507653512 12/18/2022

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT7700648

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
GREGORY MUTHLER	10/04/2022
JOHN BURGESS	10/03/2022
MAGNUS ANDERSSON	10/05/2022
TIMO VIITANEN	10/04/2022
LEVI OLIVER	10/12/2022

RECEIVING PARTY DATA

Name:	NVIDIA CORPORATION
Street Address:	2788 SAN TOMAS EXPRESSWAY
City:	SANTA CLARA
State/Country:	CALIFORNIA
Postal Code:	95051

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	17941578

CORRESPONDENCE DATA

Fax Number: (703)816-4100

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: 7038164000

Email: PTOMail@nixonvan.com
Correspondent Name: NIXON & VANDERHYE PC

Address Line 1: 901 N GLEBE ROAD, 11TH FLOOR

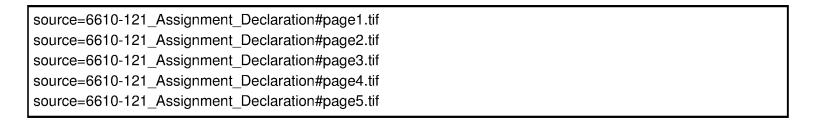
Address Line 4: ARLINGTON, VIRGINIA 22203

ATTORNEY DOCKET NUMBER:	6610-121
NAME OF SUBMITTER:	ROBERT W. FARIS
SIGNATURE:	/Robert W. Faris/
DATE SIGNED: 12/18/2022	
	This document serves as an Oath/Declaration (37 CFR 1.63).
	•

Total Attachments: 5

PATENT REEL: 062133 FRAME: 0546

507653512



PATENT REEL: 062133 FRAME: 0547 Doc code: Oath

Document Description: Oath or declaration filed

Attorney Docket Number RWF-6610-0121

	First Nan	ned Inventor	Gregory MUTHLER
INVENTOR'S DECLARATION AND ASSIGNMENT FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63) USING AN APPLICATION DATA SHEET (37 CFR 1.76)			
□ Declaration Submitted With Initial FilingOR			
☑ Declaration Submitted After Initial Filing (surcharge (37 C.F.R.))	R. § 1.16(f)) required)	
GENERATION AND TRAVERSAL OF PARTIAL ACCE	LERATIO	ON STRUCTURE	ES FOR RAY TRACING
(Title of the Inv	vention)		
As a below named inventor, I hereby declare that:			
This declaration is directed to: ☐ the attached application, or ☐ United States Application Number 17/941,578 filed Septemb ☐ PCT International application number filed on .	er 9, 2022	2, or	
The above-identified application was made or authorized to be made by			
I believe I am the original inventor or an original joint inventor of a claim		• •	
I hereby acknowledge that any willful false statement made in this declar by fine or imprisonment of not more than five (5) years, or both.	aration is p	unisnable under 1	8 U.S.C. 1001
WHEREAS, the undersigned (hereinafter ASSIGNOR), has made an in	vention in	the Application ide	entified above.
WHEREAS, NVIDIA Corporation (hereinafter ASSIGNEE), an entity, having an office and place of business at <i>2788 San Tomas Expressway, Santa Clara, CA, US, 95051</i> , is desirous of acquiring an interest therein;			
NOW, THEREFORE, in consideration of Ten Dollars (\$10.00) and/or other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the said ASSIGNOR by these presents hereby sells, assigns, and transfers unto the said ASSIGNEE, its successors, assigns, and legal representatives, ASSIGNOR'S entire right, title and interest in the United States of America and all foreign countries, in and to the invention as described in the aforesaid application, and to the said application and to all subsequent applications based thereon including any and all continuations, divisions, reissues, and substitutes of said application, and all resulting patents, together with the right of priority under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States of America adheres, and the ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks to issue said Letters Patent to ASSIGNEE, for its interest as ASSIGNEE, its successors, assigns, and legal representatives. It is understood and agreed that ASSIGNEE's attorneys Nixon & Vanderhye P.C. have represented only ASSIGNEE and will continue to represent only ASSIGNEE with respect to this invention;			
ASSIGNOR hereby agrees to transfer a like interest upon request of said ASSIGNEE, its successors, assigns, and legal representatives, and without further remuneration, in and to any improvements, and applications for patents based thereon, growing out of or related to the said invention;			
ASSIGNOR hereby agrees to execute any papers by ASSIGNEE, its successors, assigns, and legal representatives, deemed essential to ASSIGNEE'S full protection and title in and to the invention hereby transferred; and			
ASSIGNOR hereby agrees, upon request of ASSIGNEE, and without further remuneration, to execute any and all papers desired by ASSIGNEE, for the filing and granting of foreign applications and the perfecting of title thereto in ASSIGNEE.			
AGREED and executed as noted below:			
LEGAL NAME OF INVENTOR/JOINT INVENTOR:	· · · · · · · · · · · · · · · · · · ·		
(E.g., Given Name (first and middle (if any)) and Family Name or Surname)			
Inventor's Signature: Trem Muttutu Trem Muttut Trem		Date: 10/04/20	22

PATENT ⊥.56. REEL: 062133 FRAME: 0548

Dor. code: Oath Document Description: Oath or declaration filed Atlomey Docket Number RWF -8610-0121 First Named Inventor Gregory MUTHLER INVENTOR'S DECLARATION AND ASSIGNMENT FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63) USING AN APPLICATION DATA SHEET (37 CFR 1.76) ☐ Declaration Submitted With Initial Filing OR 🔀 Declaration Submitted After Initial Filing (surcharge (37 C.F.R. § 1.16(f)) required) GENERATION AND TRAVERSAL OF PARTIAL ACCELERATION STRUCTURES FOR RAY TRACING (Title of the Invention) As a below named inventor, I hereby declare that: This declaration is directed to: I the attached application, or United States Application Number 17/941,578 filed September 9, 2022, or D PCT International application number filed on . The above-identified application was made or authorized to be made by me. believe 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. WHEREAS, the undersigned (hereinafter ASSIGNOR), has made an invention in the Application identified above. WHEREAS, NVIDIA Corporation (hereinafter ASSIGNEE), an entity, having an office and place of business at 2788 San Tomas Expressway, Santa Clara, CA, US, 95051, is desirous of acquiring an interest therein; NOW, THEREFORE, in consideration of Ten Dollars (\$10.00) and/or other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the said ASSIGNOR by these presents hereby sells, assigns, and transfers unto the said ASSIGNEE, its successors, assigns, and legal representatives. ASSIGNOR'S entire right, title and interest in the United States of America and all foreign countries, in and to the invention as described in the aforesaid application, and to the said application and to all subsequent applications based thereon including any and all continuations, divisions, reissues, and substitutes of said application, and

all resulting patents, together with the right of priority under the international Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States of America adheres, and the ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks to issue said Letters Patent to ASSIGNEE, for its interest as ASSIGNEE, its successors, assigns, and legal representatives. It is understood and agreed that ASSIGNEE'S attorneys Nixon & Vanderhye P.C. have represented only ASSIGNEE and will continue to represent only ASSIGNEE with respect to this invention;

ASSIGNOR hereby agrees to transfer a like interest upon request of said ASSIGNEE, its successors, assigns, and legal representatives, and without further remuneration, in and to any improvements, and applications for patents based thereon, growing out of or related to the said invention:

ASSIGNOR hereby agrees to execute any papers by ASSIGNEE, its successors, assigns, and legal representatives, deemed essential to ASSIGNEE'S full protection and title in and to the invention hereby transferred; and

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the content of the mind and distinut in the pale appropriate and the balleting of me a present in the content of				
AGREED and executed as noted below:				
LEGAL NAME OF INVENTOR/JOINT INVENTOR:				
(E.g., Given Name (first and middle (if any)) and Family Name or Sumame)				
John BURGESS				
Inventor's Signature: A Surv	oate: Oct 3,2020			

I/We acknowledge the duty to disclose information which is material to the patentability of this application as defined in 37 CFR §1.56.

Doc code: Dath

Magnus ANDERSSON

Inventor's Signatura

Document Description: Oath or declaration filed

RWF -6610-0121 Attorney Docket Number

First Named Inventor Gregory MUTHLER INVENTOR'S DECLARATION AND ASSIGNMENT FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63) USING AN APPLICATION DATA SHEET (37 CFR 1.76) ☐ Declaration Submitted With Initial Filing OR 🔀 Declaration Submitted After Initial Filing (surcharge (37 C.F.R. § 1.16(f)) required) GENERATION AND TRAVERSAL OF PARTIAL ACCELERATION STRUCTURES FOR RAY TRACING (Title of the Invention) As a below named inventor, I hereby declare that: This declaration is directed to: the attached application, or W United States Application Number 17/941,578 filed September 9, 2022, or PCT International application number filed on . The above-identified application was made or authorized to be made by me I believe 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. WHEREAS, the undersigned (hereinafter ASSIGNOR), has made an invention in the Application identified above. WHEREAS, NVIDIA Corporation (hereinafter ASSIGNEE), an entity, having an office and place of business at 2788 San Tomas Expressway, Santa Clara, CA, US, 95051, is desirous of acquiring an interest therein; NOW, THEREFORE, in consideration of Ten Golfars (\$10.00) and/or other good and valuable consideration, the receipt and sufficiency of which are hereby admowledged, the said ASSIGNOR by these presents hereby setts, assigns, and transfers unto the said ASSIGNEE, its successors, assigns, and legal representatives. ASSIGNOR'S entire right, title and interest in the United States of America and all foreign countries, in and to the invention as described in the aforesald application, and to the said application and to all subsequent applications based thereon including any and all continuations, divisions, reissues, and substitutes of said application, and all resulting patents, together with the right of priority under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States of America adheres, and the ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks to issue said Letters Patent to ASSIGNEE, for its interest as ASSIGNEE, its successors, assigns, and legal representatives. It is understood and agreed that ASSIGNEE'S attorneys Nixon & Vanderhye P.C. have represented only ASSIGNEE and will continue to represent only ASSIGNEE with respect to this invention; ASSIGNOR hereby agrees to transfer a like interest upon request of said ASSIGNEE, its successors, assigns, and legal representatives, and without further remuneration, in and to any improvements, and applications for patents based thereon, growing out of or related to the said invention; ASSIGNOR hereby agrees to execute any papers by ASSIGNEE, its successors, assigns, and legal representatives, deemed essential to ASSIGNEE'S full protection and title in and to the invention hereby transferred; and ASSIGNOR hereby agrees, upon request of ASSIGNEE, and without further remuneration, to execute any and all papers desired by ASSIGNEE, for the filing and granting of foreign applications and the perfecting of title thereto in ASSIGNEE. AGREED and executed as noted below: LEGAL NAME OF INVENTORIJOINT INVENTOR: (E.g., Given Name (first and middle (if any)) and Family Name or Surname)

tWe acknowledge the duty to disclose information which is material to the patentability of this application as defined in 37 CFR §1.56.

Data:

10-05-22

REEL: 062133 FRAME: 0550

Doc code: Oath

Inventor's Signature:

Document Description: Oath or declaration filed

Attorney Docket Number RWF -6610-0121

	- Actorney - Contoc - Control	11111 0010 0121
	First Named Inventor	Gregory MUTHLER
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USING AN APPLICATION DAT	A SHEET (37 CFR 1.76))
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LEGAL NAME OF INVENTOR/JOINT INVENTOR:		
(E.g., Given Name (first and middle (if any)) and Family Name or Surnar	ne)	
Timo VIITANEN		

Date:

4 Oct. 2022

PATENT 1.56. **REEL: 062133 FRAME: 0551**

Doc code: Oath

Document Description: Oath or declaration filed

Inventor's Signature:

Levi OLIVER

•	<u></u>	·
	Attorney Docket Number	RWF -6610-0121
	First Named Inventor	Gregory MUTHLER
INVENTOR'S DECLARATION AND ASSIGNMENT FOR UTIL		
USING AN APPLICATION DA	TA SHEET (37 CFR 1.76)
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I/We acknowledge the duty to disclose information which is material to the patentability of this application as defined in 37 CFR 61 56. **PATENT**

12, 2022

REEL: 062133 FRAME: 0552 **RECORDED: 12/18/2022**

Date: