



Guideline for the SWORD import on HAL

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Introduction

The scientific open publication repository HAL¹ provides an upload service for TEI-XML files using the Sword protocol. This service allows you a quick deposit of scientific articles in HAL and facilitate the articles transfer from one open archive to another.

The XML format used for this import is a subset of the HAL XML interchange format which in turn is based upon the TEI (Text Encoding Initiative) guidelines. Maintained by the TEI consortium (www.tei-c.org), the guidelines provide more than 500 elements for the documentation, representation and annotation of textual documents. The customization used for HAL platform focuses on the representation of meta-data information needed for scholarly documents, as they appear in a publication repository.

This documentation is a reference manual separated in two sections:

- · General elements valid for all documents types (examples given for each part)
- Specific elements by documents types (examples given for every part)

1. Instructions

1.1. How to make an XML import?

- Before using this service, you must already have an account on HAL or create a new one².
- Create your XML files with an XML editor³. Consult the section "1.2. Help for the XML file construction". Beware: you have to create one XML file for each publication.
- You have the possibility to make 2 different types of uploads: uploads without any attached file(s) (notice) or a deposit with an attached file(s). Consult the section "1.3.2. General elements: <editionStmt>"
- Validate your XML file with the XML schema of HAL⁴ on an XML editor or by command-line on Linux by copying the XML schema of HAL on your disk and launching the following command-line: xmllint --noout TEI_COUV_complet_Sword.xml --schema aofrsword.xsd
- If you want, you can import your files via a Web-API⁵.
- Connexion with your HAL login and password.
- Import your articles by transferring your XML files one by one.
- After your submission, there is a validation step.

2 https://hal.inria.fr/user/create

¹ http://hal.inria.fr

List of XML editors : http://www.xml.com/pub/pt/3

⁴ http://api.archives-ouvertes.fr/documents/aofr-sword.xsd

⁵ https://api.archives-ouvertes.fr/sword/upload/

 After the validation and if no modification is required, your document is online.

1.2. Help for XML file construction

Description

To help you reading this section, we tried to construct an easily readable documentation modeled as an XML file.

We mentioned in bold the mandatory elements:

```
<tag element="attribute"> for a mandatory tag
or
<tag element="attribute"> for an optional tag
```

Comments are mentioned in green:

<!--comments-->

XML file construction describing a HAL document (see also appendices):

```
<TEI xmlns="http://www.tei-c.org/ns/1.0" xmlns:hal="http://hal.archives-ouvertes.fr"> Header
  <text> beginning of the document description
    <body>
         <biblFull> Beginning of the bibliographical informations
           <titleStmt>...</titleStmt> this part describing titles and authors is not used anymore (see <sourceDesc> part)
           <editionStmt>.../editionStmt> Informations about the file(s)
           <publicationStmt>.../publicationStmt> Publication (License)
           <seriesStmt>.../seriesStmt> Collection
           <notesStmt>...</notesStmt> Mention of notes
           <sourceDesc>.../sourceDesc> Source description
           fileDesc>.../profileDesc> Description of non bibliographical elements
         </biblFull>
       </listBibl>
    </body>
    <back> Complementary informations
       torg type="laboratories">...</listorg> Defintion of new structures (laboratories)
       torg type="projects">...</listOrg> Definition of new projects (anr, european)
    </back>
  </text>
</TET>
```

1.3.1. XML Header

Description

The header of your XML file contains the XML version (1.0), the character encoding ("utf-8") and the namespaces and scheme.

It also contains various informations for the TEI.

Comment

You can insert the name of the XML file creator and the date of the creation as commentary.

Content

```
<?xml version="1.0" encoding="UTF-8"?>
<TEI xmlns=http://www.tei-c.org/ns/1.0
<!--%%%%link to the chosen schema (TEI)-->
    xmlnssi=http://www.w3.org/2001/XMLSchema-instance
<!--%%%%Define the namespace TEI-->
    xmlns:hal=http://hal.archives-ouvertes.fr/
<!--%%%%define the namespace HAL
    xsi:schemaLocation="http://www.tei-c.org/ns/1.0 https://api.archives-ouvertes.fr/documents/aofr-sword.xsd">
<!--%%%%add one more schema to the TEI: the SWORD schema-->
    <text>
```

1.3.2. General elements

Description

For all documents allowed in HAL, some general tags have to systematically appear in the XML document. We describe them in this section.

```
<text>
<body>
<listBibl>
<biblFull>
<editionStmt>
```

Description

Information about the attached file(s).

Three solutions are available:

- give the link url to the file
- create a .zip containing the .xml and the document
- Deposit your document on the HAL FTP server and then give the link to the file

```
<date type="whenWritten" notBefore="yyyy-mm-dd"></date
<!--%%notBefore is the embargo date with a maximum of 2 years-->
<ref type="file, src or annex" target=".pdf or http://... or
ftp://ftp.ccsd.cnrs.fr/document.pdf" n="1 or 0"/>
<ref subtype="file, src or annex" target==".pdf or http://... or
ftp://ftp.ccsd.cnrs.fr/document.pdf" n="1 or 0"/>
```

<!--%%n=1 for a main file or a main annex, n=0 if not a main file or a main annex -->

Comment

You have to fill the attributes in the same way in the case you give the link to document or if you join the file in a .zip

The <editionStmt> tag and its subtags can be removed completely if you want to deposit only a notice.

Example with .zip

```
<edition>
<date type="whenWritten">2014</date>
<ref type="file" target="546-3234-1-PB.pdf" subtype="author" n="1" />
<ref type="annex" target="pres.ppt" subtype="presentation" n="1">
</edition>
```

</editionStmt>

<publicationStmt>

Description

Information about Creative Commons Licenses.

List of tags and attributes

Comment

You have no obligation to choose a Licence in particular. If you don't want to, you just have to remove the tag <publicationStmt>. By default it will be CC-BY.

Example

```
<availability>
licence target="http://creativecommons.org/licenses/by-nc/"/>
</availability>
```

</publicationStmt>

<seriesStmt>

Description

Information about the stamps that you can add to the document.

http://api.archives-ouvertes.fr/ref/metadataList/?q=metaName_s:licence&wt=xml&fl=*

List of tags and attributes

```
<idno type="stamp" n="stamp value"/>
```

Comment

You have no obligation to add a stamp. If you don't want to, you just have to remove the tag <seriesStmt>.

Pay attention: collections referring to the stamps must have been created BEFORE a deposit containing those stamps. If not, the API will return you an error message.

Example

```
<idno type="stamp" n="CNRS"/>
<idno type="stamp" n="UNIV-PARIS5"/>
```

</seriesStmt>

<notesStmt>

Description

Information about elements of characterization concerning the level of the publication.

List of tags and attributes

```
<note type=""/>
```

Comment

This tag being really specific to the type of documents it describes, only the "type" attribute is mentionned here because it is required for all types of documents.

For the precisions and examples concerning each element type required by type of document in the "type" attribute, please refer to section "1.3.3. Specific element by types of documents".

</notesStmt>

<sourceDesc>

Description

Bibliographical information concerning the publication.

```
<br/>
<analytic>
<title level="" type="main or sub" xml:lang="en, fr, ...">title<br/>
value</title> multivalued
```

The <title> tag can be repeated as needed in different languages or to specificate the subtitle.

To add an author, you have to fill the <persName> informations, excepted if you fill the author idhal or the id of the HAL author form.

For each document, one author at least have to be associated with one affiliation. There has to be at least one author and this author has to be affiliated to at least one laboratory.

For affiliation, use AuréHAL application (consult the section "2.3. HAL repository") to find identification number of author affiliation and replace xxx of "#struct-xxx" by this Id. **Beware : only valid affiliation can be added!** If the affiliation doesn't exist in AuréHAL, add "localStruct-1", "localStruct-2", etc. as much as needed and report information in the back part of your XML file (see the section "1.3.2. General elements : <back>")

The <monogr> tag being really specific to the type of document it describes, only the <tag> is mentionned here. For the precisions and examples concerning each type of document, please refer to section "1.3.3. Specific elements by types of documents".

```
<biblStruct>
<analytic>
<itile xml: lang="en">Modelling Computing Systems</title>
<title type="sub" xml: lang="en">Mathematics for Computer Science</title>
<author role="aut">
<persName>
<forename type="first">prénom</forename>
<surname>nom</surname>
</persName>
<affiliation ref="#struct-13325"/>
</author>
```

http://api.archives-ouvertes.fr/ref/metadataList/?q=metaName_s:relator&fl=*&wt=xml

Information about the language of the document.

List of tags and attributes

```
<larguage ident="en, fr, ..."/>
<!-- %%language code ISO 639.1-->
```

Example

```
<language ident="en"></language>
```

```
</langUsage>
```

<textClass>

Description

Information about the keyword(s), the domain(s) and the type of document

List of tags and attributes

Comment

The keywords are optionnal excepted for the types of document thesis and HDR witch are required in english and french.

The attribute "scheme" can be repeated to enter as much HAL domains as needed.

http://api.archives-ouvertes.fr/ref/domain/?fl=*&wt=xml

http://api.archives-ouvertes.fr/ref/typdoc/?fl=*&wt=xml

```
<textClass>
<classCode scheme="halDomain" n="info.info-mo"></classCode>
<classCode scheme="halDomain" n="math.math-oc"></classCode>
<classCode scheme="halTypology" n="OUV"></classCode>
</textClass>
</textClass>
</textClass>
```

Information about the publication summary

List of tags and attributes

```
<abstract xml:lang="en or fr etc."></abstract> multivalued
<!-- %% abstract optionnal excepted for the types of document "Thesis",
"HDR" and also "Poster" when there is an attached file-->
<!-- %%language code ISO 639.1-->
```

Comment

The abstract tag can be repeated as much as needed in different languages.

Example

<abstract xml:lang="en">This engaging textbook presents the fundamental mathematics and modelling techniques for computing systems in a novel and light-hearted way, which can be easily followed by students at the very beginning of their university education. Key concepts are taught through a large collection of challenging yet fun mathematical games and logical puzzles that require no prior knowledge about computers. The text begins with intuition and examples as a basis from which precise concepts are then developed; demonstrating how, by working within the confines of a precise structured method, the occurrence of errors in the system can be drastically reduced.

```
</abstract>
```

<particDesc>

Description

Information about the collaboration

List of tags and attributes

```
<particDesc>
<org type="consortium" > collaboration or project value</org>
<particDesc>
```

```
<particDesc>
<org type="consortium">Collaboration/Project</org>
</particDesc>

</particDesc>
```

<base>

Information about the laboratories unknown in AuréHAL affiliated to one or several author(s) of the publication.

List of tags and attributes

```
<listOrg type="laboratories" >
<org type="institution or department or laboratory or researchteam"</pre>
xml:id="localStruct-x"/>
     <orgName>orgName value</orgName>
     <orgName type="acronym" >acronym value</orgName>
     <desc>
          <address>
               <addrLine>
                <country key="FR, EN, ..."/>
                <!-- %%language code ISO 639.1 written in CAPITAL-->
          </address>
          <ref type="url">url value</ref>
     </desc>
     listRelation>
     <relation type="institution or department or laboratory or
     researchteam >
     <!-- %%optionnal only for the <org type="institution"-->
     </org>
```

Comment

For an easier process, you can ask beforehand of your import the creation of the structures to your HAL admin alias.

Information about the ANR projects unknown in AuréHAL

List of tags and attributes

Comment

For an easier process, you can ask beforehand of your import the creation of the project \underline{to} your admin HAL

Information about the european projects unknown in AuréHAL

List of tags and attributes

Comment

For an easier process, you can ask beforehand of your import the creation of the project to your admin HAL

1.3.3. Specific elements by types of documents

1.3.2.1. Journal articles (ART)

<notesStmt>

Description

Specific information about the elements of characterization concerning the level of the type of document "Journal articles".

List of tags and attributes

```
<note type="commentary">commentary value</note>
<note type="description">description value</note>
<note type="audience" n="1 or 2 or 3<sup>10</sup>"/>
<note type="popular" n="0 or 1<sup>11</sup>"/>
<note type="peer" n="0 or 1<sup>12</sup>"/>
```

Example

```
<note type="popular" n="0" />
<note type="peer" n="0" />
<note type="audience" n="2" />
```

</notesStmt>

<sourceDesc>

Description

Specific bibliographical information concerning the type of document "Journal articles".

```
<monogr>
    <idno type="nnt, isbn, patentNumber, reportNumber, localRef, halJournalId, issn or eissn">number value</idno>
    <title level="j" type="main or sub">title value</title>
    <!-- %%You don't have to mention the title level and type if you add an issn known in auréHal-->
    <respStmt>resp value</respStmt>
    <editor>editor value</editor>
    <imprint>
        <publisher>publisher value</publisher>
        <biblScope unit="serie">serie value</biblScope>
        <biblScope>
        <biblScope unit="volume">volume value</biblScope>
```

http://api.archives-ouvertes.fr/ref/metadataList/?q=metaName_s:audience&fl=*&wt=xml

http://api.archives-ouvertes.fr/ref/metadataList/?q=metaName s:popularLevel&fl=*&wt=xml

http://api.archives-ouvertes.fr/ref/metadataList/?q=metaName_s:peerReviewing&fl=*&wt=xml

Commentjournal title, date and the number of pages of the publication are required (excepted for the journal title if you add an issn know by auréHAL)

Example

```
<monogr>
<title level="j" type="main">Discrete Mathematics and Theoretical Computer Science</title>
<imprint>
<biblScope unit="pp">1-38</biblScope>
<type="datePub">2008</date>
</imprint>
</monogr>
```

How to add a journal?

If the journal is already in AuréHAL, you just have to add its ID HAL (<idno type="halJournalId>****</idno>)

If you have to create a new one, you have to mention the issn number and the title of the new review ($<idno\ type="issn">***</idno> and <math><$ title level="j">>***</idno>)

Example to add the HAL Journal ID

```
<monogr>
<idno type="halJournalId">103112</idno>
</monogr>
```

Example to create a new journal

```
<monogr>
<idno type="issn">1462-7264</idno>
```

<u>ouvertes.fr/ref/metadataList/?q=metaName_s:relatedType&fl=*&fl=*&wt=xml</u>

http://api.archives-

```
<title level="j" type="main">Discrete Mathematics and Theoretical Computer Science</title> </monogr>
```

</sourceDesc>

1.3.2.2. Conference papers (COMM)

<notesStmt>

Description

Specific information about the elements of characterization concerning the level of the type of document "Conference papers"

List of tags and attributes

```
<note type="commentary">commentary value</note>
<note type="description">description value</note>
<note type="audience" n="1 or 2 or 3<sup>14</sup>"/>
<note type="invited" n="0 or 1<sup>15</sup>"/>
<note type="popular" n="0 or 1<sup>16</sup>"/>
<note type="peer" n="0 or 1<sup>17</sup>"/>
<note type="proceedings" n="0 or 1<sup>18</sup>"/>
```

Example

```
<note type="audience" n="2"/>
<note type="invited" n="0"/>
<note type="popular" n="0"/>
<note type="peer" n="1"/>
<note type="proceedings" n="1"/>
```

</notesStmt>

<sourceDesc>

Description

Specific bibliographical information concerning the type of document "conference papers".

http://api.archives-ouvertes.fr/ref/metadataList/?q=metaName_s:audience&fl=*&wt=xml

http://api.archives-

ouvertes.fr/ref/metadataList/?q=metaName_s:invitedCommunication&fl=*&wt=xml

http://api.archives-ouvertes.fr/ref/metadataList/?q=metaName_s:popularLevel&fl=*&wt=xml

http://api.archives-ouvertes.fr/ref/metadataList/?q=metaName s:peerReviewing&fl=*&wt=xml

http://api.archives-ouvertes.fr/ref/metadataList/?q=metaName_s:proceedings&fl=*&wt=xml

```
<monogr>
     <idno type="nnt, isbn, patentNumber, reportNumber, localRef, halJournalld,
issn or eissn">number value</idno>
      <title level="m" type="main or sub">title value<title>
      <meeting>
            <title>title meeting value</title>
            <date type="start">date value</date>
            <date type="end">date value</date>
            <settlement>city value</settlement>
            <country key="FR, EN, ..."/>
            <!-- %%language code ISO 639.1 written in CAPITAL-->
            <respStmt>resp value</respStmt>
            <editor> editor value</editor>
      </meeting>
      <imprint>
            <publisher> publisher value< publisher>
            <biblScope unit="serie">serie value</biblScope>
            <br/><biblScope unit="volume">volume value</biblScope>
            <br/><biblScope unit="issue">issue value</biblScope>
            <br/>
<br/>
<br/>
diblScope unit="pp">pages value</br/>
/biblScope>
            <date type="datePub, dateEpub > date value</date>
      </imprint>
      <series>
            <editor> series editor</editor>
            <title>lecture name</title>
      </series>
      <idno type="doi", "arxiv", "bibcode", "ird", "pubmed", "ads",
      "pubmedcentral", "irstea", "sciencespo", "oatao", "ensam", "prodinra",
      etc.>number</idno>
      <ref type="seeAlso", "publisher Link">reference of link</ref>
      <relatedItem type="isIllustratedBy, illustrate, etc.19" target="related"</pre>
      description"></relatedItem>
</monogr>
```

The conference title, the starting date, the city and the country of the conference are required.

```
<monogr>
<title level="m">2011 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)</title>
<meeting>
<title>IEEE International Conference on Acoustics, Speech and Signal Processing - ICASSP 2011</title>
```

http://api.archivesouvertes.fr/ref/metadataList/?q=metaName_s:relatedType&fl=*&fl=*&wt=xml

```
<date type="start">2011-05-22</date>
<date type="end">2011-05-27</date>
<settlement>Prague</settlement>
<country key="CZ"/>
</meeting>
<imprint>
<publisher>IEEE</publisher>
<biblScope unit="pp">17-20</biblScope>
<date type="datePub">2011</date>
</monogr>
```

</sourceDesc>

1.3.2.1. Poster communications (POSTER)

<notesStmt>

Description

Specific information about the elements of characterization concerning the level of the type of document "Poster communications"

List of tags and attributes

```
<note type="commentary">commentary value</note>
<note type="description">description value</note>
<note type="audience" n="1 or 2 or 3<sup>20</sup>"/>
<note type="invited" n="0 or 1<sup>21</sup>"/>
<note type="popular" n="0 or 1<sup>22</sup>"/>
<note type="peer" n="0 or 1<sup>23</sup>"/>
<note type="proceedings" n="0 or 1<sup>24</sup>"/>

Example
```

<notesStmt>

```
<note type="popular" n="0" />
<note type="proceedings" n="1"></note>
<note type="peer" n="1"></note>
<note type="invited" n="0"></note>
<note type="audience" n="2"></note>
</notesStmt>
```

http://api.archives-ouvertes.fr/ref/metadataList/?q=metaName_s:audience&fl=*&wt=xml http://api.archives-

ouvertes.fr/ref/metadataList/?q=metaName s:invitedCommunication&fl=*&wt=xml

http://api.archives-ouvertes.fr/ref/metadataList/?q=metaName_s:popularLevel&fl=*&wt=xml

http://api.archives-ouvertes.fr/ref/metadataList/?q=metaName s:peerReviewing&fl=*&wt=xml

http://api.archives-ouvertes.fr/ref/metadataList/?q=metaName_s:proceedings&fl=*&wt=xml

</notesStmt>

<sourceDesc>

Description

Specific bibliographical information concerning the type of document "Poster communications".

List of tags and attributes

```
<monogr>
     <idno type="nnt, isbn, patentNumber, reportNumber, localRef, halJournalld,
issn or eissn">number value</idno>
      <title level="m" type="main or sub">title value<title
      <meeting>
            <title>meeting title value</title>
            <date type="start"></date>
            <date type="end"></date>
            <settlement>city value<settlement>
            <country key="FR, EN, ..."/>
            <!-- %%language code ISO 639.1 written in CAPITAL-->
            <respStmt>resp value</respStmt>
            <editor>editor value</editor>
      </meeting>
      <imprint>
            <publisher>publisher value<publisher>
            <br/><biblScope unit="serie">serie value</biblScope>
            <br/><biblScope unit="volume">volume value</biblScope>
            <br/><biblScope unit="issue">issue value</biblScope>
            <br/>
<br/>
<br/>
diblScope unit="pp">pages value</br/>
/biblScope>
            <date type="datePub, dateEpub > date value</date>
      </imprint>
      <series>
            <editor> series editor</editor>
            <title>lecture name</title>
      <idno type="doi", "arxiv", "bibcode", "ird", "pubmed", "ads",
      "pubmedcentral", "irstea", "sciencespo", "oatao", "ensam", "prodinra",
      etc.>number</idno>
      <ref type="seeAlso", "publisher Link">reference of link</ref>
      <relatedItem type="isIllustratedBy, illustrate, etc.25" target="related"</pre>
      description"></relatedItem>
</monogr>
```

Comment

The conference title, the starting date, the ending date, the city and the country of the conference are required.

http://api.archivesouvertes.fr/ref/metadataList/?q=metaName_s:relatedType&fl=*&fl=*&wt=xml

Example

```
<monogr>
<meeting>
<title>SIAM Day Cardiff</title>
<date type="start">2014-01-17</date>
<date type="end">2014-01-17</date>
<settlement>Cardiff</settlement>
<country key="GB"/>
</meeting>
<imprint>
<date type="datePub">2014-01-17</date>
</imprint>
</monogr>
```

</sourceDesc>

1.3.2.4. Books (OUV)

<notesStmt>

Description

Specific information about the elements of characterization concerning the level of the type of document "Books".

List of tags and attributes

```
<note type="commentary">commentary value</note>
<note type="description">description value</note>
<note type="audience" n="1 or 2 or 3<sup>26</sup>"/>
<note type="popular" n="0 or 1<sup>27</sup>"/>
```

Example

```
<note type="popular" n="0" /> <note type="audience" n="2"/>
```

</notesStmt>

<sourceDesc>

Description

Specific bibliographical information concerning the type of document "Books".

List of tags and attributes

<monogr>

http://api.archives-ouvertes.fr/ref/metadataList/?q=metaName_s:audience&fl=*&wt=xml

http://api.archives-ouvertes.fr/ref/metadataList/?q=metaName_s:popularLevel&fl=*&wt=xml

```
<id>dno type="nnt, isbn, patentNumber, reportNumber, localRef, halJournalId,
issn or eissn">number value</idno>
      <title level="m" type="main or sub" >booktitle value</title>
      <meeting>
            <title>meeting title value</title>
            <date type="start"></date>
            <date type="end"></date>
            <settlement>city value<settlement>
            <country key="FR, EN, ..."/>
            <!-- %%language code ISO 639.1 written in CAPITAL-->
            <respStmt>resp value</respStmt>
            <editor> editor value</editor>
      </meeting>
      <imprint>
            <publisher>publisher value<publisher>
            <br/><biblScope unit="serie">serie value</biblScope>
            <br/>
<br/>
<br/>
diblScope unit="volume">volume value</br>
<br/>
/biblScope>
            <br/><biblScope unit="issue">issue value</biblScope>
            <br/>
<biblScope unit="pp">pages value</biblScope>
            <date type="datePub, dateEpub > date value</date>
      </imprint>
      <series>
            <editor> series editor</editor>
            <title>lecture name</title>
      </series>
      <idno type="doi", "arxiv", "bibcode", "ird", "pubmed", "ads",
      "pubmedcentral", "irstea", "sciencespo", "oatao", "ensam", "prodinra",
      etc.>number</idno>
      <ref type="seeAlso", "publisher Link">reference of link</ref>
      <relatedItem type="isIllustratedBy, illustrate, etc.<sup>28</sup>" target="related"
      description"></relatedItem>
</monogr>
```

The date of the publication is required.

Example

```
<monogr>
<imprint>
<date type="datePub">2013</date>
</imprint>
</monogr>
```

</sourceDesc>

http://api.archives-

1.3.2.5. Book sections (COUV)

<notesStmt>

Description

Specific information about the elements of characterization concerning the level of the type of document "Book sections".

List of tags and attributes

```
<note type="commentary">commentary value</note>
<note type="audience" n="1 or 2 or 3<sup>29</sup>"/>
<note type="popular" n="0 or 1<sup>30</sup>"/>

Example
<note type="popular" n="0" />
<note type="audience" n="2"/>

</notesStmt>
```

<sourceDesc>

Description

Specific bibliographical information concerning the type of document "Book sections".

```
<monogr>
      <idno type="nnt, isbn, patentNumber, reportNumber, localRef, halJournalId,
issn or eissn">number value</idno>
      <title level="m" type="main or sub">booktitle value</title>
      <editor>editor value</editor
      <imprint>
            <publisher>publisher value<publisher>
            <biblScope unit="serie">serie value</biblScope>
            <br/><biblScope unit="volume">volume value</biblScope>
            <br/><biblScope unit="issue">issue value</biblScope>
            <br/>
<biblScope unit="pp">pages value</biblScope>
            <date type="datePub, dateEpub > date value</date>
      </imprint>
      <series>
            <editor>series editor</editor>
            <title>lecture name</title>
      </series>
```

²⁹ http://api.archives-ouvertes.fr/ref/metadataList/?q=metaName s:audience&fl=*&wt=xml

http://api.archives-ouvertes.fr/ref/metadataList/?q=metaName_s:popularLevel&fl=*&wt=xml

```
<idno type="doi", "arxiv", "bibcode", "ird", "pubmed", "ads",
    "pubmedcentral", "irstea", "sciencespo", "oatao", "ensam", "prodinra",
    etc.>number</idno>
    <ref type="seeAlso", "publisher Link">reference of link</ref>
    <relatedItem type="isIllustratedBy, illustrate, etc.31" target="related description"></relatedItem>
</monogr>
```

The book title and the date of the publication are required.

Example

```
<monogr>
<title level="m">Machine Learning in Healthcare Informatics</title>
<imprint>
<date type="datePub">2014</date>
</imprint>
</monogr>
```

</sourceDesc>

1.3.2.6. Directions of work or proceedings (DOUV)

<notesStmt>

Description

Specific information about the elements of characterization concerning the level of the type of document "Directions of work or proceedings".

List of tags and attributes

```
<note type="commentary">commentary value</note>
<note type="description">description value</note>
<note type="audience" n="1 or 2 or 3<sup>32</sup>"/>
<note type="popular" n="0 or 1<sup>33</sup>"/>
```

Example

```
<note type="popular" n="0" /> <note type="audience" n="2"/>
```

</notesStmt>

ouvertes.fr/ref/metadataList/?q=metaName_s:relatedType&fl=*&fl=*&wt=xml

³¹ http://api.archives-

http://api.archives-ouvertes.fr/ref/metadataList/?q=metaName s:audience&fl=*&wt=xml

http://api.archives-ouvertes.fr/ref/metadataList/?q=metaName_s:popularLevel&fl=*&wt=xml

<sourceDesc>

Description

Specific bibliographical information concerning the type of document "Directions of work or proceedings".

List of tags and attributes

```
<monogr>
      <id>dno type="nnt, isbn, patentNumber, reportNumber, localRef, halJournalId,
issn or eissn">number value</idno>
      <title level="m" type="main or sub">booktitle value</title>
      <meeting>
           <respStmt>resp value</respStmt>
           <editor> editor value</editor>
      </meeting>
      <imprint>
           <publisher>publisher value<publisher>
           <br/><biblScope unit="serie">serie value</biblScope>
           <biblScope unit="issue">issue value</biblScope>
           <br/><biblScope unit="pp">pages value</biblScope>
           <date type="datePub, dateEpub > date value</date>
      </imprint>
      <series>
           <editor> series editor</editor>
           <title>lecture name</title>
      <idno type="doi", "arxiv", "bibcode", "ird", "pubmed", "ads",
      "pubmedcentral", "irstea", "sciencespo", "oatao", "ensam", "prodinra",
     etc.>number</idno>
      <ref type="seeAlso", "publisher Link">reference of link</ref>
      <relatedItem type="isIllustratedBy, illustrate, etc.34" target="related"</pre>
      description"></relatedItem>
</monogr>
```

Comment

The date of the publication is required.

Example

```
<monogr>
<imprint>
<date type="datePub">2007</date>
</imprint>
</monogr>
```

</sourceDesc>

http://api.archives-

1.3.2.7. *Patents (PATENT)*

<notesStmt>

Description

Specific information about the elements of characterization concerning the level of the type of document "Patents".

List of tags and attributes

```
<note type="commentary">commentary value</note>
<note type="description">description value</note>
</notesStmt>
```

<sourceDesc>

Description

Specific bibliographical information concerning the type of document "Patents".

```
<monogr>
    <idno type="patentNumber" > patent number < /idno >
     <country key="FR, EN, ..."/>
     <!-- %%language code ISO 639.1 written in CAPITAL-->
     <title level="m" type="main or sub">title value</title>
     <meeting>
          <respStmt>resp value</respStmt>
          <editor>editor value</editor>
     </meeting>
     <imprint>
          <publisher>publisher value<publisher>
          <br/><biblScope unit="serie">serie value</biblScope>
          <br/><biblScope unit="issue">issue value</biblScope>
          <date type="datePub, dateEpub > date value</date>
     </imprint>
     <series>
          <editor> series editor</editor>
          <title>lecture name</title>
     </series>
     <idno type="doi", "arxiv", "bibcode", "ird", "pubmed", "ads",
     "pubmedcentral", "irstea", "sciencespo", "oatao", "ensam", "prodinra",
     etc.>number</idno>
     <ref type="seeAlso", "publisher Link">reference of link</ref>
```

The patent number, the country and the date of publication are required.

Example

```
<monogr>
<idno type="patentNumber">WO2014078320</idno>
<country key="US"></country>
<imprint>
<date type="datePub">2014-05-22</date>
</imprint>
</monogr>
```

</sourceDesc>

1.3.2.8. Other publications (OTHER)

<notesStmt>

Description

Specific information about the elements of characterization concerning the level of the type of document "Other publications".

List of tags and attributes

```
<note type="commentary">commentary value</note>
<note type="description">description value</note>
<note type="audience" n="1 or 2 or 3<sup>36</sup>"/>
<note type="popular" n="0 or 1<sup>37</sup>"/>
```

Example

<notesStmt>

<note type="description">Documents de travail du Centre d'Economie de la Sorbonne 2014.33 - ISSN : 1955-611X</note>

</notesStmt>

</notesStmt>

<sourceDesc>

³⁵ http://api.archives-

ouvertes.fr/ref/metadataList/?q=metaName_s:relatedType&fl=*&fl=*&wt=xml

http://api.archives-ouvertes.fr/ref/metadataList/?q=metaName s:audience&fl=*&wt=xml

http://api.archives-ouvertes.fr/ref/metadataList/?q=metaName_s:popularLevel&fl=*&wt=xml

Specific bibliographical information concerning the type of document "Other publications".

List of tags and attributes

```
<monogr>
      <idno type="nnt, isbn, patentNumber, reportNumber, localRef, halJournalld,
issn or eissn">number value</idno>
      <title level="m" type="main or sub">booktitle value</title>
      <meeting>
             <respStmt>resp value</respStmt>
             <editor> editor value</editor>
      </meeting>
      <imprint>
            <publisher>publisher value<publisher>
            <br/><biblScope unit="serie">serie value</biblScope>
            <br/>
<br/>
<br/>
diblScope unit="volume">volume value</br>
<br/>
/biblScope>
            <br/><biblScope unit="issue">issue value</biblScope>
            <br/>
<br/>
<br/>
diblScope unit="pp">pages value</br/>
/biblScope>
            <date type="datePub, dateEpub > date value</date>
      </imprint>
      <series>
            <editor> series editor</editor>
            <title>lecture name</title>
      </series>
      <idno type="doi", "arxiv", "bibcode", "ird", "pubmed", "ads",
      "pubmedcentral", "irstea", "sciencespo", "oatao", "ensam", "prodinra",
      etc.>number</idno>
      <ref type="seeAlso", "publisher Link">reference of link</ref>
      <relatedItem type="isIllustratedBy, illustrate, etc.38" target="related"</pre>
      description"></relatedItem>
</monogr>
```

Comment

The date of the publication is required.

Example

```
<monogr>
<imprint>
<date type="datePub">2014-04</date>
</imprint>
</monogr>
```

</sourceDesc>

http://api.archives-

1.3.2.9. Preprints (UNDEFINED)

<notesStmt>

Description

Specific information about the elements of characterization concerning the level of the type of document "Preprints".

List of tags and attributes

```
<note type="commentary">commentary value</note>
<note type="description">description value</note>
<note type="audience" n="1 or 2 or 3<sup>39</sup>"/>
<note type="popular" n="0 or 1<sup>40</sup>"/>
```

Example

```
<notesStmt>
<note type="commentary">19 pages</note>
</notesStmt>
```

</notesStmt>

1.3.2.10. Reports (REPORT)

<notesStmt>

Description

Specific informations about the elements of characterization concerning the level of the type of document "Reports".

List of tags and attributes

```
<note type="report" n="41"/>
<note type="commentary">commentary value</note>
<note type="description">description value</note>
```

Example

```
<notesStmt>
<note type="report" n="6"/>
</notesStmt>
```

</notesStmt>

<sourceDesc>

http://api.archives-ouvertes.fr/ref/metadataList/?q=metaName_s:audience&fl=*&wt=xml

http://api.archives-ouvertes.fr/ref/metadataList/?q=metaName s:popularLevel&fl=*&wt=xml

http://api.archives-ouvertes.fr/ref/metadataList/?q=metaName_s:reportType&fl=*&wt=xml

Specific bibliographical informations concerning the type of document "Reports".

List of tags and attributes

```
<monogr>
      <idno type="nnt, isbn, patentNumber, reportNumber, localRef, halJournalld,
issn or eissn">number value</idno>
      <title level="m" type="main or sub">booktitle value</title>
      <meeting>
             <respStmt>resp value</respStmt>
            <editor> editor value</editor>
      </meeting>
      <imprint>
            <publisher> publisher value< publisher>
            <br/><biblScope unit="serie">serie value</biblScope>
            <br/>
<br/>
<br/>
diblScope unit="volume">volume value</br>
<br/>
/biblScope>
            <br/><biblScope unit="issue">issue value</biblScope>
            <br/>
<br/>
<br/>
diblScope unit="pp">pages value</br/>
/biblScope>
            <date type="datePub, dateEpub > date value</date>
            <authority type="institution">authority
            value</authority>
      </imprint>
      <series>
            <editor>series editor</editor>
            <title>lecture name</title>
      <idno type="doi", "arxiv", "bibcode", "ird", "pubmed", "ads",
      "pubmedcentral", "irstea", "sciencespo", "oatao", "ensam", "prodinra",
      etc.>number</idno>
      <ref type="seeAlso", "publisher Link">reference of link</ref>
      <relatedItem type="isIllustratedBy, illustrate, etc. 42" target="related"
      description"></relatedItem>
</monogr>
```

Comment

Publication's date and institution's name are required.

```
monogr>
<idno type="reportnumber">PI1787</idno>
<imprint>
<date type="datePub">2006</date>
</imprint>
<authority type="institution">Ecole Nationale Supérieure des Télécommunications de Bretagne</authority>
```

http://api.archivesouvertes.fr/ref/metadataList/?q=metaName_s:relatedType&fl=*&fl=*&wt=xml

```
</monogr>
```

</sourceDesc>

1.3.2.11. Thesis (THESE)

```
<editionStmt>
```

</editionStmt>

<notesStmt>

Description

Specific information about the elements of characterization concerning the level of the type of document "Theses".

List of tags and attributes

```
<note type="commentary">commentary value</note>
<note type="description">description value</note>
<note type="audience" n="1 or 2 or 3<sup>43</sup>"/>
<note type="popular" n="0 or 1<sup>44</sup>"/>
```

</notesStmt>

<sourceDesc>

Description

Specific bibliographical information concerning the type of document "Theses".

```
<monogr>
```

```
<idno type="nnt, isbn, patentNumber, reportNumber, localRef, halJournalId, issn or eissn">number value</idno>
<title level="m" type="main or sub">booktitle value</title>
<meeting>
```

http://api.archives-ouvertes.fr/ref/metadataList/?q=metaName_s:audience&fl=*&wt=xml

http://api.archives-ouvertes.fr/ref/metadataList/?q=metaName_s:popularLevel&fl=*&wt=xml

```
<respStmt>resp value</respStmt>
            <editor>editor value</editor>
      </meetina>
      <imprint>
            <publisher> publisher value< publisher>
            <br/><biblScope unit="serie">serie value</biblScope>
            <bis><bis><bis>Scope unit="volume">volume value</bis><bis><br/>Scope></bis></br>
            <br/><biblScope unit="issue">issue value</biblScope>
            <br/><biblScope unit="pp">pages value</biblScope>
            <date type="dateDefended" > date value<:date>
            <authority type="school, institution, supervisor or
           jury">authority value</authority> multivalued
      </imprint>
      <series>
            <editor> series editor</editor>
            <title>lecture name</title>
      </series>
      <idno type="doi", "arxiv", "bibcode", "ird", "pubmed", "ads",
      "pubmedcentral", "irstea", "sciencespo", "oatao", "ensam", "prodinra",
      etc.>number</idno>
      <ref type="seeAlso", "publisher Link">reference of link</ref>
      <relatedItem type="isIllustratedBy, illustrate, etc.45" target="related"
      description"></relatedItem>
</monogr>
```

Defense date, institution's name and supervisor are required.

```
<monogr>
<imprint>
<date type="dateDefended">2014-03-26</date>
</imprint>
<authority type="institution">Université Pierre et Marie Curie - Paris
VI</authority>
<authority type="supervisor">M. Jean BAUDRY</authority>
<authority type="jury">Mme Valérie CABUIL [Présidente]</authority>
<authority type="jury">M. Jérôme BIBETTE [Co-Directeur de
thèse]</authority>
<authority type="jury">M. Fernando LEAL-CALDERON
[Rapporteur]</authority>
<authority type="jury">M. Jean-Philippe RENAULT
[Rapporteur]</authority>
<authority type="jury">M. Philippe NERIN [Examinateur]</authority>
</monogr>
```

http://api.archives-

```
</sourceDesc>
```

1.3.2.12. HDR (HDR)

```
<edition>
<date type="whenWritten">date</date>
<ref type="file" target="https:// " subtype="author"
n="1"></ref>
</edition>
</editionStmt>
```

Description

Specific information about the elements of characterization concerning the level of the type of document "HDR".

List of tags and attributes

```
<note type="commentary">commentary value</note>
<note type="description">description value</note>
<note type="audience" n="1 or 2 or 346"/>
<note type="popular" n="0 or 147"/>
</notesStmt>
```

<sourceDesc>

Description

Specific bibliographical information concerning the type of document "HDR".

```
<monogr>
    <idno type="nnt, isbn, patentNumber, reportNumber, localRef, halJournalId, issn or eissn">number value</idno>
    <title level="m" type="main or sub">booktitle value</title>
    <meeting>
        <respStmt>resp value</respStmt>
        <editor>editor value</editor>
    </meeting>
    <imprint>
        <publisher>publisher value<publisher>
```

http://api.archives-ouvertes.fr/ref/metadataList/?q=metaName_s:audience&fl=*&wt=xml

http://api.archives-ouvertes.fr/ref/metadataList/?q=metaName_s:popularLevel&fl=*&wt=xml

```
<br/><biblScope unit="serie">serie value</biblScope>
          <biblScope unit="issue">issue value</biblScope>
          <date type="dateDefended" > date value<:date>
          <authority type="school, institution, supervisor or
          jury">authority value</authority> multivalued
     </imprint>
     <series>
          <editor> series editor</editor>
          <title>lecture name</title>
     </series>
     <idno type="doi", "arxiv", "bibcode", "ird", "pubmed", "ads",
     "pubmedcentral", "irstea", "sciencespo", "oatao", "ensam", "prodinra",
     etc.>number</idno>
     <ref type="seeAlso", "publisher Link">reference of link</ref>
     <relatedItem type="isIllustratedBy, illustrate, etc.48" target="related"</pre>
     description"></relatedItem>
</monogr>
```

The date of Defense and the names of the institution and supervisor of the HDR are required.

Example

```
<monogr>
<imprint>
<date type="dateDefended">2004-09-14</date>
</imprint>
<authority type="institution">Université Joseph-Fourier - Grenoble I</authority>
<authority type="supervisor">Laurent Levy</authority>
<authority type="jury">Franck Hekking</authority>
<authority type="jury">Dominique Mailly</authority>
</monogr>
```

</sourceDesc>

2. Appendices

2.1. Examples

You can find examples for each type of document.

The main example about the XML file construction describing a HAL document:

```
<?xml version="1.0" encoding="utf-8"?>
<TEI xmlns="http://www.tei-c.org/ns/1.0" xmlns:hal="http://hal.archives-
ouvertes.fr">
<text>
<body>
stBibl>
<bil><br/>biblFull></br>
<titleStmt>
<title xml: lang="FR">Les macros d'édition dans E-anim</title>
<author role="aut">
<persName>
<forename type="first">Destrumel</forename>
<surname>Philippe</surname>
</persName>
<email>e-anim@orange.fr</email>
<affiliation ref="#struct-xxxxx"/>
</author>
</titleStmt>
<editionStmt><edition>
<date notBefore="2014-11-10"/><date
type="whenWritten">2014</date><ref type="file" target="p1-
destrumel.pdf" subtype="author" n="1" />
</edition></editionStmt>
<notesStmt>
<note type="audience" n="2"/>
<note type="popular" n="0"/>
<note type="proceedings" n="1"/>
<note type="peer" n="1"/>
<note type="invited" n="0"/>
</notesStmt>
<sourceDesc>
<bis><bis>Struct></br>
<analytic>
<title xml: lang="FR">Les macros d'édition dans E-anim</title>
<author role="aut">
<persName>
<forename type="first">Destrumel</forename>
<surname>Philippe</surname>
</persName>
```

```
<email>e-anim@orange.fr</email>
<affiliation ref=""/>
</author>
</analytic>
<monogr>
<title level="m">26e conférence francophone sur l'Interaction Homme-
Machine </title>
<meeting>
<title>26e conférence francophone sur l'Interaction Homme-Machine</title>
<date type="start">2014-10-28</date>
<date type="end">2014-10-31</date>
<settlement>Lille</settlement>
<country key="FR"/>
</meeting>
<imprint>
<bil><br/>diblScope unit="pp"></br>
1-2</biblScope>
<date type="datePub">2014</date>
</imprint>
</monogr>
</biblStruct>
</sourceDesc>
cprofileDesc>
<langUsage>
<language ident="FR"/>
</langusage>
<textClass>
<keywords scheme="author">
<term xml:lang="fr">Macros d'édition</term>
<term xml:lang="fr"> ruban</term>
<term xml:lang="fr"> arborescence</term>
<term xml:lang="fr"> gadget</term>
<term xml: lang="fr"> widget</term>
<term xml:lang="fr"> Collection</term>
<term xml:lang="fr"> Style</term>
<term xml:lang="fr"> Flash</term>
<term xml:lang="fr"> html5</term>
</keywords>
<classCode scheme="halDomain" n="info"/>
<classCode scheme="halTypology" n="COMM"></classCode>
</textClass>
<abstract xml:lang="fr">E-anim est un éditeur pour créer des animations en
Flash ou en html5. Il comporte un module, nommé Edidget, pour composer
des barres-d'outils-utilisateurs.</abstract>
</profileDesc>
</biblFull>
</listBibl>
</body>
```

```
</text>
```

2.2. XML schema

You can find the XML schema⁴⁹ defining the structure of HAL.

2.3. AuréHAL

Description

You can consult the repository $Aur\acute{e}HAL^{50}$ to find the identification numbers of the following datas :

- Authors
- Research structures (institution, laboratory, department, research team)
- Disciplines (domains)
- Reviews
- ANR projects
- European projects

Example

<affiliation ref="#struct-300009"> : affiliation number of the CNRS

2.4. Misc.

Doc import SWORD: http://api.archives-ouvertes.fr/docs/sword

http://api.archives-ouvertes.fr/documents/aofr-sword.xsd

https://aurehal.archives-ouvertes.fr/