Developing an OSLC Client with the OSLC API from Sparx Systems

a quick hands on tour

Horst Kargl

Who is SparxSystems

- SparxSystems Central Europe
  - is a sister Company of Sparx Systems HQ
  - part of the Lieber. Group

LIEBER. GROUP

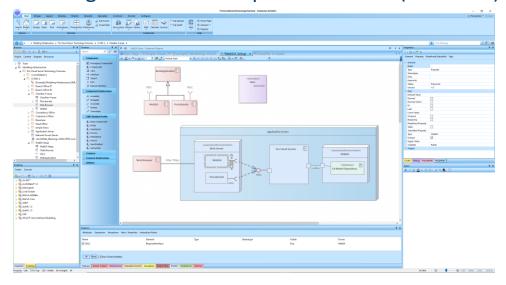# What Sparx Systems Offers

Modellig Plattform Enterprise Architect (EA Client)
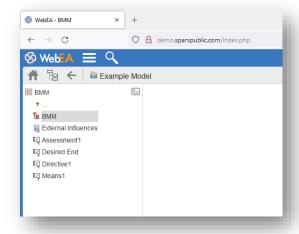

EA Server

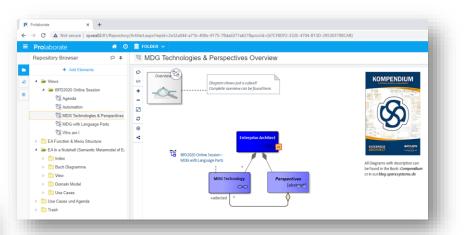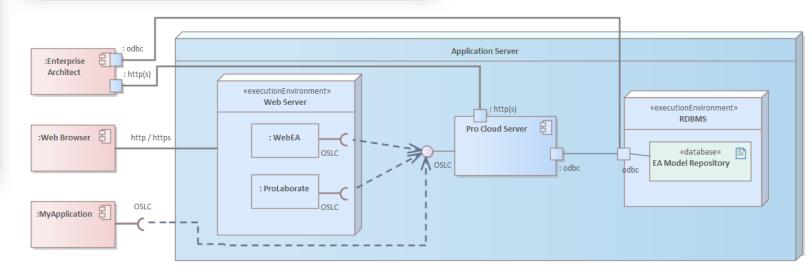# Technology Overview

ProLaborate
ASP.Net Application using OSLC to show model data

WebEA
PHP Application using OSLC to show model data
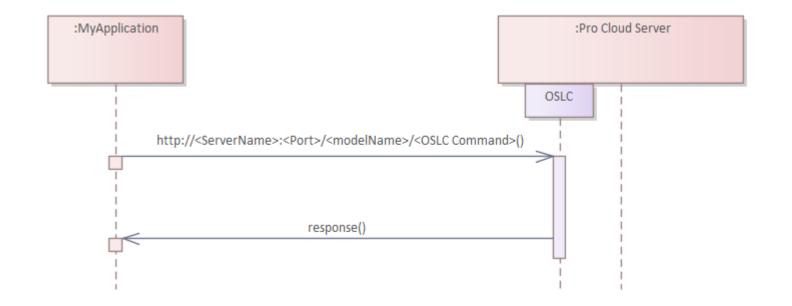
Our own Application using OSLC

The Basic Communication Pattern

Get a Session Authentication Token

http://<server>/<model_name>**/oslc/am/login/**
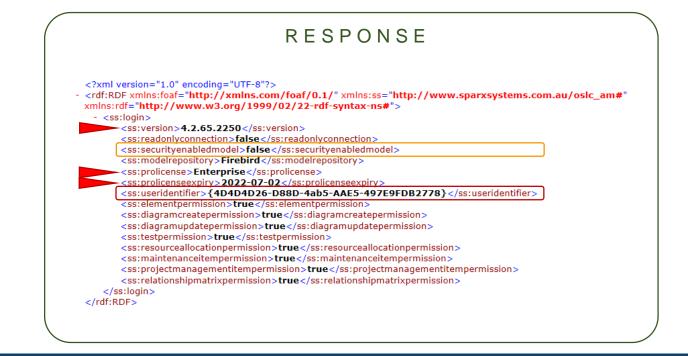
Sparx Systems specific information about the model and the PCS you are requesting from

▶ PCS information

User Identifier – necessary for each further call

If security is enabled, we need an additional login with username and PW

R E S P O N S E

```xml
<?xml version="1.0" encoding="UTF-8"?>
- <rdf:RDF xmlns:foaf="http://xmlns.com/foaf/0.1/" xmlns:ss="http://www.sparxsystems.com.au/oslc_am#"
  xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#">
  - <ss:login>
    <ss:version>4.2.65.2250</ss:version>
    <ss:readonlyconnection>false</ss:readonlyconnection>
    <ss:securityenabledmodel>false</ss:securityenabledmodel>
    <ss:modelrepository>Firebird</ss:modelrepository>
    <ss:prolicense>Enterprise</ss:prolicense>
    <ss:prolicenseexpiry>2022-07-02</ss:prolicenseexpiry>
    <ss:useridentifier>{4D4D4D26-D88D-4ab5-AAE5-497E9FDB2778}</ss:useridentifier>
    <ss:elementpermission>true</ss:elementpermission>
    <ss:diagramcreatepermission>true</ss:diagramcreatepermission>
    <ss:diagramupdatepermission>true</ss:diagramupdatepermission>
    <ss:testpermission>true</ss:testpermission>
    <ss:resourceallocationpermission>true</ss:resourceallocationpermission>
    <ss:maintenanceitempermission>true</ss:maintenanceitempermission>
    <ss:projectmanagementitempermission>true</ss:projectmanagementitempermission>
    <ss:relationshipmatrixpermission>true</ss:relationshipmatrixpermission>
  </ss:login>
</rdf:RDF>
```

Get a Session Authentication Token

:MyApplication

:Pro Cloud Server

OSLC

http://<server>/<model_name>**/oslc/login/**

response()

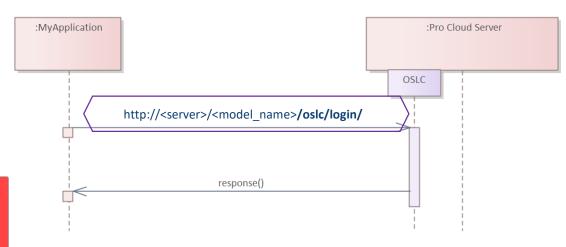http://<server>/<model_name>**/oslc/login/**

Warning - WebEA / OSLC Version mismatch [Help]   Close

WebEA Version: 4.2.60.2100
OSLC Version: 4.2.65.2250

This version of WebEA is intended for accessing a Pro Cloud Server with OSLC version 4.2.60.2100. WebEA may not function as intended.

PCS provides the Version in order to
check if the OSLC Client (MyApplication)
still can handle the response.

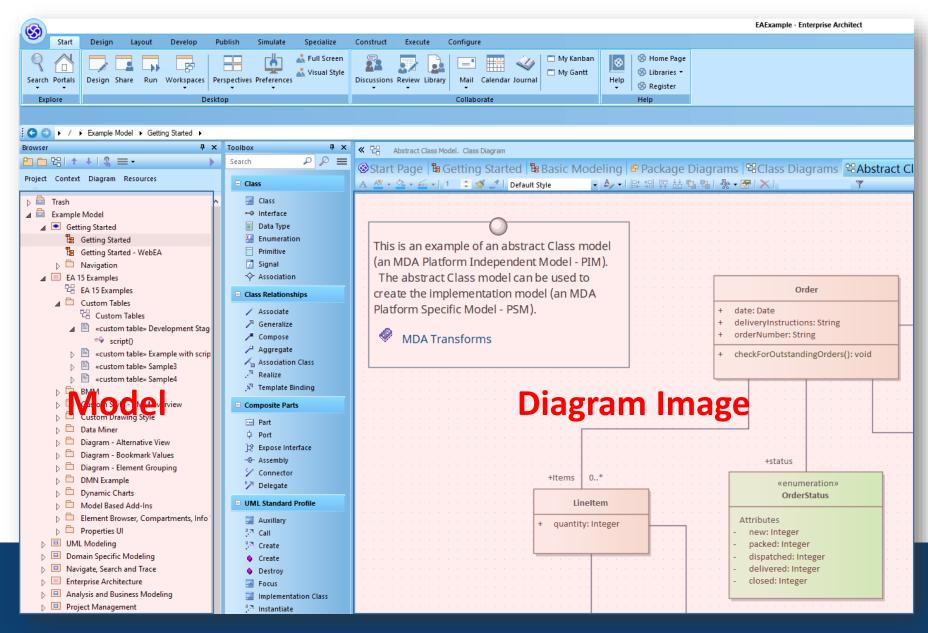## R E S P O N S E

```xml
<?xml version="1.0" encoding="UTF-8"?>
- <rdf:RDF xmlns:foaf="http://xmlns.com/foaf/0.1/" xmlns:ss="http://www.sparxsystems.com.au/oslc_am#"
  xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#">
  - <ss:login>
    <ss:version>4.2.65.2250</ss:version>
    <ss:readonlyconnection>false</ss:readonlyconnection>
    <ss:securityenabledmodel>false</ss:securityenabledmodel>
    <ss:modelrepository>Firebird</ss:modelrepository>
    <ss:prolicense>Enterprise</ss:prolicense>
    <ss:prolicenseexpiry>2022-07-02</ss:prolicenseexpiry>
    <ss:useridentifier>{4D4D4D26-D88D-4ab5-AAE5-497E9FDB2778}</ss:useridentifier>
    <ss:elementpermission>true</ss:elementpermission>
    <ss:diagramcreatepermission>true</ss:diagramcreatepermission>
    <ss:diagramupdatepermission>true</ss:diagramupdatepermission>
    <ss:testpermission>true</ss:testpermission>
    <ss:resourceallocationpermission>true</ss:resourceallocationpermission>
    <ss:maintenanceitempermission>true</ss:maintenanceitempermission>
    <ss:projectmanagementitempermission>true</ss:projectmanagementitempermission>
    <ss:relationshipmatrixpermission>true</ss:relationshipmatrixpermission>
  </ss:login>
</rdf:RDF>
```

What can we Actually Query/Create/Delete with OSLC

Model Root
Packages
Diagrams
Elements
Element Features
  Attribute
  Operation
Connectors
Etc.

Model

Diagram Image

Get to Root of the Model Data

http://<server>/<model_name>**/oslc/am/qc/**
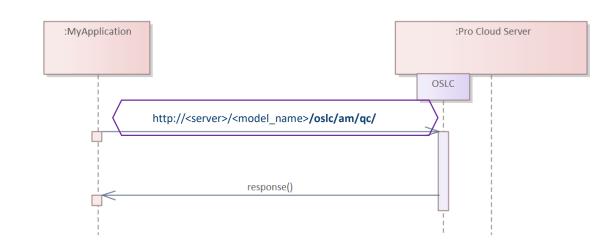
http://<server>/<model_name>**/oslc/am/qc/**
?useridentifier={4D4D416-D88D-4ab5-497E9FDB2778}

Must be added to each OSLC call!

Without a valid user identifier
(authentication token)

:MyApplication   :Pro Cloud Server

OSLC

http://<server>/<model_name>**/oslc/am/qc/**

response()

R E S P O N S E

```xml
<?xml version="1.0"?>
- <rdf:RDF xmlns:oslc="http://open-services.net/ns/core#"
  xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#">
  - <oslc:Error>
        <oslc:statusCode>401</oslc:statusCode>
        <oslc:message>Missing User Authentication Identifier</oslc:message>
    </oslc:Error>
</rdf:RDF>
```

Useridentifier, got from call: http://<server>/<model_name>**/oslc/am/login/**

```
<ss:prolicenseexpiry>2022-07-02</ss:prolicenseexpiry>
<ss:useridentifier>{4D4D4D26-D88D-4ab5-AAE5-497E9FDB2778}</ss:useridentifier>
<ss:elementpermission>true</ss:elementpermission>
```

Get to Root of the Model Data

http://<server>/<model_name>/**oslc/am/qc/**
?useridentifier={4D4D416-D88D-4ab5-497E9FDB2778}

:MyApplication

:Pro Cloud Server

OSLC

http://<server>/<model_name>/**oslc/am/qc/**
?useridentifier={4D4D416-D88D-4ab5-497E9FDB2778}

response()

R E S P O N S E

```xml
<?xml version="1.0" encoding="UTF-8"?>
<rdf:RDF xmlns:oslc_am="http://open-services.net/ns/am#" xmlns:ss="http://www.sparxsystems.com.au/oslc_am#"
xmlns:foaf="http://xmlns.com/foaf/0.1/" xmlns:dcterms="http://purl.org/dc/terms/" xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#"
xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#">
  <rdf:Description rdf:about="http://spxea02:804/myHugo/oslc/am/qc/">
    <rdfs:member>
      <oslc_am:Resource rdf:about="http://spxea02:804/myHugo/oslc/am/resource/mr_{02BAEABD-6A12-4489-BCA3-8D33C05B81DB}/">
        <dcterms:title>Model</dcterms:title>
        <dcterms:identifier>mr_{02BAEABD-6A12-4489-BCA3-8D33C05B81DB}</dcterms:identifier>
        <dcterms:created>2012-04-17 00:00:00</dcterms:created>
        <dcterms:modified>2012-04-17 00:00:00</dcterms:modified>
        <dcterms:type>ModelRoot</dcterms:type>
        <ss:resourcetype>Package</ss:resourcetype>
        <ss:nestedresources rdf:resource="http://spxea02:804/myHugo/oslc/am/nestedresources/mr_{02BAEABD-6A12-4489-BCA3-
          8D33C05B81DB}/"/>
      </oslc_am:Resource>
    </rdfs:member>
    <rdfs:member>
      <oslc_am:Resource rdf:about="http://spxea02:804/myHugo/oslc/am/resource/mr_{BD660848-B68D-4d4e-83F9-CDBEF06BA13D}/">
        <dcterms:title>Trash</dcterms:title>
        <dcterms:identifier>mr_{BD660848-B68D-4d4e-83F9-CDBEF06BA13D}</dcterms:identifier>
        <dcterms:created>2021-06-01 17:58:27</dcterms:created>
        <dcterms:modified>2021-06-01 17:58:27</dcterms:modified>
        <dcterms:type>ModelRoot</dcterms:type>
        <ss:resourcetype>Package</ss:resourcetype>
        <ss:nestedresources rdf:resource="http://spxea02:804/myHugo/oslc/am/nestedresources/mr_{BD660848-B68D-4d4e-83F9-
          CDBEF06BA13D}/"/>
      </oslc_am:Resource>
    </rdfs:member>
  </rdf:Description>
</rdf:RDF>
```
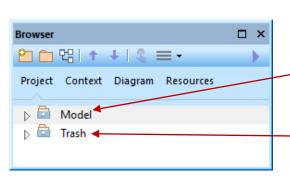
Browser

Project   Context   Diagram   Resources

▷ 🔒 Model
▷ 🔒 Trash

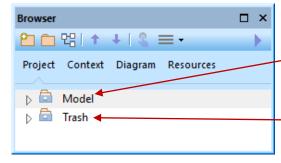EA's Project Browser

Get to Root of the Model Data
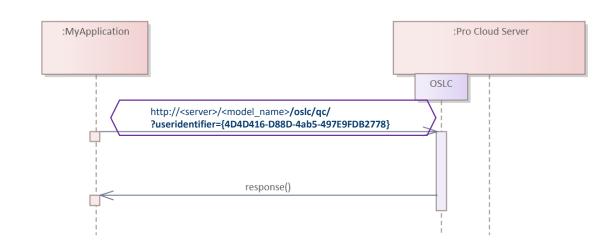

http://<server>/<model_name>**/oslc/qc/**
?useridentifier={4D4D416-D88D-4ab5-497E9FDB2778}
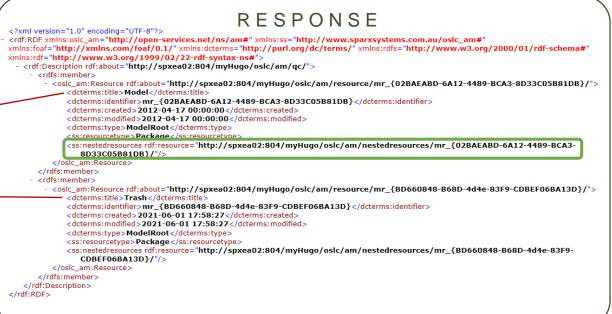
http://<server>/<model_name>**/oslc/am/nestedrespources/**
mr_{02BAEABD-6A12-4489-BCA3-8D33C05B81DB}/

mr_{GUID} … indicates that this GUID belongs to a model root

RESPONSE

```xml
<?xml version="1.0" encoding="UTF-8"?>
<rdf:RDF xmlns:oslc_am="http://open-services.net/ns/am#" xmlns:ss="http://www.sparxsystems.com.au/oslc_am#"
xmlns:foaf="http://xmlns.com/foaf/0.1/" xmlns:dcterms="http://purl.org/dc/terms/" xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#"
xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#">
  <rdf:Description rdf:about="http://spxea02:804/myHugo/oslc/am/qc/">
    <rdfs:member>
      <oslc_am:Resource rdf:about="http://spxea02:804/myHugo/oslc/am/resource/mr_{02BAEABD-6A12-4489-BCA3-8D33C05B81DB}/">
        <dcterms:title>Model</dcterms:title>
        <dcterms:identifier>mr_{02BAEABD-6A12-4489-BCA3-8D33C05B81DB}</dcterms:identifier>
        <dcterms:created>2012-04-17 00:00:00</dcterms:created>
        <dcterms:modified>2012-04-17 00:00:00</dcterms:modified>
        <dcterms:type>ModelRoot</dcterms:type>
        <ss:resourcetype>Package</ss:resourcetype>
        <ss:nestedresources rdf:resource="http://spxea02:804/myHugo/oslc/am/nestedresources/mr_{02BAEABD-6A12-4489-BCA3-
          8D33C05B81DB}/"/>
      </oslc_am:Resource>
    </rdfs:member>
    <rdfs:member>
      <oslc_am:Resource rdf:about="http://spxea02:804/myHugo/oslc/am/resource/mr_{BD660848-B68D-4d4e-83F9-CDBEF06BA13D}/">
        <dcterms:title>Trash</dcterms:title>
        <dcterms:identifier>mr_{BD660848-B68D-4d4e-83F9-CDBEF06BA13D}</dcterms:identifier>
        <dcterms:created>2021-06-01 17:58:27</dcterms:created>
        <dcterms:modified>2021-06-01 17:58:27</dcterms:modified>
        <dcterms:type>ModelRoot</dcterms:type>
        <ss:resourcetype>Package</ss:resourcetype>
        <ss:nestedresources rdf:resource="http://spxea02:804/myHugo/oslc/am/nestedresources/mr_{BD660848-B68D-4d4e-83F9-
          CDBEF06BA13D}/"/>
      </oslc_am:Resource>
    </rdfs:member>
  </rdf:Description>
</rdf:RDF>
```
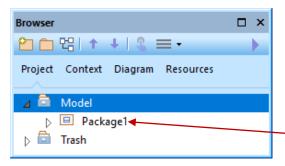
EA's Project Browser

Get Nested Resources of Package

Get the nested content of *Package 1*
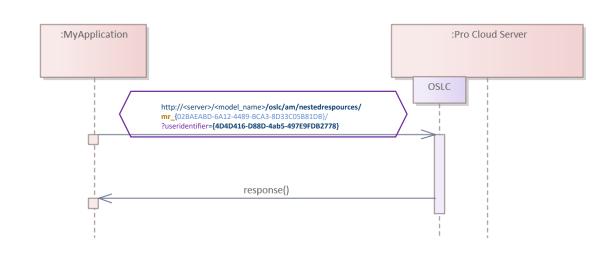
Resource to create something new within *Package 1*

http://<server>/<model_name>/**oslc/am/nestedrespources/**
mr_{02BAEABD-6A12-4489-BCA3-8D33C05B81DB}/
?useridentifier=**{4D4D416-D88D-4ab5-497E9FDB2778}**

EA's Project Browser

RESPONSE

```xml
<?xml version="1.0" encoding="UTF-8"?>
<rdf:RDF xmlns:oslc_am="http://open-services.net/ns/am#" xmlns:ss="http://www.sparxsystems.com.au/oslc_am#"
  xmlns:foaf="http://xmlns.com/foaf/0.1/" xmlns:dcterms="http://purl.org/dc/terms/"
  xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#" xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#">
  <rdf:Description rdf:about="http://spxea02:804/myHugo/oslc/am/nestedresources/mr_{02BAEABD-6A12-4489-BCA3-
    8D33C05B81DB}/">
    <rdfs:member>
      <oslc_am:Resource rdf:about="http://spxea02:804/myHugo/oslc/am/resource/pk_{4036B9B2-A753-4736-B481-
        814043005013}/">
        <dcterms:title>Package1</dcterms:title>
        <dcterms:type>Package</dcterms:type>
        <dcterms:identifier>pk_{4036B9B2-A753-4736-B481-814043005013}</dcterms:identifier>
        <dcterms:creator>
          <foaf:Person>
            <foaf:name>hkargl</foaf:name>
          </foaf:Person>
        </dcterms:creator>
        <dcterms:created>2021-06-01 17:58:13</dcterms:created>
        <dcterms:modified>2021-06-01 17:58:13</dcterms:modified>
        <ss:status>Proposed</ss:status>
        <ss:complexity>Easy</ss:complexity>
        <ss:phase>1.0</ss:phase>
        <ss:version>1.0</ss:version>
        <ss:language>Java</ss:language>
        <ss:parentresourceidentifier>mr_{02BAEABD-6A12-4489-BCA3-8D33C05B81DB}</ss:parentresourceidentifier>
        <ss:resourcetype>Package</ss:resourcetype>
        <ss:features rdf:resource="http://spxea02:804/myHugo/oslc/am/features/pk_{4036B9B2-A753-4736-B481-
          814043005013}/"/>
        <ss:nestedresources rdf:resource="http://spxea02:804/myHugo/oslc/am/nestedresources/pk_{4036B9B2-A753-
          4736-B481-814043005013}/"/>
      </oslc_am:Resource>
    </rdfs:member>
  </rdf:Description>
</rdf:RDF>
```
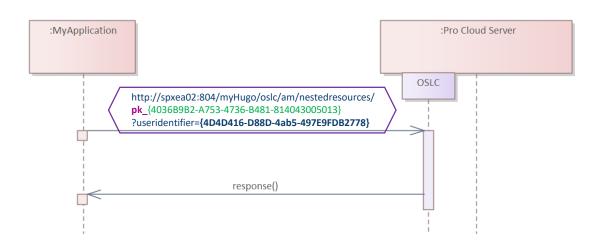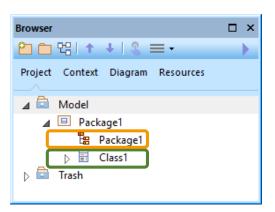
Get Nested Resources of Element

http://spxea02:804/myHugo/oslc/am/nestedresources/
Get the nested content of *Package 1*
pk_{4036B9B2-A753-4736-B481-814043005013}
?useridentifier={4D4D416-D88D-4ab5-497E9FDB2778}

:MyApplication

:Pro Cloud Server

OSLC

http://spxea02:804/myHugo/oslc/am/nestedresources/
pk_{4036B9B2-A753-4736-B481-814043005013}
?useridentifier={4D4D416-D88D-4ab5-497E9FDB2778}

response()

Browser

Project   Context   Diagram   Resources

▲ 📦 Model
  ▲ 🖥 Package1
      🗄 Package1
      ▷ 🖩 Class1
  ▷ 📦 Trash

EA's Project Browser

R E S P O N S E

```xml
<?xml version="1.0" encoding="UTF-8"?>
- <rdf:RDF xmlns:oslc_am="http://open-services.net/ns/am#" xmlns:ss="http://www.sparxsystems.com.au/oslc_am#" xmlns:foaf="http://xmlns.com/foaf/0.1/"
    xmlns:dcterms="http://purl.org/dc/terms/" xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#" xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#">
  - <rdf:Description rdf:about="http://spxea02:804/myHugo/oslc/am/nestedresources/pk_{4036B9B2-A753-4736-B481-814043005013}/">
    - <rdfs:member>
        <oslc_am:Resource rdf:about="http://spxea02:804/myHugo/oslc/am/resource/dg_{613CCF3D-7673-4011-BD9E-20BF5355D9F9}/">
          <dcterms:title>Package1</dcterms:title>
          <dcterms:type>Custom</dcterms:type>
          <dcterms:identifier>dg_{613CCF3D-7673-4011-BD9E-20BF5355D9F9}</dcterms:identifier>
        - <dcterms:creator>
          - <foaf:Person>
              <foaf:name>hkargl</foaf:name>
            </foaf:Person>
          </dcterms:creator>
          <dcterms:created>2021-06-08 10:58:19</dcterms:created>
          <dcterms:modified>2021-10-30 14:09:09</dcterms:modified>
          <ss:version>1.0</ss:version>
          <ss:parentresourceidentifier>pk_{4036B9B2-A753-4736-B481-814043005013}</ss:parentresourceidentifier>
          <ss:resourcetype>Diagram</ss:resourcetype>
          <ss:features rdf:resource="http://spxea02:804/myHugo/oslc/am/features/dg_{613CCF3D-7673-4011-BD9E-20BF5355D9F9}/"/>
        </oslc_am:Resource>
      </rdfs:member>
    - <rdfs:member>
        <oslc_am:Resource rdf:about="http://spxea02:804/myHugo/oslc/am/resource/el_{01454D3A-7541-4742-A96A-12C1DFA4EEC7}/">
          <dcterms:title>Class1</dcterms:title>
          <dcterms:type>Class</dcterms:type>
          <dcterms:identifier>el_{01454D3A-7541-4742-A96A-12C1DFA4EEC7}</dcterms:identifier>
        - <dcterms:creator>
          - <foaf:Person>
              <foaf:name>hkargl</foaf:name>
            </foaf:Person>
          </dcterms:creator>
          <dcterms:created>2021-10-23 18:55:32</dcterms:created>
          <dcterms:modified>2021-10-23 18:55:32</dcterms:modified>
          <ss:status>Proposed</ss:status>
          <ss:complexity>Easy</ss:complexity>
          <ss:phase>1.0</ss:phase>
          <ss:version>1.0</ss:version>
          <ss:language>Java</ss:language>
          <ss:parentresourceidentifier>pk_{4036B9B2-A753-4736-B481-814043005013}</ss:parentresourceidentifier>
          <ss:resourcetype>Element</ss:resourcetype>
          <ss:features rdf:resource="http://spxea02:804/myHugo/oslc/am/features/el_{01454D3A-7541-4742-A96A-12C1DFA4EEC7}/"/>
        </oslc_am:Resource>
      </rdfs:member>
    </rdf:Description>
  </rdf:RDF>
```
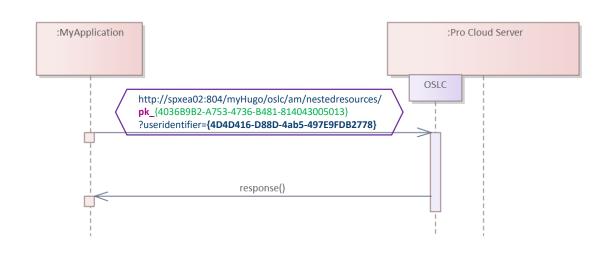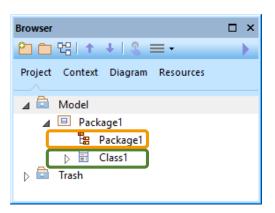
Get Nested Resources of Element

http://spxea02:804/myHugo/oslc/am/nestedresources/
pk_{4036B9B2-A753-4736-B481-814043005013}
?useridentifier=**{4D4D416-D88D-4ab5-497E9FDB2778}**

http://spxea02:804/myHugo/oslc/am/features/
el_{01454D3A-7541-4742-A96A-12C1DFA4EEC7}/
?useridentifier=**{4D4D416-D88D-4ab5-497E9FDB2778}**

:MyApplication

:Pro Cloud Server

OSLC

http://spxea02:804/myHugo/oslc/am/nestedresources/
pk_{4036B9B2-A753-4736-B481-814043005013}
?useridentifier=**{4D4D416-D88D-4ab5-497E9FDB2778}**

response()

Browser

Project   Context   Diagram   Resources

- Model
  - Package1
    - Package1
    - Class1
  - Trash

EA's Project Browser

RESPONSE

```xml
<?xml version="1.0" encoding="UTF-8"?>
- <rdf:RDF xmlns:oslc_am="http://open-services.net/ns/am#" xmlns:ss="http://www.sparxsystems.com.au/oslc_am#" xmlns:foaf="http://xmlns.com/foaf/0.1/"
  xmlns:dcterms="http://purl.org/dc/terms/" xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#" xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#">
  - <rdf:Description rdf:about="http://spxea02:804/myHugo/oslc/am/nestedresources/pk_{4036B9B2-A753-4736-B481-814043005013}/">
    - <rdfs:member>
      - <oslc_am:Resource rdf:about="http://spxea02:804/myHugo/oslc/am/resource/dg_{613CCF3D-7673-4011-BD9E-20BF5355D9F9}/">
          <dcterms:title>Package1</dcterms:title>
          <dcterms:type>Custom</dcterms:type>
          <dcterms:identifier>dg_{613CCF3D-7673-4011-BD9E-20BF5355D9F9}</dcterms:identifier>
        - <dcterms:creator>
          - <foaf:Person>
              <foaf:name>hkargl</foaf:name>
            </foaf:Person>
          </dcterms:creator>
          <dcterms:created>2021-06-08 10:58:19</dcterms:created>
          <dcterms:modified>2021-10-30 14:09:09</dcterms:modified>
          <ss:version>1.0</ss:version>
          <ss:parentresourceidentifier>pk_{4036B9B2-A753-4736-B481-814043005013}</ss:parentresourceidentifier>
          <ss:resourcetype>Diagram</ss:resourcetype>
          <ss:features rdf:resource="http://spxea02:804/myHugo/oslc/am/features/dg_{613CCF3D-7673-4011-BD9E-20BF5355D9F9}/"/>
        </oslc_am:Resource>
      </rdfs:member>
    - <rdfs:member>
      - <oslc_am:Resource rdf:about="http://spxea02:804/myHugo/oslc/am/resource/el_{01454D3A-7541-4742-A96A-12C1DFA4EEC7}/">
          <dcterms:title>Class1</dcterms:title>
          <dcterms:type>Class</dcterms:type>
          <dcterms:identifier>el_{01454D3A-7541-4742-A96A-12C1DFA4EEC7}</dcterms:identifier>
        - <dcterms:creator>
          - <foaf:Person>
              <foaf:name>hkargl</foaf:name>
            </foaf:Person>
          </dcterms:creator>
          <dcterms:created>2021-10-23 18:55:32</dcterms:created>
          <dcterms:modified>2021-10-23 18:55:32</dcterms:modified>
          <ss:status>Proposed</ss:status>
          <ss:complexity>Easy</ss:complexity>
          <ss:phase>1.0</ss:phase>
          <ss:version>1.0</ss:version>
          <ss:language>Java</ss:language>
          <ss:parentresourceidentifier>pk_{4036B9B2-A753-4736-B481-814043005013}</ss:parentresourceidentifier>
          <ss:resourcetype>Element</ss:resourcetype>
          <ss:features rdf:resource="http://spxea02:804/myHugo/oslc/am/features/el_{01454D3A-7541-4742-A96A-12C1DFA4EEC7}/"/>
        </oslc_am:Resource>
      </rdfs:member>
    </rdf:Description>
  </rdf:RDF>
```

Backlink to parent

Neste Features

Get Nested Features of Element

http://spxea02:804/myHugo/oslc/am/features/
el_{01454D3A-7541-4742-A96A-12C1DFA4EEC7}/
?useridentifier={4D4D416-D88D-4ab5-497E9FDB2778}

response()

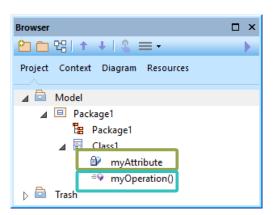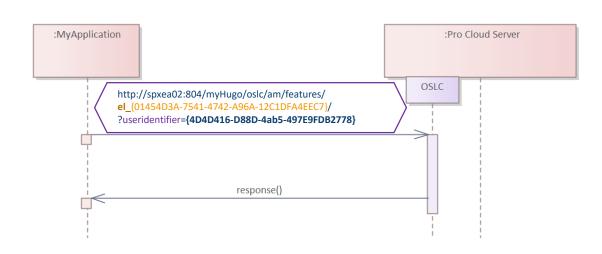http://spxea02:804/myHugo/oslc/am/features/
el_{01454D3A-7541-4742-A96A-12C1DFA4EEC7}/
?useridentifier={4D4D416-D88D-4ab5-497E9FDB2778}

RESPONSE

```xml
<?xml version="1.0" encoding="UTF-8"?>
<rdf:RDF xmlns:oslc_am="http://open-services.net/ns/am#" xmlns:ss="http://www.sparxsystems.com.au/oslc_am#"
xmlns:foaf="http://xmlns.com/foaf/0.1/" xmlns:dcterms="http://purl.org/dc/terms/" xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#"
xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#">
  <ss:features rdf:about="http://spxea02:804/myHugo/oslc/am/features/el_{01454D3A-7541-4742-A96A-12C1DFA4EEC7}/">
    <ss:attributes>
      <rdf:Description rdf:about="http://spxea02:804/myHugo/oslc/am/attributes/el_{01454D3A-7541-4742-A96A-12C1DFA4EEC7}/">
        <rdfs:member>
          <ss:attribute rdf:about="http://spxea02:804/myHugo/oslc/am/attribute/at_{D2E4A6FE-80DC-428c-9051-F6149891E48D}/">
            <dcterms:title>myAttribute</dcterms:title>
            <dcterms:identifier>at_{D2E4A6FE-80DC-428c-9051-F6149891E48D}</dcterms:identifier>
            <ss:classifiername>int</ss:classifiername>
            <ss:scope>Private</ss:scope>
            <ss:containment>Not Specified</ss:containment>
            <ss:position>0</ss:position>
            <ss:lowerbound>1</ss:lowerbound>
            <ss:upperbound>1</ss:upperbound>
            <ss:allowduplicates>0</ss:allowduplicates>
            <ss:isstatic>0</ss:isstatic>
            <ss:iscollection>0</ss:iscollection>
            <ss:isordered>0</ss:isordered>
            <ss:istransient>0</ss:istransient>
            <ss:resourceidentifier>el_{01454D3A-7541-4742-A96A-12C1DFA4EEC7}</ss:resourceidentifier>
          </ss:attribute>
        </rdfs:member>
      </rdf:Description>
    </ss:attributes>
    <ss:operations>
      <rdf:Description rdf:about="http://spxea02:804/myHugo/oslc/am/operations/el_{01454D3A-7541-4742-A96A-12C1DFA4EEC7}/">
        <rdfs:member>
          <ss:operation rdf:about="http://spxea02:804/myHugo/oslc/am/operation/op_{C78461A1-5DB7-4ec2-BC6D-B4A684F9F5A5}/">
            <dcterms:title>myOperation</dcterms:title>
            <dcterms:identifier>op_{C78461A1-5DB7-4ec2-BC6D-B4A684F9F5A5}</dcterms:identifier>
            <ss:classifiername>void</ss:classifiername>
            <ss:scope>Public</ss:scope>
            <ss:concurrency>Sequential</ss:concurrency>
            <ss:isquery>0</ss:isquery>
            <ss:ispure>0</ss:ispure>
            <ss:position>0</ss:position>
            <ss:resourceidentifier>el_{01454D3A-7541-4742-A96A-12C1DFA4EEC7}</ss:resourceidentifier>
```
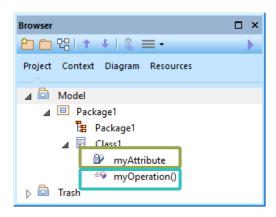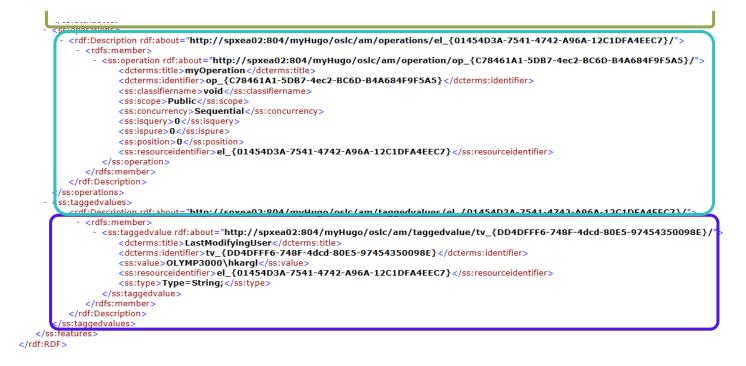
EA's Project Browser

Get Nested Features of Element

http://spxea02:804/myHugo/oslc/am/features/
el_{01454D3A-7541-4742-A96A-12C1DFA4EEC7}/
?useridentifier={4D4D416-D88D-4ab5-497E9FDB2778}
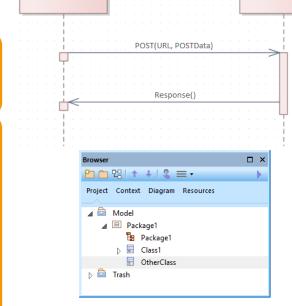
RESPONSE

EA's Project Browser

    </ss:operations>
    - <rdf:Description rdf:about="http://spxea02:804/myHugo/oslc/am/operations/el_{01454D3A-7541-4742-A96A-12C1DFA4EEC7}/">
        - <rdfs:member>
            - <ss:operation rdf:about="http://spxea02:804/myHugo/oslc/am/operation/op_{C78461A1-5DB7-4ec2-BC6D-B4A684F9F5A5}/">
                <dcterms:title>myOperation</dcterms:title>
                <dcterms:identifier>op_{C78461A1-5DB7-4ec2-BC6D-B4A684F9F5A5}</dcterms:identifier>
                <ss:classifiername>void</ss:classifiername>
                <ss:scope>Public</ss:scope>
                <ss:concurrency>Sequential</ss:concurrency>
                <ss:isquery>0</ss:isquery>
                <ss:ispure>0</ss:ispure>
                <ss:position>0</ss:position>
                <ss:resourceidentifier>el_{01454D3A-7541-4742-A96A-12C1DFA4EEC7}</ss:resourceidentifier>
            </ss:operation>
        </rdfs:member>
    </rdf:Description>
</ss:operations>
- <ss:taggedvalues>
    - <rdf:Description rdf:about="http://spxea02:804/myHugo/oslc/am/taggedvalues/el_{01454D3A-7541-4742-A96A-12C1DFA4EEC7}/">
        - <rdfs:member>
            - <ss:taggedvalue rdf:about="http://spxea02:804/myHugo/oslc/am/taggedvalue/tv_{DD4DFFF6-748F-4dcd-80E5-97454350098E}/">
                <dcterms:title>LastModifyingUser</dcterms:title>
                <dcterms:identifier>tv_{DD4DFFF6-748F-4dcd-80E5-97454350098E}</dcterms:identifier>
                <ss:value>OLYMP3000\hkargl</ss:value>
                <ss:resourceidentifier>el_{01454D3A-7541-4742-A96A-12C1DFA4EEC7}</ss:resourceidentifier>
                <ss:type>Type=String;</ss:type>
            </ss:taggedvalue>
        </rdfs:member>
    </rdf:Description>
</ss:taggedvalues>
    </ss:features>
</rdf:RDF>

Create New Element

POST URL

http://\<server>/\<model_name>**/oslc/am/cf/resource/**

POST Data

```xml
<?xml version="1.0" encoding="UTF-8"?>
- <rdf:RDF xmlns:ss="http://www.sparxsystems.com.au/oslc_am#" xmlns:foaf="http://xmlns.com/foaf/0.1/"
  xmlns:dcterms="http://purl.org/dc/terms/" xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
  xmlns:oslc_am="http://open-services.net/ns/am#">
    - <oslc_am:Resource>
            <!--Required Properties-->
        <dcterms:title>OtherClass</dcterms:title>
        <dcterms:type>Class</dcterms:type>
        <ss:resourcetype>Element</ss:resourcetype>
        <ss:parentresourceidentifier>pk_{4036B9B2-A753-4736-B481-814043005013}</ss:parentresourceidentifier>
        <ss:useridentifier>{9C930D36-EFB2-44f0-88D8-D8127C98B640}</ss:useridentifier>
        - <dcterms:creator>
          - <foaf:Person>
                <foaf:name>OCLS Client</foaf:name>
            </foaf:Person>
        </dcterms:creator>
    </oslc_am:Resource>
</rdf:RDF>
```

Response

The resource of the new created Class

```xml
<?xml version="1.0"?>
- <rdf:RDF xmlns:oslc_am="http://open-services.net/ns/am#" xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#">
    <oslc_am:Resource rdf:about="http://spxea02:804/myHugo/oslc/am/resource/el_{8F195BB3-8185-466a-8785-37E2511658BF}/"/>
</rdf:RDF>
```

```xml
<oslc:creationFactory>
  - <oslc:CreationFactory>
        <dcterms:title>Creation Factory for Enterprise Architect Package/Element</dcterms:title>
URL     <oslc:creation rdf:resource="http://spxea02:804/myHugo/oslc/am/cf/resource/"/>
        <oslc:resourceShape rdf:resource="http://spxea02:804/myHugo/oslc/am/rs/ctresource/"/>
```
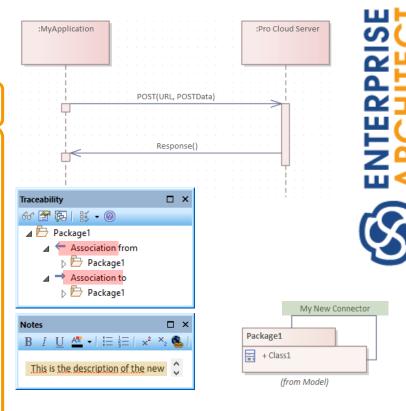
/oslc/am/sp/

Create New Connector

http://<server>/<model_name>**/oslc/am/cf/resourcelink/**   POST URL

```xml
<?xml version="1.0" encoding="UTF-8"?>
<rdf:RDF xmlns:ss="http://www.sparxsystems.com.au/oslc_am#" xmlns:dcterms="http://purl.org/dc/terms/"
xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#" xmlns:oslc_am="http://open-services.net/ns/am#">
    <oslc_am:Resource>
        <!--Required Properties-->                    SourceGUID
        <dcterms:identifier>pk_{4036B9B2-A753-4736-B481-814043005013}</dcterms:identifier>
        <ss:Association rdf:resource="http://spxea02:804/myHugo/oslc/am/resource/pk_{4036B9B2-A753-4736-B481-814043005013}/"
            rdf:ID="ID"/>                                              TargetGUID
    </oslc_am:Resource>
    <rdf:Description rdf:about="#ID">   Authentication Token for this OSLC session
        <!--Required Properties-->
        <ss:useridentifier>{879A71C1-E393-494d-8B5A-67512503CAC6}</ss:useridentifier>
        <!--Optional Properties-->
        <dcterms:title>My New Connector</dcterms:title>
        <dcterms:type>Association</dcterms:type>
        <dcterms:description>This is the description of the new connector</dcterms:description>
        <ss:direction/>
        <ss:stereotype>
            <ss:stereotypename>
                <ss:name/>
            </ss:stereotypename>
        </ss:stereotype>
    </rdf:Description>
</rdf:RDF>
```

POST Data

Response

The resource of the source of the connector

```xml
<?xml version="1.0"?>
<rdf:RDF xmlns:oslc_am="http://open-services.net/ns/am#" xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#">
    <oslc_am:Resource rdf:about="http://spxea02:804/myHugo/oslc/am/resource/pk_{4036B9B2-A753-4736-B481-
        814043005013}/"/>
</rdf:RDF>
```

Documentation

Pro Cloud Server help with all OSLC
URLs and the required XML POST Data

https://sparxsystems.com/enterprise_architect_user_guide/15.2/pro_cloud_server/oslc_am_top.html

https://sparxsystems.com/enterprise_architect_user_guide/15.2/pro_cloud_server/oslc_quick_ref.html

Short Live Demo

Thanks!

Time for …