502100497 10/19/2012

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JOSEPH MICHAEL MAURIO	10/18/2012
CHRISTOPHER TODD MCCLURE	10/18/2012

RECEIVING PARTY DATA

Name:	NORTHROP GRUMMAN SYSTEMS CORPORATION
Street Address:	2980 FAIRVIEW PARK DRIVE
City:	FALLS CHURCH
State/Country:	VIRGINIA
Postal Code:	22042-4511

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13655712

CORRESPONDENCE DATA

Fax Number: 2166214072

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

Phone: 216-621-2234

Email: lpringle@tarolli.com

Correspondent Name: Christopher P. Harris

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Address Line 2: 1300 East Ninth Street, Suite 1700

Address Line 4: Cleveland, OHIO 44114

ATTORNEY DOCKET NUMBER: NG(ES)021436 US PRI

NAME OF SUBMITTER: Christopher P. Harris

Total Attachments: 2

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PATENT

REEL: 029158 FRAME: 0252

OF \$40.00 13655/12

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Notary's Signature

4105522661

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ASSIGNMENT

WHEREAS, I, JOSEPH MICHAEL MAURIO, hereinafter referred to as Assignor, together with CHRISTOPHER TODD MCCLURE, have jointly invented certain new and useful improvements in GENERATING A DIVERSE PROGRAM, described in an application for United States Letters Patent, executed by me on the date as stated below:

WHEREAS, Northrop Grumman Systems Corporation, a Delaware corporation, having its principal place of business at 2980 Fairview Park Drive, Falls Church, VA 22042-4511. United States of America, hereinafter referred to as Assignee, is desirous of acquiring the entire right, title and interest in, to and under said improvements and said

application:

NOW, THEREFORE, in consideration of Assignor's obligations to Northrop Grumman Systems Corporation, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Assignor has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, Assignor's entire right, title and interest in, to and under said improvements, and said application and all divisions, renewals, continuations, and continuations-in-part thereof, and all United States Letters patent that may be granted thereon and all reissues and extensions thereof, and all applications for Letters Patent that may hereafter be filled for said improvements in any country or countries foreign to the United States, Including the full right to claim for any such application the priority benefits of the International Convention for the Protection of Industrial Property and other priority-conferring treaties, and all Letters Patent that may be granted for said improvements in any country or countries foreign to the United States and all extensions, divisions, continuations, continuations-in-part, renewals and reissues thereof; and Assignor hereby authorizes and requests the Commissioner of Patents and Trademarks of the United States, and any official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said improvements to said Assignee, its successors, legal representatives and assigns, in accordance with the terms of this instrument;

Assignor hereby acknowledges that at the time of making the improvements herein identified. Assignor was under

an obligation to assign to Assignee, Assignor's entire right, title and interest in, to and under said improvements:

Assignor hereby covenants that Assignor has full right to convey the interest herein assigned, and that Assignor has not executed, and will not execute, any agreement in conflict herewith and that Assignee, Northrop Grumman Systems Corporation, its successors, assigns and other legal representatives shall have the right to hold and enjoy for its and their own use and benefit, to the end of the term or terms for which such Letters Patent shall or may be granted, reissued or extended as fully and completely as the same right could have been held and enjoyed by Assignor had this Assignment not been made.

Assignor hereby further covenants and agrees to communicate to Assignee, its successors, legal representatives and assigns, any and all facts known to Assignor respecting said improvements; to promptly provide Assignee with all documents relating to said improvements, said invention, and said Letters Patent as may be known or accessible to Assignor; to testify as to the same in any interference or litigation or other legal proceedings related thereto; to sign all lawful papers, execute all extensions, continuations, continuations-in-part, divisional and reissue applications; and to make all rightful oaths or declarations and generally do everything possible to aid Assignee, its successors, legal representatives and assigns in obtaining and enforcing all the rights herein conveved for said improvements in all

countries without further compensation, but at the expense of Assignee, its successors, legal representatives and ass	igr
19	
IN WITNESS WHEREOF, the undersigned has executed and delivered this instrument this 1° day of OCIOBE 2012, and has executed the referenced patent application on the 8 day of OCIOBE 2012.	حد
JOSEPH MICHAEL MADRIO	
STATE OF MARYLAND)	
STATE OF MARTCAND)	
COUNTY OF $CRITO II$	
On 10/18/2012 before me, Mary Right Davidor personally appeared JOSEPH	
INTCHAEC MAINTO, bloods to tue basis of paristactory endering to be the baracula, whose transfer exemped to the	7is
Instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by	6
his/her/their signature(s) on the instrument to be the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.	0
I certify under PENALTY OF PERJURY under the laws of the State of Maryland Military toregoing paragraph is true and correct.	
WITNESS my hand and official seal.	

PATENT REEL: 029158 FRAME: 0253 4105522661

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IN WITNESS WHEREOF, the undersigned has executed and delivered this instrument this 18th day of October
IN WITNESS WHEREOF, the undersigned has executed and delivered this instrument this 18 day of 0 c to be 2012, and has executed the referenced patent application on the 18 day of 0 c to be 2012.
CHRISTOPHER TODD MCCLURE
Office of File 1905 modeling
STATE OF MARYLAND) COUNTY OF CACO) SS
COUNTY OF CALL
On 10.18.2012 before me, May Ruth Davidson, personally appeared CHRISTOPHER
TODD MCCLURE, proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) Is/are subscribed to this instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument to be the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.
I certify under PENALTY OF PERJURY under the laws of the State of Maryland that the foregoing paragraph le true and correct.
WITNESS my hand and official seal.
May Ruth Danly Notary's Signature
to Angons of

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