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U.S. PTO 10/584658 05/09/2007

05-30-2007

Docket No.: PD030117

U.S. DEPARTMENT OF COMMERCE

Patent and Trademark Office

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103410873

To the Honorable Director of the Unite 1. Name of conveying party(ies):

**HEIKO SCHWARZ TOBIAS HINZ** 

**ITS ONLY** 

ORM COVER SHEET

the attached original documents or copy thereof.

Name and address of receiving party(ies): ame: THOMSON Licensing

Internal Address:

Street: 46 Quai A. Le Gallo

F-92100 Boulogne-Billancourt, France

THOMAS WIEGAND Additional name(s) of conveying party(ies) attached:

3. Nature of convenance: X

Assignment Security Agreement Merger

X No

Change of Name

Other

Rev. 08/2004

Execution Date: July 27, 24 and August 21, 2006, respectively

Additional name(s) & address(es)attached?

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): US 10/584,658 B. Patent No.(s)

Additional numbers attached?

Yes

No X

5. Name and address of party to whom correspondence concerning document should be mailed: JOSEPH J. LAKS Name: Internal Address: PATENT OPERATIONS THOMSON LICENSING LLC

Street Address: P. O. Box 5312

City: PRINCETON

State: NEW JERSEY Zip: 08543-5312

7. Total Fee (37 CFR 3.41):

\$40.00

\_ Enclosed

Authorized to be charged to deposit account

Total number of applications and patents involved: 1

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.

RONALD H. KURDYLA Name of Person Signing

Signature - Rog. No. 26,932

Total number of pages including cover sheet, attachments, and document

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**PATENT** REEL: 019369 FRAME: 0482

## ASSIGNMENT OF APPLICATION FOR UNITED STATES LETTER PATENT

WHEREAS Heiko Schwarz, Klaustaler Str. 30, 13187 Berlin, Germany; Tobias Hinz, Auerstr. 41, 10249 Berlin, Germany; Thomas Wiegand, Nuernberger Str. 18, 10789 Berlin, Germany; hereinafter (collectively) referred to as the assignor, has invented a certain improvement relating to

Encoding method, decoding method, and encoding apparatus for a digital picture sequence

for which said assignor has caused an application for United States Letters Patent to be prepared, the specification of which was filed on 04/NOV/2004 as Application Serial No. PCT/EP 04/012480, or, if not identified here by filing date and serial number, the inventor's declaration for said application being executed concurrently with the execution of this instrument; said application to be filed in the United States Patent and Trademark Office.

AND WHEREAS

Thomson Licensing
46 Quai A. le Gallo
F-92100 Boulogne-Billancourt
France

hereinafter referred to as the assignee, is desirous of acquiring the entire right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof;

NOW THIS WITNESSETH, that for good and valuable consideration paid by said assignee to said assignor, the receipt of which is hereby acknowledged, said assignor hereby assigns, sells and transfers to said assignee, and said assignee's successors and assigns, the entire and exclusive right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof; said assignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said application, including any and all divisions and continuations thereof, and the said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such patents when granted, including any and all renewals, reissues and prolongations thereof, for the use and benefit of said assignee, and said assignee's successors and assigns, in as ample and beneficial a manner as the said assignor might or could have held and enjoyed the same, if this assignment had not been made.

AND said assignor hereby agrees to perform, upon the request of said assignee, or said assignee's successors or assigns, any and all acts relating to the obtaining or to the asserting of said patents, including any and all renewals, reissues and prolongations thereof.

AND said assignor authorizes and requests the Commissioner of Patents and Trademarks to issue Letters Patent on said application, and on any and all divisions and continuations thereof, to said assignee, and said assignee's successors and assigns, in accordance herewith.

PATENT REEL: 019369 FRAME: 0483

| EXECUTED, this                        | _day of    | , 2006.              |
|---------------------------------------|------------|----------------------|
| WITNESSES:                            | •••        | ASSIGNOR:            |
| Signature:                            |            | Signature:           |
| Name:<br>Address:                     |            | Name: Heiko Schwarz  |
|                                       | •          |                      |
| Signature:                            |            |                      |
| Name:<br>Address:                     |            |                      |
| EXECUTED, this                        | _day of    | , 2006.              |
| WITNESSES:                            | •          | ASSIGNOR:            |
| Signature:                            | •          | Signature:           |
| Name:<br>Address:                     |            | Name: Tobias Hinz    |
|                                       |            |                      |
| Signature:                            |            |                      |
| Name:<br>Address:                     |            |                      |
| EXECUTED, this                        | _day of    | gut, 2006.           |
| WITNESSES:                            |            | ASSIGNOR:            |
| Signature:                            | · ·        | Signature:           |
| Name: D. Torpe<br>Address: Sinch west | Larco 70   | Name: Thomas Wiegand |
| Signature: M22047                     | ~~~<br>} \ |                      |
| Name: Michael Zawadely, Address:      | •          |                      |
| Tragence 9<br>30163 Hange             | <u>,</u>   |                      |

**PATENT** 

REEL: 019369 FRAME: 0484

## ASSIGNMENT OF APPLICATION FOR UNITED STATES LETTER PATENT

WHEREAS Heiko Schwarz, Klaustaler Str. 30, 13187 Berlin, Germany; Tobias Hinz, Auerstr. 41, 10249 Berlin, Germany; Thomas Wiegand, Nuemberger Str. 18, 10789 Berlin, Germany; hereinafter (collectively) referred to as the assignor, has invented a certain improvement relating to

Encoding method, decoding method, and encoding apparatus for a digital picture sequence

for which said assignor has caused an application for United States Letters Patent to be prepared, the specification of which was filed on 04/NOV/2004 as Application Serial No. PCT/EP 04/012480, or, if not identified here by filing date and serial number, the inventor's declaration for said application being executed concurrently with the execution of this instrument; said application to be filed in the United States Patent and Trademark Office.

AND WHEREAS

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France

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NOW THIS WITNESSETH, that for good and valuable consideration paid by said assignee to said assignor, the receipt of which is hereby acknowledged, said assignor hereby assigns, sells and transfers to said assignee, and said assignee's successors and assigns, the entire and exclusive right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof; said assignee, and said assignee's successors and assigns, to have. hold, exercise and enjoy the said application, including any and all divisions and continuations thereof, and the said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such patents when granted, including any and all renewals, reissues and prolongations thereof, for the use and benefit of said assignee, and said assignee's successors and assigns, in as ample and beneficial a manner as the said assignor might or could have held and enjoyed the same, if this assignment had not been made.

AND said assignor hereby agrees to perform, upon the request of said assignee, or said assignee's successors or assigns, any and all acts relating to the obtaining or to the asserting of said patents, including any and all renewals, reissues and prolongations thereof.

AND said assignor authorizes and requests the Commissioner of Patents and Trademarks to issue Letters Patent on said application, and on any and all divisions and continuations thereof, to said assignee, and said assignee's successors and assigns, in accordance herewith.

PATENT

REEL: 019369 FRAME: 0485

| EXECUTED, thisday of                                       | , 2006.              |
|--|----------------------|
| WITNESSES:   | ASSIGNOR:            |
| Signature:   | Signature:           |
| Name:<br>Address:  | Name: Heiko Schwarz  |
|  |                      |
| Signature:   |                      |
| Name:<br>Address:  |                      |
| EXECUTED, this 24 day of 26                                | , 2006.              |
| WITNESSES:   | ASSIGNOR:            |
| Signature: 9. 2/1/2  | Signature: Vose 4/2  |
| Name: SUSANNE WIGTE Address: W GIESENING - STA. 30         | Name: Tobias Hinz    |
| 30159 HANNOVER   |                      |
| Signature: <i>C. Nolo je i o</i> £                         |                      |
| Name: COBDULA RATAJCEAK<br>Address: WELBSHOF 4,30589 HANNO | ve's                 |
| EXECUTED, thisday of                                       | , 2006.              |
| WITNESSES:   | ASSIGNOR:            |
| Signature:   | Signature:           |
| Name:<br>Address:  | Name: Thomas Wiegand |
|  |                      |
| Signature:   |                      |
| Name:  |                      |

PATENT REEL: 019369 FRAME: 0486

| EXECUTED, this 27 day of 24                                      | <u>(</u> , 2006.     |
|--|----------------------|
| WITNESSES  | ASSIGNOR:            |
| Signature:   | Signature: AM        |
| Name: PATRICK NDJIKI-NYA<br>Address: Spechtstr. 128, 13505 Berli | Name: Heiko Schwarz  |
| Specutiff, 126, 15505 Beth                                       | <b>~</b>             |
|  |                      |
| Signature: <i>P. Nodo i e a 2</i>                                |                      |
| Name: CORDULA ARTAJCZAK Address: KELEGUE W 30530 WENNOWE         |                      |
| Address: KELBSHOF 4, 80539 HANNOVE                               | <b>*</b>             |
| EXECUTED, thisday of   | , 2006.              |
| WITNESSES:   | ASSIGNOR:            |
| Signature:   | Signature:           |
| Name:<br>Address:  | Name: Tobias Hinz    |
|  |                      |
|  |                      |
| Signature:   |                      |
| Name:<br>Address:  |                      |
| Address.   |                      |
| EXECUTED, thisday of   | , 2006.              |
| WITNESSES:   | ASSIGNOR:            |
| Signature:   |                      |
|  | Signature:           |
| Name:<br>Address:  | Name: Thomas Wiegand |
|  |                      |
|  |                      |
| Signature:   |                      |
| Name:<br>Address:  |                      |
| Addiess.   |                      |

RECORDED: 05/09/2007

**PATENT** 

REEL: 019369 FRAME: 0487