

PATENT ASSIGNMENT

Electronic Version v1.1  
Stylesheet Version v1.1

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT										
NATURE OF CONVEYANCE:	Corrective Assignment to correct the Assignee Name: Hitachi Global Storage Technologies Netherlands B.V. previously recorded on Reel 018436 Frame 0370. Assignor(s) hereby confirms the Original Text: Hitachi Global Technologies Netherlands, B.V..										
CONVEYING PARTY DATA											
<table border="1"><tr><th>Name</th><th>Execution Date</th></tr><tr><td>David Robison Hall</td><td>02/21/2008</td></tr></table>		Name	Execution Date	David Robison Hall	02/21/2008						
Name	Execution Date										
David Robison Hall	02/21/2008										
RECEIVING PARTY DATA											
<table border="1"><tr><td>Name:</td><td>Hitachi Global Storage Technologies Netherlands B.V.</td></tr><tr><td>Street Address:</td><td>Locatellikade 1, Parnassustoren</td></tr><tr><td>City:</td><td>Amsterdam</td></tr><tr><td>State/Country:</td><td>NETHERLANDS</td></tr><tr><td>Postal Code:</td><td>1076 AZ</td></tr></table>		Name:	Hitachi Global Storage Technologies Netherlands B.V.	Street Address:	Locatellikade 1, Parnassustoren	City:	Amsterdam	State/Country:	NETHERLANDS	Postal Code:	1076 AZ
Name:	Hitachi Global Storage Technologies Netherlands B.V.										
Street Address:	Locatellikade 1, Parnassustoren										
City:	Amsterdam										
State/Country:	NETHERLANDS										
Postal Code:	1076 AZ										
PROPERTY NUMBERS Total: 1											
<table border="1"><tr><th>Property Type</th><th>Number</th></tr><tr><td>Application Number:</td><td>11552888</td></tr></table>		Property Type	Number	Application Number:	11552888						
Property Type	Number										
Application Number:	11552888										
CORRESPONDENCE DATA											
Fax Number: (408)717-9155 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>											
Phone: 408-717-5621											
Email: marcia.mingione@hitachigst.com											
Correspondent Name: Hitachi Global Storage Technologies											
Address Line 1: 5600 Cottle Road											
Address Line 2: IP Law NHGB/014-2											
Address Line 4: San Jose, CALIFORNIA 95193											
ATTORNEY DOCKET NUMBER:	HSJ920060043US1										
NAME OF SUBMITTER:	Marcia Mingione										
Total Attachments: 6 source=HSJ920060043US1 Recordation Cov#page1.tif											

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REEL: 020570 FRAME: 0358

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**RECORDATION FORM COVER SHEET  
PATENTS ONLY**

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

**1. Name of conveying party(ies)**

David Robison Hall

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

**3. Nature of conveyance/Execution Date(s):**

Execution Date(s) 10/24/2006

- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Joint Research Agreement  
☐ Government Interest Assignment  
☐ Executive Order 9424, Confirmatory License  
☐ Other \_\_\_\_\_

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

Name: Hitachi Global Storage Technologies Netherlands B.V.

Internal Address: \_\_\_\_\_

Street Address: Locatellikade 1

Parnassustoren

City: Amsterdam

State: \_\_\_\_\_

Country: The Netherlands Zip: 1076 AZ

Additional name(s) & address(es) attached? ☐ Yes ☒ No

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

☐ This document is being filed together with a new application.

A. Patent Application No.(s)

B. Patent No.(s)

11/552,888

Additional numbers attached? ☐ Yes ☒ No

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

Name: Hitachi Global Storage Technologies

Internal Address: IP Law / Mail Stop: NHGB/014-2

Street Address: 5600 Cottle Road

City: San Jose

State: CA Zip: 95193

Phone Number: 408-717-7490

Fax Number: 408-717-9155

Email Address: marcia.mingione@hitachigst.com

**6. Total number of applications and patents involved: 1**

**7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00**

- ☐ Authorized to be charged by credit card  
☒ Authorized to be charged to deposit account  
☐ Enclosed  
☐ None required (government interest not affecting title)

**8. Payment Information**

a. Credit Card Last 4 Numbers \_\_\_\_\_  
Expiration Date \_\_\_\_\_

b. Deposit Account Number 50-2587

Authorized User Name Douglas Millett

**9. Signature:**

Patrick Duncan  
Signature

2/26/08  
Date

Patrick Duncan Reg. No. 41,721

Name of Person Signing

Total number of pages including cover sheet, attachments, and documents:

6

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:  
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

**ASSIGNMENT**

Whereas, I

**David Robison Hall of Rochester, Minnesota;**

has invented certain improvements in

Title: **Techniques For Improving Hard Disk Drive Efficiency**

Date of execution of Declaration: **October 24, 2006**

Filing Date: **October 25, 2006**

Application No.: **11/552,888**; and

Whereas, **HITACHI GLOBAL STORAGE TECHNOLOGIES NETHERLANDS B.V.**, having a place of business at Locatellikade 1, Parnassustoren, 1076 AZ Amsterdam, The Netherlands (hereinafter called **HITACHI**), desires to acquire the entire right, title and interest in the said application and invention, and to any United States and foreign patents to be obtained therefore;

Now therefore, for a valuable consideration, receipt whereof is hereby acknowledged, we, the above named, hereby sell, assign, and transfer to **HITACHI**, its successors and assigns, the entire right, title and interest in the said application and invention therein disclosed for the United States and foreign countries, and all rights of priority resulting from the filing of said United States application, and we request the Commissioner of Patents to issue any Letters Patent granted upon the inventions set forth in said application to **HITACHI**, its successors and assigns; and we hereby agree that **HITACHI** may apply for foreign Letters Patent on said invention and we will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by **HITACHI**.

Signed

Date: **2/21/2008**

/David Robison Hall/

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**David Robison Hall**

## PATENT ASSIGNMENT

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Stylesheet Version v1.1

10/25/2006  
500169791

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
Mr. David Robison Hall	10/24/2006
RECEIVING PARTY DATA	
Name:	Hitachi Global Technologies Netherlands B.V.
Street Address:	Locatellikade 1, 1076 AZ Amsterdam, 1070 AE Amsterdam
City:	Amsterdam
State/Country:	NETHERLANDS
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	11552888
CORRESPONDENCE DATA	
Fax Number:	(650)321-2465
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>	
Email:	sjc@eecspatents.com
Correspondent Name:	Steven J. Cahill
Address Line 1:	340 Laurel Street
Address Line 4:	Menlo Park, CALIFORNIA 94025
ATTORNEY DOCKET NUMBER:	HSJ9-2006-0043-US1
NAME OF SUBMITTER:	Steven J. Cahill
Total Attachments: 1 source=HG8ASSN#page1.tif	

CH \$40.00 11552888

ASSIGNMENT OF PATENT APPLICATION

SOLO

WHEREAS, David Robison Hall of 4724 Canterbury Ct. NW, Rochester, MN 55901; hereinafter referred to as the "Assignor," is the inventor of the invention described and set forth in the below-identified application for United States Letters Patent:

Title of Invention: Techniques For Improving Hard Disk Drive Efficiency

Date of execution of Declaration: October 24, 2006

Filing Date: October 25, 2006

Application No.: 11/552,888; and

WHEREAS, <sup>Storage</sup> Hitachi Global Technologies Netherlands <sup>no comma</sup> B.V., Locatellikade 1, 1076 AZ Amsterdam, 1070 AE Amsterdam, The Netherlands, hereinafter referred to as "ASSIGNEE," is desirous of acquiring an interest in the invention and application and in any U.S. Letters Patent and Registrations which may be granted on the same;

For good and valuable consideration, receipt of which is hereby acknowledged by Assignor, Assignor has assigned, and by these presents do assign to Assignee all right, title and interest in and to the invention and application and to all foreign counterparts (including patent, utility model and industrial designs), and in and to any Letters Patent and Registrations which may hereafter be granted on the same in the United States and all countries throughout the world, and to claim the priority from the application as provided by the Paris Convention. The right, title and interest is to be held and enjoyed by Assignee and Assignee's successors and assigns as fully and exclusively as it would have been held and enjoyed by Assignor had this Assignment not been made, for the full term of any Letters Patent and Registrations which may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

Assignor further agrees that he will, without charge to Assignee, but at Assignee's expense, (a) cooperate with Assignee in the prosecution of U.S. Patent applications and foreign counterparts on the invention and any improvements, (b) execute, verify, acknowledge and deliver all such further papers, including patent applications and instruments of transfer, and (c) perform such other acts as Assignee lawfully may request to obtain or maintain Letters Patent and Registrations for the invention and improvements in any and all countries, and to vest title thereto in Assignee, or Assignee's successors and assigns.

Assignor hereby authorizes and requests The Law Office of Steven J. Cahill, 340 Laurel St., Menlo Park, CA 94025, to insert herein above the application number, filing date of said application, and dates of declaration when known.

IN TESTIMONY WHEREOF, Assignor has signed his name on the date indicated.

Dated: 10/24/06

/David Hall/  
David Robison Hall