PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

| SUBMISSION TYPE: | | NEW ASSIGNMENT | | | |
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| NATURE OF CONVEYANCE: | | ASSIGNMENT | | | |
| CONVEYING PARTY D | ATA | | | | |
| | | 1 | lame | Execution Date | |
| Gokul Govindu | | | | 12/22/2012 | |
| Parag Gupta | | | | 12/21/2012 | |
| Scott Pitkethly | | | | 12/21/2012 | |
| Guillermo J. Rozas | | | | 12/21/2012 | |
| RECEIVING PARTY DA | RECEIVING PARTY DATA | | | | |
| Name: | NVIDIA Corpor | ration | | | |
| Street Address: | 2701 San Tom | 2701 San Tomas Expressway | | | |
| City: | Santa Clara | | | | |
| State/Country: | CALIFORNIA | | | | |
| Postal Code: | 95050 | | | | |
| PROPERTY NUMBERS | Total: 1 | | | | |
| Property Type | | Number | | 9 2 | |
| Application Number: 137287 | | 65 | | 3728765 | |
| CORRESPONDENCE DATA | | | | | |
| Fax Number: 5034594142 Correspondence will be sent via US Mail when the fax attempt is unsuccessful. Phone: 503-459-4141 Function Source sent sent sent sent sent sent sent sen | | | | | |
| Email: komphouvong@ahmrt.com Correspondent Name: Alleman Hall McCoy Russell & Tuttle LLP | | | | СН | |
| Address Line 1: 806 SW Broadway Suite 600 | | | | | |
| Address Line 4: | Portland, | OREG | ON 97205 | | |
| ATTORNEY DOCKET NUMBER: | | NVI12303/SC-12-0007-US1 | | | |
| NAME OF SUBMITTER: | | Odan Komphouvong | | | |
| Total Attachments: 4 source=Executed Dec≔ (all inventors) NVI12303#page1.tif source=Executed Dec≔ (all inventors) NVI12303#page2.tif source=Executed Dec≔ (all inventors) NVI12303#page3.tif source=Executed Dec≔ (all inventors) NVI12303#page4.tif | | | | | |

| Title of | EXECUTION PIPELINE DATA FORWARDING |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Invention: | |
| As the below name | d 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-identifie | d application was made or authorized to be made by me. |
| I believe that I am t | he original inventor or an original joint inventor of a claimed invention in the application. |
| | meys at Alleman Hall McCoy Russell & Tuttle LP (Customer Number 17996) to insert the filing date, , and attorney docket number of the above identified application when known. |
| | A Corporation, ("ASSIGNEE"), a <u>California corporation</u> , having a place of business at <u>2701 San Tomas</u> I Clara, CA <u>95050</u> 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 |
| right to the above-ic | 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 |
| | ns and in any and all foreign countries, and in and to any and all divisions, reissues, continuations and |
| extensions thereof. | a state of a second state of the state of the difference of an analysis of all families an interference to be the test of the |
| | e and request the Patent Office officials in the United States and any and all foreign countries to issue any rs 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. |
| | hat I will communicate to ASSIGNEE, or its representatives, any facts known to me respecting said |
| | y in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitution, |
| renewal and reissue | applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be |
| issued to ASSIGNEE, | make all rightful oaths and generally do everything possible to aid ASSIGNEE, its successors and assigns, |
| to obtain and enfor | ce proper protection for said invention in the United States and in any and all foreign countries. |
| | ge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or . It more than five (5) years, or both. |
| LEGAL NAME OF INV | ZENTOR |
| inventor : <u>Gokul Go</u> | windu Date: 12/22/2012 |
| Signature: | Gotal Gourielas |
| | ATTY DOCKET NO.: NV12303 / SC-12-0007-US1 |
| | Alleman Hall McCoy Russell & Tuttle LL |
| | 806 SW Broadway, Ste. 60 |
| | Portland, OR 9720 |

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| Title of | EXECUTION PIPELINE DATA FORWARDING | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| Invention: | | | | |
| As the below name: | 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-identifier | 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 attorneys at Alleman Hall McCoy Russell & Tuttle LLP (Customer Number 17996) to insert the filing date, application number, and attorney docket number of the above identified application when known. | | | | |
| WHEREAS, <u>NVIDIA Corporation</u> , ("ASSIGNEE"), a <u>California corporation</u> , having a place of business at <u>2701 San Tomas</u> Expressway, Santa 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 | | | |
| right to the above-identified invention in the United States and its territorial possessions and in all foreign countries, and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries, and in and to any and all divisions, reissues, continuations and | | | | |
| extensions thereof. I hereby authorize and request the Patent Office officials in the United States and any and all foreign countries to issue any and all of said Letters 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. | | | |
| Further, I agree that I will communicate to ASSIGNEE, or its representatives, any facts known to me respecting said invention, and testify 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, ce proper protection for said invention in the United States and in any and all foreign countries. | | | |
| to obtain and errort | e proper protection for sala invention in the onited states and in any and an 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 no | t more than five (5) years, or both. | | | |
| LEGAL NAME OF INV | /ENTOR | | | |
| Inventor : Parag Gupta Date : $\frac{12/21/12}{2}$ | | | | |
| Signature: | | | | |
| L <u></u> | ATTY DOCKET NO.: NVI12303 / SC-12-0007-US1 | | | |

ATTY DOCKET NO.: NVI12303 / SC-12-0007-US1

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

| | EXECUTION PIPELINE DATA FORWA | RDING |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title of | | |
| Invention: | d inventor, I hereby declare that: | |
| As the below name | Inventor, Thereby declare that | |
| This declaration is directed to: | oxtimes The attached application, or | |
| | \Box United States application or PCT int | ernational application number filed on |
| | d application was made or authorized to | |
| I believe that I am t | he original inventor or an original joint ir | nventor of a claimed invention in the application. |
| I authorize the atto application numbe | rneys at Alleman Hall McCoy Russell & T r, and attorney docket number of the ab | uttle LLP (Customer Number 17996) to insert the filing date, ove identified application when known. |
| Expressway, Sant NOW, THEREFOF have sold, assigned right to the above- entire right, title an territorial possessi extensions thereof I hereby authori and all of said Lette same, for the sole Further, I agree invention, and test renewal and reissu issued to ASSIGNE to obtain and enfo | a Clara, CA 95050 is desirous of acquir a, for good and valuable consideration, the d, and transferred, and by these presents identified invention in the United States and interest in and to any and all Letters F ons and in any and all foreign countries, ze and request the Patent Office officials ers Patent, when granted, to ASSIGNEE, use of the ASSIGNEE, its successors and that I will communicate to ASSIGNEE, or ify in any legal proceeding, sign all lawfu the applications, execute all necessary ass E, make all rightful oaths and generally of rce proper protection for said invention | The receipt and sufficiency of white ASSIGNEE, the full and exclusives a do sell, assign, and transfer unto ASSIGNEE, the full and exclusive and its territorial possessions and in all foreign countries, and the Patent which may be granted therefor in the United States and its and in and to any and all divisions, reissues, continuations and is in the United States and any and all foreign countries to issue any as the ASSIGNEE of my entire right, title and interest in and to the assigns. its representatives, any facts known to me respecting said al papers, execute all divisional, continuation, substitution, signment papers to cause any and all of said Letters Patent to be do everything possible to aid ASSIGNEE, its successors and assigns in the United States and in any and all foreign countries. |
| I hereby acknowle imprisonment of n | dge that any willful false statement mac ot more than five (5) years, or both. | de in this declaration is punishable under 18 U.S.C. 1001 by fine or |
| LEGAL NAME OF IN | IVENTOR | |
| Inventor : <u>Scott Pi</u> | tkethly Date: Dec 21,20 | |
| Signature: | at Otto | |
| | | ATTY DOCKET NO.: NVI12303 / SC-12-0007-US1 |

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

PATENT REEL: 029535 FRAME: 0691

| Title of | EXECUTION PIPELINE DATA FORWARDING | | | | |
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| Invention: | | | | | |
| As the below name | d inventor, I hereby declare that: | | | | |
| This declaration is directed to: | In the attached application, or | | | | |
| | □ United States application or PCT international application number filed on | | | | |
| The above-identifie | d 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 authorize the attorneys at Alleman Hall McCoy Russell & Tuttle LLP (Customer Number 17996) to insert the filing date, application number, and attorney docket number of the above identified application when known. | | | | | |
| application number, and attorney docket number of the above identified application when known. WHEREAS, <u>NVIDIA Corporation</u>, ("ASSIGNEE"), a <u>California corporation</u>, having a place of business at <u>2701 San Tomas</u> <u>Expressway, Santa Clara, CA 95050</u> is desirous of acquiring an interest therein; NOW, THEREFOR, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I have sold, assigned, and transferred, and by these presents do sell, assign, and transfer unto ASSIGNEE, the full and exclusive right to the above-identified invention in the United States and its territorial possessions and in all foreign countries, and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries, and in and to any and all divisions, reissues, continuations and extensions thereof. I hereby authorize and request the Patent Office officials in the United States and any and all foreign countries to issue any and all of said Letters Patent, when granted, to ASSIGNEE, as the ASSIGNEE of my entire right, title and interest in and to the same, for the sole use of the ASSIGNEE, its successors and assigns. Further, I agree that I will communicate to ASSIGNEE, or Its representatives, any facts known to me respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitution, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to ASSIGNEE, make all rightful oaths and generally do everything possible to aid ASSIGNEE, its successors and assigns, to obtain and enforce proper protection for said invention in the United States and in any and all foreign countries. | | | | | |
| LEGAL NAME OF IN | /ENTOR | | | | |
| Inventor : <u>Guillermon, Rozas</u> , Date : <u>12/2/2012</u> Signature: | | | | | |

ATTY DOCKET NO.: NVI12303 / SC-12-0007-US1

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

RECORDED: 12/27/2012