# 503816212 05/06/2016 PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3862860

SUBMISSION TYPE:		NEW ASSIGNMENT		
NATURE OF CONVEYANCE:		ASSIGNMENT		
CONVEYING PARTY DA	ATA			
		Name	Execution Date	
ZIYAD SAMI HAKURA			04/29/2016	
ERIC B. LUM			05/05/2016	
HENRY PACKARD MOF	RETON		05/05/2016	
EMMETT M. KILGARIFF	-		05/05/2016	
RECEIVING PARTY DA	ТА			
Name:		CORPORATION		
		N TOMAS EXPRESSWAY		
City:	SANTA			
State/Country:	CALIFO	RNIA		
Postal Code:	95050			
PROPERTY NUMBERS		Numbor		
Property Type		Number		
		<b>Number</b> 5147868		
Property Type				
Property Type Application Number: CORRESPONDENCE D	1 ATA	5147868		
Property Type Application Number: CORRESPONDENCE D Fax Number:	1 ATA	5147868 408)971-4660		
Property Type Application Number: CORRESPONDENCE D Fax Number: <i>Correspondence will be</i>	ATA (/ e sent to	5147868		
Property Type Application Number: CORRESPONDENCE D Fax Number: Correspondence will be using a fax number, if p	ATA (/ e sent to provided;	5147868 408)971-4660 <b>the e-mail address first; if that is uns</b>		
Property Type Application Number: CORRESPONDENCE D Fax Number: Correspondence will be using a fax number, if p	ATA ( <sup>(</sup> e sent to provided;	5147868 408)971-4660 the e-mail address first; if that is uns if that is unsuccessful, it will be sen		
Property Type Application Number: CORRESPONDENCE D Fax Number: <i>Correspondence will be</i> <i>using a fax number, if p</i> Phone: Email: Correspondent Name:	ATA ( <sup>(</sup> e sent to provided; ( <sup>(</sup> ju Z	5147868 408)971-4660 <i>the e-mail address first; if that is uns</i> <i>if that is unsuccessful, it will be sen</i> 408) 971-2573 ustin@zilkakotab.com ZILKA-KOTAB, PC		
Property Type Application Number: CORRESPONDENCE D Fax Number: Correspondence will be using a fax number, if p Phone: Email: Correspondent Name: Address Line 1:	ATA (/- e sent to provided; (/- ju Z	5147868 408)971-4660 <i>the e-mail address first; if that is uns</i> <i>if that is unsuccessful, it will be sen</i> 408) 971-2573 Justin@zilkakotab.com ZILKA-KOTAB, PC 155 N. 1ST ST.		
Property Type Application Number: CORRESPONDENCE D Fax Number: Correspondence will be using a fax number, if p Phone: Email: Correspondent Name: Address Line 1: Address Line 2:	ATA (/ e sent to provided; (/ ju 2 1 5	5147868 408)971-4660 <i>the e-mail address first; if that is uns</i> <i>if that is unsuccessful, it will be sen</i> 408) 971-2573 Justin@zilkakotab.com ZILKA-KOTAB, PC 155 N. 1ST ST. SUITE 105		
Property Type Application Number: CORRESPONDENCE D Fax Number: Correspondence will be using a fax number, if p Phone: Email: Correspondent Name: Address Line 1:	ATA (/ e sent to provided; (/ ju 2 1 5	5147868 408)971-4660 <i>the e-mail address first; if that is uns</i> <i>if that is unsuccessful, it will be sen</i> 408) 971-2573 Justin@zilkakotab.com ZILKA-KOTAB, PC 155 N. 1ST ST.		
Property Type Application Number: CORRESPONDENCE D Fax Number: Correspondence will be using a fax number, if p Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4:	ATA ( <sup>(</sup> e sent to provided; ( ju 2 1 5 5	5147868 408)971-4660 <i>the e-mail address first; if that is uns</i> <i>if that is unsuccessful, it will be sen</i> 408) 971-2573 Justin@zilkakotab.com ZILKA-KOTAB, PC 155 N. 1ST ST. SUITE 105		
Property Type Application Number: CORRESPONDENCE D Fax Number: Correspondence will be using a fax number, if p Phone: Email: Correspondent Name: Address Line 1: Address Line 2:	ATA ( <sup>(</sup> e sent to provided; ( ju 2 1 5 5	5147868 408)971-4660 <i>the e-mail address first; if that is uns</i> <i>if that is unsuccessful, it will be sen</i> 408) 971-2573 Justin@zilkakotab.com ZILKA-KOTAB, PC 155 N. 1ST ST. SUITE 105 SAN JOSE, CALIFORNIA 95112		
Property Type Application Number: CORRESPONDENCE D Fax Number: Correspondence will be using a fax number, if p Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4:	ATA ( <sup>(</sup> e sent to provided; ( ju 2 1 5 5	5147868 408)971-4660 <i>the e-mail address first; if that is uns</i> <i>if that is unsuccessful, it will be sen</i> 408) 971-2573 Justin@zilkakotab.com ZILKA-KOTAB, PC 155 N. 1ST ST. SUITE 105 SAN JOSE, CALIFORNIA 95112 NVIDP1108/14-SC-0421-US01		
Property Type Application Number: CORRESPONDENCE D Fax Number: Correspondence will be using a fax number, if p Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 2: Address Line 4: ATTORNEY DOCKET NU	ATA ( <sup>(</sup> e sent to provided; ( ju 2 1 5 5	5147868 408)971-4660 the e-mail address first; if that is uns if that is unsuccessful, it will be sen 408) 971-2573 Justin@zilkakotab.com ZILKA-KOTAB, PC 155 N. 1ST ST. SUITE 105 SAN JOSE, CALIFORNIA 95112 NVIDP1108/14-SC-0421-US01 J. BRIAN LOKER		
Property Type Application Number: CORRESPONDENCE D Fax Number: Correspondence will be using a fax number, if p Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 2: Address Line 4: ATTORNEY DOCKET NUNAME OF SUBMITTER: SIGNATURE:	ATA ( <sup>(</sup> e sent to provided; ( ju 2 1 5 5	5147868 408)971-4660 the e-mail address first; if that is uns if that is unsuccessful, it will be sen 408) 971-2573 Justin@zilkakotab.com ZILKA-KOTAB, PC 155 N. 1ST ST. SUITE 105 SAN JOSE, CALIFORNIA 95112 NVIDP1108/14-SC-0421-US01 J. BRIAN LOKER /J. Brian Loker/	t via US Mail.	
Property Type Application Number: CORRESPONDENCE D Fax Number: Correspondence will be using a fax number, if p Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 2: Address Line 4: ATTORNEY DOCKET NU IAME OF SUBMITTER: SIGNATURE:	ATA (/- e sent to provided; (/- ju 2 1 5 5	5147868 408)971-4660 the e-mail address first; if that is uns if that is unsuccessful, it will be sen 408) 971-2573 Justin@zilkakotab.com 21LKA-KOTAB, PC 155 N. 1ST ST. 20ITE 105 SAN JOSE, CALIFORNIA 95112 NVIDP1108/14-SC-0421-US01 J. BRIAN LOKER /J. Brian Loker/ 05/06/2016	t via US Mail.	

source=NVIDP1108_14-SC-0421-US01_Signed Declaration and Assignment#page1.tif
source=NVIDP1108_14-SC-0421-US01_Signed Declaration and Assignment#page2.tif
source=NVIDP1108_14-SC-0421-US01_Signed Declaration and Assignment#page3.tif
source=NVIDP1108_14-SC-0421-US01_Signed Declaration and Assignment#page4.tif

#### Title of Invention: STEREO MULTI-PROJECTION IMPLEMENTED USING A GRAPHICS PROCESSING PIPELINE

As a below named and undersigned inventor, I hereby declare that:

This declaration is directed to the attached application, or (if following box is checked):

[] United States application or PCT international application number \_\_\_\_\_\_, filed on \_\_\_\_\_\_

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 state that I have reviewed and understand the contents of the above-identified application, including the claims.

I acknowledge the duty to disclose information which is material to the patentability of this application in accordance with Title 37, CFR § 1.56.

Whereas, I the undersigned inventor have invented certain new and useful improvements as set forth in the above-identified patent application and further identified by the Attorney Docket Number provided above in the header of this document.

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged. I the undersigned inventor hereby:

 Sell, assign and transfer to <u>NVIDIA Corporation</u>, a Delaware Corporation having a place of business at 2701 San Tomas Expressway, Santa Clara, California 95050, (hereinafter referred to as "ASSIGNEE"), the entire right title and interest in any and all improvements and inventions disclosed in. application(s) based upon, and Patent(s) (including foreign patents) granted upon the information which is disclosed in the above referenced application.

2) Authorize and request the Commissioner of Patents to issue any and all Letters Patents resulting from said application or any division(s), continuation(s), substitutes(s) or reissue(s) thereof to the ASSIGNEE.

3) Agree to execute all papers and documents and, entirely at the ASSIGNEE's expense, perform any acts which are reasonably necessary in connection with the prosecution of said application, as well as any derivative and applications thereof, foreign applications based thereon, and/or the enforcement of patents resulting from such applications.

4) Agree that the terms, covenants and conditions of this assignment shall inure to the benefit of the Assignee, its successors, assigns and other legal representative, and shall be binding upon the inventor(s), as well as the inventor's heirs, legal representatives and assigns.

5) Warrant and represent that I have not entered, and will not enter into any assignment, contract, or understanding that conflicts with this assignment.

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.

Signed on the date indicated beside my signature.

Legal Nam	e of Inventor:	Ziyad Sami Hakura	 
Signature:	-AM		

Page 1 of 1

#### Title of Invention: STEREO MULTI-PROJECTION IMPLEMENTED USING A GRAPHICS PROCESSING PIPELINE

As a below named and undersigned inventor, I hereby declare that:

This declaration is directed to the attached application, or (if following box is checked):

[] United States application or PCT international application number , filed on .

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 state that I have reviewed and understand the contents of the above-identified application, including the claims.

I acknowledge the duty to disclose information which is material to the patentability of this application in accordance with Title 37, CFR § 1.56.

Whereas, I the undersigned inventor have invented certain new and useful improvements as set forth in the above-identified patent application and further identified by the Attorney Docket Number provided above in the header of this document.

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged. I the undersigned inventor hereby:

1) Sell, assign and transfer to **NVIDIA Corporation**, a Delaware Corporation having a place of business at 2701 San Tomas Expressway, Santa Clara, California 95050, (hereinafter referred to as "ASSIGNEE"), the entire right title and interest in any and all improvements and inventions disclosed in, application(s) based upon, and Patent(s) (including foreign patents) granted upon the information which is disclosed in the above referenced application.

2) Authorize and request the Commissioner of Patents to issue any and all Letters Patents resulting from said application or any division(s), continuation(s), substitutes(s) or reissue(s) thereof to the ASSIGNEE.

3) Agree to execute all papers and documents and, entirely at the ASSIGNEE's expense, perform any acts which are reasonably necessary in connection with the prosecution of said application, as well as any derivative and applications thereof, foreign applications based thereon, and/or the enforcement of patents resulting from such applications.

4) Agree that the terms, covenants and conditions of this assignment shall inure to the benefit of the Assignee, its successors, assigns and other legal representative, and shall be binding upon the inventor(s), as well as the inventor's heirs, legal representatives and assigns.

5) Warrant and represent that I have not entered, and will not enter into any assignment, contract, or understanding that conflicts with this assignment.

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.

Signed on the date indicated beside my signature.

1 8 0	
Signature: 42 B Con	

Date: \_\_\_\_\_\_May 5, 2016

Page 1 of 1

#### Title of Invention: STEREO MULTI-PROJECTION IMPLEMENTED USING A GRAPHICS PROCESSING PIPELINE

As a below named and undersigned inventor, I hereby declare that:

This declaration is directed to the attached application, or (if following box is checked):

[] United States application or PCT international application number , filed on .

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 state that I have reviewed and understand the contents of the above-identified application, including the claims.

I acknowledge the duty to disclose information which is material to the patentability of this application in accordance with Title 37, CFR § 1.56.

Whereas, I the undersigned inventor have invented certain new and useful improvements as set forth in the above-identified patent application and further identified by the Attorney Docket Number provided above in the header of this document.

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I the undersigned inventor hereby:

1) Sell, assign and transfer to **<u>NVIDIA Corporation</u>**, a Delaware Corporation having a place of business at 2701 San Tomas Expressway, Santa Clara, California 95050, (hereinafter referred to as "ASSIGNEE"), the entire right title and interest in any and all improvements and inventions disclosed in, application(s) based upon, and Patent(s) (including foreign patents) granted upon the information which is disclosed in the above referenced application.

2) Authorize and request the Commissioner of Patents to issue any and all Letters Patents resulting from said application or any division(s), continuation(s), substitutes(s) or reissue(s) thereof to the ASSIGNEE.

3) Agree to execute all papers and documents and, entirely at the ASSIGNEE's expense, perform any acts which are reasonably necessary in connection with the prosecution of said application, as well as any derivative and applications thereof, foreign applications based thereon, and/or the enforcement of patents resulting from such applications.

4) Agree that the terms, covenants and conditions of this assignment shall inure to the benefit of the Assignee, its successors, assigns and other legal representative, and shall be binding upon the inventor(s), as well as the inventor's heirs, legal representatives and assigns.

5) Warrant and represent that I have not entered, and will not enter into any assignment, contract, or understanding that conflicts with this assignment.

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.

Signed on the date indicated beside my signature.

Legal Name of Inventor:	Henry Packard Moreton	
Signature:	<u> </u>	D

Date: 5/5/2016

Page 1 of 1

#### Title of Invention: STEREO MULTI-PROJECTION IMPLEMENTED USING A GRAPHICS PROCESSING PIPELINE

As a below named and undersigned inventor, I hereby declare that:

This declaration is directed to the attached application, or (if following box is checked):

[] United States application or PCT international application number \_\_\_\_\_\_, filed on \_\_\_\_\_\_,

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 state that I have reviewed and understand the contents of the above-identified application, including the claims.

I acknowledge the duty to disclose information which is material to the patentability of this application in accordance with Title 37, CFR § 1.56.

Whereas, I the undersigned inventor have invented certain new and useful improvements as set forth in the above-identified patent application and further identified by the Attorney Docket Number provided above in the header of this document.

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I the undersigned inventor hereby:

 Sell, assign and transfer to <u>NVIDIA Corporation</u>, a Delaware Corporation having a place of business at 2701 San Tomas Expressway, Santa Clara, California 95050, (hereinafter referred to as "ASSIGNEE"), the entire right title and interest in any and all improvements and inventions disclosed in, application(s) based upon, and Patent(s) (including foreign patents) granted upon the information which is disclosed in the above referenced application.

2) Authorize and request the Commissioner of Patents to issue any and all Letters Patents resulting from said application or any division(s), continuation(s), substitutes(s) or reissue(s) thereof to the ASSIGNEE.

3) Agree to execute all papers and documents and, entirely at the ASSIGNEE's expense, perform any acts which are reasonably necessary in connection with the prosecution of said application, as well as any derivative and applications thereof, foreign applications based thereon, and/or the enforcement of patents resulting from such applications.

4) Agree that the terms, covenants and conditions of this assignment shall inure to the benefit of the Assignee, its successors, assigns and other legal representative, and shall be binding upon the inventor(s), as well as the inventor's heirs, legal representatives and assigns.

5) Warrant and represent that I have not entered, and will not enter into any assignment, contract, or understanding that conflicts with this assignment.

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.

Signed on the date indicated beside my signature.

Legal Name of Inventor: Emmett M. Kilgariff

Signature: South A

Date: May 5 2-016

Page 1 of 1

### RECORDED: 05/06/2016