504124660 12/06/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4171330

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
DOUGLAS ALEXANDER HARPER ORR	11/09/2016
MATTHEW JAMES WILLSON	11/15/2016
MARCO FISCATO	11/09/2016
JUHA ISO-SIPILÄ	11/09/2016
JOSEPH OSBORNE	11/10/2016
JAMES PETER JOHN WITHERS	11/09/2016

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:	15356245

CORRESPONDENCE DATA

Fax Number:

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: 2063321380

Email: assignments@bakerlaw.com

Correspondent Name: BAKER & HOSTETLER/MICROSOFT CORPORATION

Address Line 1: 999 THIRD AVENUE

Address Line 2: SUITE 3600

Address Line 4: SEATTLE, WASHINGTON 98104

ATTORNEY DOCKET NUMBER:	400497-US-NP/100347.0120
NAME OF SUBMITTER:	CHRISTINE M. BATES
SIGNATURE:	/Christine M. Bates/
DATE SIGNED:	12/06/2016

PATENT 504124660 REEL: 040534 FRAME: 0306

Total Attachments: 12 source=100347_000120_Assignments#page1.tif source=100347_000120_Assignments#page2.tif source=100347_000120_Assignments#page3.tif source=100347_000120_Assignments#page4.tif source=100347_000120_Assignments#page5.tif source=100347_000120_Assignments#page6.tif source=100347_000120_Assignments#page7.tif source=100347_000120_Assignments#page8.tif source=100347_000120_Assignments#page9.tif source=100347_000120_Assignments#page10.tif source=100347_000120_Assignments#page11.tif source=100347_000120_Assignments#page11.tif source=100347_000120_Assignments#page12.tif

PATENT REEL: 040534 FRAME: 0307

MS Docket No.: 400497-US-NP

I <u>Douglas Alexander Harper ORR</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>SEQUENCE EXPANDER FOR DATA ENTRY/INFORMATION RETRIEVAL</u>" ("APPLICATION"), which:

	ASSIGNEE'S lega	l representative,	Microsoft 7	Cechnology	Licensing,
	LLC., One Mi	crosoft Way,	Redmond,	Washingto	n 98052
	(ASSIGNEE'S LE	GAL REPRESEN	TATIVES),	to insert	here in
	parentheses (file	ed on Novembe	er 18, 2016 a	nd given A	Application
	No. 15/3	56,245	by	the	following
	Office U.S. Pate	nt and Tradema	rk Office)	this APPL	ICATION's
	Application No.,	filing date, and C	Office, when	known;	
_	was filed on	and	was diven A	nnlication	
*****		by the follo		In the second second	•
	No	The spinor	MAINING CHINCE		

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
and the state of t		
	A Commany profession representatives representatives and the section of the secti	and the suppression of the contract of the con
	The supplication of the su	
	A STATE OF THE STA	
	A CONTRACTOR OF THE PROPERTY O	en der eile vor wieder en motorier schold der der das der
	The same and a process of the same and the s	E

Page 1 of 2

	PATENT	ASSIGNMENT		MS Docket No.:	400497-US-NE
			in the state of		
	terminantik filosoologi, anadaman atau kandala dakuta ingi tetang apinja dagaga, anadala ja '		**************************************		
OPPERATURATION OF THE PROPERTY	оп оприменяющим применения в применяющим в применяющим в применяющим в применяющим в применяющим в применяющим	ani alia ani alia dika maka atau maka maka maka maka maka maka maka ma			anne anne anne anne anne anne anne anne

Poughest flor	9/11/2016
Inventor's Signature	Date
Douglas Alexander Harper ORR	CONTROL OF THE CONTRO
Printed Name in English	Printed Name in Native Language
	(if other than English)

MS Docket No.: 400497-US-NP

I <u>Matthew lames WILLSON</u> ("A	SSIGNOR") a	ım the original	inventor or an original
joint inventor of subject matter ("IN	IVENTION")	disclosed and/	or claimed in a patent
application entitled "SEQUENCE	EXPANDER	FOR DATA	ENTRY/INFORMATION
RETRIEVAL" ("APPLICATION"), which:			

∇ 1	will be file.	a accient	an bara				_
CN.	will be file	u. Abbiuiy	OK lists	ny animi	nizes, ai	iu iequest	3 ,
	ASSIGNEE'S I	egal represe	ntative, N	Mcrosoft	Technolog	gy Licensin	9,
	LLC., One	Microsoft	Way, R	edmond,	Washing	iton 9805	2
	(ASSIGNEE'S	LEGAL RE	PRESENTA	\TIVES),	to inse	rt here i	in
	parentheses	(filled on \underline{N}	ovember	18, 2016	and giver	Application)[]
	No. $\underline{1}$	5/356,245	जसंदर्भ'	by	the	followin	ıg
	Office U.S.	Patent and T	rademark	Office)	this Al	PLICATION	' S
	Application N	lo., filing dat	e, and Of	fice, when	known;		
				•			
	was filed on	теринанын аналаган калаган жасын жасын жасын жасын жа	and w	as given A	Application	1	
	No	by t	he followi	ng Office			
	10		n.				

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	
· POS · POST CONTROL O CON			- NACONE
wake wake water water water water for the state of the st	and the state of t		Maria de Carlo
	THE CONTRACT OF THE CONTRACT O		***************************************
	Programment of the American Communication of the Co		an je overho
NAMERICANO PROPERTO DE CONTRACTO DE CONTRACTO DE CONTRACTO DE CONTRACTO DE CONTRACTO DE CONTRACTO DE CONTRACTO Contracto de Contracto d			h turksisrude
ör diri i den klim at allekse okuna konksi i hedi keksalin ilmila akun keksalin keksalin keksalin keksalin keksa			

Page | of 2

PATENT.	ASSIGNMENT	MS Docket No.:	400497-US-NE
 gayayayan magambah da karabada da ka ka ka			
			ALL THE STATE OF T

MWillson	15/11/2016
Inventor's Signature	Date
Matthew James WILLSON	
Printed Name in English	Printed Name in Native Language
	(if other than English)

MS Docket No.: 400497-US-NP

I <u>Marco FISCATO</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>SEQUENCE EXPANDER FOR DATA ENTRY/INFORMATION RETRIEVAL</u>" ("APPLICATION"), which:

							1 .			
X	will be	filed.	ASSIGNO	OR he	reby	autho	rizes	, and	reque	sts,
	ASSIGNEE	E'S legal	represen	tative,	Micro	osoft '	Tech	nology	Licensi	ng,
	LLC., O	ne Mic	rosoft \	Way,	Redm	ond,	Wa	shingto	on 980	352
	(ASSIGNE	E'S LE	GAL REF	RESEN	TATIV	ES),	to	insert	here	în
	parenthe	ses (file	d on Nc	vembe	er 18, 2	2016	and	given	Applicat	ilon
	No.	15/35	6,245		by		the	:	follow	/ing
	Office J	J.S. Pate	ent and T	radem	ark O	ffice)	thi	s APP	LICATIO	N's
	Applicati	on No., f	iling date	, and (Office,	when	kno	wn;		
Survey		•								

was filed on	and was given Application
No by the	following Office
ß	υ,

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	encentration experience and the confidence of th
s. Common of the				
	11 11 11 11 11 11 11 11 11 11 11 11 11	СА СВЕ ВЕ БЕЛЕ ВО ТЕТЕТЕ В ТЕТЕТ В ТЕТЕТО О БИЛЕТО СЕ ПЕПЕЦИНИ БИЛИ		
And the second s		as someone consumer consists from the ment is reducing in Microbian equipment of the construction of the c		
- A - A - A - A - A - A - A - A - A - A		NE NA MAIO <u>O CONTRACTO C</u>	And the second s	2019/00/2019 de alemana meneral accembrance
ALL COLOR AND		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		tataa oo maa bakana istiibi si iseekoo siinoon kaana tataa
engeledusch heisel de heisel der Bibliote SEA NOOM DE VOOR DE VERTEN TIE TE EER TE		ad da ada da abanda kanan kanan menderak yang dan menenggan menenggan menenggan berak (men). 🚾	Section of the sectio	
	nemanamanananan da garanan meneranan garanan meneranan	n element aus de mejora eleja eleja jago per elemente per ele elemente por alterno elemente au comunicación de		

Page 1 of 2

PATENT ASSIGNMENT	MS Docket No.:	400497-US-NI
		CONTROL STATEMENT OF THE STATEMENT OF TH

Mwzco Liscalo Inventor's Signature	9/11 2016 Date
Marco FISCATO	
Printed Name in English	Printed Name in Native Language
	(if other than English)

MS Docket No.: 400497-US-NP

I <u>Juha ISO-SIPILĀ</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>SEQUENCE EXPANDER FOR DATA ENTRY/INFORMATION RETRIEVAL</u>" ("APPLICATION"), which:

ASSIGNEE'S legal repre	sentative,	Microsoft	Technolo	ogy Licensing.
LLC., One Microsoft	Way,	Redmond,	Washin	gton 98052
(ASSIGNEE'S LEGAL	REPRESEN	TATIVES),	to ins	ert here in
parentheses (filed on	Novemb	er 18, 2016	and give	n Application
No. 15/356,245	EMERGENIA AND MAN	by	the	following
Office U.S. Patent and	d Tradem	ark Office) this A	APPLICATION's
Application No., filing of	late, and (Office, whe	n known;	

was filed on	and was given Applicati	on
No by the	following Office	
B .	are .	

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	
		And the state of t	
MANIMANIAN MANIMANIAN MANIMANIAN MANIMANIAN MANIMANIAN MANIMANIMANIAN MANIMANIAN MANIMANIAN MANIMANIAN MANIMAN		and the second of the second o	элгэн таман та
та менен жана така жана жана жана жана жана жана жана ж			такалынаалаалаалынын жүүү күрүү жүсүн жүгү
audurum erin erinduseste automobilistische Propresent bewerde en en beschen besche besch be		en de la companya de la la companya de la la la companya de la companya del la companya de la co	
THE RESIDENCE OF THE PROPERTY	***************************************	r transmission of the transmission of the state of the st	

Page 1 of 2

PATENT	ASSIGNMENT	MS Docket No.:	400497-US-NI
Extraordic boundary or annual contract of the			
	1		į

Inventor's Signature	<u>8//1/2016</u> Date
Juha ISO-SIPILÄ	
Printed Name in English	Printed Name in Native Language (if other than English)

MS Docket No.: 400497-US-NP

I <u>Joseph OSBORNE</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>SEQUENCE EXPANDER FOR DATA ENTRY/INFORMATION RETRIEVAL</u>" ("APPLICATION"), which:

\boxtimes	will be filed.	ASSIGNOR he	reby autho	rizes, and	requests,
	ASSIGNEE'S legal	representative,	Microsoft 7	[echnology	Licensing,
	LLC., One Mi	crosoft Way,	Redmond,	Washingt	on 98052
	(ASSIGNEE'S LE	GAL REPRESEN	ITATIVES),	to insert	here in
	parentheses (file	d on Novemb	<u>er 18, 2016</u> z	ınd given	Application
	No. <u>15/35</u>	56,245	by	the	following
Office U.S. Patent and Trademark Office) this APPLIC					LICATION's
	Application No., filing date, and Office, when known;				
	was filed on	and	was given A	pplication	
	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 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
	kakan kalangan kalan	
አልፈል መመስመው መመመር መመመር መመመር መመመር መመመር መመመር መመመ	والمراورة	
	erakandaran daran da	mment conservable beneficial is in meternal terbenna et einem met die meter det met de Selvin et en gegen gegen general servan en die meter de
	######################################	
Apply in the fig. 1842 is the 1842 is the 1842 is important and a second constraint in the contract in the con	e Mail de la la faire de la compansión de l	ментення по при

Page 1 of 2

PATENT	ASSIGNMENT	MS Docket No.:	400497-US-NI
	The state of the second	er e	
TO THE PARTY OF TH	A	The state of the s	

NOD.	10/11/2018
Inventor's Signature	Date
Joseph OSBORNE	
Printed Name in English	Printed Name in Native Language
	(if other than English)

MS Docket No.: 400497-US-NP

I James Peter John WITHERS ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "SEQUENCE EXPANDER FOR DATA ENTRY/INFORMATION RETRIEVAL" ("APPLICATION"), which:

\boxtimes	will be file	d. ASSIGNO	र hereby a	authorizes,	and requests,	
	ASSIGNEE'S	legal represent	ative, Micro	soft Technol	logy Licensing,	
	LLC., One	Microsoft W	ay, Redmi	ond, Washi	ngton 98052	
	(ASSIGNEE'S	LEGAL REPR	ESENTATIVE	S), to in:	sert here in	
	parentheses	(filed on Nov	ember 18, 2	016 and giv	en Application	
	No.	5/356,245	by	the	following	
	Office <u>U.S.</u>	Patent and Tra	ndemark Of	fice) this	APPLICATION'S	
	Application No., filing date, and Office, when known;					
	was filed on	тионалогического	and was gi	ven Applicati	on	
	No	by the	following C	iffice		
			Rf			

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
	AND THE PROPERTY OF THE PROPER	
	от от техниция и техн	
н Аудин Аудий Аудин Аулин А	NAMES TO SEE SALES OF SERVICE	an na anan man manunan matuman man manun manun dari serina da kekadaka kedi sedaka da kebada da da da da da da
мический коминульный доворожурный духовором откорож обхорожной станов со обхорож от ответственной от от откорож от откорож от от откорож	THE PROPERTY OF THE PROPERTY O	
	A service of the serv	A CONTRACTOR OF THE PROPERTY O
	Annoncementerates and annoncementerates and announcementerates and announcementerates and all all all all all all all all all al	

Page 1 of 2

	PATENT A	SSIGNMENT	MS Docket No.:	400497-US-NI
	· I	the second se	may groupe prije od domeni do kilomina menteriorna i de mario de la cidad de la cidad de la cidad de la cidad d	THE REPORT OF THE PROPERTY OF
ayan ka ka kana a ka			Mildelfold companies commands (1998) the electricists appearance who enterests through 1999;	

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).

S/11/2016
Inventor's Signature Date

James Peter John WITHERS JAMES ACTER SOUND WITHERS

Printed Name in English Printed Name in Native Language
(if other than English)