTER: ALBA ESCOBAR

SIGNATURE: /Alba Escobar/

DATE SIGNED: 11/10/2017

Total Attachments: 4

source=Assignment_fully_executed#page1.tif source=Assignment_fully_executed#page2.tif source=Assignment_fully_executed#page3.tif

PATENT 504637933 REEL: 044096 FRAME: 0904

source=Assignment_fully_executed#page4.tif

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

PATENT API	DI ICA	TION
------------	--------	------

RECORD ID:	83777468	
nework w.		

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 DEVELOPMENT COMPANY L.P. a Texas Limited Partnership having its principal place of business in Houston.

DEVELOPMENT COMPANY, L.P. Texas, (hereinafter HPDC), and to assigns, the entire right, title and entitled:	its subsidiaries and af	filiates, to assign	and transfer to	HPDC, its s	successors and
EMBEDDING DATA IN HALFTON	IE IMAGES				
w.,,					
		Application N	***************************************		
and the invention(s) and improvement divisionals, and renewals of and si countries thereto which may be gra- Patent.	ubstitutes for said appl	ication for said Pa	atent, and any	and all othe	ir Patent of any
I/we additionally authorize HPD by HPDC, its successors, assigns, Patent respectively may be granted enjoyed by me/us had this assignment.	nominees or legal repre I, reissued or extended,	esentatives, to the as fully and entire	full end of the	term or term	s for which said
AND I/we hereby covenant that executed and willi not execute any a time a request is made, and without perfect the title to said invention(s) conominees or legal representatives, a said invention(s) or improvement(s), papers, to execute all disclaimers rightful oaths and declarations, and and legal representatives to obtain a improvement(s) in any and all concoperation and assistance are paid. AND I/we hereby authorize and applications as aforesaid, to issue to invention(s) or improvement(s) who accordance with the terms of this assistance and direct application for Patent, now identified known to them.	igreement in conflict her undue delay, execute a crimprovement(s), said and I/we agree to comm, said application and said application and said application and said application and so and divisionals, continuing generally to do everytrand enforce, for its or the untries provided the eliph HPDC; of request the official of to HPDC, as assigned and signment.	rewith, and I/we fur application and sa- sunicate to HPDC, aid Patent, to testif rations, C-I-P's, re- ning possible to air eir own benefit, pro- xpenses which m any country or co- of the entire right, if granted on or a	ther covenant is papers as may id Patent, to HF or to its nomine by in any legal pissue and foreid HPDC, its supper patent profay be incurred untries whose sittle and interests as a result of filling date and	and agree the be necessar PDC, its success, all known proceedings, tign application for said the application application the application a	at I/we will, each y or desirable to sessors, assigns, facts respecting to sign all lawful ons, to make all signs, nominees id invention(s) or in lending such saue patents on Il Patent for said on aforesaid, in
			· X.		
IN WITNESS WHEREOF, I/we	hereunto set my/our			S -	
_ P. Uhr			/27/	12-11	
		CN.	//	<u> </u>	
Inventor's Signature		દાલા	æ		
Robert Ulichney Inventor's Typed Name					
inventor's ryped ivame					
Inventor's Signature		Dat	8		
Matthew D Gaubatz					
Inventor's Typed Name					
Rev 1/ 2013 (Assignment)	Page	1 07 2			

MEWLETT-PACKARD COMPAN	Ϋ́
Intellectual Property Administrato	35
3404 E. Harmony Road	
Mail Stop 35	
Fort Collins, Colorado 80528	

Rev 1/ 2013 (Assignment)

PATENT		

ASSIGNMENT OF PATENT APPLICATION

tylve, the undersigned (each) have agreed and hereby agre	e, that for good and valuable consideration, the
receipt of which is hereby acknowledged, and in furtherance of DEVELOPMENT COMPANY, L.P., a Texas Limited Partnership her Texas, (hereinafter HPDC), and to its subsidiaries and affiliates, to as assigns, the entire right, title and interest, including the right of price	ring its principal place of business in Houston ssign and transfer to HPDC, its successors and
entitled: EMBEDDING DATA IN HALFTONE IMAGES	
EMBELIDING DATA IN NALFTONE IMPOES	
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 so countries thereto which may be granted thereon or therefore; and any in Patent.	aid Patent, and any and all other Patent of an
Mye additionally authorize HPDC to file applications in my/our name by HPDC, its successors, assigns, nominees or legal representatives, t Patent respectively may be granted, reissued or extended, as fully and enjoyed by me/us had this assignment, and transfer not been made:	o the full end of the term or terms for which sale
AND I/we hereby covenant that I/we have full right to convey the ent executed and will not execute any agreement in conflict herewith, and I/i 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 a nominees or legal representatives, and I/we agree to communicate to Hi said invention(s) or improvement(s), said application and said Patent, to papers, to execute all disclaimers and divisionals, continuations, C+Frightful oaths and declarations, and generally to do everything possible and legal representatives to obtain and enforce, for its or their own bene improvement(s) in any and all countries provided the expenses while cooperation and assistance are paid by HPDC;	we further covenant and agree that I/we will, each such papers as may be necessary or desirable to a such papers as may be necessary or desirable to desirable to desirable to desirable to the successors, assigns and testify in any legal proceedings, to sign all lawfull to desirable to make a desirable to desirable to desirable to make a desirable to desi
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.	ight, title and interest, any and all Patent for sai
I/we further authorize and direct the attorneys of record to inser- application for Patent, now identified by the Record ID and title set forth ϵ known to them.	
IN WITNESS WHEREOF, I/we hereunto set my/our hand(s) and	seal(s):
Inventor's Signature	Date
Robert Ulichney Inventor's Typed Name	
Matthew F. Sauled	01 7.9 7014
Matthew D Gauhatz	y ł
Inventor's Typed Name	•

Page 1 of 2

H in 34 M Fr

Rev 1/ 2013 (Assignment)

	K23 3					

EWLETT-PACKARD COMPANY			PATENT APPLICATION
ntellectual Property Administrator 404 E. Harmony Road			00777460
fall Stop 35	REG	ORD ID:	83777468
ort Collins, Colorado 80528	and the same of th	m in a Tina	, >
	ASSIGNMENT OF PATENT AP (each) have agreed and hereby agre	PLICATION	t nd and valuable consideration, the
eceipt of which is hereby a DEVELOPMENT COMPANY. (exas, (hereinafter HPDC), and issigns, the entire right, title a intitled:	cknowledged, and in furtherance of L.P., a Texas Limited Parthership had to its subsidiaries and affiliates, to a and interest, including the right of prin	my/our obli ving its princi ssion and tra	ipal place of business in Houston, nsfer to HPDC, its successors and
MBEDDING DATA IN HALF	fone images		
Filing Date:	Applica	tion No.:	
ind the invention(s) and impro- livisionals, and renewals of ar countries thereto which may be Patent.	rement(s) set forth therein, and any article substitutes for said application for a granted thereon or therefore; and any	reissues, or n	eexaminations, or extensions of said
gy HPDC, its successors, assig	HPDC to file applications in my/our nam ins, nominees or legal representatives, nied, reissued or extended, as fully an nment, and transfer not been made;	CO TOP CON COLO	COLUMN TOTAL OF TOTAL AND THE PROPERTY OF THE
executed and will not execute a time a request is made, and will perfect the title to said invention nominees or legal representative said invention(s) or improveme papers, to execute all disclain rightful oaths and declarations, and legal representatives to ob improvement(s) in any and a cooperation and assistance are		ill such papers and said Pale IPDC, or to it to testify in an Ps, reissue to aid HPD efit, proper pahich may be	is as may be necessary or desirable to ent, to HPDC, its successors, assigns, is nominee, all known facts respecting by legal proceedings, to sign all lawful and foreign applications, to make all C, its successors, assigns, nominees atent protection for said invention(s) or incurred by me/us in lending such
applications as aforesald, to is invention(s) or improvement(s accordance with the terms of the	e and request the official of any count sue to HPDC, as assignee of the entire) which may be issued and granted his essignment.	on or as a f	esult of the application aforesaid, in
I/we further authorize an application for Patent, now idea known to them.	d direct the attorneys of record to ins ntified by the Record IO and title set forth	ent the filing above, as so	date and application number of said on as the same shall have been made
IN WITNESS WHEREOF,	I/we hereunto set my/our hand(s) at	ad seal(s):	
		Date	
Inventor's Signature			
Robert Ulichney			
inventor's Typed Name			
Inventor's Signature		Date	
Metthew D Gaubatz			
machini p s shed taque			

Page 1 of 2

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

PATENT APPLICATION

Aall Stop 35	RECORD ID:	83777468
Fort Collins, Colorado 80528		
	ENT OF PATENT APPLICATION (C	ont.)
Styr W		9-)cv-2014
nventor's Signature	Date	
Stephen Pollard		
nventor's Typed Name		
nventor's Signature	Date	week and the second
myemus a agricumo		
Inventor's Typed Name		
Missing a 11bar come		
Inventor's Signature	Date	
Inventor's Typed Name		
Inventor's Signature	Date	
WAGUIDT & Signature		
Inventor's Typed Name	Andrew Comments of the Comment	
e <mark>n tien ter ektrolo</mark> rien er		
Inventor's Signature	Date.	
Inventor's Typed Name		
	Date	
Inventor's Signature	Jake	
Inventor's Typed Name		

Page 2 of 2

Rev 1/ 2013 (Assignment)

RECORDED: 11/10/2017