PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT2609115

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CRAIG F. CUTFORTH	11/05/2013
CAROLINE W. ARNOLD	10/31/2013
CHRISTOPHER J. DEMATTIO	11/01/2013

RECEIVING PARTY DATA

Name:	SEAGATE TECHNOLOGY LLC
Street Address:	10200 S. DE ANZA BLVD.
City:	CUPERTINO
State/Country:	CALIFORNIA
Postal Code:	95014

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14075831

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	STL18106
NAME OF SUBMITTER:	RANDALL K. MCCARTHY
Signature:	/Randall K. McCarthy/
Date:	11/08/2013 PATENT

502563354 REEL: 031571 FRAME: 0331

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This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 4

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PATENT REEL: 031571 FRAME: 0332

ASSIGNMENT

WHEREAS, Craig F, Cutforth of 2437 Franklin Avenue, Louisville, CO 80027, Caroline W, Arnold of 11449 Central

Seagate Docket No.:

STL18106

	Court, Unit 210, Broomfield, CO 80021, and Christopher J. DeMattio of 4120 s/are the inventor(s) of an invention entitled <u>UPDATING MAP STRUCTURES</u>	
tha	hat is the subject matter of: (check all that apply)	
	a provisional application for Letters Patent which is identifiable in the Unit by Application No filed on	
\boxtimes	an application for Letters Patent which is identifiable in the United States	Patent and Trademark Office by
	Application No filed on herewith: and	
	an international application for Letters Patent filed pursuant to the Patent	Cooperation Treaty which is
	identifiable in the United States Receiving Office by Application No	

WHEREAS, Seagate Technology LLC, a limited liability company organized and existing under the laws of the State of Delaware and the United States of America, and having offices at 10200 S. De Anza Blvd, Cupertino, CA 95014 USA, ("Assignee") is desirous of acquiring the entire right, title and interest in and to the invention, the applications, and any and all Letters Patent or similar foreign or domestic legal protection;

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, I transfer to Assignee, its successors and assigns, my entire right, title and interest in and to the invention, the above-identified applications, all provisional applications from which any of the above-identified applications claim priority, corresponding domestic and foreign applications, any continuation, division, renewal, or substitute for the applications, all Letters Patent, any reissue, re-examination, or similar legal protection Issuing related to the Letters Patent, and all rights and benefits under any applicable treaty or convention; and I authorize the Director of the United States Patent and Trademark Office or foreign equivalent to issue the Letters Patent or similar legal protection to the Assignee.

I authorize the Assignee, its successors and assigns, to insert in this instrument the filing date(s) and application numbers when ascertained. I further authorize the Assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent or similar legal protection, in its own name if desired, in any and all foreign countries and appoint Assignee the common representative in the above identified international application and any international application for the invention.

I represent to the Assignee, its successors and assigns, that I have not and shall not execute any writing or do any act whatsoever conflicting with this Assignment. I, my executors or administrators, will at any time upon request, without additional consideration, but at the expense of the Assignee, its successors and assigns, execute and deliver to Assignee or its legal representatives such additional writings and do such additional acts as the Assignee, its successors and assigns, may deem desirable to perfect its enjoyment of this grant, and render all assistance in making application for and obtaining, maintaining, and enforcing the Letters Patent or similar legal protection on the invention in any and all countries, including without limitation providing testimony in any related interference, litigation or proceeding.

The above-identified application was made or authorized to be made by me. I believe that I am the original inventor or an original joint inventor of a claimed invention in the application. I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both. I hereby state that I have reviewed and understand the contents of the above identified application, including the claims, as amended by any amendment specifically referred to above. I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-inpart applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

Rev: 10/18/2012

	Craig F. Autforth Craig F. Autforth (Inventor)
\bigcap A	Date 2013
State of bloads	Date
County of BAUDA	
	ory Louis Sert name and title of the officer)
nersonally appeared Wida F. Cutt-Oct	nsert name and title of the officer)
basis of satisfactory evidence to be the person whose name is	s subscribed to the within instrument and acknowledged to me and that by his/her signature on the instrument the person, or
	Calkan La
I certify under PENALTY OF PERJURY under the laws of the paragraph is true and correct.	State of \(\int \mathcal{U} \
WITNESS my hand and official seal.	SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS
Signature DILLUM MAG (Seal) Signature of Notary Public Communion Expires: 6-18-2016	NOTARY PUBLIC

State of Golorado

County of Boulder

On Oct 3/, 20/3 before me, Penny F. Rehn

(insert name and title of the officer)

personally appeared Caroline W. Arnold (Inventor), who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

paragraph is true and correct.

Signature Signature of Notary Public

I certify under PENALTY OF PERJURY under the laws of the State of _

PENNY F REHN
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID # 19974003469
MY COMMISSION EXPIRES FEBRUARY 24, 2017

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adomanto	Christopher J. DeMaltio (Inventor) Date
State of Color acto	
County of <u>Bouldes</u> On <u>Nov. 1, 2013</u> before me, _	Penny Fisher (inset pame and title of the officer)
personally appeared	(Inventor), who proved to me on the nose name is subscribed to the within instrument and acknowledged to me ed capacity, and that by his/her signature on the instrument the person, or
I certify under PENALTY OF PERJURY under the paragraph is true and correct.	laws of the State of <u>Colorado</u> that the foregoing
WITNESS my hand and official seal.	

PENNY F REHN
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID # 19974003469
MY COMMISSION EXPIRES FEBRUARY 24, 2017

Rev: 10/18/2012

RECORDED: 11/08/2013

Signature of Notary Public