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FORM PTO-1595 (Rev. 6-93) OMB No. 0651-0011 (exp. 4/94) MAY 1 0 2002	U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office	
To the Honorable Commissioner of Patents a 10209	d original documents or copy thereof.	
1. Name of conveying party(ies): 5 _ 10 _ 02 Philip R. Laws, Jon Worthington Additional name(s) of conveying party(ies) attached? ☐ Yes ■ No	2. Name and address of receiving party(ies): Name: 3Dlabs Inc., Ltd.	
3. Nature of conveyance: ■ Assignment	Address: Reid Hall, Hamilton HM11, Bermuda Additional name(s) & address(es) attached? ☐ Yes ■ No	
Execution Date: Moy 1, 2002		
4. Application number(s) or patent number(s):		
A. Patent Application No.(s) 10/071,895	B. Patent No.(s)	
Additional numbers attached? ☐ Yes ■ No		
Name and address of party to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved:	
Robert Groover 17000 Preston Rd. #230, Dallas TX 75248 (972) 380-6333	7. Total fee (37 CFR 3.41)\$40 ■ Enclosed □ Authorized to be charged to deposit account 8. Deposit account number:	
	(Attach duplicate copy of this page if paying by deposit account)	
DO NOT USE	THIS SPACE	
9. Statement and signature. To the best of my knowledge and belief, the foregoing in of the original document. Name of Person Signing	formation, is true and correct and any attached copy is a true copy Signature Date	
Total number of pages including cover shee	et, attachments, and document: 3	
Mail documents to be recorded with Commissioner of Patents & 40.00 OP 03 FC:581	h required cover sheet information to: Trademarks, Box Assignments	

PATENT REEL: 012897 FRAME: 0460

ASSIGNMENT

As a below-named inventor of the U.S. patent application entitled Rasterizer Edge Function Optimizations, which names an inventorship of Philip R. Laws and Jon Worthington, and which was filed 02/08/2002 (MM/DD/YY) and received Serial No. 10/071,895, I hereby sell, assign and transfer to 3Dlabs Inc., Ltd., Reid Hall, Hamilton HM11, Bermuda, (hereinafter referred to as ASSIGNEE), for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the full and exclusive right, title and interest to said invention in the United States and its territorial possessions and in all foreign countries and to all Letters Patent or similar legal protection in the United States and its territorial possessions and in all foreign countries to be obtained for said invention by said application or any division, continuation, continuation-in-part, renewal, substitute, extension, relexamination or reissue thereof or any legal equivalent thereof in any foreign country for the full term or terms of which the same may be granted, and specifically including the right to file foreign applications and claim priority therefor under the provisions of any convention or treaty;

and I also hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and sale;

and I further hereby covenant that I will, upon ASSIGNEE'S request, promptly provide ASSIGNEE with all pertinent facts and documents, relating to said application, to any invention disclosed therein, or to any of said Letters Patent or legal equivalents thereof in the United States or in foreign countries, as may be known and accessible to me, and that I will testify and give evidence as to the same in any litigation or interference which may arise, and that I will promptly execute and deliver to ASSIGNEE or its legal representative, without charge but at Assignee's expense, any and all papers, instruments or affidavits which may be required, necessary or desirable for the purpose of applying for, obtaining, maintaining, issuing or enforcing said application and said Letters Patent and said equivalents thereof in the United States or in any foreign country; and I further authorize ASSIGNEE or its legal representative to make any submissions or true declarations which may be needed in connection with the prosecution of this application or related applications in the U.S. or in other countries, consistent with the requirements of the applicable country;

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Assignment TD-164		uge

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3D LABS

AND I HEREBY AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on said invention to ASSIGNEE, its successors and assigns.

IN WITNESS WHEREOF, this Assignment has been executed on the date set forth below.

Inventor's Name: Philip R. Laws

Residence Address: 19 The Oaks, Moormede Crescent, Staines, Midlesex TW18 4SH,

United Kingdom

Today's Date, and Date Application Signed: 1st May 2007

Inventor's Name: Jon Worthington

Residence Address: 4 Lea Way, Boarwood, Bournemouth, Dorset BF11 9NF,

United Kingdom

Today's Date, and Date Application Signed: 15/ MHT 2002

ASSIGNMENT

As a below-named inventor of the U.S. patent application entitled Rasterizer Edge Function Optimizations, which names an inventorship of Philip R. Laws and Jon Worthington, and which was filed 02/08/2002 (MM/DD/YY) and received Serial No. 10/071,895, I hereby sell, assign and transfer to 3Dlabs Inc., Ltd., Reid Hall, Hamilton HM11, Bermuda, (hereinafter referred to as ASSIGNEE), for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the full and exclusive right, title and interest to said invention in the United States and its territorial possessions and in all foreign countries and to all Letters Patent or similar legal protection in the United States and its territorial possessions and in all foreign countries to be obtained for said invention by said application or any division, continuation, continuation-in-part, renewal, substitute, extension, re examination or reissue thereof or any legal equivalent thereof in any foreign country for the full term or terms of which the same may be granted, and specifically including the right to file foreign applications and claim priority therefor under the provisions of any convention or treaty;

and I also hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and sale;

and I further hereby covenant that I will, upon ASSIGNEE'S request, promptly provide ASSIGNEE with all pertinent facts and documents, relating to said application, to any invention disclosed therein, or to any of said Letters Patent or legal equivalents thereof in the United States or in foreign countries, as may be known and accessible to me, and that I will testify and give evidence as to the same in any litigation or interference which may arise, and that I will promptly execute and deliver to ASSIGNEE or its legal representative, without charge but at Assignee's expense, any and all papers, instruments or affidavits which may be required, necessary or desirable for the purpose of applying for, obtaining, maintaining, issuing or enforcing said application and said Letters Patent and said equivalents thereof in the United States or in any foreign country; and I further authorize ASSIGNEE or its legal representative to make any submissions or true declarations which may be needed in connection with the prosecution of this application or related applications in the U.S. or in other countries, consistent with the requirements of the applicable country;

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RECORDED: 05/10/2002

AND I HEREBY AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on said invention to ASSIGNEE, its successors and assigns.

IN WITNESS WHEREOF, this Assignment has been executed on the date set forth below.

Inventor's Name: Philip R. Laws	S
	Signature:
Residence Address: 19 The Oak United Kingdom	s, Moormede Crescent, Staines, Midlesex TW18 4SH,
	Today's Date, and Date Application Signed:
Inventor's Name: Jon Worthingt	on
	Signature: 5 layter
Residence Address: 4 Lea Way,	Bearwood, Bournemouth, Dorset BF11 9NF,
United Kingdom	
	Today's Date, and Date Application Signed: 1sf mily 2002

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PATENT REEL: 012897 FRAME: 0464