### 503902598 07/06/2016

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3949249

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
WILLIAM PAUL HOVIS	06/08/2016
GARRETT DOUGLAS BLANKENBURG	06/09/2016
PETER ANTHONY ATKINSON	06/09/2016
ROBERT JAMES RAY	06/08/2016
ANDRES FELIPE HERNANDEZ MOJICA	06/08/2016
SAMY BOSHRA-RIAD	06/09/2016
ERNG-SING WEE	06/08/2016
BRIAN KEITH LANGENDORF	07/01/2016

#### **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:	15179016

#### **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:** 425-707-9382

Email: USDocket@microsoft.com
Correspondent Name: MICROSOFT CORPORATION

Address Line 1: ONE MICROSOFT WAY

Address Line 4: REDMOND, WASHINGTON 98052

ATTORNEY DOCKET NUMBER:	359813.01
NAME OF SUBMITTER:	DAVID J. BOVITZ
SIGNATURE:	/David J. Bovitz/

PATENT 503902598 REEL: 039083 FRAME: 0768

DATE SIGNED:	07/06/2016	
Total Attachments: 16		
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PATENT REEL: 039083 FRAME: 0769

	subject matter ("l entitled " <u>PROC</u>	NVENTION") disclosed a	inventor or an original joint nd/or claimed in a patent AGE CHARACTERIZATION
	ASSIGNEE'S legal r LLC., One Microsof LEGAL REPRESENT on the following Office	ASSIGNOR hereby authorepresentative, Microsoft of Way, Redmond, Washings ATIVES), to insert here and given Application of US – United States Patent of Application No., filing of	Technology Licensing, on 98052 (ASSIGNEE'S in parentheses (filed Noby and Trademark Office)
		and was given A by the following Office	pplication
	"		
behalf of itse of acquiring priority, in the derived there United States	elf and its successors, the entire and exc ne INVENTION and the efrom, such as cont s, its territories, and	s and assigns ("ASSIGNEE"), clusive rights, title and in he APPLICATION (and all o inuing applications, in wh all foreign countries ("API	limited liability company, or is entitled to, and is desirous terest, including the right of ther applications and patents ole or in part, in and for the PLICATION DERIVATIVES"));
	•	•	EE'S LEGAL REPRESENTATIVES the following table for any
	DERIVATIVES after	<del>-</del>	the following table for any
Application	No.	Filing Date	Office

MS Docket No.: <u>359813.01</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"));

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).

NAL PAI HONG Inventor's Signature	June E <sup>ndle</sup> , 2016 Date
William Paul Hovis	
Printed Name in English	Printed Name in Native Language (if other than English)

l Garre	tt Douglas Blankeni	burg ("ASSIGNOR") a	m the origina	l inventor or an origina
	<del>-</del>		_	or claimed in a paten
application ("APPLICATIO	entitled " <u>PROC</u>			CHARACTERIZATION
	ASSIGNEE'S legal in LLC., One Microsof LEGAL REPRESENT on the following Office	ASSIGNOR hereby representative, Micret Way, Redmond, War ATIVES), to insert and given Applied States Application No., for the Application No., for	osoft Technonshington 98 here in pa cation No Patent and Ti	ology Licensing, 052 (ASSIGNEE'S rentheses (filed by rademark Office)
		and was o by the following ";		tion
behalf of itsel of acquiring, priority, in th derived there	If and its successors the entire and exce e INVENTION and the efrom, such as cont	s and assigns ("ASSIC clusive rights, title he APPLICATION (an tinuing applications	GNEE"), is ent and interest, Id all other ap , in whole or	d liability company, or itled to, and is desirous including the right opplications and patents in part, in and for the ION DERIVATIVES"));
to insert the		iling date, and Offi		GAL REPRESENTATIVES
Application		Filing Date	Office	2
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MS Docket No.: 359813.01

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).

Inventor's Signature  Garrett Douglas Blankenburg	<u>06/09/2016</u> Date
Printed Name in English	Printed Name in Native Language (if other than English)

I <u>Peter</u>	<sup>.</sup> Anthony Atkinson (	("ASSIGNOR") am the origin	al inventor or an original joint	
inventor of	subject matter ("	INVENTION") disclosed a	nd/or claimed in a patent	
application			AGE CHARACTERIZATION"	
("APPLICATIO				
,	,,			
$\boxtimes$		ASSIGNOR hereby authorepresentative, Microsoft		
	LLC., One Microsof	t Way, Redmond, Washingt	ton 98052 (ASSIGNEE'S	
	LEGAL REPRESENT	ATIVES), to insert here	in parentheses (filed	
	on	and given Application	No by	
	the following Office	e <u>US – United States Patent</u>	and Trademark Office)	
	this APPLICATION'	s Application No., filing d	late, 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 itse	elf and its successors	s and assigns ("ASSIGNEE"),	is entitled to, and is desirous	
of acquiring	, the entire and exc	clusive rights, title and in	terest, including the right of	
		<del>-</del> .	ther applications and patents	
•			ole or in part, in and for the	
United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));				
omea state.	,, 113 13111131133, 41114	an rereign countries (711)	2.6, 1.16.1 2 2.11 1, 11.1 2.2 7,,	
ASSIG	NOR hereby authori	zes and requests ASSIGN	FF'S LEGAL REPRESENTATIVES	
ASSIGNOR hereby authorizes, and requests, ASSIGNEE'S LEGAL REPRESENTATIVES to insert the Application No., filing date, and Office into the following table for any				
	N DERIVATIVES after		o the following table for any	
Application		Filing Date	Office	
Application	110.	Tilling Date	Office	

MS Docket No.:	<u>359813.01</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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Peter Anthony Atkinson
Printed Name in English

Printed Name in English

Printed Name in Native Language (if other than English)

	PATENT A	SSIGNMENT	MS Docket No.: <u>359813.01</u>	
	subject matter (" entitled " <u>PROC</u>	NVENTION") disclosed a	inventor or an original joint nd/or claimed in a patent AGE CHARACTERIZATION"	
	ASSIGNEE'S legal r LLC., One Microsof LEGAL REPRESENT on the following Office	ASSIGNOR hereby authorepresentative, Microsoft to Way, Redmond, Washingto ATIVES), to insert here and given Application to US – United States Patent to Application No., filing designed.	Technology Licensing, on 98052 (ASSIGNEE'S in parentheses (filed No by and Trademark Office)	
	No	and was given A by the following Office ";	pplication	
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"));				
to insert the	•	ling date, and Office into	EE'S LEGAL REPRESENTATIVES the following table for any	
Application		Filing Date	Office	

MS Docket No.: 359813.01

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"));

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Inventors Signature

Robert James Ray
Printed Name in English

Printed Name in Native Language
(if other than English)

original joint	t inventor of subjection	ct matter ("INVENTION") d	n the original inventor or an isclosed and/or claimed in a LTAGE CHARACTERIZATION
	ASSIGNEE'S legal of LLC., One Microsoft LEGAL REPRESENT on the following Office [additional content of the content of th	ASSIGNOR hereby authore representative, Microsoft of Way, Redmond, Washing (ATIVES), to insert here and given Application of US – United States Patent of Sapplication No., filing of the same of the	Technology Licensing, ton 98052 (ASSIGNEE'S in parentheses (filed Noby and Trademark Office)
		and was given A by the following Office ";	application
behalf of itse of acquiring, priority, in the derived there	elf and its successors, the entire and ex- ne INVENTION and t efrom, such as cont	s and assigns ("ASSIGNEE") clusive rights, title and in he APPLICATION (and all o tinuing applications, in wh	limited liability company, or, is entitled to, and is desirous terest, including the right of the applications and patents tole or in part, in and for the PLICATION DERIVATIVES"));
to insert the	-	iling date, and Office into	EE'S LEGAL REPRESENTATIVES  the following table for any
Application		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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Andres Felipe Hernandez Mojica

Printed Name in English

Al 1816

Date

Printed Name in Native Language

(if other than English)

I Samy Boshra-Riad ("ASSIC	GNOR") am the original	inventor or an original join
inventor of subject matter ("IN"	<del>_</del>	<del>-</del> -
•	,	AGE CHARACTERIZATION
("APPLICATION"), which:		
oxtimes will be filed. AS	SIGNOR hereby autho	rizes, and requests,
ASSIGNEE'S legal rep	oresentative, Microsoft <sup>.</sup>	Technology Licensing,
LLC., One Microsoft V		on 98052 (ASSIGNEE'S
LEGAL REPRESENTAT	ΓIVES), to insert here	in parentheses (filed
on	and given Application	No by
the following Office <u>L</u>	JS – United States Patent	and Trademark Office)
this APPLICATION's	Application No., filing d	ate, and Office, when
known;		
$\square$ was filed on	and was given A	pplication
No	by the following Office	
ш		
Microsoft Technology Licen	sing, LLC, a Washington	limited liability company, or
behalf of itself and its successors a	nd assigns ("ASSIGNEE"),	is entitled to, and is desirous
of acquiring, the entire and exclu	ısive rights, title and in	terest, including the right of
priority, in the INVENTION and the	APPLICATION (and all o	ther applications and patents
derived therefrom, such as contin	uing applications, in wh	ole or in part, in and for the
United States, its territories, and a	ll foreign countries ("APF	PLICATION DERIVATIVES"));
ASSIGNOR hereby authorize	s, and requests, ASSIGN	EE'S LEGAL REPRESENTATIVES
to insert the Application No., filin		
APPLICATION DERIVATIVES after th	iey are known;	
Application No.	iling Date	Office

MS Docket No.: 359813.01

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Say	06/09/2016
Inventor's Signature	Date
_Samy Boshra-Riad	
Printed Name in English	Printed Name in Native Language
	(if other than English)

MS Docket No.: <u>359813.01</u>

I <u>Erng-Sing Wee</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>PROCESSOR DEVICE VOLTAGE CHARACTERIZATION</u>" ("APPLICATION"), which:

X	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 Patent and Trademark Office</u> )
	this APPLICATION's Application No., filing date, and Office, when
	known;
	was filed on and was given Application
	No by the following Office
	45 B <sub>0</sub> :

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.		
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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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	6/8/2016
Inventor's Signature	Date
Erng-Sing Wee	
Printed Name in English	Printed Name in Native Language
	(if other than English)

MS Docket No.: 359813.01

l <u>Briar</u>	ı Keith Langendorf (	"ASSIGNOR") am the	original ir	nventor or an original joi
inventor of	subject matter ("	INVENTION") disclo	osed and/	or claimed in a pate
application ("APPLICATIO		ESSOR DEVICE	VOLTAG	E CHARACTERIZATIO
	LLC., One Microsof LEGAL REPRESENT on the following Office	representative, Mic It Way, Redmond, W ATIVES), to insert and given Appl e <u>US – United States</u>	rosoft Tec ashington here in ication No. <u>Patent and</u>	es, and requests, hnology Licensing, 98052 (ASSIGNEE'S parentheses (filedby d Trademark Office) , and Office, when
	was filed on No	by the following		lication
behalf of itse of acquiring priority, in the derived there	elf and its successors, the entire and ex- ne INVENTION and t efrom, such as cont	s and assigns ("ASSI clusive rights, title he APPLICATION (ar tinuing applications	GNEE"), is of and interest of all others, in whole	nited liability company, or entitled to, and is desiron est, including the right r applications and paten or in part, in and for the CATION DERIVATIVES"));
to insert the		iling date, and Off		S LEGAL REPRESENTATIV Le following table for al
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Brian & Lang	and 7/1/16	
Inventor's Signature	Date	
Brian Keith Langendorf		
Printed Name in English	Printed Name in Native Language	

(if other than English)

RECORDED: 07/06/2016