FORM PTO-1595 1-31.52	01-13-200	
		District (BD) (BB)
1. Name of conveying party(ies): Richard J. Carter  Additional name(s) of conveying party(ies) at  3. Nature of Conveyance:  X Assignment  Security Agreement	10233559	
	<del></del>	
Execution Date(s): December 19, 20		
<ul><li>4. Application number(s) or patent r</li><li>If this document is being filed toget</li><li>A. Patent Application No.(s)</li></ul>		cation, execution date of the application is: Dec.19, 2000  B. Patent No.(s)
	Data Filada	
Application No.:	Date Filed:	10/326779
Confirmation No.:	Additional numbe	
5. Name and address of party to wh concerning document should be a Records Manager Intellectual Property Administ HEWLETT-PACKARD COMPAP.O. Box 272400 Fort Collins, Colorado 8052	mailed: tration ANY 7-2400	<ul> <li>6. Total number of applications and patents involved: 1</li> <li>7. Total Fee (37 CFR 3.41): \$40.00  Enclosed X Authorization to be charged to deposit account.</li> <li>8. Deposit Account Number: 08-2025</li> </ul>
1 FC:8021 40.00 CH	DO NOT USE	THIS SPACE
Patrick C. Keane  Name of Person Signing  Total	Signature	Dec 23, 2002  Date  Ing cover sheet, attachments, and document:2
OMB No. 0651-0011 (exp. 4/94)		
Mail document to be recorded with	Commission Box As	

Rev 05/02 (Recdasgn)

PATENT REEL: 013639 FRAME: 0127

## PATENT APPLICATION

ATTORNEY DOCKET NO. 100201730

## ASSIGNMENT OF PATENT APPLICATION

I/We, the undersigned (each) have agreed and hereby agree to assign to HEWLETT-PACKARD COMPANY, a Delaware corporation having its principal place of business in Palo Alto, California, (hereinafter HP), in furtherance of my/our obligations to HP, and do hereby assign and transfer to HP, 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:

and the invention(s) and improvement(s) set forth therein, and any and all continuations, continuations-in-part (C-I-P's), divisionals, and renewals of and substitutes for said application for said Letters Patent, and any and all Letters Patent of the United States and of countries foreign thereto which may be granted thereon or therefor; and any reissues, or reexaminations, or extensions of said	Memory Having Multiple Write Ports And Multiple Control Memory Units, And Method Of Operation			
continuations-in-part (C-HP's), divisionals, and renewals of and substitutes for said application for said betters Patent, and any and all Letters Patent of the United States and of countries foreign thereto which may be granted thereon or therefor; and any reissues, or reexaminations, or extensions of said Letters Patent.  I/we additionally authorize HP to file applications in my/our name for Letters Patent in any country, to be held and enjoyed by HP, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, resisued or extended, as fully and entirely as the same would have been held and enjoyed by me/us had this assignment, and transfer not been made;  AND I/we hereby covenant that I/we have full right to convey the entire interest herein assigned, and that I/we have not executed and will not execute any agreement in conflict herewith, and I/we further covenant and agree that I/we 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 to said invention(s) or improvement(s), said application and said Letters Patent, to HP, its successors, assigns, nominees or legal representatives, and I/we agree to communicate to HP, or to its nominee, all known facts respecting said invention(s) or improvement(s), said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers, to execute all disclaimers and divisionals, continuations, C-I-P's, reissue and foreign applications, to make all rightful oaths and declarations, and generally to do everything possible to aid HP, its successors, assigns, nominees and legal representatives to obtain and enforce, for its or their own benefit, proper patent protection for said invention(s) or improvement(s) in any and all countries provided the expenses which may be incurred by merus and applications to cooperation and assistance are paid by HP;  AND I/we	Filing date:	.,	Application No.:	
to be held and enjoyed by HP, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by me/us had this assignment, and transfer not been made:  AND I/we hereby covenant that I/we have full right to convey the entire interest herein assigned, and that I/we have not executed and will not execute any agreement in conflict herewith, and I/we further covenant and agree that I/we 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 to said invention(s) or improvement(s), said application and said Letters Patent, to HP, its successors, assigns, nominees or legal representatives, and I/we agree to communicate to HP, or to its nominee, all known facts respecting said invention(s) or improvement(s), said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers, to execute all disclaimers and divisionals, continuations, C-I-P's, reissue and foreign applications, to make all rightful oaths and declarations, and generally to do everything possible to aid HP, its successors, assigns, nominees and legal representatives to obtain and enforce, for its or their own benefit, proper patent protection for said invention(s) or improvement(s) in any and all countries provided the expenses which may be incurred by me/us in lending such cooperation and assistance are paid by HP;  AND I/we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue to HP, as assignee of the entire right, title and interest, any and all Letters Patent for said invention(s) or improvement(s), including any and all Letters Patent of the United States whose	continuations-in-part (C-I-P's), div Letters Patent, and any and all	visionals, and re Letters Patent	enewals of and substitutes for said application for said of the United States and of countries foreign thereto	
and that I/we have not executed and will not execute any agreement in conflict herewith, and I/we further covenant and agree that I/we 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 to said invention(s) or improvement(s), said application and said Letters Patent, to HP, its successors, assigns, nominees or legal representatives, and I/we agree to communicate to HP, or to its nominee, all known facts respecting said invention(s) or improvement(s), said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers, to execute all disclaimers and divisionals, continuations, CI-P's, reissue and foreign applications, to make all rightful oaths and declarations, and generally to do everything possible to aid HP, its successors, assigns, nominees and legal representatives to obtain and enforce, for its or their own benefit, proper patent protection for said invention(s) or improvement(s) in any and all countries provided the expenses which may be incurred by mer/us in lending such cooperation and assistance are paid by HP;  AND I/we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue to HP, as assignee of the entire right, title and interest, any and all Letters Patent for said invention(s) or improvement(s), including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.  I/we further authorize and direct HP attorneys to insert the serial number and filling date of said application now identified by the attorney docket number and title set forth above as soon as the same shall have been made known to them by the United States Patent and Trademark Office.  IN WITNESS WHEREOF, I/we hereunto set mylour hand(s) and seal(s):	to be held and enjoyed by HP, its of the term or terms for which s as fully and entirely as the same	successors, as said Letters Pate	signs, nominees or legal representatives, to the full endent respectively may be granted, reissued or extended,	
States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue to HP, as assignee of the entire right, title and interest, any and all Letters Patent for said invention(s) or improvement(s), including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.  I/we further authorize and direct HP attorneys to insert the serial number and filling date of said application now identified by the attorney docket number and title set forth above as soon as the same shall have been made known to them by the United States Patent and Trademark Office.  IN WITNESS WHEREOF, I/we hereunto set my/our hand(s) and seal(s):	and that I/we have not execute further covenant and agree that execute and deliver all such painvention(s) or improvement(s), so nominees or legal representatives facts respecting said invention(s) in any legal proceedings, to continuations, C-I-P's, reissue an generally to do everything porepresentatives to obtain and eninvention(s) or improvement(s) in	d and will not to I/we will, each appress as may be addeduced application is and I/we agreed and foreign applications applications and all country and all cou	execute any agreement in conflict herewith, and I/we she time a request is made, and without undue delay, be necessary or desirable to perfect the title to said and said Letters Patent, to HP, its successors, assigns, see to communicate to HP, or to its nominee, all known t(s), said application and said Letters Patent, to testify papers, to execute all disclaimers and divisionals, cations, to make all rightful oaths and declarations, and HP, its successors, assigns, nominees and legal or their own benefit, proper patent protection for said untries provided the expenses which may be incurred by	
application now identified by the attorney docket number and title set forth above as soon as the same shall have been made known to them by the United States Patent and Trademark Office.  IN WITNESS WHEREOF, I/we hereunto set my/our hand(s) and seal(s):    Librard   . Curtic   Date Assignment Signed:   12 / 19 / 2002	States and any official of any corpatents on applications as afore any and all Letters Patent for said the United States which may be	untry or countric said, to issue to d invention(s) or e issued and gr	es foreign to the United States whose duty it is to issue of HP, as assignee of the entire right, title and interest, rimprovement(s), including any and all Letters Patent of	
Date Assignment Signed:   12   19   2002	application now identified by the	attorney docke	et number and title set forth above as soon as the same	
Inventor's Typed Name: Richard J. Carter  Date Application Signed: 12/19/2002  State of )	IN WITNESS WHEREOF, I/w	e hereunto set r	my/our hand(s) and seal(s):	
Inventor's Typed Name: Richard J. Carter  Date Application Signed: 12/19/2002  State of )	Richard J. Carle		Date Assignment Signed: 12/19/2002	
State of ) ss.:  County of ) ss.:  Before me this day of, personally appeared Richard J. Carter who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed.	V		, ,	
Before me this day of , personally appeared Richard J. Carter who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed.	-	}	7 7	
Before me this day of, personally appeared Richard J. Carter who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed.		) ss.:		
is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed.  Notary Public	County of	į		
	is personally known or proved to me or	n the basis of satis	rsonally appeared <u>Richard J. Carter</u> who factory evidence to be the person who acknowledged the foregoing	
My commission expires:			Notary Public	
			My commission expires:	

**PATENT** 

Page 1 of 1

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**RECORDED: 12/23/2002**