

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT5304044

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JOYDEEP RAY	07/03/2017
TRAVIS T. SCHLUESSLER	06/15/2017
PRASOONKUMAR SURTI	02/22/2018
JOHN H. FEIT	12/17/2018
NIKOS KABURLASOS	06/15/2017
JACEK KWIATKOWSKI	06/19/2017
ABHISHEK R. APPU	11/08/2018
JAMES M. HOLLAND	11/18/2018
JEFFERY S. BOLES	11/10/2018
JONATHAN KENNEDY	06/16/2017
LOUIS FENG	04/23/2017
ATSUO KUWAHARA	02/21/2018
BARNAN DAS	06/15/2017
NARAYAN BISWAL	06/15/2017
STANLEY J. BARAN	02/21/2018
GOKCEN CILINGIR	06/15/2017
NILESH V. SHAH	06/15/2017
ARCHIE SHARMA	06/15/2017
MAYURESH M. VARERKAR	06/15/2017

RECEIVING PARTY DATA

Name:	INTEL CORPORATION
Street Address:	2200 MISSION COLLEGE BOULEVARD
City:	SANTA CLARA
State/Country:	CALIFORNIA
Postal Code:	95054

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15494742

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.

Email: admin2@jordaniplaw.com
Correspondent Name: JORDAN IP LAW, LLC
Address Line 1: 12501 PROSPERITY DRIVE
Address Line 2: SUITE 401
Address Line 4: SILVER SPRING, MARYLAND 20904

ATTORNEY DOCKET NUMBER:	P113743 1999-1723
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NAME OF SUBMITTER:	B. DELANO JORDAN
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SIGNATURE:	/B. Delano Jordan/
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DATE SIGNED:	12/31/2018
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Total Attachments: 57

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ASSIGNMENT

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, we, the undersigned inventor(s):

Joydeep Ray; Travis T. Schluessler; Prasoonkumar Surti; John H. Feit; Nikos Kaburlasos; Jacek Kwiatkowski; Abhishek R. Appu; James M. Holland; Jeffery S. Boles; Jonathan Kennedy; Louis Feng; Atsuo Kuwahara; Barnan Das; Narayan Biswal; Stanley J. Baran; Gokeen Cilingir; Nilesh V. Shah; Archie Sharma; Mayuresh M. Varerkar

hereby sell, assign, and transfer to:

Intel Corporation

a corporation of Delaware, having a principal place of business at 2200 Mission College Boulevard, Santa Clara, California, 95054 USA ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all other countries, in and to any and all inventions and improvements that are disclosed in the application for the patent entitled:

AUGMENTED REALITY VIRTUAL REALITY RAY TRACING SENSORY ENHANCEMENT SYSTEM, APPARATUS AND METHOD

(I hereby authorize and request any attorney having appropriate authority from the assignee to insert on the designated lines below, the filing date and application number of said application when known.)

which was filed on April 24, 2017 as
US Application Number 15/494,742 and
COUNTRY or International Office

which has been executed by the undersigned prior hereto or concurrently herewith on the date(s) indicated below,

and in and to said application and all Additional Applications, and all other patent applications that have been or shall be filed in the United States and all other countries and international filing offices on any of said inventions and improvements; and in and to all original and reissued patents that have been or shall be issued in the United States and all other countries and international filing offices on said inventions and improvements; and in and to all rights of priority resulting from the filing of said applications; as used herein "Additional Applications" includes but is not limited to design, utility, utility model, divisional, continuing, continuation-in-part, substitute, renewal, reissue, and national phase applications on said inventions and improvements;

and agree that said Assignee may apply for and receive a patent or patents for said inventions and improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute

all Additional Applications, and all other patent applications on any and all said inventions and improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and legal representatives all facts known to the undersigned relating to said inventions and improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing and maintaining proper patent protection for said inventions and improvements and for vesting title to said inventions and improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Joydeep Ray

Date signed

Travis T. Schluessler

Date signed

Prasoonkumar Surti

Date signed

John H. Feit

Date signed

Nikos Kaburlasos

Date signed

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Jonathan Kennedy

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Louis Feng

Date signed

Atsuo Kuwahara

Date signed



Barnan Das

6/15/2017

Date signed

Narayan Biswal

Date signed

Stanley J. Baran

Date signed

Gokcen Cilingir

Date signed

Nilesh V. Shah

Date signed

Archie Sharma

Date signed

Mayuresh M. Varkerkar

Date signed

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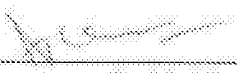
and in and to said application and all Additional Applications, and all other patent applications that have been or shall be filed in the United States and all other countries and international filing offices on any of said inventions and improvements; and in and to all original and reissued patents that have been or shall be issued in the United States and all other countries and international filing offices on said inventions and improvements; and in and to all rights of priority resulting from the filing of said applications; as used herein "Additional Applications" includes but is not limited to design, utility, utility model, divisional, continuing, continuation-in-part, substitute, renewal, reissue, and national phase applications on said inventions and improvements;

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Archie Sharma

Date signed


Mayuresh M. Varerkar

06/13/17
Date signed

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Joydeep Ray; Travis T. Schluessler; Praseonkumar Surti; John H. Feit; Nikos Kaburlasos; Jacek Kwiatkowski; Abhishek R. Appu; James M. Holland; Jeffery S. Boles; Jonathan Kennedy; Louis Feng; Atsuo Kuwahara; Barnan Das; Narayan Biswal; Stanley J. Baran; Gokcen Cilindir; Nilesh V. Shah; Archie Sharma; Mayuresh M. Varerkar

hereby sell, assign, and transfer to:

Intel Corporation

a corporation of Delaware, having a principal place of business at 2200 Mission College Boulevard, Santa Clara, California, 95054 USA ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all other countries, in and to any and all inventions and improvements that are disclosed in the application for the patent entitled:

AUGMENTED REALITY VIRTUAL REALITY RAY TRACING SENSORY ENHANCEMENT SYSTEM, APPARATUS AND METHOD

(I hereby authorize and request any attorney having appropriate authority from the assignee to insert on the designated lines below, the filing date and application number of said application when known.)

which was filed on April 24, 2017 as
US Application Number 15/494,742 and
COUNTRY or International Office

which has been executed by the undersigned prior hereto or concurrently herewith on the date(s) indicated below,


and in and to said application and all Additional Applications, and all other patent applications that have been or shall be filed in the United States and all other countries and international filing offices on any of said inventions and improvements; and in and to all original and reissued patents that have been or shall be issued in the United States and all other countries and international filing offices on said inventions and improvements; and in and to all rights of priority resulting from the filing of said applications; as used herein "Additional Applications" includes but is not limited to design, utility, utility model, divisional, continuing, continuation-in-part, substitute, renewal, reissue, and national phase applications on said inventions and improvements;

and agree that said Assignee may apply for and receive a patent or patents for said inventions and improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute

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_____ Joydeep Ray	_____ Date signed
_____ Travis T. Schluessler	_____ Date signed
_____ Prasoonkumar Surti	_____ Date signed
_____ John H. Feit	_____ Date signed
_____ Nikos Kaburlasos	_____ Date signed
_____ Jacek Kwiatkowski	_____ Date signed
_____ Abhishek R. Appu	_____ Date signed
_____ James M. Holland	_____ Date signed

_____ Jeffery S. Boles	_____ Date signed
_____  Jonathan Kennedy	_____ 16 th June 2017 Date signed
_____ Louis Feng	_____ Date signed
_____ Atsuo Kuwahara	_____ Date signed
_____ Barman Das	_____ Date signed
_____ Narayan Biswal	_____ Date signed
_____ Stanley J. Baran	_____ Date signed
_____ Gokcen Cilingir	_____ Date signed
_____ Nifesh V. Shah	_____ Date signed
_____ Archie Sharma	_____ Date signed
_____ Mayuresh M. Varkerkar	_____ Date signed

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Joydeep Ray	Date signed
 Travis T. Schluessler	6/15/17 Date signed
Prasoonkumar Suri	Date signed
John H. Feit	Date signed
Nikos Kaburlasos	Date signed
Jacek Kwiatkowski	Date signed
Abhishek R. Appu	Date signed
James M. Holland	Date signed

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_____ John H. Feit	_____ Date signed
_____ Nikos Kaburlasos	_____ Date signed
_____ <i>Jacek Kwiatkowski</i> Jacek Kwiatkowski	_____ <i>19/13/2017</i> Date signed
_____ Abhishek R. Appu	_____ Date signed
_____ James M. Holland	_____ Date signed

Jeffery S. Boles	Date signed
Jonathan Kennedy	Date signed
Louis Feng	Date signed
Atsuo Kuwahara	Date signed
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Joydeep Ray
Joydeep Ray

7-3-17
Date signed

Travis T. Schluessler

Date signed

Prasoonkumar Surti

Date signed

John H. Feit

Date signed

Nikos Kaburlasos

Date signed

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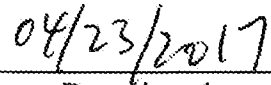
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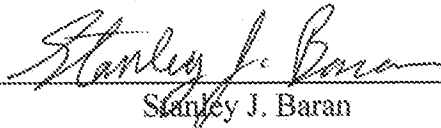
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Jeffery S. Boles	Date signed
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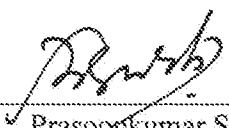
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covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

_____ Joydeep Ray	_____ Date signed
_____ Travis T. Schluessler	_____ Date signed
_____  Prasoankumar Surti	_____ 02/22/18 Date signed
_____ John H. Feit	_____ Date signed
_____ Nikos Kaburlasos	_____ Date signed
_____ Jacek Kwiatkowski	_____ Date signed
_____ Abhishek R. Appu	_____ Date signed
_____ James M. Holland	_____ Date signed

Jeffery S. Boles

Date signed

Jonathan Kennedy

Date signed

Louis Feng

Date signed

Atsuo Kuwahara

Date signed

Barnan Das

Date signed

Narayan Biswal

Date signed

Stanley J. Baran

Date signed

Gokcen Cilingir

Date signed

Nilesh V. Shah

Date signed

Archie Sharma

Date signed

Mayuresh M. Varerkar

Date signed

ASSIGNMENT

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, we, the undersigned inventor(s):

Joydeep Ray; Travis T. Schluessler; Prasoonkumar Surti; John H. Feit; Nikos Kaburlasos; Jacek Kwiatkowski; Abhishek R. Appu; James M. Holland; Jeffery S. Boles; Jonathan Kennedy; Louis Feng; Atsuo Kuwahara; Barnan Das; Narayan Biswal; Stanley J. Baran; Gokcen Cilingir; Nilesh V. Shah; Archie Sharma; Mayuresh M. Varerkar

hereby sell, assign, and transfer to:

Intel Corporation

a corporation of Delaware, having a principal place of business at 2200 Mission College Boulevard, Santa Clara, California, 95054 USA ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all other countries, in and to any and all inventions and improvements that are disclosed in the application for the patent entitled:

AUGMENTED REALITY VIRTUAL REALITY RAY TRACING SENSORY ENHANCEMENT SYSTEM, APPARATUS AND METHOD

(I hereby authorize and request any attorney having appropriate authority from the assignee to insert on the designated lines below, the filing date and application number of said application when known.)

which was filed on April 24, 2017 as
US Application Number 15/494,742 and
COUNTRY or International Office

which has been executed by the undersigned prior hereto or concurrently herewith on the date(s) indicated below,

and in and to said application and all Additional Applications, and all other patent applications that have been or shall be filed in the United States and all other countries and international filing offices on any of said inventions and improvements; and in and to all original and reissued patents that have been or shall be issued in the United States and all other countries and international filing offices on said inventions and improvements; and in and to all rights of priority resulting from the filing of said applications; as used herein "Additional Applications" includes but is not limited to design, utility, utility model, divisional, continuing, continuation-in-part, substitute, renewal, reissue, and national phase applications on said inventions and improvements;

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_____ Joydeep Ray	_____ Date signed
_____ Travis T. Schluessler	_____ Date signed
_____ Prasoonkumar Surti	_____ Date signed
_____ John H. Feit	_____ Date signed
_____ Nikos Kaburlasos	_____ Date signed
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Barnan Das	Date signed
Narayan Biswal	Date signed
Stanley J. Baran	Date signed
Gokcen Cilingir	Date signed
<i>NVShah</i> Nilesh V. Shah	<i>6/15/2017</i> Date signed
Archie Sharma	Date signed
Mayuresh M. Varekar	Date signed

ASSIGNMENT

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, we, the undersigned inventor(s):

Joydeep Ray; Travis T. Schluessler; Prasonkumar Surti; John H. Feit; Nikos Kaburlasos; Jacek Kwiatkowski; Abhishek R. Appu; James M. Holland; Jeffery S. Boles; Jonathan Kennedy; Louis Feng; Atsuo Kuwahara; Barnan Das; Narayan Biswal; Stanley J. Baran; Gokcen Cilingir; Nilesh V. Shah; Archie Sharma; Mayuresh M. Varerkar

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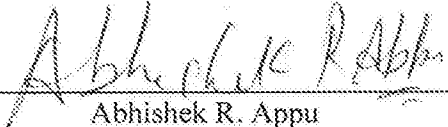
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_____ Joydeep Ray	_____ Date signed
_____ Travis T. Schluessler	_____ Date signed
_____ Prasoonkumar Surti	_____ Date signed
_____ John H. Feit	_____ Date signed
_____ Nikos Kaburlasos	_____ Date signed
_____ Jacek Kwiatkowski	_____ Date signed
 _____ Abhishek R. Appu	11. 8. 2018 _____ Date signed
_____ James M. Holland	_____ Date signed

_____ Jeffery S. Boles	_____ Date signed
_____ Jonathan Kennedy	_____ Date signed
_____ Louis Feng	_____ Date signed
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..... Joydeep Ray Date signed
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..... Prasoonkumar Surfi Date signed
..... John H. Feit Date signed
..... Nikos Kaburlasos Date signed
..... Jacek Kwiatkowski Date signed
..... Abhishek R. Appu Date signed
..... James M. Holland Date signed


Jeffery S. Boles

11-10-18
Date signed

Jonathan Kennedy

Date signed

Louis Feng

Date signed

Atsuo Kuwahara

Date signed

Baman Das

Date signed

Narayan Biswal

Date signed

Stanley J. Baran

Date signed

Gokcen Cilingir

Date signed

Nilesh V. Shah

Date signed

Archie Sharma

Date signed

Mayuresh M. Varerkar

Date signed

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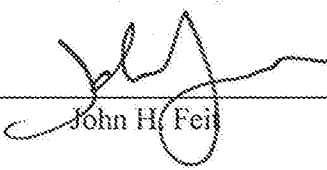
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..... Joydeep Ray Date signed
..... Travis T. Schluessler Date signed
..... Prasoonkumar Surti Date signed
.....  John H. Fei 12/17/2008 Date signed
..... Nikos Kaburlasos Date signed
..... Jacek Kwiatkowski Date signed
..... Abhishek R. Appu Date signed
..... James M. Holland Date signed

Jeffery S. Boles	Date signed
Jonathan Kennedy	Date signed
Louis Feng	Date signed
Atsuo Kuwahara	Date signed
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Stanley J. Baran	Date signed
Gokcen Cilingir	Date signed
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Archie Sharma	Date signed
Mayuresh M. Varkerkar	Date signed

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_____ Jacek Kwiatkowski	_____ Date signed
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 _____ James M. Holland	_____ 11/19/18 Date signed

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