

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT2665862

SUBMISSION TYPE:	NEW ASSIGNMENT																								
NATURE OF CONVEYANCE:	ASSIGNMENT																								
<b>CONVEYING PARTY DATA</b>																									
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>JEROME F. DULUK JR.</td> <td>10/14/2013</td> </tr> <tr> <td>CAMERON BUSCHARDT</td> <td>10/16/2013</td> </tr> <tr> <td>SHERRY CHEUNG</td> <td>10/15/2013</td> </tr> <tr> <td>JAMES LEROY DEMING</td> <td>10/11/2013</td> </tr> <tr> <td>SAMUEL H. DUNCAN</td> <td>10/16/2013</td> </tr> <tr> <td>LUCIEN DUNNING</td> <td>10/15/2013</td> </tr> <tr> <td>ROBERT GEORGE</td> <td>12/12/2013</td> </tr> <tr> <td>ARVIND GOPALAKRISHNAN</td> <td>10/15/2013</td> </tr> <tr> <td>MARK HAIRGROVE</td> <td>10/15/2013</td> </tr> <tr> <td>CHENGHUAN JIA</td> <td>10/10/2013</td> </tr> <tr> <td>JOHN MASHEY</td> <td>10/01/2013</td> </tr> </tbody> </table>		Name	Execution Date	JEROME F. DULUK JR.	10/14/2013	CAMERON BUSCHARDT	10/16/2013	SHERRY CHEUNG	10/15/2013	JAMES LEROY DEMING	10/11/2013	SAMUEL H. DUNCAN	10/16/2013	LUCIEN DUNNING	10/15/2013	ROBERT GEORGE	12/12/2013	ARVIND GOPALAKRISHNAN	10/15/2013	MARK HAIRGROVE	10/15/2013	CHENGHUAN JIA	10/10/2013	JOHN MASHEY	10/01/2013
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CHENGHUAN JIA	10/10/2013																								
JOHN MASHEY	10/01/2013																								
<b>RECEIVING PARTY DATA</b>																									
Name:	NVIDIA CORPORATION																								
Street Address:	2701 SAN TOMAS EXPRESSWAY																								
City:	SANTA CLARA																								
State/Country:	CALIFORNIA																								
Postal Code:	95050																								
<b>PROPERTY NUMBERS Total: 1</b>																									
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>14055318</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	14055318																				
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<b>CORRESPONDENCE DATA</b>																									
Fax Number:	(713)623-4846																								
Phone:	713-623-4844																								
Email:	rsmith@pattersonsheridan.com, psdocketing@pattersonsheridan.com																								
<i>Correspondence will be sent via US Mail when the email attempt is unsuccessful.</i>																									
Correspondent Name:	PATTERSON & SHERIDAN, LLP/NVIDIA																								

Address Line 1: 3040 POST OAK BLVD.  
Address Line 2: SUITE 1500  
Address Line 4: HOUSTON, TEXAS 77056

NAME OF SUBMITTER: JOHN C. CAREY

Signature: /John C. Carey/

Date: 01/02/2014

**Total Attachments: 11**

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source=NVDASC-12-0563-US0-US1\_Assignment#page11.tif

**ASSIGNMENT FOR APPLICATION FOR PATENT**

WHEREAS:

**Jerome F. DULUK, Jr.**, residing at  
950 California Avenue  
Palo Alto, CA 95303

**Cameron BUSCHARDT**, residing at  
5501 Sendero Springs Road  
Round Rock, TX 78681

**Sherry CHEUNG**, residing at  
1456 Kelly Court  
San Jose, CA 95116

**James Leroy DEMING**, residing at  
103 Tidewater Drive  
Madison, AL 35758

**Samuel H. DUNCAN**, residing at  
37 Wollaston Avenue  
Arlington, MA 02476

**Lucien DUNNING**, residing at  
700 Agnew Road, #462  
Santa Clara, CA 95054

**Robert GEORGE**, residing at  
10612 Chestnut Ridge  
Austin, TX 78726

**Arvind GOPALAKRISHNAN**, residing at  
4325 Renaissance Drive, Apt. 308  
San Jose, CA 95134

**Mark HAIRGROVE**, residing at  
1255 San Tomas Aquino Road, #214  
San Jose, CA 95117

**Chenghuan JIA**, residing at  
33884 Abercrombie Place  
Fremont, CA 94555

**John MASHEY**, residing at  
4570 Alpine Road  
Portola Valley, CA 94028

(hereinafter referred to as Assignors), have invented a certain invention entitled:

**PAGE STATE DIRECTORY FOR MANAGING UNIFIED VIRTUAL MEMORY**

enclosed herewith or for which application for Letters Patent in the United States under Application No. \_\_\_\_\_, filed on \_\_\_\_\_, and

WHEREAS, NVIDIA Corporation, a corporation of the State of Delaware, having a place of business at 2701 San Tomas Expressway, Santa Clara, CA 95050 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said application (hereinafter referred to as Application), and the invention disclosed therein (hereinafter referred to as Invention), and in and to all embodiments of the Invention, heretofore conceived, made or discovered by said Assignors, and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter referred to as Patents) thereon granted in any and all countries and groups of countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Assignors to have been received in full from said Assignee:

1. Said Assignors hereby sell, assign, transfer and convey to Assignee the full and exclusive right, title and interest (a) in and to said Application and said Invention; (b) in and to all rights to apply for patents on said Invention in any and all countries pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on said Invention in any and all countries and groups of countries, including each and every Application filed and each and every Patent granted on any application which is a conventional, division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.


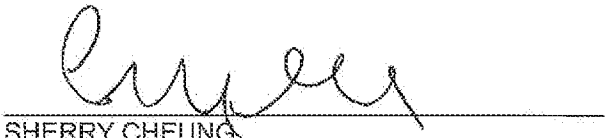


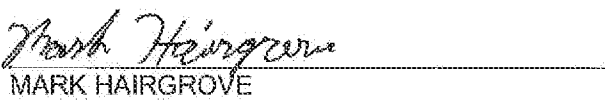
2. Said Assignors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, conventional, divisional, continuing or additional applications covering said Invention; (d) for filing and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings involving said Invention; and (f) for legal proceedings involving said Invention and any application therefore and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignors in providing such cooperation shall be paid for by said Assignee.


3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives and assigns.

4. Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

5. I hereby authorize and request my attorneys, Patterson & Sheridan LLP, of 3040 Post Oak Blvd, Suite 1500, Houston Texas 77056, to insert above in parentheses (Application No. and Filing Date) the filing date and application number of said application when known.

IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

- 1) Oct 14, 2013   
JEROME F. DULUK, JR.
- 2) \_\_\_\_\_, 2013  
CAMERON BUSCHARDT
- 3) 10/15, 2013   
SHERRY CHEUNG
- 4) \_\_\_\_\_, 2013  
JAMES LEROY DEMING
- 5) \_\_\_\_\_, 2013  
SAMUEL H. DUNCAN
- 6) Oct 15, 2013   
LUCIEN DUNNING
- 7) \_\_\_\_\_, 2013  
ROBERT GEORGE
- 8) OCT 15, 2013   
ARVIND GOPALAKRISHNAN
- 9) Oct 15, 2013   
MARK HAIRGROVE
- 10) \_\_\_\_\_, 2013  
CHENGHUAN JIA
- 11) \_\_\_\_\_, 2013  
JOHN MASHEY

- 1) \_\_\_\_\_, 2013  
JEROME F. DULUK, JR.
- 2) October 16, 2013  
  
CAMERON BUSCHARDT
- 3) \_\_\_\_\_, 2013  
SHERRY CHEUNG
- 4) \_\_\_\_\_, 2013  
JAMES LEROY DEMING
- 5) \_\_\_\_\_, 2013  
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MARK HAIRGROVE
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CHENGHUAN JIA

1) \_\_\_\_\_, 2013

\_\_\_\_\_  
JEROME F. DULUK, JR.

2) \_\_\_\_\_, 2013

\_\_\_\_\_  
CAMERON BUSCHARDT

3) \_\_\_\_\_, 2013

\_\_\_\_\_  
SHERRY CHEUNG

4) *Oct 11* \_\_\_\_\_, 2013

*James Leroy Deming*  
\_\_\_\_\_  
JAMES LEROY DEMING

5) \_\_\_\_\_, 2013

\_\_\_\_\_  
SAMUEL H. DUNCAN

6) \_\_\_\_\_, 2013

\_\_\_\_\_  
LUCIEN DUNNING

7) \_\_\_\_\_, 2013

\_\_\_\_\_  
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8) \_\_\_\_\_, 2013

\_\_\_\_\_  
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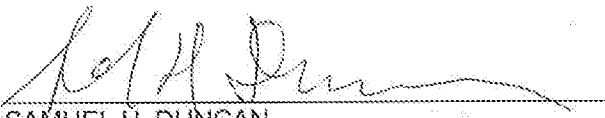
\_\_\_\_\_  
MARK HAIRGROVE

10) \_\_\_\_\_, 2013

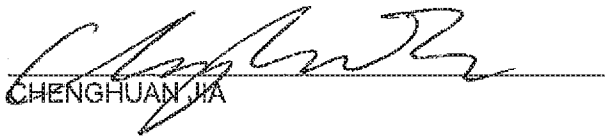
\_\_\_\_\_  
CHENGHUAN JIA

11) \_\_\_\_\_, 2013

\_\_\_\_\_  
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- 1) \_\_\_\_\_, 2013  
JEROME F. DULUK, JR.
  
- 2) \_\_\_\_\_, 2013  
CAMERON BUSCHARDT
  
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- 5) 16 Oct, 2013  
  
SAMUEL H. DUNCAN
  
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Attorney Docket No. NVDA/SC-12-0563-US0-US1

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CHENGHUAN JIA
- 11) 10/01, 2013  
JOHN MASHEY

3 of 3

PATENT

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JAMES LEROY DEMING
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SAMUEL H. DUNCAN
- 6) \_\_\_\_\_, 2013  
LUCIEN DUNNING
- 7) *December 12, 2013*, 2013   
ROBERT GEORGE
- 8) \_\_\_\_\_, 2013  
ARVIND GOPALAKRISHNAN
- 9) \_\_\_\_\_, 2013  
MARK HAIRGROVE
- 10) \_\_\_\_\_, 2013  
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