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**Information technology — Multimedia  
framework (MPEG-21) —**

Part 5:

**Rights Expression Language**

AMENDMENT 3: OAC (Open Access  
Content) profile

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*Technologies de l'information — Cadre multimédia (MPEG-21) —*

*Partie 5: Langage d'expression des droits*

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*AMENDEMENT 3: Profil OAC ("Open Access Content")*

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## Foreword

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Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

Amendment 3 to ISO/IEC 21000-5:2004 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 29, *Coding of audio, picture, multimedia and hypermedia information*.

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# Information technology — Multimedia framework (MPEG-21) —

## Part 5: Rights Expression Language

### AMENDMENT 3: OAC (Open Access Content) profile

*Insert two new subclauses 10.4 and 11.4 as follows and change references accordingly:*

#### 10.4 Multimedia extension three

##### 10.4.1 General

This subclause specifies an additional extension, called the "multimedia extension three", of the REL specified in the previous clauses.

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##### 10.4.2 Normative namespace

The XML namespace for the extension types and new elements and attributes introduced in the REL multimedia extension three shall be `urn:mpeg:mpeg21:2006:01-REL-M3X-NS`, and this namespace is normative. Here, the 01 represents a serial number that is expected to change as this extension evolves.

##### 10.4.3 Namespace prefixes

For convenience, this extension uses shorthand namespace prefixes when referring to XML elements and types. The actual prefix used is not important as long as the namespace URI is correct. The prefixes used in this extension are given in Table AMD3.1.

Table AMD3.1 — Prefixes of XML schemas

| Prefix | Name                           | Namespace                          |
|--------|--------------------------------|------------------------------------|
| r      | REL Core                       | urn:mpeg:mpeg21:2003:01-REL-R-NS   |
| sx     | REL Standard Extension         | urn:mpeg:mpeg21:2003:01-REL-SX-NS  |
| mx     | REL Multimedia Extension       | urn:mpeg:mpeg21:2003:01-REL-MX-NS  |
| dsig   | XML Digital Signature          | http://www.w3.org/2000/09/xmldsig# |
| xenc   | XML Encryption                 | http://www.w3.org/2001/04/xmlenc#  |
| m1x    | REL Multimedia Extension One   | urn:mpeg:mpeg21:2005:01-REL-M1X-NS |
| m3x    | REL Multimedia Extension Three | urn:mpeg:mpeg21:2006:01-REL-M3X-NS |

### 10.4.4 Definition of multimedia extension three

This subclause defines the extensions to the REL used in this profile. The syntax and the semantics of these extensions are presented here. The XML schema for the extension elements and types is listed in the Annex of this Part of ISO/IEC 21000.

#### 10.4.4.1 Right extension elements iTech STANDARD PREVIEW (standards.itech.ai)

##### 10.4.4.1.1 GovernedAdapt ISO/IEC 21000-5:2004/Amd 3:2008 <https://standards.itech.ai/catalog/standards/sist/65d51c26-438a-459c-adda-ab0e7b4ee8cd/iso-iec-21000-5-2004-amd-3-2008>

##### 10.4.4.1.1.1 Informative description

This element represents the right to adapt the resource and results in certain rights being associated with the adapted resource. The optional attribute `@m1x:governanceRule` of type `QName` indicates the name of a governance rule that determines how exactly the adaptation should be made and what rights should be associated and by whom. When the attribute is not specified, this right allows adaptation of the resource and results in identical adaptation of the `r:license` such that related grant in the license are associated with the adapted resource.



Figure AMD3.1 — m3x:GovernedAdapt right

A sample code fragment is provided below for illustration:

```
<r:license>
  <r:grant>
    <mx:play/>
    <r:digitalResource>
      <r:nonSecureIndirect URI="urn:movie:clips:hero_trailer.mpeg"/>
    </r:digitalResource>
  </r:grant>
  <r:grant>
    <m3x:governedAdapt/>
    <r:digitalResource>
      <r:nonSecureIndirect URI="urn:movie:clips:hero_trailer.mpeg"/>
    </r:digitalResource>
  </r:grant>
</r:license>
```

In the above example, any principal is granted the right to play a movie clip, and the right to adapt the clip together with the same license.

The following is another example license:

```
<r:license >
  <r:grant>
    <mx:play/>
    <r:digitalResource>
      <r:nonSecureIndirect URI="urn:movie:clips:hero_trailer.mpeg"/>
    </r:digitalResource>
  </r:grant>
  <r:grant>
    <m3x:governedAdapt governanceRule="m3x:adaptOnce"/>
    <r:digitalResource>
      <r:nonSecureIndirect URI="urn:movie:clips:hero_trailer.mpeg"/>
    </r:digitalResource>
  </r:grant>
  <r:issuer>
    <r:keyHolder>
      <r:info>
        <dsig:KeyName>Rights Issuer Public Key Name</dsig:KeyName>
      </r:info>
    </r:keyHolder>
  </r:issuer>
</r:license >
```

Suppose the governance rule named “m3x:adaptOnce” only allows exercising this right once to adapt of the resource and associating the other rights in the same license to the adapted resource by issuing another license by the same issuer. In this case, exercising the right m3x:governedAdapt in the license will result in an adapted resource, and the following license:

```
<r:license >
  <r:grant>
    <mx:play/>
    <r:digitalResource>
      <r:nonSecureIndirect URI="urn:movie:clips:hero_trailer.mpeg"/>
    </r:digitalResource>
  </r:grant>
  <r:issuer>
    <r:keyHolder>
      <r:info>
        <dsig:KeyName>Rights Issuer Public Key Name</dsig:KeyName>
      </r:info>
    </r:keyHolder>
  </r:issuer>
</r:license >
```

### 10.4.4.1.1.2 Normative specification

Let *r* be a `m3x:governedAdapt`. Then, if `r/@m3x:governanceRule` is present, *r* identifies the act of adapting and associating right expressions with that adapted resource in compliance with the compliance rules identified by `r/@m3x:governanceRule`. Otherwise, if `r/@m3x:governanceRule` is absent, *r* identifies the act of adapting and associating a right expression to that adapted resource that is Equal to the License in the authorizer in one of the authorization proofs for the authorization request for that adapting.

If *r* is used as the Right Member of an authorization request, then the Resource Member of that authorization request shall be present and shall identify the resource being adapted.

### 10.4.4.2 Condition extension elements

#### 10.4.4.2.1 CopyrightNotice

##### 10.4.4.2.1.1 Informative description

This element represents the condition to notice the copyright information to user while the right is exercised. The optional attribute `@m3x:noticeType` of type `QName` indicates the way how to make aware the notice to users. When the attribute is not specified, this condition is just machine-readable information.



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**Figure AMD3.2 — m3x:CopyrightNotice**

All information described under the `m3x:copyrightNotice` element should be shown to users or inserted into resource while the right is exercised, according to the `@m3x:noticeType`.

A sample code fragment is provided below for illustration:

```
<r:license>
  <r:grant>
    <mx:play/>
    <r:digitalResource>
      <r:nonSecureIndirect URI="urn:movie:clips:hero_trailer.mpeg"/>
    </r:digitalResource>
    <m3x:copyrightNotice noticeType="ShowBeforeExercise">
      <m3x:copyrightString>Produced by AAA Entertainment, 2007.1.1</m3x:copyrightString>
    </m3x:CopyrightNotice >
  </r:grant>
  <r:grant>
    <mx:governedCopy/>
    <r:digitalResource>
      <r:nonSecureIndirect URI="urn:movie:clips:hero_trailer.mpeg"/>
    </r:digitalResource>
    <m3x:copyrightNotice>
      <m3x:copyrightString>Produced by AAA Entertainment, 2007.1.1</m3x:copyrightString>
    </m3x:copyrightNotice>
  </r:grant>
</r:license>
```



In the above example, any principal is granted the right to play a movie clip, and the right to copy the clip together with the same license. And with the `m3x:copyrightNotice` condition, the rendering application is required to show copyrights notice before exercise.

#### 10.4.4.2.1.2 Normative specification

Let  $r$  be an `m3x:copyrightNotice`. Then, if  $r/@m3x:noticeType$  is present,  $r$  identifies the act of notice with the compliance rules identified by  $r/@m3x:noticeType$ . Otherwise, if  $r/@m3x:noticeType$  is absent,  $r$  may do nothing.

If  $r$  is used as the Right Member of an authorization request, then the Resource Member of that authorization request shall be present and shall identify the resource being exercised.

#### 10.4.4.2.2 NonCommercialUse

##### 10.4.4.2.2.1 Informative description

This element represents the condition to inform the user that the resource is not for any commercial use while the right is exercised. The optional attribute `@m3x:noticeType` of type `OName` indicates the way how to make aware of the notice to the user. When the attribute is not specified, this condition is just machine-readable information.



Figure AMD3.3 — `m3x:NonCommercialUse`

A sample code fragment is provided below for illustration:

```
<r:license>
  <r:grant>
    <mx:play/>
    <r:digitalResource>
      <r:nonSecureIndirect URI="urn:movie:clips:hero_trailer.mpeg"/>
    </r:digitalResource>
    <m3x:nonCommercialUse noticeType="ShowBeforeExercise"/>
  </r:grant>
</r:license>
```

In the above example, any principal is granted the right to play a movie clip. And with the `m3x:nonCommercialUse` condition, the rendering application is required to show non commercial use notice before exercise.

##### 10.4.4.2.2.2 Normative specification

Let  $r$  be an `m3x:nonCommercialUse`. Then, if  $r/@m3x:noticeType$  is present,  $r$  identifies the act of notice with the compliance rules identified by  $r/@m3x:noticeType$ . Otherwise, if  $r/@m3x:noticeType$  is absent,  $r$  may do nothing.

If *r* is used as the Right Member of an authorization request, then the Resource Member of that authorization request shall be present and shall identify the resource being exercised.

### 10.4.4.2.3 SourceCode

#### 10.4.4.2.3.1 Informative description

This element represents the condition to support the source code (or resource) for all derivate work. With this condition element, the adapted work should contain the original resource or at least its accessible location.



Figure AMD3.4 — m3x:SourceCode

A sample code fragment is provided below for illustration:

```

<r:license>
  <r:grant>
    <mx:play/>
    <r:digitalResource>
      <r:nonSecureIndirect URI="urn:movie:clips:hero_trailer.mpeg"/>
    </r:digitalResource>
  </r:grant>
  <r:grant>
    <m3x:governedAdapt/>
    <r:digitalResource>
      <r:nonSecureIndirect URI="urn:movie:clips:hero_trailer.mpeg"/>
    </r:digitalResource>
    <m3x:sourceCode/>
  </r:grant>
</r:license>

```

In the above example, any principal is granted the right to play a movie clip, and the right to adapt the clip together with the same license. And with the `m3x:sourceCode` condition, the adapting application is required to insert the original resource or at least its accessible location into adapted work.

#### 10.4.4.2.3.2 Normative specification

Let *r* be an `m3x:sourceCode`. Then if *r* is present, it is required to insert the original resource or at least its accessible location into adapted work, when the resource is adapted.

If *r* is used as the Right Member of an authorization request, then the Resource Member of that authorization request shall be present and shall identify the resource being adapted.

## 11.4 OAC profile

### 11.4.1 General

This subclause specifies a profile, called the “OAC (Open Access Content) profile”, of the REL specified in the previous clauses.

## 11.4.2 OAC profile definition

The profile elements and their included child elements are listed in Table AMD3.2.

**Table AMD3.2 — Profile elements**

| Element/Child Element  | Comments  |
|--|---|
| r:license  | The definition of an r:license is restricted to contain the following elements: r:grant, and r:issuer.  |
| R:grant  | Each r:grant represents a rights expression.  |
| R:issuer   | This element indicates which principal issues the license.  |
| @sx:profileCompliance<br>@mlx:licenseType  | The @sx:profileCompliance attribute indicates a profile that the license is compliant to. The value of urn:mpeg:mpeg21:2005:01-REL-M3X shall be used in a license to indicate compliance to this profile. The attribute @mlx:licenseType provides a further categorization of the license, which is useful in identifying what elements and attributes the license may contain. |
| r:grant  | An r:grant is restricted to include the following child elements only: r:forAll, r:principal, r:right, r:resource and r:condition.  |
| r:keyHolder<br>mlx:identityHolder  | This profile only supports these Principals.<br><a href="https://standards.iteh.ai/catalog/standards/sist/65d51c26-438a-459c-adda-ab0e7b4ee8cd/iso-iec-21000-5-2004-amd-3-2008">https://standards.iteh.ai/catalog/standards/sist/65d51c26-438a-459c-adda-ab0e7b4ee8cd/iso-iec-21000-5-2004-amd-3-2008</a>   |
| mx:adapt<br>mx:execute<br>mx:play<br>mx:print<br>mlx:governedCopy<br>m3x:governedAdapt           | This profile only supports these Rights.  |
| r:digitalResource  | This profile only supports these Resources.   |
| r:allConditions<br>sx:territory<br>m3x:copyrightNotice<br>m3x:nonCommercialUse<br>m3x:sourceCode | This profile only supports these Conditions.  |
| r:keyHolder  | This element is used as defined.  |
| r:info   | This element of type dsig:KeyInfoType specifies a key for the r:keyHolder. Used as defined.   |