11-24-1998



SHEET

İ 	
To the Honorable Commissioner of 1	100904318 .ed original documents or copy the second
Name of conveying party(ies) Simon C. Steely, Jr. Edward J. McLellan Joel S. Emer	2. Name and address of receiving party(ies) Name: Digital Equipment Corporation Internal Address:
Additional name(s) of conveying party(ies) attached? [] Yes [3. Nature of conveyance: X] Assignment [] Merger	X] No Street Address: 111 Powdermill Road
Security Agreement [] Change of Name Other Execution Date: 10/27/98; 10/29/98; 11/02/98 respectivel	City: Maynard State: MA ZIP: 01754 Additional name(s) & address(es) attached? [] Yes [X] No
 Application number(s) or patent number(s): If this document is being filed together with a new appl A. Patent Application No.(s) 	B. Patent No.(s) B. Patent No.(s) B. Patent No.(s)
5. Name and address of party to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved: [1]
Name: David J. Thibodeau, Jr.	7. Total Fec (37 C.F.R. 3.41)\$ 40.00
Internal Address: Hamilton, Brook, Smith & Reynolds, P.C.	[X] Enclosed with Filing Fee [X] Authorized to charge any deficiencies or credit any overpayment to deposit account [] Authorized to be charged to deposit account
Street Address: Two Militia Drive	8. Deposit account number: 08-0380
City: Lexington State: MA ZIP: 02421-4	(Attach duplicate copy of this page if paying by deposit account)
9. Statement and signature. To the best of my knowledge and belief, the foregoing document. David J. Thibodeau, Jr. Name of Person Signing	information is true and correct and any attached coperation is true copy of the original light and signature 12 November 1998 Date Date
rotal number of pages incli	uding cover sheet, attachments, and document: [📮]

REEL: 9594 FRAME: 0079

ASSIGNMENT

WHEREAS, Simon C. Steely, Jr., a citizen of the United States residing at 8 Anna Louise Drive, Hudson, New Hampshire 03051, Edward J. McLellan, a citizen of the United States residing at 5 Washington Path, Holliston, Massachusetts 01746, and Joel S. Emer, a citizen of the United States residing at 20 Blackhorse Drive, Acton, Massachusetts 01720, have made certain inventions or discoveries (or both) set forth in an Application for Letters Patent of the United States of America entitled STORED PREDICTOR WITH INDEX COUNTER TO SUPPORT MULTIPLE PREDICTIONS IN UPDATE SHADOW, the specification of which:

[X]	was executed by us on the date(s) indicated below;
[]	
[]	as Application Serial No.[] was patented under U.S. Patent No.[]
			on [];

WHEREAS, Digital Equipment Corporation, a corporation of the Commonwealth of Massachusetts, whose address is 111 Powdermill Road, Maynard, Massachusetts 01754, and who, together with its successors and assigns is hereinafter called "Assignee", is desirous of acquiring the entire right, title and interest together with the benefits and privileges hereinafter recited;

NOW, THEREFORE, for valuable consideration furnished by Assignee to us/me, receipt and sufficiency of which we/I hereby acknowledged, we/I hereby, without reservation;

1. Assign, transfer and convey to Assignee the entire right, title and interest together with the benefits and privileges in and to said inventions and discoveries, said Application for Letters Patent or similar forms of protection of the United States of America, and all other applications for Letters Patent on said inventions and discoveries in whatsoever countries, including all divisional, renewal, substitute, continuation and convention applications based in whole or in part upon said inventions or discoveries, or upon said application, and any and all Letters Patent, reissues and extensions of Letters Patent or similar forms of protection granted for said inventions and discoveries or upon said applications, and every priority right that is or may be predicated upon or arise from said inventions, said discoveries, said applications and said Letters Patent;

1

- 2. Authorize Assignee to file patent applications in any or all countries or groups of countries on any or all of said inventions and discoveries in our name or in the name of Assignee or otherwise as Assignee may deem advisable, under the International Convention or any other relevant convention or treaty or otherwise;
- 3. Authorize and request the Commissioner of Patents and Trademarks of the United States of America and the empowered officials of all other governments to issue or transfer all said Letters Patent to Assignee, as assignee of the entire right, title and interest therein, or otherwise as Assignee may direct;
- 4. Warrant that we/I have not knowingly conveyed to others any rights in said inventions, discoveries, applications or patents or any license to use the same or to make, use or sell anything embodying or utilizing any of said inventions or discoveries; and that we/I have good right to assign the same to Assignee without encumbrance;
- 5. Bind our/my heirs, legal representatives and assigns, as well as ourselves/myself, to do, upon Assignee's request and at Assignee's expense, but without additional consideration to us/me or them, all acts reasonable serving to assure that said inventions and discoveries, said patent applications and said Letters Patent shall be held and enjoyed by Assignee as fully and entirely as the same could have been held and enjoyed by us/my, our/my heirs, legal representatives and assigns if this assignment had not been made; and particularly to execute and deliver to Assignee all lawful application documents including petitions, specifications, and oaths, and all assignments, disclaimers, and lawful affidavits in form and substance as may be requested by Assignee; to communicate to Assignee all facts known to us/me relating to said inventions and discoveries or the history thereof; and to furnish Assignee with any and all documents, photographs, models, samples and other physical exhibits in our/my control or in the control of our/my heirs, legal representatives or assigns which may be useful for establishing any facts of our/my conceptions, disclosures, and reduction to practice of said inventions or discoveries.

IN WITNESS WHEREOF:	
DATE I SIGNED INVENTOR'S DECLARATION: Oct 2	17,1998
Today's Date: Oct 27, 1948 Simon C. S	CSt. Jr.
STATE OF: Massachusketts	
COUNTY OF: Middlesex	
On this day of, 1998, before me Steely, Jr. known to me to be the person described in and who and who acknowledged that he/she executed the same as his/he	executed the foregoing instrument,
Notary Public My Commission Expires:	-12-99
IN WITNESS WHEREOF:	
DATE I SIGNED INVENTOR'S DECLARATION:	
Today's Date:	
Edward J.	McLellan
STATE OF:	
COUNTY OF:	
On this day of, 1998, before me McLellan known to me to be the person described in and who eand who acknowledged that he/she executed the same as his/he	executed the foregoing instrument,
Notary Public My Commission Expires:	

IN WITNESS WHEREOF:	
DATE I SIGNED INVENTO	OR'S DECLARATION:
Today's Date:	
	Joel S. Emer
STATE OF:	· · · · · · · · · · · · · · · · · · ·
COUNTY OF:	
known to me to be the perso	f, 1998, before me personally appeared <u>Joel S. Emer</u> n described in and who executed the foregoing instrument, and who executed the same as his/her free act and deed.
	Notary Public
	My Commission Expires:

ASSIGNMENT

WHEREAS, Simon C. Steely, Jr., a citizen of the United States residing at 8 Anna Louise Drive, Hudson, New Hampshire 03051, Edward J. McLellan, a citizen of the United States residing at 5 Washington Path, Holliston, Massachusetts 01746, and Joel S. Emer, a citizen of the United States residing at 20 Blackhorse Drive, Acton, Massachusetts 01720, have made certain inventions or discoveries (or both) set forth in an Application for Letters Patent of the United States of America entitled STORED PREDICTOR WITH INDEX COUNTER TO SUPPORT MULTIPLE PREDICTIONS IN UPDATE SHADOW, the specification of which:

	X]	was executed by us on the date(s) indicated below;
[]	
ſ		1	as Application Serial No.[] was patented under U.S. Patent No.[]
_		-	on [];

WHEREAS, Digital Equipment Corporation, a corporation of the Commonwealth of Massachusetts, whose address is 111 Powdermill Road, Maynard, Massachusetts 01754, and who, together with its successors and assigns is hereinafter called "Assignee", is desirous of acquiring the entire right, title and interest together with the benefits and privileges hereinafter recited;

NOW, THEREFORE, for valuable consideration furnished by Assignee to us/me, receipt and sufficiency of which we/I hereby acknowledged, we/I hereby, without reservation;

1. Assign, transfer and convey to Assignee the entire right, title and interest together with the benefits and privileges in and to said inventions and discoveries, said Application for Letters Patent or similar forms of protection of the United States of America, and all other applications for Letters Patent on said inventions and discoveries in whatsoever countries, including all divisional, renewal, substitute, continuation and convention applications based in whole or in part upon said inventions or discoveries, or upon said application, and any and all Letters Patent, reissues and extensions of Letters Patent or similar forms of protection granted for said inventions and discoveries or upon said applications, and every priority right that is or may be predicated upon or arise from said inventions, said discoveries, said applications and said Letters Patent;

1

- 2. Authorize Assignee to file patent applications in any or all countries or groups of countries on any or all of said inventions and discoveries in our name or in the name of Assignee or otherwise as Assignee may deem advisable, under the International Convention or any other relevant convention or treaty or otherwise;
- 3. Authorize and request the Commissioner of Patents and Trademarks of the United States of America and the empowered officials of all other governments to issue or transfer all said Letters Patent to Assignee, as assignee of the entire right, title and interest therein, or otherwise as Assignee may direct;
- 4. Warrant that we/I have not knowingly conveyed to others any rights in said inventions, discoveries, applications or patents or any license to use the same or to make, use or sell anything embodying or utilizing any of said inventions or discoveries; and that we/I have good right to assign the same to Assignee without encumbrance;
- 5. Bind our/my heirs, legal representatives and assigns, as well as ourselves/myself, to do, upon Assignee's request and at Assignee's expense, but without additional consideration to us/me or them, all acts reasonable serving to assure that said inventions and discoveries, said patent applications and said Letters Patent shall be held and enjoyed by Assignee as fully and entirely as the same could have been held and enjoyed by us/my, our/my heirs, legal representatives and assigns if this assignment had not been made; and particularly to execute and deliver to Assignee all lawful application documents including petitions, specifications, and oaths, and all assignments, disclaimers, and lawful affidavits in form and substance as may be requested by Assignee; to communicate to Assignee all facts known to us/me relating to said inventions and discoveries or the history thereof; and to furnish Assignee with any and all documents, photographs, models, samples and other physical exhibits in our/my control or in the control of our/my heirs, legal representatives or assigns which may be useful for establishing any facts of our/my conceptions, disclosures, and reduction to practice of said inventions or discoveries.

2

IN WITNESS WHEREOF:
DATE I SIGNED INVENTOR'S DECLARATION:
Today's Date:
Simon C. Steely, Jr.
STATE OF:
COUNTY OF:
On this day of, 1998, before me personally appeared <u>Simon C.</u> <u>Steely, Jr.</u> known to me to be the person described in and who executed the foregoing instrument, and who acknowledged that he/she executed the same as his/her free act and deed.
Notary Public My Commission Expires:
IN WITNESS WHEREOF: Edward J. McLellan
DATE I SIGNED INVENTOR'S DECLARATION: Oct 29, 98
Today's Date: Oct 29, 1998 Edward J.McLellan
STATE OF: Massachusetts
COUNTY OF: CSSU
On this, day of, 1998, before me personally appeared Edward J. McLellan known to me to be the person described in and who executed the foregoing instrument, and who acknowledged that he/she executed the same as his/her free act and deed.
John E Haten
Notaby Public Robyn E. HATCH My Commission Expires: 10/04/2002

PATENT

IN WITNESS W	HEREOF:	
DATE I SIGNE	D INVENTOR'S DEC	CLARATION:
Today's Date:		Joel S. Emer
STATE OF:		 ,
COUNTY OF: _		
known to me to	be the person describe	, 1998, before me personally appeared <u>Joel S. Emer</u> ed in and who executed the foregoing instrument, and who e same as his/her free act and deed.
	Notary 1	Public
	My Cor	nmission Expires:

ASSIGNMENT

WHEREAS, Simon C. Steely, Jr., a citizen of the United States residing at 8 Anna Louise Drive, Hudson, New Hampshire 03051, Edward J. McLellan, a citizen of the United States residing at 5 Washington Path, Holliston, Massachusetts 01746, and Joel S. Emer, a citizen of the United States residing at 20 Blackhorse Drive, Acton, Massachusetts 01720, have made certain inventions or discoveries (or both) set forth in an Application for Letters Patent of the United States of America entitled STORED PREDICTOR WITH INDEX COUNTER TO SUPPORT MULTIPLE PREDICTIONS IN UPDATE SHADOW, the specification of which:

[X]	was executed by us on the date(s) indicated below;
[]	was meaning of
ſ		1	as Application Serial No.[] was patented under U.S. Patent No.[]
-		-	on [];

WHEREAS, Digital Equipment Corporation, a corporation of the Commonwealth of Massachusetts, whose address is 111 Powdermill Road, Maynard, Massachusetts 01754, and who, together with its successors and assigns is hereinafter called "Assignee", is desirous of acquiring the entire right, title and interest together with the benefits and privileges hereinafter recited;

NOW, THEREFORE, for valuable consideration furnished by Assignee to us/me, receipt and sufficiency of which we/I hereby acknowledged, we/I hereby, without reservation:

1. Assign, transfer and convey to Assignee the entire right, title and interest together with the benefits and privileges in and to said inventions and discoveries, said Application for Letters Patent or similar forms of protection of the United States of America, and all other applications for Letters Patent on said inventions and discoveries in whatsoever countries, including all divisional, renewal, substitute, continuation and convention applications based in whole or in part upon said inventions or discoveries, or upon said application, and any and all Letters Patent, reissues and extensions of Letters Patent or similar forms of protection granted for said inventions and discoveries or upon said applications, and every priority right that is or may be predicated upon or arise from said inventions, said discoveries, said applications and said Letters Patent;

1

- 2. Authorize Assignee to file patent applications in any or all countries or groups of countries on any or all of said inventions and discoveries in our name or in the name of Assignee or otherwise as Assignee may deem advisable, under the International Convention or any other relevant convention or treaty or otherwise;
- 3. Authorize and request the Commissioner of Patents and Trademarks of the United States of America and the empowered officials of all other governments to issue or transfer all said Letters Patent to Assignee, as assignee of the entire right, title and interest therein, or otherwise as Assignee may direct;
- 4. Warrant that we/I have not knowingly conveyed to others any rights in said inventions, discoveries, applications or patents or any license to use the same or to make, use or sell anything embodying or utilizing any of said inventions or discoveries; and that we/I have good right to assign the same to Assignee without encumbrance;
- 5. Bind our/my heirs, legal representatives and assigns, as well as ourselves/myself, to do, upon Assignee's request and at Assignee's expense, but without additional consideration to us/me or them, all acts reasonable serving to assure that said inventions and discoveries, said patent applications and said Letters Patent shall be held and enjoyed by Assignee as fully and entirely as the same could have been held and enjoyed by us/my, our/my heirs, legal representatives and assigns if this assignment had not been made; and particularly to execute and deliver to Assignee all lawful application documents including petitions, specifications, and oaths, and all assignments, disclaimers, and lawful affidavits in form and substance as may be requested by Assignee; to communicate to Assignee all facts known to us/me relating to said inventions and discoveries or the history thereof; and to furnish Assignee with any and all documents, photographs, models, samples and other physical exhibits in our/my control or in the control of our/my heirs, legal representatives or assigns which may be useful for establishing any facts of our/my conceptions, disclosures, and reduction to practice of said inventions or discoveries.

2

`oday's	
Date:	
	Simon C. Steely, Jr.
TATE OF:	
OUNTY OF:	
n this teely, Jr. known to m	day of, 1998, before me personally appeared Simon C. ne to be the person described in and who executed the foregoing instrum
id who acknowledge	ed that he/she executed the same as his/her free act and deed.
	Notary Public
	My Commission Expires:
	-5
N WITNESS WHERI	EOF:
	EOF:
ATE I SIGNED INV	
ATE I SIGNED INV oday's	EOF:
OATE I SIGNED INV	EOF:
OATE I SIGNED INV	EOF:
OATE I SIGNED INV oday's oate:	EOF:
OATE I SIGNED INV oday's oate: TATE OF:	EOF:
OATE I SIGNED INV	EOF:
OATE I SIGNED INV Oday's Pate: TATE OF: OUNTY OF: In this IcLellan known to me	EOF:
OATE I SIGNED INV Coday's Oate: TATE OF: OUNTY OF: On this IcLellan known to me	EOF:
OATE I SIGNED INV Coday's Oate: TATE OF: OUNTY OF: On this IcLellan known to me	EOF:

IN WITNESS WHEREOF:
DATE I SIGNED INVENTOR'S DECLARATION: 11/2/99
Today's Date: 11/2/98 Jøel S. Emer
STATE OF: MASSACHUSETT S
COUNTY OF: Counces fore
On this day of, 1998, before me personally appeared <u>Joel S. Emer</u> known to me to be the person described in and who executed the foregoing instrument, and who acknowledged that he/she executed the same as his/her free act and deed.
Sait Dest
Notary Public My Commission Expires: July 29, 6999

4

RECORDED: 11/12/1998