

<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4150253

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
RADE PETROVIC	09/28/2016
JIAN ZHAO	11/02/2016
JOSEPH M. WINOGRAD	11/02/2016
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	VERANCE CORPORATION
<b>Street Address:</b>	10089 WILLOW CREEK RD.
<b>Internal Address:</b>	SUITE 200
<b>City:</b>	SAN DIEGO
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	92131
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	14830641
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(858)720-5824
<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>	
<b>Phone:</b>	858-720-5700
<b>Email:</b>	patentprocurement@perkinscoie.com
<b>Correspondent Name:</b>	BABAK TEHRANCHI
<b>Address Line 1:</b>	P. O. BOX 1247
<b>Address Line 4:</b>	SEATTLE, WASHINGTON 98111-1247
<b>ATTORNEY DOCKET NUMBER:</b>	077058-8065.US14
<b>NAME OF SUBMITTER:</b>	JULIE WILLIE
<b>SIGNATURE:</b>	/Julie Willie/
<b>DATE SIGNED:</b>	11/18/2016
This document serves as an Oath/Declaration (37 CFR 1.63).	
<b>Total Attachments: 12</b>	
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In re Patent Application of:  
Rade Petrovic et al.

Application No.: 14/830,641

Confirmation No.: 1077

Filed: August 19, 2015

For: WATERMARK DETECTION USING A  
MULTIPLICITY OF PREDICTED PATTERNS  
.....

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

DECLARATION AND ASSIGNMENT BY THE INVENTOR  
UNDER RULE 37 C.F.R. § 1.63 EFFECTIVE ON SEPTEMBER 16, 2012

I, Rade Petrovic, hereby declare that:

I believe I am an original joint inventor of a claimed invention in a patent application entitled:

**WATERMARK DETECTION USING A MULTIPLICITY OF PREDICTED PATTERNS**

the specification of which was filed on August 19, 2015, as Application No. 14/830,641, and identified as Attorney Docket No. 077058-8065.US14.

I believe the following persons are additional original joint inventors of the above-identified patent application:

Jian Zhao of San Diego, California, United States of America; and  
Joseph M. Winograd of San Diego, California, United States of America.

The above-identified application was made or authorized to be made by me.

I have reviewed and understand the contents of the above-identified patent application including the claims.

I am aware of the duty to disclose to the U.S. Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR §1.56.

I hereby acknowledge that any willful false statement made in the above declaration is punishable under 18 USC §1001 by fine or imprisonment of not more than five (5) years, or both.

### ASSIGNMENT

I hereby assign to VERANCE CORPORATION, a corporation of Delaware, having a place of business at 4435 Eastgate Mall, Suite 200, San Diego, California 92121, and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in any and all inventions and improvements which are described in an application for United States Patent filed by me, entitled *WATERMARK DETECTION USING A MULTIPLICITY OF PREDICTED PATTERNS*, filed on August 19, 2015, and assigned U.S. Patent Application Number 14/830,641.

This assignment includes the entire right, title and interest in said application, all legal equivalents thereof in any country, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions and improvements, including, but not limited to, all divisions, continuations, reissues, reexamination certificates, any and all certificates issued in any post-grant proceeding, and extensions of said applications and patents of the United States, foreign patents, utility models, and design registrations, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes, and the right to seek relief and recover all damages, including, but not limited to, a reasonable royalty, by reason of infringement or any other violation of patent or patent application rights. I authorize the Assignee to apply in all countries in my name or in the name of the Assignee for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements.

In addition, I hereby confirm the sale, assignment, and transfer to the Assignee of the entire right, title and interest throughout the world in said inventions and improvements that occurred by operation of an employment agreement between me and the Assignee existing at the time said inventions and improvements were made. Should I have any remaining interest, I

hereby sell, assign, and transfer any right, title and interest I may have in said inventions and improvements anywhere in the world to the Assignee.

The foregoing assignments, sale and transfer have been made for good and valuable consideration in accordance with the aforementioned employment agreement.

I hereby represent and covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into that would conflict with the assignment of said inventions and improvements to the Assignee.

I further covenant for myself and my respective heirs, legal representatives and assigns, to assist the Assignee in handling various procedures, tasks and documentation in connection with this assignment, including, but not limited to, providing to the Assignee promptly upon the request of the Assignee all pertinent facts and documents relating to said invention and improvements, and said patents, said legal equivalents or other legal instrument as may be known and accessible to me and testifying as to the same in any interference, litigation, or proceeding relating thereto, and promptly executing and delivering to the Assignee or its legal representative any and all papers, documents, instruments or affidavits in connection with obtaining, maintaining, issuing or enforcing said application, said inventions and improvements, and said patents, said equivalents and other legal instrument which may be necessary or desirable to carry out the purposes thereof.

I hereby authorize and request the Commissioner of Patents and Trademarks to issue one or more patents in the United States for said inventions and improvements to Verance Corporation as assignee of the entire interest, for the sole use and benefit of Assignee, its successors and assigns.

Inventors : Rade Petrovic et al.  
Appl. No. : 14/830,641  
Filed : August 19, 2015  
Page : 4 of 4

Docket No. 077058-8065.US14

I am competent to execute the above declaration and assignment. I hereby have duly executed the declaration and assignment below with my name.

Executed this 28 day of Sept., 2016.

Rade Petrovic  
RADE PETROVIC

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California )  
County of San Diego )

On this 28<sup>th</sup> day of September, 2016, before me, Kimberly H. Bruce (a notary public in and for said county), personally appeared Rade Petrovic, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature: Kimberly Bruce

My Commission Expires: 11-3-17

(Seal)



Perkins Coie LLP  
P.O. Box 1247  
Seattle, Washington 98111-1247  
Telephone: (858) 720-5700  
Facsimile: (206) 359-7198

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In re Patent Application of:  
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MULTIPLICITY OF PREDICTED PATTERNS  
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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

DECLARATION AND ASSIGNMENT BY THE INVENTOR  
UNDER RULE 37 C.F.R. § 1.63 EFFECTIVE ON SEPTEMBER 16, 2012

I, Jian Zhao, hereby declare that:

I believe I am an original joint inventor of a claimed invention in a patent application  
entitled:

**WATERMARK DETECTION USING A MULTIPLICITY OF PREDICTED PATTERNS**

the specification of which was filed on August 19, 2015, as Application No. 14/830,641, and  
identified as Attorney Docket No. 077058-8065.US14.

I believe the following persons are additional original joint inventors of the above-  
identified patent application:

Rade Petrovic of San Diego, California, United States of America; and  
Joseph M. Winograd of San Diego, California, United States of America.

The above-identified application was made or authorized to be made by me.

I have reviewed and understand the contents of the above-identified patent application  
including the claims.

I am aware of the duty to disclose to the U.S. Patent and Trademark Office all  
information known to me to be material to patentability as defined in 37 CFR §1.56.

I hereby acknowledge that any willful false statement made in the above declaration is punishable under 18 USC §1001 by fine or imprisonment of not more than five (5) years, or both.

### ASSIGNMENT

I hereby assign to VERANCE CORPORATION, a corporation of Delaware, having a place of business at 4435 Eastgate Mall, Suite 200, San Diego, California 92121, and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in any and all inventions and improvements which are described in an application for United States Patent filed by me, entitled *WATERMARK DETECTION USING A MULTIPLICITY OF PREDICTED PATTERNS*, filed on August 19, 2015, and assigned U.S. Patent Application Number 14/830,641.

This assignment includes the entire right, title and interest in said application, all legal equivalents thereof in any country, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions and improvements, including, but not limited to, all divisions, continuations, reissues, reexamination certificates, any and all certificates issued in any post-grant proceeding, and extensions of said applications and patents of the United States, foreign patents, utility models, and design registrations, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes, and the right to seek relief and recover all damages, including, but not limited to, a reasonable royalty, by reason of infringement or any other violation of patent or patent application rights. I authorize the Assignee to apply in all countries in my name or in the name of the Assignee for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements.

In addition, I hereby confirm the sale, assignment, and transfer to the Assignee of the entire right, title and interest throughout the world in said inventions and improvements that occurred by operation of an employment agreement between me and the Assignee existing at the time said inventions and improvements were made. Should I have any remaining interest, I



hereby sell, assign, and transfer any right, title and interest I may have in said inventions and improvements anywhere in the world to the Assignee.

The foregoing assignments, sale and transfer have been made for good and valuable consideration in accordance with the aforementioned employment agreement.

I hereby represent and covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into that would conflict with the assignment of said inventions and improvements to the Assignee.

I further covenant for myself and my respective heirs, legal representatives and assigns, to assist the Assignee in handling various procedures, tasks and documentation in connection with this assignment, including, but not limited to, providing to the Assignee promptly upon the request of the Assignee all pertinent facts and documents relating to said invention and improvements, and said patents, said legal equivalents or other legal instrument as may be known and accessible to me and testifying as to the same in any interference, litigation, or proceeding relating thereto, and promptly executing and delivering to the Assignee or its legal representative any and all papers, documents, instruments or affidavits in connection with obtaining, maintaining, issuing or enforcing said application, said inventions and improvements, and said patents, said equivalents and other legal instrument which may be necessary or desirable to carry out the purposes thereof.

I hereby authorize and request the Commissioner of Patents and Trademarks to issue one or more patents in the United States for said inventions and improvements to Verance Corporation as assignee of the entire interest, for the sole use and benefit of Assignee, its successors and assigns.

I am competent to execute the above declaration and assignment. I hereby have duly executed the declaration and assignment below with my name.

Executed this 2nd day of November, 2016.



JIAN ZHAO

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California )

County of San Diego )

On this 2nd day of November, 2016, before me, Kimberly H. Bruce (a notary public in and for said county), personally appeared Jian Zhao, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

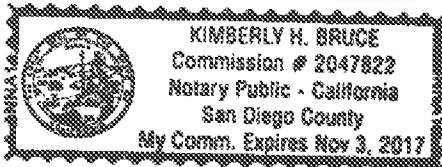
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Kimberly Bruce

My Commission Expires: 11-3-17

(Seal)



*Perkins Coie LLP  
P.O. Box 1247  
Seattle, Washington 98111-1247  
Telephone: (858) 720-5700  
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:  
Rade Petrovic et al.

Application No.: 14/830,641

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P.O. Box 1450  
Alexandria, VA 22313-1450

DECLARATION AND ASSIGNMENT BY THE INVENTOR  
UNDER RULE 37 C.F.R. § 1.63 EFFECTIVE ON SEPTEMBER 16, 2012

I, Joseph M. Winograd, hereby declare that:

I believe I am an original joint inventor of a claimed invention in a patent application entitled:

**WATERMARK DETECTION USING A MULTIPLICITY OF PREDICTED PATTERNS**

the specification of which was filed on August 19, 2015, as Application No. 14/830,641, and identified as Attorney Docket No. 077058-8065.US14.

I believe the following persons are additional original joint inventors of the above-identified patent application:

Rade Petrovic of San Diego, California, United States of America; and  
Jian Zhao of San Diego, California, United States of America.

The above-identified application was made or authorized to be made by me.

I have reviewed and understand the contents of the above-identified patent application including the claims.

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I further covenant for myself and my respective heirs, legal representatives and assigns, to assist the Assignee in handling various procedures, tasks and documentation in connection with this assignment, including, but not limited to, providing to the Assignee promptly upon the request of the Assignee all pertinent facts and documents relating to said invention and improvements, and said patents, said legal equivalents or other legal instrument as may be known and accessible to me and testifying as to the same in any interference, litigation, or proceeding relating thereto, and promptly executing and delivering to the Assignee or its legal representative any and all papers, documents, instruments or affidavits in connection with obtaining, maintaining, issuing or enforcing said application, said inventions and improvements, and said patents, said equivalents and other legal instrument which may be necessary or desirable to carry out the purposes thereof.

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Inventors : Rade Petrovic et al.  
Appl. No. : 14/830,641  
Filed : August 19, 2015  
Page : 4 of 4

Docket No. 077058-8065.US14

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Executed this 2nd day of November, 2016.



JOSEPH M. WINOGRAD

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State of California )

County of San Diego )

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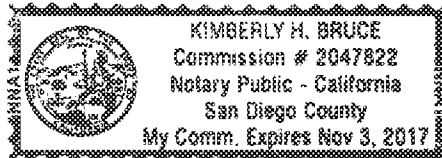
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Kimberly Bruce

My Commission Expires: 11-3-17

(Seal)



*Perkins Cole LLP*  
*P.O. Box 1247*  
*Seattle, Washington 98111-1247*  
*Telephone: (858) 720-5700*  
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