503846777 05/27/2016

PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT3893425

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
VASILY OLEGOVICH ZALUNIN	08/31/2015
MARAT RAVILEVICH GILMUTDINOV	08/28/2015
NIKOLAY DMITRIEVICH EGOROV	08/28/2015

RECEIVING PARTY DATA

Name:	EMC CORPORATION	
Street Address:	176 SOUTH STREET	
City:	HOPKINTON	
State/Country:	MASSACHUSETTS	
Postal Code:	01748	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14771703

CORRESPONDENCE DATA

Fax Number: (508)366-4688

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 508-616-2900

Email: Docket@BainwoodHuang.com

BAINWOOD, HUANG & ASSOCIATES, LLC **Correspondent Name:**

Address Line 1: 2 CONNECTOR ROAD

Address Line 4: WESTBOROUGH, MASSACHUSETTS 01581

ATTORNEY DOCKET NUMBER:	1003-304.001	
NAME OF SUBMITTER:	BRUCE D. RUBENSTEIN, ESQ.	
SIGNATURE:	/Bruce D. Rubenstein #39,349/	
DATE SIGNED:	05/27/2016	

Total Attachments: 9

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PATENT REEL: 038737 FRAME: 0814 source=1003-304-001-Executed-Assignment-Inv2-GILMUTDINOV#page2.tif source=1003-304-001-Executed-Assignment-Inv2-GILMUTDINOV#page3.tif source=1003-304-001-Executed-Assignment-Inv3-EGOROV#page1.tif source=1003-304-001-Executed-Assignment-Inv3-EGOROV#page2.tif source=1003-304-001-Executed-Assignment-Inv3-EGOROV#page3.tif

PATENT REEL: 038737 FRAME: 0815

Attorney Docket No.: 1003-304.001

EMC Docket No.: EMC-14-0181(WO/RU)US1

ASSIGNMENT

WHEREAS, I, Vasily Olegovich Zalunin, as the original inventor or an original joint inventor have invented an invention comprising and/or embodying certain improvements or discoveries or both as described in an application for Letters Patent of the United States entitled

COMPLEXITY-ADAPTIVE COMPRESSION OF COLOR IMAGES USING BINARY ARITHMETIC CODING

which is further identified by Attorney Docket Number 1003-304.001;

WHEREAS, EMC Corporation (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts and having a usual place of business at 176 South Street, Hopkinton, Massachusetts 01748, USA desires to acquire an interest therein in accordance with agreements duly entered into with me:

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, I have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue thereon; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by me had this assignment and sale not been made; I hereby convey to ASSIGNEE all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. I hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein;

AND, I hereby further agree for myself and my executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their

Attorney Docket No.: 1003-304.001

EMC Docket No.: EMC-14-0181(WO/RU)US1

expense and charges, including the execution of applications for patents in foreign countries, and the execution of substitution, reissue, divisional or continuation applications and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, I do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives;

AND I hereby authorize the attorneys at Bainwood Huang & Associates LLC to insert here in parentheses (PCT/RU2014/000732, Filed 2014-09-29 / 14/771, 703 Filed to 1 (31/2015) the application number and filing date of said application (and of any US, foreign, or other counterpart application) to facilitate the recording or other official processing of this Assignment.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my seal as set forth below:

Attorney Docket No.: 1003-304.001

EMC Docket No.: EMC-14-0181 (WO/RU)US1 Date: 08.31,2015 Inventor's Signature Vasily Olegovich Zalunin Print full name of first inventor: Grazhdanskiy Avenue, 116-5-89 Residence: St. Petersburg 195267 **RUSSIA** Citizenship: RU Mailing Address: Same as above of person signing the assignment) who is personally known to me, execute the above assignment. delly (signature of first witness) Signed at <u>EMP Rusq i A COE</u> (location of witness signature) on this day 31 August of 20/ (date of signature) | Roman Marchenko (name) whose residential address is | St. Peters burg , Novoizmailovskiy prospekt , 20k3 -23 | was personally present and did see <u>l'asi ly Olegovich Zalunin</u> (name of person signing the assignment) who is personally known to me, execute the above

Alagrafy (signature of second witness)

on this day 31 Aug of 20 15. (date of signature)

Signed at <u>FMC Russia CoE</u> (location of witness signature)

assignment.

Attorney Docket No.: <u>1003-304.001</u> EMC Docket No.: <u>EMC-14-0181(WO/RU)US1</u>

EMIO DOCKET NO.: EMIO-14-0101(WO/1,0)

ASSIGNMENT

WHEREAS, I, Marat Ravilevich Gilmutdinov, as the original inventor or an original joint inventor have invented an invention comprising and/or embodying certain improvements or discoveries or both as described in an application for Letters Patent of the United States entitled

COMPLEXITY-ADAPTIVE COMPRESSION OF COLOR IMAGES USING BINARY ARITHMETIC CODING

which is further identified by Attorney Docket Number 1003-304.001;

WHEREAS, EMC Corporation (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts and having a usual place of business at 176 South Street, Hopkinton, Massachusetts 01748, USA desires to acquire an interest therein in accordance with agreements duly entered into with me;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, I have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue thereon; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by me had this assignment and sale not been made; I hereby convey to ASSIGNEE all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. I hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein;

AND, I hereby further agree for myself and my executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their

Attorney Docket No.: 1003-304.001 EMC Docket No.: EMC-14-0181(WO/RU)US1

expense and charges, including the execution of applications for patents in foreign countries, and the execution of substitution, reissue, divisional or continuation applications and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, I do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives;

AND I hereby authorize the attorneys at Bainwood Huang & Associates LLC to insert here in parentheses (<u>PCT/RU2014/000732</u>, Filed 2014-09-29 / 14/77/703 <u>Filed on \$130.3015</u>) the application number and filing date of said application (and of any US, foreign, or other counterpart application) to facilitate the recording or other official processing of this Assignment.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my seal as set forth below:

Attorney Docket No.: <u>1003-304.001</u> EMC Docket No.: <u>EMC-14-0181(WO/RU)US1</u>

Date: 28 Aug 20K	us	
•	Inventor's Signature	
Print full name of first inventor:	Marat Ravilevich Gilmutdinov	
Residence:	Pulkovskoe Avenue, 1-262	
	St. Petersburg, 196240	
	RUSSIA	
Citizenship:	RU	
Mailing Address:	Same as above	
· ·		
Victor Anatolyevich Yastrebov	(name) whose residential address is 197374, RVSSIA	
was personally present and did of person signing the assignment) who is assignment.	see <u>Hazar Gilmutdinev</u> (name personally known to me, execute the above	
977-	_ (signature of first witness)	
Signed at St. Petersburg, RUSS		
on this day 28 Aug	of 20 <u>45</u> . (date of signature)	
1 Dmitry Vadimovich Novikov (name) whose residential address is Rudapeshtskaya street 23-1 St Peterslung 19211, RUSSIA was personally present and did see Hazze Gilmurdinev (name		
of person signing the assignment) who is	personally known to me, execute the above	
assignment.	, , , , , , , , , , , , , , , , , , , ,	
	_ (signature of second witness)	
Signed at St. Petersburg, RUSS	of 20/5. (date of signature)	
on this day 23 Aug	of 20 <u>15</u> . (date of signature)	

Attorney Docket No.: <u>1003-304.001</u> EMC Docket No.: <u>EMC-14-0181(WO/RU)US1</u>

ASSIGNMENT

WHEREAS, I, Nikolay Dmitrievich Egorov, as the original inventor or an original joint inventor have invented an invention comprising and/or embodying certain improvements or discoveries or both as described in an application for Letters Patent of the United States entitled

COMPLEXITY-ADAPTIVE COMPRESSION OF COLOR IMAGES USING BINARY ARITHMETIC CODING

which is further identified by Attorney Docket Number 1003-304.001;

WHEREAS, EMC Corporation (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts and having a usual place of business at 176 South Street, Hopkinton, Massachusetts 01748, USA desires to acquire an interest therein in accordance with agreements duly entered into with me:

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged. I have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors. assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue thereon; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by me had this assignment and sale not been made; I hereby convey to ASSIGNEE all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. I hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein;

AND, I hereby further agree for myself and my executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their

Attorney Docket No.: 1003-304.001 EMC Docket No.: EMC-14-0181(WO/RU)US1

expense and charges, including the execution of applications for patents in foreign countries, and the execution of substitution, reissue, divisional or continuation applications and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, I do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives;

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my seal as set forth below:

Attorney Docket No.: <u>1003-304.001</u> EMC Docket No.: <u>EMC-14-0181(WO/RU)US1</u>

Date: 28 Aug 2015 -	
V	Inventor's Signature
Print full name of first inventor:	Nikolay Dmitrievich Egorov
Residence:	Vitebskaya Street, 21-20
	St. Petersburg, 190121
	RUSSIA
Citizenship:	RU
Mailing Address:	Same as above
Victor Anatolyevich Vastrebov Vachtennaya Street, 5-1, St. Petersb	(name) whose residential address is urg , 197374 , RUSSIA I see <u>Wikelay Dmitriculah Epopo</u> (name
was personally present and did of person signing the assignment) who is assignment.	d see <u>Nikelay Bmitrievich Egypy</u> (name personally known to me, execute the above
- M-	_ (signature of first witness)
Signed at St. Petersburg, RUSS.	IA (location of witness signature)
on this day 28 Aug	of 20 <u>35</u> . (date of signature)
I Dmitrig Vadimovich Nov. Kov Rudapesh ts Kaya street 23-2 St was personally present and did of person signing the assignment) who is assignment.	(name) whose residential address is
	_ (signature of second witness)
Signed at Nt. Peters Burg, RUSSIA	(location of witness signature)
on this day 28 Aug ((location of witness signature) of 20 <u>15</u> . (date of signature)

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PATENT REEL: 038737 FRAME: 0824