

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5376851

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
RYAN SCOTT HARADEN	04/06/2017
TOLGA OZGUNER	04/11/2017
ADAM JAMES MUFF	04/06/2017
JEFFREY POWERS BRADFORD	04/06/2017
CHRISTOPHER JON JOHNSON	04/07/2017
GENE LEUNG	04/07/2017
MIGUEL COMPARAN	04/07/2017
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:	16276255
CORRESPONDENCE DATA	
Fax Number:	(801)328-1707
<i>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.</i>	
Phone:	8015339800
Email:	mstringham@wnlaw.com, usdocket@microsoft.com
Correspondent Name:	WORKMAN NYDEGGER / MICROSOFT
Address Line 1:	60 E. SOUTH TEMPLE, SUITE 1000
Address Line 4:	SALT LAKE CITY, UNITED STATES 84111
ATTORNEY DOCKET NUMBER:	20844.45.1
NAME OF SUBMITTER:	JONATHAN W. RICHARDS
SIGNATURE:	/Jonathan W. Richards/
DATE SIGNED:	02/14/2019

Total Attachments: 14

source=20844-45-1-Assignments#page1.tif
source=20844-45-1-Assignments#page2.tif
source=20844-45-1-Assignments#page3.tif
source=20844-45-1-Assignments#page4.tif
source=20844-45-1-Assignments#page5.tif
source=20844-45-1-Assignments#page6.tif
source=20844-45-1-Assignments#page7.tif
source=20844-45-1-Assignments#page8.tif
source=20844-45-1-Assignments#page9.tif
source=20844-45-1-Assignments#page10.tif
source=20844-45-1-Assignments#page11.tif
source=20844-45-1-Assignments#page12.tif
source=20844-45-1-Assignments#page13.tif
source=20844-45-1-Assignments#page14.tif

PATENT ASSIGNMENT

MS Docket No.: 362401.01WN Docket No.: 20844.45

I Ryan Scott Haraden ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "No Miss Cache Structure for Real-Time Image Transformations with Multiple LSR Processing Engines" ("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 _____) this APPLICATION's Application No., filing date, and Office, when known;

☒ was filed on April 12, 2017 and was given Application No 15/485899 by the following Office "USPTO";

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
16/276255	2019-02-14	USPTO

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


PATENT ASSIGNMENT

MS Docket No.: 362401.01

WN Docket No.: 20844.45

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	<u>4/6/2017</u> Date
<u>Ryan Scott Haraden</u> Printed Name in English	 Printed Name in Native Language (if other than English)

PATENT ASSIGNMENT

MS Docket No.: 362401.01
WN Docket No.: 20844.45

I Tolga Ozguner (“ASSIGNOR”) am the original inventor or an original joint inventor of subject matter (“INVENTION”) disclosed and/or claimed in a patent application entitled “No Miss Cache Structure for Real-Time Image Transformations with Multiple LSR Processing Engines” (“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 _____) this APPLICATION’s Application No., filing date, and Office, when known;

☒ was filed on April 12, 2017 and was given Application No 15/485899 by the following Office “USPTO”;

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
16/276255	2019-02-14	USPTO

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

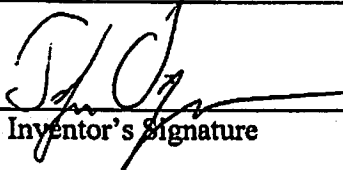
PATENT ASSIGNMENT

MS Docket No.: 362401.01

WN Docket No.: 20844.45

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	<u>4/11/2017</u> _____ Date
<u>Tolga Ozguner</u> _____ Printed Name in English	_____ Printed Name in Native Language (if other than English)

PATENT ASSIGNMENT

MS Docket No.: 362401.01WN Docket No.: 20844.45

I Adam James Muff (“ASSIGNOR”) am the original inventor or an original joint inventor of subject matter (“INVENTION”) disclosed and/or claimed in a patent application entitled “No Miss Cache Structure for Real-Time Image Transformations with Multiple LSR Processing Engines” (“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 _____) this APPLICATION’s Application No., filing date, and Office, when known;

☒ was filed on April 12, 2017 and was given Application No 15/485899 by the following Office “USPTO”;

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
16/276255	2019-02-14	USPTO

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	<u>4/6/2017</u> Date
<u>Adam James Muff</u> Printed Name in English	 Printed Name in Native Language (if other than English)

PATENT ASSIGNMENT

MS Docket No.: 362401.01

WN Docket No.: 20844.45

I Jeffrey Powers Bradford (“ASSIGNOR”) am the original inventor or an original joint inventor of subject matter (“INVENTION”) disclosed and/or claimed in a patent application entitled “No Miss Cache Structure for Real-Time Image Transformations with Multiple LSR Processing Engines” (“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 _____) this APPLICATION’s Application No., filing date, and Office, when known;

☒ was filed on April 12, 2017 and was given Application No 15/485899 by the following Office “USPTO”;

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
16/276255	2019-02-14	USPTO

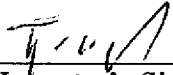
For good and valuable consideration, the receipt of which is hereby acknowledged by the ASSIGNOR, the ASSIGNOR hereby sells, assigns and transfers to the ASSIGNEE, ASSIGNOR’s entire and exclusive rights, title and interest, including the right of priority, in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as

PATENT ASSIGNMENT

MS Docket No.: 362401.01WN Docket No.: 20844.45

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).

	6 April 2017
Inventor's Signature	Date
Jeffrey Powers Bradford	
Printed Name in English	Printed Name in Native Language (if other than English)

PATENT ASSIGNMENT

MS Docket No.: 362401.01WN Docket No.: 20844.45

I Christopher Jon Johnson ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "No Miss Cache Structure for Real-Time Image Transformations with Multiple LSR Processing Engines" ("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 _____) this APPLICATION's Application No., filing date, and Office, when known;

☒ was filed on April 12, 2017 and was given Application No 15/485899 by the following Office "USPTO";

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
16/276255	2019-02-14	USPTO

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

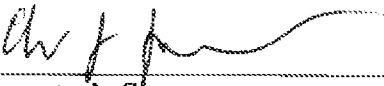
PATENT ASSIGNMENT

MS Docket No.: 362401.01

WN Docket No.: 20844.45

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).

	<u>4/7/2017</u>
Inventor's Signature	Date
<u>Christopher Jon Johnson</u>	<u>Printed Name in Native Language</u>
Printed Name in English	(if other than English)

I Gene Leung (“ASSIGNOR”) am the original inventor or an original joint inventor of subject matter (“INVENTION”) disclosed and/or claimed in a patent application entitled “No Miss Cache Structure for Real-Time Image Transformations with Multiple LSR Processing Engines” (“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 _____) this APPLICATION’s Application No., filing date, and Office, when known;

☒ was filed on April 12, 2017 and was given Application No 15/485899 by the following Office “USPTO”;

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
16/276255	2019-02-14	USPTO

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

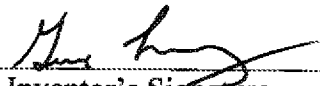
PATENT ASSIGNMENT

MS Docket No.: 362401.01

WN Docket No.: 20844.45

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	<u>4/7/17</u> Date
Gene Leung Printed Name in English	 Printed Name in Native Language (if other than English)

PATENT ASSIGNMENT

MS Docket No.: 362401.01WN Docket No.: 20844.45

I Miguel Comparan (“ASSIGNOR”) am the original inventor or an original joint inventor of subject matter (“INVENTION”) disclosed and/or claimed in a patent application entitled “No Miss Cache Structure for Real-Time Image Transformations with Multiple LSR Processing Engines” (“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 _____) this APPLICATION’s Application No., filing date, and Office, when known;

☒ was filed on April 12, 2017 and was given Application No 15/485899 by the following Office “USPTO”;

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
16/276255	2019-02-14	USPTO

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	<u>4/7/17</u> Date
<u>Miguel Comparan</u> Printed Name in English	 Printed Name in Native Language (if other than English)