	08-30-2005				
FORM PTO-1595 1-31-92				U.S. DEPARTMENT Patent and 3	OF COMMERCE
ab3/1			SHEET	Attorney Docket No2	
1. Name of conveying party(ies	10307 <u>0507</u>	2. Nam	e and add	Iress of receiving party(ies	
Theodore F. Emerson	,			CKARD DEVELOPMENT C	
Robert L. Noonan		205	55 SH 24	9	Omi Anti, Ett.
David F. Heinrich		Hou	ston, TX	77070	
Don Dykes					
Additional name(s) of conveying party(ies) attached Yes X No	Additions	ıl name(s) &	address(es) attached?Ye	es X No
3. Nature of Conveyance:		7.44			0
X Assignment	Merger			Change of Name	9897
Security Agreement	t Other				43 L
Execution Date(s): August 23,	2005				1132
4. Application number(s) or pat	ent number(s):				
If this document is being filed	together with a new appli	cation, ex	cecution o	date of the application is:	08/23/2005
A. Patent Application No.(s)				B. Patent No.(s)	
Application No.:	Date Filed:				
Confirmation No.:	Additional number	ers attach	ned? NO	_	
Name and address of party to concerning document should		6. Total	number (of applications and patent	s involved: 1
Records Manager		7. Total	Fee (37 (CFR 3.41): \$40.00	
Intellectual Property Admini	A B (3.2	_	_ Enclose	ed	
P.O. Box 272400 Fort Collins, Colorado 8052	27 2400		X Author	ization to be charged to d	eposit account.
Fort Collins, Colorado 8032	27-2400				
		l		unt Number: <u>08-2025</u>	
	DO NOT USE	THIS SE	ACE		
9. Statement and signature. To the best of my knowledge true copy of the original docum		nformatio	on is true	and correct and any attac	ched copy is a
Michael G. Fletcher	419	4		Aug 23, 2005	5
Name of Person Signing	Signature			Date	
	Total number of pages includ	ing cover	sheet, atta	achments, and document:	4
OMB No. 0651-0011 (exp. 4/94)	Do Not detac	h this no			
Mail document to be recorded with	Do Not detaction required cover sheet inform				
0/29/2005 ECOOPER 00000149 082025	11209897 Mail Stop Assignme	ent Recorda			
1 FC:8021 Director of the US Patent and Trademark Office PO Box 1450					
	Alexandria,		-1450		
D 40/04 (D4)					

PATENT REEL: 016919 FRAME: 0474

PATENT APPLICATION

HEWLETT-PACKARD COMPANY Intellectual Property Administrator P. O. Box 272400 Fort Collins, Colorado 80527-2400

ATTORNEY DOCKET NO. 200400264-1

ASSIGNMENT OF PATENT APPLICATION

I/We, the undersigned (each) have agreed and hereby agree to assign to HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P., a Texas Limited Partnership having its principal place of business in Houston, Texas, (hereinafter HPDC), in furtherance of my/our obligations to the Hewlett-Packard Company and its subsidiaries and affiliates, and do 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 Letters Patent of the United States entitled:

METHOD AND APPARATUS FOR MANAGING CHANGES IN A VIRTUAL SCREEN BUFFER		
Filing date:	Application No.:	
continuations-in-part (C-I-P's), div Letters Patent, and any and all Let	rovement(s) set forth therein, and any and all continuations, risionals, and renewals of and substitutes for said application for said tters Patent of the United States and of countries foreign thereto which or; and any reissues, or reexaminations, or extensions of said Letters	
country, to be held and enjoyed be the full end of the term or terms	HPDC to file applications in my/our name for Letters Patent in any by HPDC, its successors, assigns, nominees or legal representatives, to for which said Letters Patent respectively may be granted, reissued or as the same would have been held and enjoyed by me/us had this made;	
that I/we have not executed and covenant and agree that I/we will deliver all such papers as may improvement(s), said application a legal representatives, and I/we are specting said invention(s) or implegal proceedings, to sign all law C-I-P's, reissue and foreign applice verything possible to aid HPDC, and enforce, for its or their own be	at I/we have full right to convey the entire interest herein assigned, and will not execute any agreement in conflict herewith, and I/we further I, each time a request is made, and without undue delay, execute and be necessary or desirable to perfect the title to said invention(s) or and said Letters Patent, to HPDC, its successors, assigns, nominees or agree to communicate to HPDC, or to its nominee, all known facts provement(s), said application and said Letters Patent, to testify in any oful papers, to execute all disclaimers and divisionals, continuations, eations, to make all rightful oaths and declarations, and generally to do its successors, assigns, nominees and legal representatives to obtain benefit, proper patent protection for said invention(s) or improvement(s) and the expenses which may be incurred by me/us in lending such and by HPDC;	
States and any official of any coupatents on applications as aforesa any and all Letters Patent for said	and request the Commissioner of Patents and Trademarks of the United Intry or countries foreign to the United States whose duty it is to issue aid, to issue to HPDC, as assignee of the entire right, title and interest, I invention(s) or improvement(s), including any and all Letters Patent of issued and granted on or as a result of the application aforesaid, in assignment.	
said application now identified by	ect the attorneys of record to insert the serial number and filing date of the attorney docket number and title set forth above as soon as the n to them by the United States Patent and Trademark Office.	
IN WITNESS WHEREOF, I/we Inventor's Signature (Seal)	hereunto set my/our hand(s) and seal(s): Date Assignment Signed: $\frac{2}{23}/2005$	
Inventor's Typed Name: Theodore F. Emer	zson Date Application Signed:	
State of Texas)	
County of Hams) ss.:)	
Before me this 23 day of Augustian personally known or proved to me on the instrument of assignment to be his/her free		
	My commission expires: 7-2-07	

Rev 12/04 (Assign)

(Use Page Two For Additional Inventor(s) Signature(s))

Page 1 of 2

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Intellectual Property Administration
P. O. Box 272400
Fort Collins, Colorado 80527-2400

ASSIGNMENT OF PATENT APPLICATION (cont.)

	Data Assissant Cissada	
Inventor's Signature (Seal)	Date Assignment Signed:	
Inventor's Typed Name: Robert	Noonan Date Application Signed:	
State of)	
Occupation of) ss.:	
County of)	
Before me this day o personally known or proved to instrument of assignment to be I	me on the basis of satisfactory evidence to be the person who acknowledged the forego	o is oing
	Notary Public	
	My commission expires:	
Dan Jund Inventor's Signature (Seal)	Date Assignment Signed: 8/23/05	
Inventor's Typed Name: David F	Heinrich Date Application Signed:	
State of PXAS)) ss.:	
County of Liberts		
Before me this 23 day of		o is
personally known or proved to instrument of assignment to be t	ne on the basis of satisfactory evidence to be the person who acknowledged the foreg	
Inventor's Signature (Seal)	Date Assignment Signed: 23 Am 2005	
Inventor's Typed Name: Don Dy	Date Application Signed:	
State of Texas)	
County of 14ams) ss.:	
Before me this <u>23</u> day of	personally appeared <u>Don Dykes</u> who seek the person who acknowledged the foregon the basis of satisfactory evidence to be the person who acknowledged the foregon the basis of satisfactory evidence to be the person who acknowledged the foregon the basis of satisfactory evidence to be the person who acknowledged the foregon the basis of satisfactory evidence to be the person who acknowledged the foregon the basis of satisfactory evidence to be the person who acknowledged the foregon the basis of satisfactory evidence to be the person who acknowledged the foregon the basis of satisfactory evidence to be the person who acknowledged the foregon the basis of satisfactory evidence to be the person who acknowledged the foregon the basis of satisfactory evidence to be the person who acknowledged the foregon the basis of satisfactory evidence to be the person who acknowledged the foregon the basis of satisfactory evidence to be the person who acknowledged the foregon the basis of satisfactory evidence to be the person who acknowledged the foregon the basis of satisfactory evidence to be the person who acknowledged the foregon the basis of satisfactory evidence to be the person who acknowledged the foregon the basis of	o is
nstrument of assignment to be h		

(Use Page Three For Additional Inventor(s) Signature(s))

Page 2 of 2

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PATENT APPLICATION

ATTORNEY DOCKET NO. 200400264-1

ASSIGNMENT OF PATENT APPLICATION

I/We, the undersigned (each) have agreed and hereby agree to assign to HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P., a Texas Limited Partnership having its principal place of business in Houston, Texas, (hereinafter HPDC), in furtherance of my/our obligations to the Hewlett-Packard Company and its subsidiaries and affiliates, and do 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 Letters Patent of the United States entitled:

METHOD AND APPAR	ATUS FOR MANAGING CHANGES IN A VIRTUA	L SCREEN BUFFER
Filing date:	Application No.:	
continuations-in-part (Letters Patent, and an	and improvement(s) set forth therein, a C-I-P's), divisionals, and renewals of and subst y and all Letters Patent of the United States and on or therefor; and any reissues, or reexaminal	itutes for said application for said of countries foreign thereto which
country, to be held an	authorize HPDC to file applications in my/ou d enjoyed by HPDC, its successors, assigns, no m or terms for which said Letters Patent respec d entirely as the same would have been held fer not been made;	minees or legal representatives, to tively may be granted, reissued or
that I/we have not ex covenant and agree the deliver all such paper improvement(s), said a legal representatives, respecting said inventilegal proceedings, to C-I-P's, reissue and for everything possible to and enforce, for its or in any and all countilegal countilegal proceedings.	covenant that I/we have full right to convey the ecuted and will not execute any agreement in that I/we will, each time a request is made, and its as may be necessary or desirable to perfect application and said Letters Patent, to HPDC, its and I/we agree to communicate to HPDC, or ion(s) or improvement(s), said application and sign all lawful papers, to execute all disclaime reign applications, to make all rightful oaths and aid HPDC, its successors, assigns, nominees a their own benefit, proper patent protection for stries provided the expenses which may be intended and paid by HPDC;	conflict herewith, and I/we further without undue delay, execute and at the title to said invention(s) or a successors, assigns, nominees or to its nominee, all known facts aid Letters Patent, to testify in any ers and divisionals, continuations, and generally to do and legal representatives to obtain said invention(s) or improvement(s)
States and any official patents on application any and all Letters Pat the United States whi	authorize and request the Commissioner of Pate of any country or countries foreign to the Unites as aforesaid, to issue to HPDC, as assignee of the for said invention(s) or improvement(s), inclich may be issued and granted on or as a reserver of this assignment.	ed States whose duty it is to issue f the entire right, title and interest, uding any and all Letters Patent of
said application now i	rize and direct the attorneys of record to insert to dentified by the attorney docket number and ti made known to them by the United States Pater	tle set forth above as soon as the
IN WITNESS WHE	REOF, I/we hereunto set my/our hand(s) and sea	al(s):
	Date Assignment Signed:	
Inventor's Signature (Seal)		
Inventor's Typed Name: The	odore F. Emerson Date Application	Signed:
State of)) ss.:	
County of)	
personally known or prove	y of, personally appeared <u>Theoc</u> d to me on the basis of satisfactory evidence to be the be his/her free act and deed.	lore F. Emerson who is person who acknowledged the foregoing
		Notary Public
		My commission expires:
Rev 12/04 (Assign)	(Use Page Two For Additional Inventor(s) Signature(s))	Page 1 of 2

PATENT REEL: 016919 FRAME: 0477 When recorded please return to:
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Intellectual Property Administration
P. O. Box 27:2400
Fort Collins, Colorado 80527-2400

PATENT APPLICATION ATTORNEY DOCKET NO. 200400264-1

ASSIGNMENT OF PATENT APPLICATION (cont.)

IN WITNESS WHEREOF, I/we hereunto set my/our hand(s) and seal(s):	
Market	0/23/2005
Date Assignment Signed:	/-/
Inventor's Typed Name: Robert L Noonan Date Application	Signed:
State of AC ;	
County of Min M. 161	
Before me this 33 day of Mugust personally appeared Rober	1 L Noonan who is
personally known or proved to me on the basis of satisfactory evidence to be the instrument of assignment to be his/her free act and deed.	person who acknowledged the foregoing
matroment of assignment to be mismar free act and dead.	Cose Il hoston
"OFFICIAL SEAL"	Notary Subject Le Little or Notary Subject Le Little or Look My commission expires. 9-10-1008
Rose L. Dutton	My commission expires. 19-10-2000
Notary Public, State of Illinois My Commission Exp. 09/10/2008	
My Commission East as a second	
Date Assignment Signed:	
Inventor's Typed Name: David F. Heinrich Date Application	Signed
State of)	
County of	
Before me this day_ or personally appeared <u>Daylor</u> personally known or proved to me on the basis of satisfactory evidence to be the instrument of assignment to be his/her free act and deed.	F. Heinrich who is person who acknowledged the foregoing
	Notary Public
	My commission expites.
Inventor's Signature (Seal)	
	Signed
State of ;) ss	
County of	
Before me this day of personally appeared Don D personally known or proved to me on the basis of satisfactory evidence to be the instrument of assignment to be his/her free act and deed.	who is person who acknowledged the foregoing
	Notary Public
	My commission expires:
(Use Page Three For Additional Invantor(s) Signature(s))	Page 2 of 2
Rev 12/04 (Assign)	

PATENT REEL: 016919 FRAME: 0478