504681259 12/11/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

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EPAS ID: PAT4727981

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
QUENTIN SIMON CHARLES MILLER	12/06/2017
SHAWN CRISPIN WRIGHT	12/06/2017
JEFFREY ALAN KOHLER	12/06/2017
BLAKE CARLTON FARMER	12/11/2017

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:	15678031

CORRESPONDENCE DATA

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Correspondent Name: ARENT FOX LLP
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Address Line 4: WASHINGTON, D.C. 20006

NAME OF SUBMITTER:	NATASHA BROWN
SIGNATURE:	/Natasha Brown/
DATE SIGNED:	12/11/2017

Total Attachments: 8

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PATENT 504681259 REEL: 044355 FRAME: 0346

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> PATENT REEL: 044355 FRAME: 0347

I <u>Quentin Simon Charles</u> original joint inventor of subjec patent application entitled "	t matter ("INVENTION") d	the original inventor or an isclosed and/or claimed in a TION"), which:
ASSIGNEE'S legal r LLC, One Microsoft LEGAL REPRESENT on the following Of	ASSIGNOR hereby author epresentative, Microsoft Way, Redmond, Washing ATIVES), to insert here and given Application fice and silven Application of the fice and Model and Mo	Technology Licensing, con 98052 (ASSIGNEE'S in parentheses (filed No by) this
	t 15, 2017 and was given following Office " <u>U.S.</u> ";	Application No
Microsoft Technology Lice behalf of itself and its successors of acquiring, the entire and exc priority, in the INVENTION and the derived therefrom, such as cont United States, its territories, and	s and assigns ("ASSIGNEE") clusive rights, title and in he APPLICATION (and all c inuing applications, in wh	terest, including the right of other applications and patents nole or in part, in and for the
ASSIGNOR hereby authori	zes, and requests, ASSIGN	IEE'S LEGAL REPRESENTATIVES
to insert the Application No., f		o the following table for any
APPLICATION DERIVATIVES after		0.55
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 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).

		12/6/17
***************************************	Inventor's Signature	Date / /
	Quentin Simon Charles MILLER	
	Printed Name in English	Printed Name in Native Language
		(if other than English)

I <u>Shaw</u>	<u>ın Crispin WRIGHT</u> ('	'ASSIGNOR") am the origin	al inventor or an original joint
inventor of	subject matter ("l	NVENTION") disclosed a	nd/or claimed in a patent
application e	ntitled "	" ("APPLICATION"),	which:
	ASSIGNEE'S legal r LLC, One Microsoft LEGAL REPRESENT on the following Of	ASSIGNOR hereby authorepresentative, Microsoft Way, Redmond, Washingt ATIVES), to insert here and given Application office	Technology Licensing, con 98052 (ASSIGNEE'S in parentheses (filed Noby) this
	_	t 15, 2017 and was given following Office " <u>U.S.</u> ";	Application No
behalf of itse of acquiring, priority, in the derived there	elf and its successors, the entire and exc ne INVENTION and the efrom, such as cont	s and assigns ("ASSIGNEE"), clusive rights, title and in he APPLICATION (and all o inuing applications, in wh	limited liability company, on is entitled to, and is desirous terest, including the right of ther applications and patents lole or in part, in and for the PLICATION DERIVATIVES"));
to insert the	•	ling date, and Office into	EE'S LEGAL REPRESENTATIVES the following table for any
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 States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

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Inve nt or's Signature	
Shawn Crispin WRIGHT	
Printed Name in English	Printed Name in Native Language
	(if other than English)

inventor of	subject matter ("I	·	l inventor or an original joint nd/or claimed in a patent which:
	ASSIGNEE'S legal r LLC, One Microsoft LEGAL REPRESENT on the following Of	ASSIGNOR hereby authorepresentative, Microsoft Way, Redmond, Washingt ATIVES), to insert here and given Application ffice and no., filing date, are	Technology Licensing, son 98052 (ASSIGNEE'S in parentheses (filed No by) this
\boxtimes	_	t 15, 2017 and was given following Office " <u>U.S.</u> ";	Application No
behalf of itse of acquiring, priority, in th derived there United States ASSIGI to insert the	elf and its successors, the entire and exc ne INVENTION and the efrom, such as cont s, its territories, and NOR hereby authoric e Application No., fi	s and assigns ("ASSIGNEE"), clusive rights, title and in he APPLICATION (and all o inuing applications, in wh all foreign countries ("APF zes, and requests, ASSIGN iling date, and Office into	limited liability company, on is entitled to, and is desirous terest, including the right of ther applications and patents tole or in part, in and for the PLICATION DERIVATIVES")); EE'S LEGAL REPRESENTATIVES the following table for any
	No.		Off:
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 States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

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Inventor's Signature	12/6/17 Date
Jeffrey Alan KOHLER	
Printed Name in English	Printed Name in Native Language
	(if other than English)

I <u>Blak</u> e	<u> </u>	'ASSIGNOR") am th	e original inventor or a	n original joint
inventor of	subject matter ("	'INVENTION") disc	losed and/or claimed	l in a patent
application e	ntitled "	" ("APPLIC	ATION"), which:	
			y authorizes, and recrosoft Technology Lic	
	LLC, One Microsof	t Way, Redmond, V	Vashington 98052 (ASS	IGNEE'S
	LEGAL REPRESENT	TATIVES), to însei	t here in parenthese	s (filed
	on	and given App	lication No	by
			date, and Office, when	
\boxtimes	was filed on <u>Augu</u> 15/678,031 by the		as given Application No <u>'U.S.</u> ";	
priority, in the derived there United States ASSIGN to insert the	ne INVENTION and the from, such as constants, and the first territories, and NOR hereby author	the APPLICATION (a tinuing application d all foreign counts izes, and requests filing date, and O	e and interest, includired and all other applications, in whole or in part, lies ("APPLICATION DER"). ASSIGNEE'S LEGAL REF	ns and patents in and for the IVATIVES"));
	No.		Office	
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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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Javentor's Signature

Blake Carlton FARMER
Printed Name in English

nate,

Printed Name in Native Language

(if other than English)

RECORDED: 12/11/2017