503545213 10/29/2015

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3591840

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MANISH MALIK	10/26/2015
QIFA KE	10/10/2015
RANGAN MAJUMDER	10/19/2015
ANDREAS BODE	10/09/2015
PUSHPRAJ SHUKLA	10/25/2015
YU SHI	10/13/2015

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:	14925360

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: 612-332-5300

Email: usdocket@microsoft.com

Correspondent Name: MERCHANT & GOULD (MICROSOFT)

Address Line 1: P.O. BOX 2903

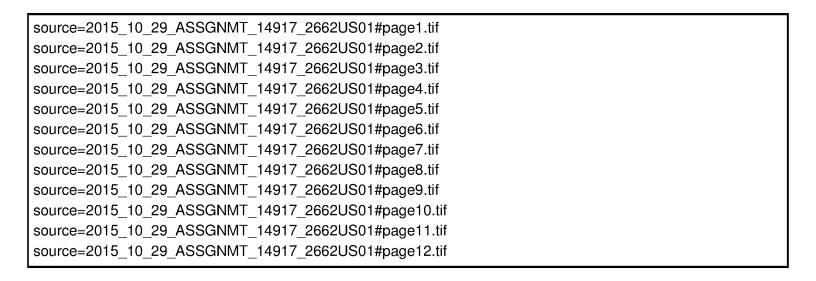
Address Line 4: MINNEAPOLIS, MINNESOTA 55402-0903

ATTORNEY DOCKET NUMBER:	14917.2662US01/358033.01
NAME OF SUBMITTER:	JASON E. BECKER
SIGNATURE:	/Jason E. Becker/
DATE SIGNED:	10/29/2015

Total Attachments: 12

PATENT REEL: 036910 FRAME: 0722

503545213



PATENT REEL: 036910 FRAME: 0723

I <u>Manish Malik</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>SINGLE UNIFIED RANKER</u> " ("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 and given Application No by the following Office <u>US - United States</u> Patent and Trademark Office) this APPLICATION's Application No., filing date, and Office, when known;
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

on h d is the d and ٤ 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

Page 1 of 2

MS Docket No.: 358033.01

MS Docket No.: <u>358033.01</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")):

Mr. M. Januar	10/26/15
Inventor's Signature	Date
Manish Malik	मनीय मिलेन
Printed Name in English	Printed Name in Native Language (if other than English)

I <u>Qifa Ke</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>SINGLE UNIFIED RANKER</u>" ("APPLICATION"), which:

X	will	be	filed.	ASSIGNOR	hereby	autho	rizes,	and	requ	ests,
	ASSI	GNEI	E'S legal	l representat	ive, Micr	osoft	Techno	logy	Licen	sing,
	LLC,	One	Microso	oft Way, Redr	nond, Wa	shingt	on 980)52 (A	SSIGI	NEE'S
	LEG/	AL R	REPRESEN	NTATIVES), t	o insert	here	in par	enthe	ses	(filed
	on		:		and	.(0	given	A	pplic	ation
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	filing	g dat	e, and C	Office, when I	cnown;					
	was	filed	on		and was g	given A	pplicat	ion		
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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")):

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MS Docket No.: 358033.01

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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).

Afr L	10/10/2015
Inventor's Signature	•
Qifa Ke	柯启发
Printed Name in English	Printed Name in Native Language
	(if other than English)

MS Docket No.: 358033.01

PATENT ASSIGNMENT MS Docket No.: 358033.01

inventor of subject matter ("INVENTION") disclosed	
ASSIGNEE'S legal LLC, One Microsof LEGAL REPRESENT on No. Patent and Trader	ASSIGNOR hereby auth representative, Microsoft ft Way, Redmond, Washing TATIVES), to insert here and by the following Offimark Office) this APPLICATICE, when known;	orizes, and requests, Technology Licensing, gton 98052 (ASSIGNEE'S in parentheses (filed given Application ice US – United States
	and was given by the following Office ";	
Microsoft Technology Lidehalf of itself and its successed desirous of acquiring, the entire right of priority, in the INVENTIFE patents derived therefrom, sucfor the United States, its to DERIVATIVES"));	ssors and assigns ("ASSIONE e and exclusive rights, tied on the APPLICATION has continuing application	tle and interest, including the (and all other applications and ns, in whole or in part, in and
ASSIGNOR hereby REPRESENTATIVES to insert tl following table for any APPLICA	ne Application No., filin	•
Application No.	Filing Date	Office

Page 1 of 2

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MS Docket No.: <u>358033.01</u>

mm Ma	10/19/15
Inventor's Signature	Date
Rangan Majumder	
Printed Name in English	Printed Name in Native Language (If other than English)

I <u>Andreas Bode</u> ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "SINGLE UNIFIED RANKER" ("APPLICATION"), which:

MS Docket No.: 358033.01

\boxtimes	will be	filed.	ASSIGNOR	hereby	auth	orizes,	and r	equests,
	ASSIGNI	EE'S legal	representa	tive, Mici	rosoft	Techno	ology Li	censing,
	LLC, On	e Microsc	oft Way, Red	mond, Wa	ashing	ton 98	052 (AS	SIGNEE'S
	LEGAL	REPRESEN	ITATIVES),	to insert	here	in pa	renthese	s (filed
	on			and		given	Apı	plication
	No		by the	following	g Offic	ce <u>US</u>	- Unite	d States
	Patent a	ind Trade	mark Office) this AP	PLICAT	TION's	Applicat	ion No.,
	filing da	ite, and O	ffice, when	known;				
	was file	d on		and was (given /	Applica	tion	
	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"));

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Page 1 of 2

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MS Docket No.: 358033.01

£	
Audeas Tol	10/9/2015
Inventor's Signature	Date /
Andreas Bode	***************************************
Printed Name in English	Printed Name in Native Language
	(if other than English)

MS Docket No.: 358033.01

I <u>Pushpraj Shukla</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>SINGLE UNIFIED RANKER</u>" ("APPLICATION"), which:

\boxtimes	will be	filed.	ASSIGNOR	hereby	authoria	zes, a	nd req	uests,
	ASSIGNE	E'S legal	representat	ive, Micr	osoft Te	chnolo	gy Lice	nsing,
	LLC, One	Microso	ft Way, Redr	nond, Wa	ashingtor	9805	2 (ASSIC	NEE'S
	LEGAL R	EPRESEN	TATIVES), t	o insert	here in	parer	itheses	(filed
	on			and	giv	/en	Appli	cation
			by the					
	Patent at	Patent and Trademark Office) this APPLICATION's Application No.,						
	filing dat	e, and O	ffice, when I	known;				
	was filed	on		and was	given Ap	plicatio	ıti	
	No	***************************************	by the f	ollowing	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;

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MS Docket No.: 358033.01

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Topped.	10/25/2015
Inventor's Signature	Date
Pushpraj Shukla	
Printed Name in English	Printed Name in Native Language
	(if other than English)

I <u>Yu Shi</u> ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "SINGLE UNIFIED RANKER" ("APPLICATION"), which:

MS Docket No.: 358033.01

\boxtimes	will	be i	îled.	ASSIGNOR	hereby	auth	orizes,	and	req	uests,
	ASSI	GNEE'	S lega	representat	ive, Mici	osoft	Techno	ology	Lice	nsing,
	LLC,	One I	Vicros	oft Way, Redi	nond, Wa	ashing	ton 980)52 (A	NSSIC	NEE'S
	LEG/	AL RE	PRESEN	(TATIVES), t	o insert	here	in pai	renthe	es	(filed
	on				and		given	A	ilqqı	cation
	No.			by the	following) Offi	ce <u>US</u>	- Uni	ted_:	States
	Patent and Trademark Office) this APPLICATION's Application No.,									
	filling	g date	, and C	Office, when I	(nown;					
	was	filed o	on		and was g	given .	Applicat	tion		
	Noby the following Office									
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ra Pa	10/13/2015
Inventor's Signature	Date
Yu Shi	时等
Printed Name in English	Printed Name in Native Language
	(if other than English)