IDRA REST Server API

REST Resources

This API supports a Representational State Transfer (REST) model for accessing a set of resources through a fixed set of operations. The following resources are accessible through the RESTful model:

- CategoryController
- MaterialController
- SchedaController
- TypeObjectController

The REST resources expose a data model that is supported by a set of client-side libraries that are made available on the files and libraries page.

There is also a WADL document describing the REST API.

Data Model

All endpoints act on a common set of data. The data can be represented with difference media (i.e. "MIME") types, depending on the endpoint that consumes and/or produces the data. The data can described by XML Schema, which definitively describes the XML representation of the data, but is also useful for describing the other formats of the data, such as JSON.

This document will describe the data using terms based on XML Schema. Data can be grouped by namespace, with a schema document describing the elements and types of the namespace. Generally speaking, types define the structure of the data and elements are instances of a type. For example, elements are usually produced by (or consumed by) a REST endpoint, and the structure of each element is described by its type.

Namespace "ns0"

Namespace URI:	http://www.idra.info/rest
XSD:	idra.xsd

Data Elements

- age
- artifact
- dimension
- inventory
- item
- location
- museum
- picture

Data Types

- age
- artifact
- dimension
- inventory
- itemBibliography
- location
- museum
- picture

Generated by Enunciate.

CategoryController

The following resources are part of this group:

- /category/all

/category/all

Mount Point: /category/all

GET

The method will return the list of object's categories in the local storage.

Response Body

element:	(custom)
media types:	application/xml application/json

List of category

MaterialController

The following resources are part of this group:

- /material/all

/material/all

Mount Point: /material/all

GET

The method will return the list of object's materials in the local storage.

Response Body

element:	(custom)
media types:	application/xml application/json

List of materials

SchedaController

The following resources are part of this group:

- /artifact/all
- /artifact/{nctn}

/artifact/all

Mount Point: /artifact/all

GET

The method will return the list of artifacts in the local storage.

Response Body

element:	(custom)
media types:	application/xml application/json

List of artifacts

/artifact/{nctn}

Mount Point: /artifact/{nctn}

GET

The method will return the single artifact in the local storage.

Parameters

name	description	type	default
nctn	number of the object	path	

Response Body

element:	artifact
media types:	application/xml application/json

Artifact single object

TypeObjectController

The following resources are part of this group:

- /type/all

/type/all

Mount Point: /type/all

GET

The method will return the list of object's typologies in the local storage.

Response Body

element:	(custom)
media types:	application/xml application/json

List of category

```
<?xml version="1.0" encoding="UTF-8" ?>
- <wadl:application xmlns:wadl="http://wadl.dev.java.net/2009/02" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <wadl:doc xmlns:enunciate="http://enunciate.codehaus.org/" enunciate:generatedBy="Enunciate-1.26.1" />
- <wadl:grammars>
    <wadl:include href="idra.xsd" />
  </wadl:grammars>
- <wadl:resources base="http://api.idra.info">
  - <wadl:resource path="/artifact/all">
    - <wadl:method name="GET">
      - <wadl:doc>
        - <![CDATA[
            The method will return the list of artifacts in the local
            storage.
          ]]>
        </wadl:doc>
      - <wadl:response>
        - <wadl:doc>
            <![CDATA[ List of artifacts  ]]>
          </wadl:doc>
          <wadl:representation mediaType="application/xml" />
          <wadl:representation mediaType="application/json" />
        </wadl:response>
      </wadl:method>
    </wadl:resource>
  - <wadl:resource path="/artifact/{nctn}">
    - <wadl:param name="nctn" style="template">
      - <wadl:doc>
          <![CDATA[ number of the object  ]]>
        </wadl:doc>
      </wadl:param>
    - <wadl:method name="GET">
      - <wadl:doc>
        - <![CDATA[
            The method will return the single artifact in the local
            storage.
          ]]>
        </wadl:doc>
        <wadl:request />
      - <wadl:response>
        - <wadl:doc>
            <![CDATA[ Artifact single object  ]]>
          </wadl:doc>
          <wadl:representation mediaType="application/xml" element="idra:artifact"
            xmlns:idra="http://www.idra.info/rest" />
          <wadl:representation mediaType="application/json" />
        </wadl:response>
      </wadl:method>
    </wadl:resource>
  - <wadl:resource path="/category/all">
    - <wadl:method name="GET">
      - <wadl:doc>
        - <![CDATA[
            The method will return the list of object's categories in the local
            storage.
          ]]>
        </wadl:doc>
      - <wadl:response>
        - <wadl:doc>
            <![CDATA[ List of category  ]]>
          </wadl:doc>
          <wadl:representation mediaType="application/xml" />
          <wadl:representation mediaType="application/json" />
        </wadl:response>
      </wadl:method>
    </wadl:resource>
  - <wadl:resource path="/material/all">
    - <wadl:method name="GET">
      - <wadl:doc>
        - <![CDATA[
            The method will return the list of object's materials in the local
            storage.
          ]]>
        </wadl:doc>
      - <wadl:response>
        - <wadl:doc>
            <![CDATA[ List of materials  ]]>
          </wadl:doc>
          <wadl:representation mediaType="application/xml" />
          <wadl:representation mediaType="application/json" />
        </wadl:response>
      </wadl:method>
```

```
    </wadl:resource>
  - <wadl:resource path="/type/all">
    - <wadl:method name="GET">
      - <wadl:doc>
        - <![CDATA[
              The method will return the list of object's typologies in the local
              storage.
          ]]>
        </wadl:doc>
      - <wadl:response>
        - <wadl:doc>
            <![CDATA[ List of category  ]]>
          </wadl:doc>
          <wadl:representation mediaType="application/xml" />
          <wadl:representation mediaType="application/json" />
        </wadl:response>
      </wadl:method>
    </wadl:resource>
  </wadl:resources>
</wadl:application>
```

Data Model

All endpoints act on a common set of data. The data can be represented with difference media (i.e. "MIME") types, depending on the endpoint that consumes and/or produces the data. The data can described by XML Schema, which definitively describes the XML representation of the data, but is also useful for describing the other formats of the data, such as JSON.

This document will describe the data using terms based on XML Schema. Data can be grouped by namespace, with a schema document describing the elements and types of the namespace. Generally speaking, types define the structure of the data and elements are instances of a type. For example, elements are usually produced by (or consumed by) a REST endpoint, and the structure of each element is described by its type.

Namespace "ns0"

Namespace URI:	http://www.idra.info/rest
XSD:	idra.xsd

Data Elements

- age
- artifact
- dimension
- inventory
- item
- location
- museum
- picture

Data Types

- age
- artifact
- dimension
- inventory
- itemBibliography
- location
- museum
- picture

```
<?xml version="1.0" encoding="UTF-8" ?>
- <xs:schema version="1.0" targetNamespace="http://www.idra.info/rest" xmlns:idra="http://www.idra.info/rest"
  xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="age" type="idra:age" />
  <xs:element name="artifact" type="idra:artifact" />
  <xs:element name="dimension" type="idra:dimension" />
  <xs:element name="inventory" type="idra:inventory" />
  <xs:element name="item" type="idra:itemBibliography" />
  <xs:element name="location" type="idra:location" />
  <xs:element name="museum" type="idra:museum" />
  <xs:element name="picture" type="idra:picture" />
- <xs:complexType name="age">
  - <xs:sequence>
      <xs:element name="from" type="xs:int" minOccurs="0" />
      <xs:element name="to" type="xs:int" minOccurs="0" />
    </xs:sequence>
  </xs:complexType>
- <xs:complexType name="artifact">
  - <xs:sequence>
    - <xs:element name="pictures" minOccurs="0">
      - <xs:complexType>
        - <xs:sequence>
            <xs:element name="picture" type="idra:picture" minOccurs="0" maxOccurs="unbounded" />
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="category" type="xs:string" minOccurs="1" />
      <xs:element name="epoch" type="xs:string" minOccurs="0" />
      <xs:element name="extended-description" type="xs:string" minOccurs="0" />
    - <xs:element name="materials" minOccurs="0">
      - <xs:complexType>
        - <xs:sequence>
            <xs:element name="material" type="xs:string" minOccurs="0" maxOccurs="unbounded" />
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="current-location" type="idra:location" minOccurs="0" />
    - <xs:element name="inventories" minOccurs="0">
      - <xs:complexType>
        - <xs:sequence>
            <xs:element name="inventory" type="idra:inventory" minOccurs="0" maxOccurs="unbounded" />
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="age" type="idra:age" minOccurs="0" />
      <xs:element name="finding-location" type="idra:location" minOccurs="0" />
      <xs:element name="nctn" type="xs:string" minOccurs="1" />
      <xs:element name="description" type="xs:string" minOccurs="0" />
    - <xs:element name="dimensions" minOccurs="0">
      - <xs:complexType>
        - <xs:sequence>
            <xs:element name="dimension" type="idra:dimension" minOccurs="0" maxOccurs="unbounded" />
          </xs:sequence>
        </xs:complexType>
      </xs:element>
    - <xs:element name="bibliography" minOccurs="0">
      - <xs:complexType>
        - <xs:sequence>
            <xs:element name="item" type="idra:itemBibliography" minOccurs="0" maxOccurs="unbounded" />
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="museum" type="idra:museum" minOccurs="0" />
    </xs:sequence>
  </xs:complexType>
- <xs:complexType name="dimension">
  - <xs:sequence>
      <xs:element name="thickness" type="xs:double" minOccurs="0" />
      <xs:element name="weight" type="xs:double" minOccurs="0" />
      <xs:element name="lenght" type="xs:double" minOccurs="0" />
      <xs:element name="unit" type="xs:string" minOccurs="0" />
      <xs:element name="width" type="xs:double" minOccurs="0" />
      <xs:element name="height" type="xs:double" minOccurs="0" />
    </xs:sequence>
  </xs:complexType>
- <xs:complexType name="inventory">
  - <xs:sequence>
      <xs:element name="reference" type="xs:string" minOccurs="0" />
      <xs:element name="number" type="xs:int" minOccurs="0" />
```

```
    </xs:sequence>
  </xs:complexType>
- <xs:complexType name="itemBibliography">
  - <xs:sequence>
      <xs:element name="book" type="xs:string" minOccurs="0" />
      <xs:element name="author" type="xs:string" minOccurs="0" />
    </xs:sequence>
  </xs:complexType>
- <xs:complexType name="location">
  - <xs:sequence>
      <xs:element name="other" type="xs:string" minOccurs="0" />
      <xs:element name="latitude" type="xs:double" minOccurs="0" />
      <xs:element name="region" type="xs:string" minOccurs="1" />
      <xs:element name="country" type="xs:string" minOccurs="1" />
      <xs:element name="city" type="xs:string" minOccurs="1" />
      <xs:element name="province" type="xs:string" minOccurs="1" />
      <xs:element name="longitude" type="xs:double" minOccurs="0" />
    </xs:sequence>
  </xs:complexType>
- <xs:complexType name="museum">
  - <xs:sequence>
      <xs:element name="name" type="xs:string" minOccurs="0" />
      <xs:element name="code" type="xs:string" minOccurs="0" />
    </xs:sequence>
  </xs:complexType>
- <xs:complexType name="picture">
  - <xs:sequence>
      <xs:element name="number" type="xs:string" minOccurs="0" />
      <xs:element name="year" type="xs:int" minOccurs="0" />
      <xs:element name="url" type="xs:string" minOccurs="0" />
    </xs:sequence>
  </xs:complexType>
</xs:schema>
```

age element

Type:	age
Namespace:	http://www.idra.info/rest
XML Schema:	idra.xsd

Example XML

```
<?xml version="1.0" encoding="UTF-8"?><age xmlns="http://www.idra.info/rest">  <from xmlns="">...</from>  <to xmlns="">...</to></age>
```

Example JSON

```
{  "from" : ...,  "to" : ...}
```

artifact element

Type:	artifact
Namespace:	http://www.idra.info/rest
XML Schema:	idra.xsd

Example XML

```
<?xml version="1.0" encoding="UTF-8"?><artifact xmlns="http://www.idra.info/rest">
<pictures xmlns="">  <picture>  <number>...</number>  <year>...</year>
<url>...</url>  </picture>  <picture>  <!--...-->  </picture>  <!--...more "picture"
elements...-->  </pictures>  <category xmlns="">...</category>  <epoch
xmlns="">...</epoch>  <extended-description xmlns="">...</extended-description>
<materials xmlns="">  <material>...</material>  <material>...</material>  <!--...more
"material" elements...-->  </materials>  <current-location xmlns="">  <other>...</other>
<latitude>...</latitude>  <region>...</region>  <country>...</country>  <city>...</city>
<province>...</province>  <longitude>...</longitude>  </current-location>  <inventories
xmlns="">  <inventory>  <reference>...</reference>  <number>...</number>
</inventory>  <inventory>  <!--...-->  </inventory>  <!--...more "inventory"
elements...-->  </inventories>  <age xmlns="">  <from>...</from>  <to>...</to>  </age>
<finding-location xmlns="">  <other>...</other>  <latitude>...</latitude>
<region>...</region>  <country>...</country>  <city>...</city>  <province>...</province>
<longitude>...</longitude>  </finding-location>  <nctn xmlns="">...</nctn>  <description
xmlns="">...</description>  <dimensions xmlns="">  <dimension>
```

Example JSON

```
{  "pictures" : [ {  "number" : "...",  "year" : ...,  "url" : "..."  }, ... ],  "category" : "...",  "epoch" :
"...",  "extended-description" : "...",  "materials" : [ "...", ... ],  "current-location" : {  "other" : "...",
"latitude" : ...,  "region" : "...",  "country" : "...",  "city" : "...",  "province" : "...",  "longitude" :
...  },  "inventories" : [ {  "reference" : "...",  "number" : ...  }, ... ],  "age" : {  "from" : ...,  "to" :
...  },  "finding-location" : {  "other" : "...",  "latitude" : ...,  "region" : "...",  "country" : "...",
"city" : "...",  "province" : "...",  "longitude" : ...  },  "nctn" : "...",  "description" : "...",
"dimensions" : [ {  "thickness" : ...,  "weight" : ...,  "lenght" : ...,  "unit" : "...",  "width" : ...,
"height" : ...  }, ... ],  "bibliography" : [ {  "book" : "...",  "author" : "..."  }, ... ],  "museum" : {
"name" : "...",  "code" : "..."  }}
```

dimension element

Type:	dimension
Namespace:	http://www.idra.info/rest
XML Schema:	idra.xsd

Example XML

```
<?xml version="1.0" encoding="UTF-8"?><dimension xmlns="http://www.idra.info/rest">
<thickness xmlns="">...</thickness> <weight xmlns="">...</weight> <lenght
xmlns="">...</lenght> <unit xmlns="">...</unit> <width xmlns="">...</width> <height
xmlns="">...</height></dimension>
```

Example JSON

```
{ "thickness" : ..., "weight" : ..., "lenght" : ..., "unit" : "...", "width" : ..., "height" : ...}
```

inventory element

Type:	inventory
Namespace:	http://www.idra.info/rest
XML Schema:	idra.xsd

Example XML

```
<?xml version="1.0" encoding="UTF-8"?><inventory xmlns="http://www.idra.info/rest">
<reference xmlns="">...</reference>  <number xmlns="">...</number></inventory>
```

Example JSON

```
{  "reference" : "...",  "number" : ...}
```