

POST an OCL expression to get a OCL2PSQL-generated SQL-select statement

Upload an OCL expression and return its generated SQL select statement.

Any input attempt that include invalid OCL expression, resulting in a 400 error.

For each upload attempt, the OCL expression can be expressed either in textual form or as an instance of our OCL meta-model (located in `metamodels/ocl.ecore`).

For each valid input attempt, the returned SQL statement can be either in textual form or as an instance of our SQL meta-model (located in `metamodels/sql.ecore`). This depends on the actual value of the `sqlAsXmi` parameter (see below).

Resource URL

<http://researcher-paper.ap-southeast-1.elasticbeanstalk.com/rest/map/carperson>

A. Query Parameters

Name	Required	Description	Default Value	Example
sqlAsXmi	optional	If it is true, then the output is in XML format, otherwise textual format.	false	?sqlAsXmi=true

B. Input (Input format: JSON)

The JSON input has two fields:

- `contentType`: The type of the content, either "expression/text" or "expression/xml"
- `content`: The actual expression. If the `contentType` conflicts with the actual type of the content, it results a 400 error.

Example:

1. The request body of an OCL expression in the textual format:

```
{
  "contentType": "expression/text",
  "content": "Car.allInstances()->collect(c|c.color = 'black')"
```

2. The request body of OCL expression in the XML format:

```
{
  "contentType": "expression/xml",
  "content": "<?xml version=\"1.0\" encoding=\"UTF-8\"?>
<exp:EIteratorExp xmi:version=\"2.0\"
xmlns:xmi=\"http://www.omg.org/XMI\"
xmlns:xsi=\"http://www.w3.org/2001/XMLSchema-instance\"
xmlns:dm=\"http://www.example.org/ocl/dm\"
xmlns:exp=\"http://www.example.org/ocl/exp\"
xsi:schemaLocation=\"http://www.example.org/ocl/dm ocl.ecore#//dm
http://www.example.org/ocl/exp ocl.ecore#//exp\" kind=\"collect\">
```

```

<source xsi:type="exp:EOperationCallExp"
referredOperation="allInstances"> <source xsi:type="exp:ETypeExp">
<referredType xsi:type="dm:EEntity"
href="CarPerson.xmi#//@classes.0"/> </source> </source> <body
xsi:type="exp:EOperationCallExp"> <source
xsi:type="exp:EPropertyCallExp"> <source
xsi:type="exp:EVariableExp" referredVariable="//@iterator.0"/>
<referredProperty href="CarPerson.xmi#//@classes.0/@attributes.0"/>
</source> <argument xsi:type="exp:EStringLiteralExp"
stringValue="black"/> </body> <iterator name="c"/>
</exp:EIteratorExp>
}

```

C. Output (Output format: JSON)

The JSON output has the following fields:

- **contentType**: The type of the content, either “statement/text” or “statement/xml”.
- **status**: The status of the response.
- **content**: The actual statement in the declared format.
- **transformationTime**: the time it takes to perform the OCL2SQL M2M transformation (measured in nanoseconds).

Example:

1. ?sqlAsXmi=false

```

{
  "content": "SELECT TEMP_body.val AS val, TEMP_body.res AS res
FROM (SELECT TEMP_LEFT.res = TEMP_RIGHT.res AS res, CASE
TEMP_LEFT.val = 0 OR TEMP_RIGHT.val = 0 WHEN 1 THEN 0 ELSE 1
END AS val, TEMP_LEFT.ref_c AS ref_c FROM (SELECT Car.color AS
res, 1 AS val, Car.Car_id AS ref_c FROM Car) AS TEMP_LEFT JOIN
(SELECT 1 AS val, 'black' AS res) AS TEMP_RIGHT) AS TEMP_body",
  "contentType": "statement/text",
  "status": 200,
  "transformationTime": 8117912
}

```

2. ?sqlAsXmi=true

```

{
  "content": "<sql:ESelect xmi:version=\"2.0\"
xmlns:xmi=\"http://www.omg.org/XMI\"
xmlns:xsi=\"http://www.w3.org/2001/XMLSchema-instance\"
xmlns:sql=\"http://www.example.org/sql\"> <selectBody
xsi:type=\"sql:EPlainSelect\"> <selectItems
xsi:type=\"sql:ESelectExpressionItem\"> <alias name=\"val\"/>
<expression xsi:type=\"sql:EColumn\" columnName=\"val\"> <table
name=\"TEMP_body\"/> </expression> </selectItems> <selectItems
xsi:type=\"sql:ESelectExpressionItem\"> <alias name=\"res\"/>
<expression xsi:type=\"sql:EColumn\" columnName=\"res\"> <table
name=\"TEMP_body\"/> </expression> </selectItems> <fromItem
xsi:type=\"sql:ESubSelect\"> <alias name=\"TEMP_body\"/> <selectBody
xsi:type=\"sql:EPlainSelect\"> <selectItems
xsi:type=\"sql:ESelectExpressionItem\"> <alias name=\"res\"/>

```

```

<expression xsi:type="sql:EEqualsTo"> <leftExpression
xsi:type="sql:EColumn" columnName="res"> <table
name="TEMP_LEFT"/> </leftExpression> <rightExpression
xsi:type="sql:EColumn" columnName="res"> <table
name="TEMP_RIGHT"/> </rightExpression> </expression> </selectItems>
<selectItems xsi:type="sql:ESelectExpressionItem"> <alias
name="val"/> <expression xsi:type="sql:ECaseExpression">
<switchExpression xsi:type="sql:EOrExpression"> <leftExpression
xsi:type="sql:EEqualsTo"> <leftExpression xsi:type="sql:EColumn"
columnName="val"> <table name="TEMP_LEFT"/> </leftExpression>
<rightExpression xsi:type="sql:ELongValue" value="0"/>
</leftExpression> <rightExpression xsi:type="sql:EEqualsTo">
<leftExpression xsi:type="sql:EColumn" columnName="val"> <table
name="TEMP_RIGHT"/> </leftExpression> <rightExpression
xsi:type="sql:ELongValue" value="0"/> </rightExpression>
</switchExpression> <elseExpression xsi:type="sql:ELongValue"
value="1"/> <whenClauses> <whenExpression
xsi:type="sql:ELongValue" value="1"/> <thenExpression
xsi:type="sql:ELongValue" value="0"/> </whenClauses> </expression>
</selectItems> <selectItems xsi:type="sql:ESelectExpressionItem">
<alias name="ref_c"/> <expression xsi:type="sql:EColumn"
columnName="ref_c"> <table name="TEMP_LEFT"/> </expression>
</selectItems> <fromItem xsi:type="sql:ESubSelect"> <alias
name="TEMP_LEFT"/> <selectBody xsi:type="sql:EPlainSelect">
<selectItems xsi:type="sql:ESelectExpressionItem"> <alias
name="res"/> <expression xsi:type="sql:EColumn"
columnName="color"> <table name="Car"/> </expression>
</selectItems> <selectItems xsi:type="sql:ESelectExpressionItem">
<alias name="val"/> <expression xsi:type="sql:ELongValue"
value="1"/> </selectItems> <selectItems
xsi:type="sql:ESelectExpressionItem"> <alias name="ref_c"/>
<expression xsi:type="sql:EColumn" columnName="Car_id"> <table
name="Car"/> </expression> </selectItems> <fromItem
xsi:type="sql:ETable" name="Car"/> </selectBody> </fromItem>
<joins> <rightItem xsi:type="sql:ESubSelect"> <alias
name="TEMP_RIGHT"/> <selectBody xsi:type="sql:EPlainSelect">
<selectItems xsi:type="sql:ESelectExpressionItem"> <alias
name="val"/> <expression xsi:type="sql:ELongValue" value="1"/>
</selectItems> <selectItems xsi:type="sql:ESelectExpressionItem">
<alias name="res"/> <expression xsi:type="sql:EStringValue"
value="black"/> </selectItems> </selectBody> </rightItem> </joins>
</selectBody> </fromItem> </selectBody> </sql:ESelect> ",
    "contentType": "statement/xml",
    "status": 200,
    "transformationTime": 8251798
}

```