505303603 01/30/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

SUBMISSION TYPE: NEW ASSIGNMENT NATURE OF CONVEYANCE: ASSIGNMENT

EPAS ID: PAT5350383

CONVEYING PARTY DATA

Name	Execution Date
MARK S. GROSSMAN	08/12/2016
JASON MATTHEW GOULD	08/12/2016
ALEXANDER NANKERVIS	08/12/2016
CHARLES NEILL BOYD	06/05/2017

RECEIVING PARTY DATA

Name:	MICROSOFT TECHNOLOGY LICENSING, LLC
Street Address:	ONE MICROSOFT WAY
City:	REDMOND
State/Country:	WASHINGTON
Postal Code:	98052

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16175463

CORRESPONDENCE DATA

Fax Number: (202)857-6395

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

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usdocket@microsoft.com, patentdocket@arentfox.com Email:

ARENT FOX LLP **Correspondent Name:** 1717 K STREET, NW Address Line 1:

Address Line 4: WASHINGTON, D.C. 20006

ATTORNEY DOCKET NUMBER:	037834.01129/360521US-CNT
NAME OF SUBMITTER:	COLIN J. HARRINGTON
SIGNATURE:	/Colin J. Harrington/
DATE SIGNED:	01/30/2019

Total Attachments: 8

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PATENT REEL: 048187 FRAME: 0962 505303603

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PATENT REEL: 048187 FRAME: 0963

PATENT ASSIGNMENT

MS Docket No.: 360521.01

I <u>Mark S. GROSSMAN</u> ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "<u>VARIABLE RATE SHADING</u>" ("APPLICATION"), which:

\boxtimes	will be filed. ASSIGNOR hereby authorizes, and requests,
	ASSIGNEE'S legal representative, Microsoft Technology Licensing,
	LLC, One Microsoft Way, Redmond, Washington 98052 (ASSIGNEE'S
	LEGAL REPRESENTATIVES), to insert here in parentheses (filed
	on and given Application No by
	the following Office) this
	APPLICATION's Application No., filing date, and Office, when known:
	was filed on and was given Application
	No by the following Office ".
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Microsoft Technology Licensing, LLC, a Washington limited liability company, on behalf of itself and its successors and assigns ("ASSIGNEE"), is entitled to, and is desirous of acquiring, the entire and exclusive rights, title and interest, including the right of priority, in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in whole or in part, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

ASSIGNOR hereby authorizes, and requests, ASSIGNEE'S LEGAL REPRESENTATIVES to insert the Application No., filing date, and Office into the following table for any APPLICATION DERIVATIVES after they are known;

Application No.	Filing Date	Office
16/175,463	October 30, 2018	U.S.
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Page 1 of 2

AFDOCS/13716380.1

MS Docket No.: 360521.01

For good and valuable consideration, the receipt of which is hereby acknowledged by the ASSIGNOR, the ASSIGNOR hereby sells, assigns and transfers to the ASSIGNEE, ASSIGNOR's entire and exclusive rights, title and interest, including the right of priority, in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in whole or in part, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

ASSIGNOR agrees to execute all instruments and documents required for the making and prosecution of the APPLICATION (and APPLICATION DERIVATIVES), for litigation regarding letters patent derived therefrom, and for the purpose of protecting and perfecting title to the APPLICATION (and APPLICATION DERIVATIVES).

Printed Name in English	Printed Name in Native Language (if other than English)
Mark S. GROSSMAN	
Inventor's Signature	Date
Mole	12 AUG 2016
\sim \sim	

I <u>Jason Matthew GOULD</u> ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "<u>VARIABLE RATE SHADING</u>" ("APPLICATION"), which:

\boxtimes	will	be	filed.	ASSIGNOF	R hereby	autho	orizes,	and	requ	ests,
	ASSI	GNEI	E'S lega	l representa	ative, Mic	rosoft	Techno	ology	Licen	sing,
	LLC,	One	Micros	oft Way, Red	dmond, W	ashing	ton 980)52 (A	\SSIG1	NEE'S
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	the	foll	owing	Office)	this
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	was	filed	on		and was	given A	Applicat	tion		
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Application No.	Filing Date	Office
16/175,463	October 30, 2018	U.S.
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Page 1 of 2

PATENT ASSIGNMENT

MS Docket No.: 360521.01

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JRM. ann	12 Aug 2016
Inventor's Signature	Date
Jason Matthew GOULD	
Printed Name in English	Printed Name in Native Language
	(if other than English)

MS Docket No.: 360521.01

I <u>Alexander NANKERVIS</u> ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "<u>VARIABLE RATE SHADING</u>" ("APPLICATION"), which:

\boxtimes	will	be	filed.	ASSIGN	OR	hereby	auth	orizes,	and	requ	ests,
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	was	filed	on		ĉ	ınd was	given .	Applica	tion		
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Microsoft Technology Licensing, LLC, a Washington limited liability company, on behalf of itself and its successors and assigns ("ASSIGNEE"), is entitled to, and is desirous of acquiring, the entire and exclusive rights, title and interest, including the right of priority, in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in whole or in part, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

ASSIGNOR hereby authorizes, and requests, ASSIGNEE'S LEGAL REPRESENTATIVES to insert the Application No., filing date, and Office into the following table for any

Application No.	Filing Date	Office	
Application No. 16/175,463	October 30, 2018	U.S.	
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APPLICATION DERIVATIVES after they are known;

MS Docket No.: <u>360521.01</u>

For good and valuable consideration, the receipt of which is hereby acknowledged by the ASSIGNOR, the ASSIGNOR hereby sells, assigns and transfers to the ASSIGNEE, ASSIGNOR's entire and exclusive rights, title and interest, including the right of priority, in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in whole or in part, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

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Un Ini	8-12-16	
Inventor's Signature	Date	
Alexander NANKERVIS		
Printed Name in English	Printed Name in Native Language	
	(if other than English)	

MS Docket No.: 360521.01

I <u>Charles Neill BOYD</u> ("As inventor of subject matter ("		inventor or an original joint
▼		
application entitled "VARIABLE R	ATE SHADING" ("APPLICAT	ION"), wnich:
ASSIGNEE'S legal LLC, One Microsof LEGAL REPRESENT on	ASSIGNOR hereby authorepresentative, Microsoft tway, Redmond, Washington TATIVES), to insert here and given Application ffice	Technology Licensing, con 98052 (ASSIGNEE'S in parentheses (filed No by
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No <u>15/237334</u>	st 15, 2016 and was given by the following (Patent and Trademark Off	Office
Microsoft Technology Lice behalf of itself and its successor of acquiring, the entire and ex- priority, in the INVENTION and to derived therefrom, such as con- United States, its territories, and	s and assigns ("ASSIGNEE"), clusive rights, title and in he APPLICATION (and all o tinuing applications, in wh	terest, including the right of ther applications and patents oole or in part, in and for the
ASSIGNOR hereby author	zes, and requests, ASSIGN	EE'S LEGAL REPRESENTATIVES
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16/175.463	October 30, 2018	U.S.

Page 1 of 2

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Trules Boyd	2015-06-05	
Inventor's Signature	Date	
Charles Neill BOYD		
Printed Name in English	Printed Name in Native Language (if other than English)	

RECORDED: 01/30/2019