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Rev. 10/2005

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U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

2/18/09



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12/310277

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3. Nature of convenience: <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input type="checkbox"/> Other Execution Date: October 23, 2006 and September 7, 2006, respectively	

4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: A. Patent Application No.(s): PCT/US2007/018480 Additional numbers attached? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X	B. Patent No.(s) Additional numbers attached? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X
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5. Name and address of party to whom correspondence concerning document should be mailed: Name: ROBERT D. SHEDD Internal Address: PATENT OPERATIONS THOMSON LICENSING LLC Street Address: P. O. Box 5312 City: PRINCETON State: NEW JERSEY Zip: 08543-5312	6. Total number of applications and patents involved: <u>1</u> 7. Total Fee (37 CFR 3.41): \$40.00 <input type="checkbox"/> Enclosed <input checked="" type="checkbox"/> Authorized to be charged to deposit account 8. Deposit account number: 07-0832
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9. Statement and signature.
To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

<u>Robert B. Levy</u> Name of Person Signing	 Signature Reg. No. 28,234	<u>2/18/09</u> Date
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PATENT
 REEL: 022307 FRAME: 0980

Customer No. 24498

Docket No. PU060162

ASSIGNMENT AND AGREEMENT IN AN APPLICATION FOR LETTERS PATENT OF THE UNITED STATES OF AMERICA

12/310277

I hereby declare that I am the sole inventor (if only one inventor is named below) or one of 2 joint inventors (if plural inventors are named below) of the inventions relating to METHOD AND APPARATUS FOR DETERMINING EXPECTED DISTORTION IN DECODED VIDEO BLOCKS

described in an Application for Patent filed on AUGUST 28, 2006 under Serial No. 60/823,748 and described in the file associated with Docket No. PU060162, listed above or, if not identified here by filing date and serial number or by the Docket Number listed above, executed by me on even date with my execution of this Assignment/Agreement.

For valuable consideration received, I hereby sell, assign and transfer to THOMSON LICENSING, a corporation duly organized and existing under the laws of the country of France, its successors, and assigns my entire right, title and interest, for all countries in and to said inventions, and all the rights and privileges under any and all Letters Patent that may be granted therefor, and any divisions, continuations, reissues and extensions thereof.

I agree that, when requested, I will, without charge to said corporation but at its expense, sign all papers, take all rightful oaths, make all rightful declarations and do all acts which may be necessary, desirable or convenient for securing and maintaining patents or other forms of protection for said inventions in any and all countries and for vesting title thereto in said corporation, its successors, assigns or nominees.

I agree that I will communicate to said corporation or its representatives any facts known to me respecting said inventions and when requested by said corporation and at its expense will testify in any legal proceedings, and generally do everything possible to aid said corporation, its successors, assigns and legal representatives or nominees, to obtain or enforce proper protection for said inventions in any and all countries.

I authorize and empower said corporation, its successors, assigns or nominees, to make application for patent or other form of protection for said inventions in its or their own name, or in my/our name, in any and all countries and to invoke and claim for any application for patent or other form of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from me.

I hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any assignment, consent to file or like document which may be required in any country for any purpose and more particularly in proof of the right of the said corporation or its successors, assigns or nominees to apply for patent or other proper protection for said inventions, and to claim the aforesaid benefits of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it.

I covenant with THOMSON LICENSING, its successors, assigns, legal representatives, and nominees, that to the best of my knowledge the right, title and interest herein conveyed by me are free and clear of any encumbrance, and that I have full right to convey the same as herein expressed.

Signed at	<u>Brooklyn</u>	Date	<u>10/23/06</u>
Inventor (1)	<u>YAO WANG</u> (Type or Print)	<u>Wang Yao</u> (Signature in Full. No initials.)	
Post Office Address	<u>667 S. ORANGE AVE., LIVINGSTON NJ 07039</u> <u>60 Brandywine Drive, Matawan, New Jersey 07747 USA</u>		
1st Witness	<u>Zhengye Liu</u> (Type or Print)	<u>Zhengye Liu</u> (Signature in Full. No initials.)	
2nd Witness	<u>ZHAN MA</u> (Type or Print)	<u>Zhan Ma</u> (Signature in Full. No initials.)	
Signed at	<u>Princeton, New Jersey USA</u>	Date	
Inventor (2)	<u>JILL MACDONALD BOYCE</u> (Type or Print)	<u>(Signature in Full. No initials.)</u>	
Post Office Address	<u>3 Brandywine Court, Manalapan, New Jersey 07726 USA</u>		
1st Witness	<u>(Type or Print)</u>	<u>(Signature in Full. No initials.)</u>	
2nd Witness	<u>(Type or Print)</u>	<u>(Signature in Full. No initials.)</u>	
Signed at		Date	
Inventor (3)	<u>(Type or Print)</u>	<u>(Signature in Full. No initials.)</u>	
Post Office Address	<u>(Type or Print)</u>		
1st Witness	<u>(Type or Print)</u>	<u>(Signature in Full. No initials.)</u>	
2nd Witness	<u>(Type or Print)</u>	<u>(Signature in Full. No initials.)</u>	

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described in an Application for Patent filed on AUGUST 28, 2006 under Serial No. 60/823,748 and described in the file associated with Docket No. PU060162, listed above or, if not identified here by filing date and serial number or by the Docket Number listed above, executed by me on even date with my execution of this Assignment/Agreement.

For valuable consideration received, I hereby sell, assign and transfer to THOMSON LICENSING, a corporation duly organized and existing under the laws of the country of France, its successors, and assigns my entire right, title and interest, for all countries in and to said inventions, and all the rights and privileges under any and all Letters Patent that may be granted therefor, and any divisions, continuations, reissues and extensions thereof.

I agree that, when requested, I will, without charge to said corporation but at its expense, sign all papers, take all rightful oaths, make all rightful declarations and do all acts which may be necessary, desirable or convenient for securing and maintaining patents or other forms of protection for said inventions in any and all countries and for vesting title thereto in said corporation, its successors, assigns or nominees.

I agree that I will communicate to said corporation or its representatives any facts known to me respecting said inventions and when requested by said corporation and at its expense will testify in any legal proceedings, and generally do everything possible to aid said corporation, its successors, assigns and legal representatives or nominees, to obtain or enforce proper protection for said inventions in any and all countries.

I authorize and empower said corporation, its successors, assigns or nominees, to make application for patent or other form of protection for said inventions in its or their own name, or in my/our name, in any and all countries and to invoke and claim for any application for patent or other form of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from me.

I hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any assignment, consent to file or like document which may be required in any country for any purpose and more particularly in proof of the right of the said corporation or its successors, assigns or nominees to apply for patent or other proper protection for said inventions, and to claim the aforesaid benefits of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it.

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Signed at	<u>Princeton, New Jersey USA</u>	Date	
Inventor (1)	<u>YAO WANG</u> (Type or Print)		(Signature in Full. No initials.)
Post Office Address	<u>69 Brandywine Drive, Matawan, New Jersey 07747 USA</u>		
1st Witness	(Type or Print)		(Signature in Full. No initials.)
2nd Witness	(Type or Print)		(Signature in Full. No initials.)
Signed at	<u>Princeton, New Jersey USA</u>	Date	<u>9/7/06</u>
Inventor (2)	<u>JILL MACDONALD BOYCE</u> (Type or Print)		<i>Jill MacDonald Boyce</i> (Signature in Full. No initials.)
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1st Witness	<u>Tiffany Cernvasic</u> (Type or Print)		<i>Tiffany Cernvasic</i> (Signature in Full. No initials.)
2nd Witness	<u>Yeping Su</u> (Type or Print)		<i>Yeping Su</i> (Signature in Full. No initials.)
Signed at		Date	
Inventor (3)	(Type or Print)		(Signature in Full. No initials.)
Post Office Address			
1st Witness	(Type or Print)		(Signature in Full. No initials.)
2nd Witness	(Type or Print)		(Signature in Full. No initials.)

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