502355704 05/21/2013

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Tero Tapani Karras	05/21/2013
Timo Aila	05/21/2013

RECEIVING PARTY DATA

Name:	NVIDIA Corporation
Street Address:	2701 San Tomas Expressway
City:	Santa Clara
State/Country:	CALIFORNIA
Postal Code:	95050

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13899319

CORRESPONDENCE DATA

Fax Number: 5034594142

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

Phone: 503-459-4141

Email: komphouvong@ahmrt.com

Correspondent Name: Alleman Hall McCoy Russell & Tuttle LLP

Address Line 1: 806 SW Broadway Suite 600
Address Line 4: Portland, OREGON 97205

ATTORNEY DOCKET NUMBER:	NVI13303/HE-12-0834-US1
NAME OF SUBMITTER:	Odan Komphouvong
Signature:	/Odan Komphouvong/
Date:	05/21/2013

Total Attachments: 2

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PATENT REEL: 030460 FRAME: 0789 CH \$40 00 13890

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) WITH ASSIGNMENT

Title of	SORTING KEY WITH MODIFICATION	
Invention:		
As the below named	Inventor, I hereby declare that:	
This declaration is directed to:	Mattached application, or	
	United States application or PCT international application number filed on	
The above-identified	d application was made or authorized to be made by me.	
I believe that I am th	ne original inventor or an original joint inventor of a claimed invention in the application.	
Lauthorize the attor	neys at Alleman Hall McCoy Russell & Tuttle LLP (Customer Number 17996) to insert the filing date,	
	and attorney docket number of the above identified application when known.	
Expressway, Santa NOW, THEREFOR, have sold, assigned, right to the above-in entire right, title and territorial possessio extensions thereof. I hereby authorize and all of said Letter same, for the sole un Further, I agree the invention, and testiff renewal and reissue issued to ASSIGNEE,	A Corporation, ("ASSIGNEE"), a California corporation, having a place of business at 2701 San Tomas Clara, CA 95050 is desirous of acquiring an interest therein; for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I and transferred, and by these presents do sell, assign, and transfer unto ASSIGNEE, the full and exclusive dentified invention in the United States and its territorial possessions and in all foreign countries, and the d interest in and to any and all Letters Patent which may be granted therefor in the United States and its and in any and all foreign countries, and in and to any and all divisions, reissues, continuations and and request the Patent Office officials in the United States and any and all foreign countries to issue any as Patent, when granted, to ASSIGNEE, as the ASSIGNEE of my entire right, title and interest in and to the se of the ASSIGNEE, its successors and assigns. Intil will communicate to ASSIGNEE, or its representatives, any facts known to me respecting said by in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitution, applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be make all rightful oaths and generally do everything possible to aid ASSIGNEE, its successors and assigns, the proper protection for said invention in the United States and in any and all foreign countries.	
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.		
TEMAL STARTE OF ING	IPNITOD	
LEGAL NAME OF INVENTOR		
Inventor: Tero Tapani Karras Date (Optional): MAY 21, 2013		
Signature: Tembo Communication		
	ATTY DOCKET NO : NVI13303/HE-12-0834-US1	

Alleman Hall McCoy Russell & Tuttle LLP 806 SW Broadway, Ste. 600 Portland, OR 97205

> PATENT REEL: 030460 FRAME: 0790

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Title of	SORTING KEY WITH MODIFICATION	
Invention:		
As the below named	Inventor, I hereby declare that:	
This declaration is directed to:	⊠ The attached application, or	
	☐ United States application or PCT international application number filed on	
The above-identified	d application was made or authorized to be made by me.	
I believe that I am th	ne original inventor or an original joint inventor of a claimed invention in the application.	
I authorize the attor	neys at Alleman Hail McCoy Russell & Tuttle LLP (Customer Number 17996) to insert the filing date,	
	and attorney docket number of the above identified application when known.	
Expressway, Santa NOW, THEREFOR, have sold, assigned, right to the above-ic entire right, title and territorial possession extensions thereof. I hereby authorize and all of said Letter same, for the sole us Further, I agree th invention, and testif renewal and reissue issued to ASSIGNEE,	A Corporation, ("ASSIGNEE"), a California corporation, having a place of business at 2701 San Tomas Clara, CA 95050 is desirous of acquiring an interest therein; for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I and transferred, and by these presents do sell, assign, and transfer unto ASSIGNEE, the full and exclusive identified invention in the United States and its territorial possessions and in all foreign countries, and the dinterest in and to any and all Letters Patent which may be granted therefor in the United States and its and in any and all foreign countries, and in and to any and all divisions, reissues, continuations and and request the Patent Office officials in the United States and any and all foreign countries to issue any as Patent, when granted, to ASSIGNEE, as the ASSIGNEE of my entire right, title and interest in and to the se of the ASSIGNEE, its successors and assigns. That I will communicate to ASSIGNEE, or its representatives, any facts known to me respecting said by in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitution, applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be make all rightful oaths and generally do everything possible to aid ASSIGNEE, its successors and assigns, the proper protection for said invention in the United States and in any and all foreign countries.	
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.		
LEGAL NAME OF INV	/ENTOR	
Inventor: Timo Aila	1 May of DOIZ	
Signature:		
	ATTY DOCKET NO.: NVI13303/HE-12-0834-US1	

Alleman Hall McCoy Russell & Tuttle LLP 806 SW Broadway, Ste. 600 Portland, OR 97205

> PATENT REEL: 030460 FRAME: 0791

RECORDED: 05/21/2013