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U.S. DEPARTMENT OF **COMMERCE**

OMB No. 0651-0027 (exp. 6/30/2005) U.S. Patent and Trademark Office 103143537 and original documents or copy thereof. To the Honorable Commissioner of Paten Name of conveying party(ies): **Donald A. BITTEL** December 9, 2005 2. Name and address of receiving party(ies) **Dorcas T. HSIA** December 9, 2005 **David Kirk McALLISTER December 13, 2005** Name: **NVIDIA Corporation** December 9, 2005 Jonah M. ALBEN Internal Address: Additional name(s) of conveying party(ies) attached?[]Yes[X]No Street Address: 2701 San Tomas Expressway 3. Nature of conveyance: [X] Assignment Merger City: Santa Clara State: CA Zip: 95050 [] Security Agreement Change of Name Additional name(s) & address(es) attached? No [X] Yes [] Other () Execution Date: See Above 4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: December 9, 2005, December 9, 2005, December 13, 2005, December 9, 2005 A. Patent Application No.(s) B. Patent No.(s) Additional numbers attached? [] Yes [X]No 5. Name and address of party to whom correspondence Total number of applications and patents involved: [1] concerning document should be mailed: Name: Cooley Godward LLP [X] Enclosed Internal Address: Patent Group Authorized to be charged to deposit account Street Address: Five Palo Alto Square 3000 El Camino Real Deposit account number: 03-3117 City: Palo Alto State: CA Zip: 94306-2155 The Commissioner is hereby authorized to charge any appropriate fees under 37 CFR 3.41 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 03-3117. This paper is submitted in duplicate. DO NOT USE THIS SPACE 9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Edward Van Gieson

Reg. No. 44,386

Name of Person Signing

Signature

December 14, 2005

Date

Total number of pages including cover sheet, attachments, and documents: [3]

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PATENT

REEL: 017380 FRAME: 0483

PATENT

Rev. 6/14/2002

Attorney Docket No: NVID-117/00US

Reference No.: P001651

ASSIGNMENT
(Joint)

DONALD A. BITTEL, residing at 2169 Wood Hollow Court, San Jose, California 95138; and DORCAS T. HSIA, residing at 925 South Wolfe Road, Apt. 105, Sunnyvale, California 94086, DAVID KIRK McALLISTER, residing at 4512 Leo Way, Holladay, Utah 84117; and JONAH M. ALBEN, residing at 5049 Esther Drive, San Jose, California 95124 (each referred to as "Assignor") have made an invention(s) (the "Invention(s)") set forth in an application for patent of the United States, entitled

APPARATUS, METHOD, AND SYSTEM FOR COALESCED Z DATA AND COLOR DATA FOR RASTER OPERATIONS

and which is a:

(1)	[] provisional application			
	(a)	[] to be filed herewith; or		
	(b)	[] bearing Application No.	, and filed on	; 01
(2)	[X] non-provisional application			
	(a)	[X] to be filed herewith; or		
	(b)	[] bearing Application No.	, and filed on	

WHEREAS, NVIDIA Corporation, a corporation duly organized under and pursuant to the laws of Delaware, and having its principal place of business at 2701 San Tomas Expressway, Santa Clara, California 95050 (the "Assignee"), is desirous of acquiring the entire right, title, and interest in: the Invention(s); the application for patent identified in paragraph (1) or (2); the right to file applications for patent of the United States or other countries on the Invention(s); any application(s) for patent of the United States or other countries claiming priority to these application(s); any provisional or other right to recover damages, including royalties, for prior infringements of these applications; and any patent(s) of the United States or other countries that may be granted therefor or thereon.

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, and to the extent that the Assignor has not done so already via a prior agreement with the Assignee, or if the Assignor has already done so via a prior agreement with the Assignee then in confirmation of any obligation to do so in said prior agreement, the Assignor has sold, assigned, transferred, and set over, and by these presents does sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns, the Assignor's entire right, title, and interest in:

- (a) the Invention(s);
- (b) the application for patent identified in paragraph (1) or (2);
- (c) the right to file applications for patent of the United States or other countries on the Invention(s), including all rights under the Paris Convention for the Protection of Industrial Property and under the Patent Cooperation Treaty;
- (d) any application(s) for patent of the United States or other countries claiming the Invention(s);

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- (e) any application(s) for patent of the United States or other countries claiming priority to the application for patent identified in paragraph (1) or (2) or any application(s) for patent claiming the Invention(s), including any division(s), continuation(s), and continuation(s)-in-part; and
- (f) any provisional or other right to recover damages, including royalties, for prior infringements of any application for patent identified in the preceding paragraphs (b)-(e); and
- (g) any patent(s) of the United States or other countries that may be granted for or on any application for patent identified in the preceding paragraphs (b) (e), including any reissue(s) and extension(s) of said patent(s).

The above-granted rights, titles, and interests are to be held and enjoyed by the Assignee, for its own use and behalf and the use and behalf of its successors, legal representatives, and assigns, as fully and entirely as the same would have been held and enjoyed by the Assignor had this sale and assignment not been made.

The Assignor hereby represents to the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, or if applicable, at such time said prior agreement was executed, the Assignor is a lawful owner of an undivided interest in the entire right, title, and interest in and to the Invention(s), that the Invention(s) are unencumbered, except, if applicable, by obligation to assign in accordance with said prior agreement, and that the Assignor has good and full right and lawful authority to sell and convey the same in the manner set forth herein.

The Assignor hereby covenants and agrees to and with the Assignee, its successors, legal representatives, and assigns, that the Assignor will sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done in connection with any and all proceedings for the procurement, maintenance, enforcement and defense of the Invention(s), said applications, and said patents, including interference proceedings, without charge to the Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns.

The Assignor hereby authorizes and requests the attorneys of COOLEY GODWARD L.L.P. to insert in the spaces provided above the filing date, the application number, and the attorney docket number of the application identified in paragraph (1) or (2) when known.

The Assignor hereby requests the Con	nmission	ner of Patents to issue said patents of the
United States to the Assignee for the sole use	and beha	alf of the Assignee, its successors, legal
representatives, and assigns.		$\sim 1/100$
Date: $12/09/05$	Ву:	Donah / Bulles
•		Donald A. BITTEL
Date: 12/09/05	Ву:	Darces T. Un.
, ,		Dorcas T. HSIA
Date: 12/13/05	Ву:	David K. Mafflister
, ,		Pavid Kirk McALLISTER
Date: 12/09/05	By:	Ol mol
	•	Jonah M. ALBEN
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RECORDED: 12/14/2005