# Web Services for the CLARIN Component Registry

### Introduction

The GUI of the CLARIN metadata editor and search services needs access to component and profile registered in the Component Registry. This REST specification should provide such access.

### The Component Registry

The registry contains all CLARIN metadata components and metadata profiles used to describe all metadata. It is expected to contain around 1k components and around 1k profiles. Reuse of components and profiles is stimulated as much as possible.

### Identification

Components and Profiles have an Id which is of type URI (this should be seen as a relaxed URI also allowing “almost” URIs like “hdl:1569/88128812”.

### Web Services

* list all components
* list all profiles
* get/post component
* get/post profile
* get component usage

**List all componens:**

|  |  |  |
| --- | --- | --- |
| Pattern | http://cmdregistry/rest/registry/components | |
| Examples | List all registered components  http://cmdregistry/rest/registry/components | |
| Methods | GET | Get the component descriptions in the specified format |
| POST | Create a component in the collection of components. Returning a response containing the description of the component or the possible reasons for failing registration. |
| HEAD, PUT,  DELETE | Not allowed |
| Response | XML | Default. |
| JSON | Can return JSON when request-header has Accept field set to application/json.  In a curl command that would look like:  curl -i -H "Accept:application/json" -X GET http://localhost:8080/ComponentRegistry/rest/registry/components |

### Return Values GET.

The returned values are:

ComponentDescriptions with the elements: id, name, description, registration date, creatorName, xlink:href to actual component and a groupName.

Return value examples in case of two registered components:

When xml is returned

<componentDescriptions>

<componentDescription>

<id>c\_1259853703335</id>

<description>Test file</description>

<name>component-access.xml</name>

<registrationDate>12/03/2009 16:21:43 CET</registrationDate>

<creatorName>J,Smith</creatorName>

<xlink:href>rest/registry/component/c\_1259853703335</xlink:href>

<groupName>imdi</groupName>

</componentDescription>

<componentDescription>

<id>c\_1259853703336</id>

<description>Test file 2</description>

<name>component-actor.xml</name>

<registrationDate>12/03/2009 16:21:43 CET</registrationDate>

<creatorName>J,Smith</creatorName>

<xlink:href> http://localhost:8080/ComponentRegistry/rest/registry/component/c\_1259853703336</xlink:href>

<groupName>imdi</groupName>

</componentDescription>

</componentDescriptions>

When json is returned

{

"componentDescription":[

{

"id":"c\_1259853703335",

"description":"Test file",

"name":" component-access.xml ",

"registrationDate":"12/03/2009 16:21:43 CET ",

"creatorName":"J,Smith”,

"xlink:href":" http://localhost:8080/ComponentRegistry/rest/registry/component/c\_1259853703335"},

"groupName":"imdi"

{

"id":"c\_1259853703336",

"description":"Test file",

"name":" component-actor.xml ",

"registrationDate":"12/03/2009 16:21:43 CET ",

"creatorName":"J,Smith”,

"xlink:href":" http://localhost:8080/ComponentRegistry/rest/registry/component/c\_1259853703336"},

"groupName":"imdi"

}

Note the “id”/”xlink:href” which is generated by the application and needs to be used to do a successful POST of the component data.

**POST method.**

A post method can be used to add Components to the registry. A post request is a Multipart Form Data consisting of the fields: “name”, “description”, “creatorName”, “group” and stream “data” part which is the uploaded component file which will be registered.

The request will be validated and the result will be wrapped in a RegisterResponse.

A successful POST contains the description created:

<registerResponse registered="true" isProfile="false">

<errors/>

<description xsi:type="componentDescription" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">

<id>c\_1259853703337</id>

<description>myD</description>

<name>Name</name>

<registrationDate>myDate</registrationDate>

<creatorName>myC</creatorName>

<xlink:href> http://localhost:8080/ComponentRegistry/rest/registry/component/c\_1259853703337</xlink:href>

<groupName>imdi</groupName>

</description>

</registerResponse>

An unsuccessful POST contains the errors explaining why it is not accepted:

<registerResponse registered="false" isProfile="false">

<errors>

<error>Error 1</error>

<error>Error 2</error>

</errors>

</registerResponse>

**List all profiles:**

|  |  |  |
| --- | --- | --- |
| Pattern | http://cmdregistry/rest/registry/profiles | |
| Examples | List all registered profiles  http://cmdregistry/rest/registry/profiles  List all registered profiles that are marked to be shown in metadata editors  http://cmdregistry/rest/registry/profiles?mdEditor=true | |
| Methods | GET | Get the profiles in the specified format  When GET-parameter **mdEditor** (default value: *false*) is set to *true*, only profiles with showInEditor = true are shown |
| POST | Create a profile in the collection of profiles. Returning a response containing the description of the profiles or the possible reasons for failing registration. |
| HEAD, PUT,  DELETE | Not allowed |
| Response | XML | Default. |
| JSON | Can return JSON when request-header has Accept field set to application/json. |

### Return Values GET.

ProfileDescriptions with the elements: id, name, description, registration date, creatorName, xlink:href to actual profile.

Return value examples are similar as previously described only an xml example is shown:

</profileDescriptions>

<profileDescription>

<id>p\_1257850388373</id>

<description>Test</description>

<name>TestProfile</name>

<registrationDate>Tue Nov 10 11:53:08 CET 2009</registrationDate>

<creatorName>J. Smith</creatorName>

<xlink:href> [http://cmdregistry/rest/registry/profile/p\_1257850388373</xlink:href](http://cmdregistry/rest/registry/profile/p_1257850388373%3c/xlink:href)>

<showInEditor>true</showInEditor>

</profileDescription>

</profileDescriptions>

**POST method.**

Similar to post of components.

**Get component:**

|  |  |  |
| --- | --- | --- |
| Pattern | http://cmdregistry/rest/registry/components/<component-id>  or  http://cmdregistry/rest/registry/components/<component-id>/xml  http://cmdregistry/rest/registry/components/<component-id>/xsd | |
| Examples | Get registered component  http://cmdregistry/rest/registry/components/clarin.eu:cr1:p0001 | |
| Methods | GET | Get the component in its xml format |
| HEAD,  PUT,  POST,  DELETE | Not allowed |
| Response | XML | Default. |
| JSON | Can return JSON when request-header has Accept field set to application/json. (Not supported with /xml and /xsd types.) |

### Return Values GET.

The returned value is:

The xml representation of the specified component. Specification of the components structure can be found in [http://trac.clarin.eu/browser/metadata/trunk/toolkit/general-component-schema.xsd].

Return values when specifying /xml or /xsd.

A pretty printed xml representation of the component (useful for presenting the xml to a user)or the xsd schema of the component.

**Get profile:**

|  |  |  |
| --- | --- | --- |
| Pattern | http://cmdregistry/rest/registry/profiles/<profile-id>  or  http://cmdregistry/rest/registry/profiles/< profile -id>/xml  http://cmdregistry/rest/registry/profiles/< profile -id>/xsd | |
| Examples | Get registered profile  http://cmdregistry/rest/registry/profiles/clarin.eu:cr1:p0001 | |
| Methods | GET | Get the profile in its xml format. |
| HEAD,  PUT,  POST,  DELETE | Not allowed |
| Response | XML | Default. |
| JSON | Can return JSON when request-header has Accept field set to application/json. (Not supported with /xml and /xsd types.) |

### Return Values GET.

See get Component.

**Get component usage:**

|  |  |  |
| --- | --- | --- |
| Pattern | http://cmdregistry/rest/registry/components/usage/< component –id> | |
| Examples | Get profiles and components that reference component c0001  http://cmdregistry/rest/registry/components/usage/clarin.eu:cr1:c0001 | |
| Methods | GET | Get descriptions for the referencing profiles and components in the specified format. |
| HEAD,  PUT,  POST,  DELETE | Not allowed |
| Response | XML | Default. |
| JSON | Can return JSON when request-header has Accept field set to application/json |

### Return Values GET.

See list all components/profiles. Notice that the list type is abstractDescription (which profileDescription and componentDescription extend)

**Up to date WADL:**

The REST service can generate a WADL of the current implemented services by accessing: http://cmdregistry/rest/application.wadl.