504877812 04/19/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4924552

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT	
NATURE OF CONVEYANCE:	Corrective Assignment to correct the SPELLING OF THE 3RD INVENTORS LAST NAME previously recorded on Reel 043391 Frame 0599. Assignor(s) hereby confirms the LAST NAME IS DA VEIGA.	

CONVEYING PARTY DATA

Name	Execution Date
KENNETH LIAM KIEMELE	08/10/2017
MICHAEL ROBERT THOMAS	08/21/2017
ALEXANDRE DA VEIGA	08/24/2017
CHRISTIAN MICHAEL SADAK	08/11/2017
BRYANT DANIEL HAWTHORNE	08/16/2017
AARON D. KRAUSS	08/21/2017
AARON MACKAY BURNS	08/21/2017

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:	15685870

CORRESPONDENCE DATA

Fax Number: (425)936-7329

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.

Phone: 4257079382

Email: usdocket@microsoft.com

Correspondent Name: MICROSOFT CORPORATION

Address Line 1: ONE MICROSOFT WAY

Address Line 4: REDMOND, WASHINGTON 98052

ATTORNEY DOCKET NUMBER:	402751-US-NP
NAME OF SUBMITTER:	CATHERINE POLANCE
SIGNATURE:	/Catherine Polance/

PATENT 504877812 REEL: 045990 FRAME: 0395

DATE SIGNED: 04/19/2018 **Total Attachments: 18** source=Corrective Assignment (inventors to MTL)402751-US-NP#page1.tif source=Corrective Assignment (inventors to MTL)402751-US-NP#page2.tif source=Corrective Assignment (inventors to MTL)402751-US-NP#page3.tif source=Corrective Assignment (inventors to MTL)402751-US-NP#page4.tif source=Corrective Assignment (inventors to MTL)402751-US-NP#page5.tif source=Corrective Assignment (inventors to MTL)402751-US-NP#page6.tif source=Corrective Assignment (inventors to MTL)402751-US-NP#page7.tif source=Corrective Assignment (inventors to MTL)402751-US-NP#page8.tif source=Corrective Assignment (inventors to MTL)402751-US-NP#page9.tif source=Corrective Assignment (inventors to MTL)402751-US-NP#page10.tif source=Corrective Assignment (inventors to MTL)402751-US-NP#page11.tif source=Corrective Assignment (inventors to MTL)402751-US-NP#page12.tif source=Corrective Assignment (inventors to MTL)402751-US-NP#page13.tif source=Corrective Assignment (inventors to MTL)402751-US-NP#page14.tif

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PATENT REEL: 045990 FRAME: 0396

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PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
KENNETH LIAM KIEMELE	08/10/2017
MICHAEL ROBERT THOMAS	08/21/2017
ALEXANDRE -DA VIEGA DA VEIGA	08/24/2017
CHRISTIAN MICHAEL SADAK	08/11/2017
BRYANT DANIEL HAWTHORNE	08/16/2017
AARON D. KRAUSS	08/21/2017
AARON MACKAY BURNS	08/21/2017

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

PATENT

REEL: 045990 FRAME: 03/97/2017, 2:56 PM

MARKED-UP

Property Type		Number	
Application Number:	15685	15685870	
CORRESPONDENCE DATA			
Fax Number:	(425)936-73	329	
Phone:	425-707-93	82	
Email:	_	microsoft.com	
		dress first; if that is unsuccessful, it will be sent using a fax	
number, if provided; if that is un Correspondent Name:		r will be sent via US Mall. I CORPORATION	
Address Line 1:	ONE MICRO		
Address Line 4:		WASHINGTON 98052	
ATTORNEY DOCKET NUMBER: 402751-US-NP		402751-US-NP	
NAME OF SUBMITTER: CATHERINE POLANCE		CATHERINE POLANCE	
Signature:		/Catherine Polance/	
Date:		08/24/2017	
Total Attachments: 14			
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RECEIPT INFORMATION			
EPAS ID:	PAT456557		
eceipt Date: 08/24/2017			

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PATENT REEL: 045990 FRAME: 03/98/2017, 2:56 PM

PATENT ASSIGNMEN	T MS Docket	No.: <u>402751-US-NP</u>
I <u>Kenneth Liam KIEMEL</u> joint inventor of subject matt application entitled " <u>VIRTUAL R</u>	er ("INVENTION") disclose	
ASSIGNEE'S legal LLC, One Microso LEGAL REPRESENT <u>August 24, 2017</u> the following Offi	ASSIGNOR hereby auth representative, Microsoft ft Way, Redmond, Washing ATIVES), to insert here in and given Application I ce U.S. Patent and Trade Application No., filing displication No., filing displication	Technology Licensing, gton 98052 (ASSIGNEE'S parentheses (filed on No. 15/685,870 by mark Office) this
	and was given Office "	
Microsoft Technology Libehalf of itself and its succe desirous of acquiring, the entiright of priority, in the INVENTI patents derived therefrom, sucfor the United States, its to DERIVATIVES"));	ssors and assigns ("ASSIO re and exclusive rights, ti ON and the APPLICATION h as continuing applicatio	tle and interest, including the (and all other applications and ns, in whole or in part, in and
REPRESENTATIVES to insert ti	he Application No., filin	
following table for any APPLICA		
Application No.	Filing Date	Office

Application No.	Filing Date	Office

MS Docket No.: 402751-US-NP

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"));

Tin Rece	8/10/2010
Inventor's Signature	Date
Kenneth Liam KIEMELE	
Printed Name in English	Printed Name in Native Language
	(if other than English)

MS Docket No.: 402751-US-NP

joint invento	or of subject mattentitled " <u>VIRTUAL F</u> will be filed. ASSIGNEE'S legal LLC, One Microso LEGAL REPRESEN' <u>August 24, 2017</u> the following Off	ter ("INVENTION") REALITY INPUT" ("A ASSIGNOR here representative, M oft Way, Redmond, FATIVES), to insert and given App ice U.S. Patent a	am the original inventor disclosed and/or claims APPLICATION"), which: by authorizes, and redictorsoft Technology List, Washington 98052 (ASS) there in parentheses (file blication No. 15/685,870 and Trademark Office filing date, and Office	ed in a patentequests, censing, SIGNEE'S ed on by) this
	was filed on by the following	and w	as given Application No	e.
behalf of it desirous of right of prio patents deri	self and its succe acquiring, the ent rity, in the INVENT ved therefrom, suc ited States, its	essors and assigr ire and exclusive ION and the APPLI th as continuing a	ashington limited liabiliths ("ASSIGNEE"), is entitoring rights, title and interestor and interestor (CATION (and all other applications, in whole or all foreign countries	led to, and is , including the pplications and in part, in and
REPRESENTA	TIVES to insert i	the Application 1	id requests, ASSIGN No., filing date, and C IS after they are known;	
Application	***********************	Filing Date	Óffice	

Page 1 of 2

PATENT REEL: 045990 FRAME: 0401 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"));

Mari ====================================	08/21/2017
Inventor's Signature	Date
Michael Robert THOMAS	
Printed Name in English	Printed Name in Native Language
	(if other than English)

MS Docket No.: <u>402751-US-NP</u>

inventor of subject matter ('application entitled " <u>VIRTUAL RI</u>	'INVENTION") disclosed a EALITY INPUT" ("APPLICATI	ON"), which:
ASSIGNEE'S legal LLC, One Microsof LEGAL REPRESENTA August 24, 2017 the following Office	ASSIGNOR hereby auth representative, Microsoft it Way, Redmond, Washing ATIVES), to insert here in part and given Application Note U.S. Patent and Trade pplication No., filing da	Technology Licensing, gton 98052 (ASSIGNEE'S parentheses (filed on look 15/685,870 by mark Office) this
	and was given . ffice "	
Microsoft Technology Lice behalf of itself and its success desirous of acquiring, the entire right of priority, in the INVENTION patents derived therefrom, such for the United States, its to DERIVATIVES"));	ssors and assigns ("ASSIO re and exclusive rights, ti ON and the APPLICATION of a as continuing application	tle and interest, including the (and all other applications and ns, in whole or in part, in and
REPRESENTATIVES to insert th		g date, and Office into the
following table for any APPLICA		
Application No.	Filing Date	Office

MS Docket No.: <u>402751-US-NP</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"));

Ali-	8/24/2017
Inventor's Signature	Date
Alexandre DA VEIGA	
Printed Name in English	Printed Name in Native Language
	(if other than English)

SIGNOR")	am	the	original	inventor	or	an	original

MS Docket No.: <u>402751-US-NP</u>

I <u>Christian Michael SADAK</u> ("ASSIGNOR") am the original inventor or an original								
joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent								
application entitled "VIRTUAL REALITY INPUT" ("APPLICATION"), which:								
oxtimes will be filed. ASSIGNOR hereby authorizes, and requests,								

\triangle	will be filed. ASSIG	NOR nereby	autnorizes,	and requests,						
	ASSIGNEE'S legal repres	entative, Mic	rosoft Techno	ology Licensing,						
	LLC, One Microsoft Way, Redmond, Washington 98052 (ASSIGNEE'S									
	LEGAL REPRESENTATIVES), to insert here in parentheses (filed on August 24, 2017 and given Application No. 15/685,870 by									
	the following Office U.S									
	the following Office O.C	s. Faterit and	Trauemain O	ffice this						
	APPLICATION's Application No., filing date, and Office, when known;									
	was filed on	and was	given Applicat	tion No						
	was filed off	and was	given Applicat	טוו ווטו.						
	by the following Office "			".						

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	

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

MS Docket No.: <u>402751-US-NP</u>

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).

States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

Martin Michael Dadak	08/11/2017
Inventor's Signature	Date
Christian Michael SADAK	
Printed Name in English	Printed Name in Native Language
	(if other than English)

I <u>Bryant Daniel HAWTHORNE</u> ("ASSIGNOR") am the original inventor or an original
joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent
application entitled "VIRTUAL REALITY INPUT" ("APPLICATION"), which:

\times	will	be	filed.	ASSIGNO	R herek	y auth	orizes,	and	requ	ests,
	ASSI	GNE	e'S legal	represent	ative, M	icrosoft	Techno	ology	Licen	sing,
	LLC,	One	Microso	oft Way, Re	dmond,	Washin	gton 98	052 (4	ASSIGN	1EE'S
	LEGA	AL RE	PRESENT	ΓΑΤΙVES), t	o insert	here in	parenth	eses (filed o	n
	Aug	ust 2	4, 2017	and giv	en Appl	ication I	No. <u>15/6</u>	85,87	0	_ by
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	was	filed	on		and wa	s given	Applica	tion N	lo	
	by th	ie fo	llowing (Office "	_				".	

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"));

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Application No.	Filing Date	Office

MS Docket No.: <u>402751-US-NP</u>

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Inventor's Signature Date

Bryant Daniel HAWTHORNE

Printed Name in English

Printed Name in Native Language (if other than English)

MS Docket No.:	402/31-US-NP

inventor of subject matter (application entitled "VIRTUAL R will be filed. ASSIGNEE'S legal LLC, One Microsof LEGAL REPRESENT August 24, 2017 the following Office	"INVENTION") disclosed EALITY INPUT" ("APPLICATION") ASSIGNOR hereby authore in part of the content of the co	orizes, and requests, Technology Licensing, gton 98052 (ASSIGNEE'S parentheses (filed on No. 15/685,870 by mark Office) this		
known;	pplication No., filing da	ate, and Office, when		
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was filed on and was given Application No by the following Office "";				
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 requ	uests, ASSIGNEE'S LEGAL		
REPRESENTATIVES to insert the Application No., filing date, and Office into the				
following table for any APPLICA				
Application No.	Filing Date	Office		

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Que S	8/21/17	
Inventor's Signature	Date	
Aaron D. KRAUSS		
Printed Name in English	Printed Name in Native Language (if other than English)	

MS Docket No.:	402751-US-NP

I <u>Aaron Mackay BURNS</u> ("ASSIGNOR") am the original inventor or an original joint				
inventor of subject matter ("INVENTION") disclosed	and/or claimed in a patent		
application entitled "VIRTUAL REALITY INPUT" ("APPLICATION"), which:				
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 August 24, 2017 and given Application No. 15/685,870 by the following Office U.S. Patent and Trademark Office) this APPLICATION's Application No., filing date, and Office, when known;				
	and was given Office "			
Microsoft Technology Lie	censing, LLC, a Washingto	n limited liability company, on		
behalf of itself and its succes	<u> </u>	• • • •		
desirous of acquiring, the entir	- .			
right of priority, in the INVENTI	ON and the APPLICATION	(and all other applications and		
patents derived therefrom, suc	h as continuing applicatio	ns, in whole or in part, in and		
for the United States, its territories, and all foreign countries ("APPLICATION				
DERIVATIVES"));				
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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		
		[

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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).

Inventor's Signature

Aaron Mackay BURNS

Printed Name in English

21 Ay 2017 Date

Printed Name in Native Language of other than English)