PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|---------------------|----------------|
| Aravind Raghunathan | 01/31/2008 |
| Kevin Dean Fruendt | 02/07/2008 |

RECEIVING PARTY DATA

| Name: | Seagate Technology LLC |
|-----------------|------------------------|
| Street Address: | 920 Disc Drive |
| City: | Scotts Valley |
| State/Country: | CALIFORNIA |
| Postal Code: | 95066 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 12028131 |

CORRESPONDENCE DATA

Fax Number: (617)951-3927

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

617-951-2500 Phone:

Email: jmb@c-m.com, elaine@c-m.com Correspondent Name: CESARI AND MCKENNA, LLP Address Line 1: 88 BLACK FALCON AVENUE

Address Line 4: BOSTON, MASSACHUSETTS 02210

ATTORNEY DOCKET NUMBER: 108047-0110

NAME OF SUBMITTER: James M. Behmke

Total Attachments: 6

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> PATENT REEL: 020481 FRAME: 0909

ASSIGNMENT

Whereas We, Aravind Raghunathan, whose residence address is 2836 18th Avenue, E. Shakopee, MN 55379, and Kevin Dean Fruendt, whose residence address is 9204 SW 21st Street, Oklahoma City, OK 73128, have made certain inventions or discoveries (or both) set forth in an application for Letters Patent of the United States of America entitled LONG-TERM ASYMMETRY TRACKING IN MAGNETIC RECORDING DEVICES, identified by Cesari and McKenna File No. 108047-0110 / STL14251, which application was enclosed on even date herewith; and

Whereas Seagate Technology LLC, whose address is 920 Disc Drive, Scotts Valley, CA 95066, and which, together with its successors and assigns, is hereinafter called "Assignee," is desirous of acquiring the title, rights, benefits, and privileges hereinafter recited;

Now, Therefore, for valuable consideration furnished by Assignee to us, receipt and sufficiency of which we hereby acknowledge, we hereby, without reservation:

- 1. Assign, transfer, and convey to Assignee our entire right, title, and interest in and to said inventions and discoveries, said application for Letters Patent of the United States of America, any and all other applications for Letters Patent on said inventions and discoveries in whatsoever countries, including all divisional, renewal, substitute, continuation, continuation-in-part, and Convention applications based in whole or in part upon said inventions or discoveries, or upon said applications, and any and all Letters Patent, reissues, reexaminations, and extensions of Letters Patent 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;
- 2. Authorize Assignee to file patent applications in any or all countries on any or all of said inventions and discoveries in our names or in the name of Assignee or otherwise as Assignee may deem advisable, under the International Convention 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 have not knowingly conveyed to others any right 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 have good right to assign the same to Assignee without encumbrance;
- 5. Bind our heirs, legal representatives and assigns, as well as ourselves, to do, upon Assignee's request and at Assignee's expense, but without additional consideration to us or them, all acts reasonably serving to assure that the said inventions and discoveries, the said patent applications, and the 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, our heirs, legal representatives, and assigns if this assignment had not been made; and particularly to execute and deliver to Assignee all lawful application documents

PATENT REEL: 020481 FRAME: 0910 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 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 control or in the control of our heirs, legal representatives or assigns which may be useful for establishing the facts of our conceptions, disclosures, and reduction to practice of said inventions and discoveries.

In testimony of which we have executed this Assignment as an instrument under seal on the dates indicated next to our names.

| 01/31/08 | L'Agarine | |
|----------|-------------------------------|--|
| Date | Aravind Raghunathan, Inventor | |
| 0 | | |

State of Minnesota)

County of Scott)ss.

On this 31 st day of January, 2008, before me appeared Aravind Raghunathan, to me known and known to me to be the person described in and who executed the foregoing instrument, and he acknowledged the same to be his free act and deed.

NANCY L. HAAHEIM
Notary Public-Minnesota
My Commission Expires Jan 31, 2010

Mancy L. Hagherm Notary Public

[seal]

| Date | Kevin Dean Fruendt, Inventor | |
|----------------------------|--|---|
| State of Oklahoma |) | , |
| County of |)ss.) | |
| Traditat, to the known and | y of, 2008, before me appeared Kevin I known to me to be the person described in and who exe and he acknowledged the same to be his free act and dee | |
| [ceal] | Notary Public | |

ASSIGNMENT

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- 2. Authorize Assignee to file patent applications in any or all countries on any or all of said inventions and discoveries in our names or in the name of Assignee or otherwise as Assignee may deem advisable, under the International Convention 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 have not knowingly conveyed to others any right 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 have good right to assign the same to Assignee without encumbrance;
- 5. Bind our heirs, legal representatives and assigns, as well as ourselves, to do, upon Assignee's request and at Assignee's expense, but without additional consideration to us or them, all acts reasonably serving to assure that the said inventions and discoveries, the said patent applications, and the 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, our heirs, legal representatives, and assigns if this assignment had not been made; and particularly to execute and deliver to Assignee all lawful application documents

PATENT ...
REEL: 020481 FRAME: 0913

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 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 control or in the control of our heirs, legal representatives or assigns which may be useful for establishing the facts of our conceptions, disclosures, and reduction to practice of said inventions and discoveries.

In testimony of which we have executed this Assignment as an instrument under seal on the dates indicated next to our names.

| Date | Aravind Raghunathan, Inventor | |
|------------------------|--|----|
| State of Minnesota |) | |
| County of |)ss.) | |
| Raghunathan, to me kno | ay of, 2008, before me appeared Aravind wn and known to me to be the person described in and who astrument, and he acknowledged the same to be his free act as | nd |
| | Notary Public | |
| [seal] | | |

Date

Lum Jean Jrumble

Kevin Dean Fruendt, Inventor

State of Oklahoma

) ss.

County of Canadian

On this _____ day of ______ 2008, before me appeared Kevin Dean Fruendt, to me known and known to me to be the person described in and who executed the foregoing instrument, and he acknowledged the same to be his free act and deed.

Description

**Description