

RECORDATION FORM COVER SHEET  
PATENTS ONLY

Atty Ref/Docket No.: 1376.754US1

Patent and Trademark Office

To the Director of the U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Dennis C. Abts, Michael Higgins and Van L. Snyder

Additional name(s) of conveying party(ies) attached?

☐ Yes ☒ No

3. Nature of conveyance:

☒ Assignment☐ Merger☐ Security Agreement ☐ Change of Name☐ OtherExecution Date: April 13, 2007, April 10, 2007, April 18, 2007

2. Name and address of receiving party(ies):

Name: Cray Inc.

Street Address: 411 First Avenue S, Suite 600

City: Seattle State: WA Zip: 98104-2860Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)

B. Patent No.(s)

Serial No. 11/693,572, filed March 29, 2007

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Robert B. Madden

Address:

Schwegman, Lundberg, Woessner &amp; Kluth, P.A.

P.O. Box 2938

Minneapolis, MN 55402-0938

6. Total number of applications and patents involved: 17. Total fee (37 CFR 3.41): \$ 40.00☐ Enclosed☒ Authorized to be charged to deposit account  
19-0743

8. Please charge any additional fees or credit any over payments to our Deposit Account No.: 19-0743

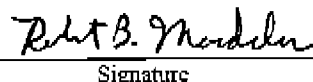
**DO NOT USE THIS SPACE**

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Robert B. Madden/Reg. No. 57,521

Name of Person Signing



Signature

JUNE 5/2007

Date

Total number of pages including cover sheet: 5

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents and Trademarks  
Mail Stop Assignment Recordation Services  
P.O. Box 1450  
Alexandria, VA 22313-1450

700328061

PATENT  
REEL: 019385 FRAME: 0971

CH \$40.00 190743 11693672

## ASSIGNMENT

WHEREAS, We, Dennis C. Abts, residing at E3265 Aspen Rd., Eleva, WI 54738, and Michael Higgins, residing at 4007 Meadowwood Drive, Eau Claire, Wi 54701, and Van L. Snyder, residing at 2168 Quail Creek Parkway NE, Blaine, MN 55449, made certain new and useful inventions and improvements for which we filed an application for Letters Patent of the United States on March 29, 2007, which application was assigned U.S. patent application serial number 11/693,572, and is entitled FAULT TOLERANT MEMORY APPARATUS, METHODS, AND SYSTEMS;

AND WHEREAS, Cray Inc., a corporation organized and existing under and by virtue of the laws of the State of Washington, and having an office and place of business at 411 First Avenue S, Suite 600, Seattle, WA 98104-2860 (hereinafter "Assignee"), is desirous of acquiring the entire right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefor;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid application, and in and to the said application, all divisions, continuations, continuations-in-part, or renewals thereof, all Letters Patent which may be granted there from, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted there from; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the aforesaid inventions and improvements to the said Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the said Assignee, its successors and assigns.

Docket No: 1376,754US1  
Serial Number : 11/693,572  
Filing Date : March 29, 2007  
Page 2 of 4

AND, for the consideration aforesaid, we do hereby agree that we and our executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the said improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

AND, furthermore, we covenant and agree with said Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by us and that full right to convey the same as herein expressed is possessed by us.

IN TESTIMONY WHEREOF, I have hereunto set my hand this 13 day of April, 2007.

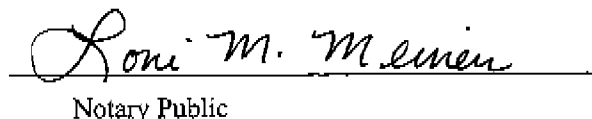


Dennis C. Abts

STATE OF WISCONSIN )  
 )ss  
COUNTY OF Chippewa )

On this 13<sup>th</sup> day of April, 2007 before me personally appeared Dennis C. Abts, to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.

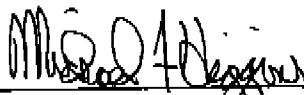
[SEAL]



Notary Public

Docket No: 1376.754US1  
Serial Number : 11/693,572  
Filing Date : March 29, 2007  
Page 3 of 4

IN TESTIMONY WHEREOF, I have hereunto set my hand this 10<sup>th</sup> day of  
April, 2007.



Michael Higgins


STATE OF Wisconsin )

)ss

COUNTY OF Chippewa )

On this 10<sup>th</sup> day of April, 2007 before me personally appeared Michael Higgins, to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.

[SEAL]



Notary Public

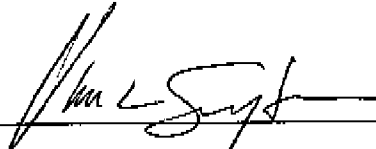
PATENT

REEL: 019385 FRAME: 0974

Docket No: 1376.754US1  
Serial Number: 11/693,572  
Filing Date: March 29, 2007  
Page 4 of 4

IN TESTIMONY WHEREOF, I have hereunto set my hand this 18<sup>th</sup> day of

April, 2007.


  
\_\_\_\_\_  
Van L. Snyder

STATE OF Minnesota )  
 )ss

COUNTY OF Anoka )

On this 18<sup>th</sup> day of April, 2007 before me personally appeared Van L. Snyder,  
to me known and known to me to be the person described in and who executed the foregoing instrument,  
and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set  
forth.

[SEAL]

  
\_\_\_\_\_  
Notary Public 

## SCHWEGMAN ■ LUNDBERG ■ WOESSNER ■ KLUTH

PATENT, TRADEMARK &amp; COPYRIGHT ATTORNEYS

P.O. Box 2938

Minneapolis, MN 55402

Telephone (612) 373-6900

Facsimile (612) 339-3061

Date: June 5, 2007Time: 14:25  
(Minneapolis, Minn.)TO: Commissioner for Patents  
Attn: Assignment Recordation Services  
Patent Examining Corps  
Facsimile Center  
P.O. Box 1450  
Alexandria, VA 22313-1450

FROM: Robert B. Madden

OUR REF: 1376.754US1

FAX NUMBER 571-273-0140

## Documents Transmitted:

Assignment (4 pages), Assignment Recordation Form Cover Sheet (1 page), authorization to charge Deposit Account No. 19-0743 in the amount of \$40.00 to cover the Assignment Recording Fee.

Total pages of this transmission, including cover letter: (6 pgs)

If you do NOT receive all of the pages described above, please telephone us at 612-373-6900 or fax us at 612-339-3061.

In re. Patent Application of: Dennis Abts et al.

Examiner:

Serial No.: 11/693,572

Group Art Unit: 2113

Filed: March 29, 2007

Docket No.: 1376.754US1

Title: FAULT TOLERANT MEMORY APPARATUS, METHODS, AND SYSTEMS

Please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

By: Robert B. Madden  
Name: Robert B. Madden  
Reg. No. 57,521

I hereby certify that this paper is being transmitted by facsimile to the U.S. Patent and Trademark Office on the date shown below.

Nellie E. Nuhring  
Nellie E. Nuhring6/5/07  
Date