Query Type PostProcessExpression in Marushka Design

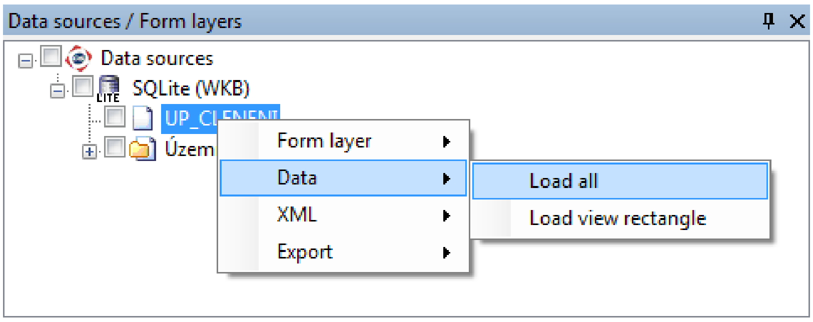
CONTENTS

1 Aim of the Example

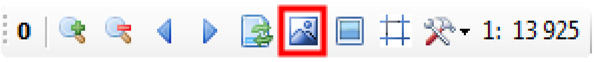
In this example we will demonstrate, how to define query PostProcessExpression type in Marushka Design. This example was created in version 4.1.0.3, so it does not have to be compatible with older versions.

2 Working with Example

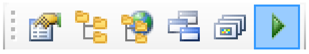
- Unzip the **PostProcessExpression_EN.zip** into **c:\MarushkaExamples\** folder. The target folder must be respected due to interconnection of paths with the project. In case of placing the files in the different folder, it would not be possible to work with an example.
- Open the project **PostProcessExpression_EN.xml** in MarushkaDesign environment.
- Select form layer **UP_CLENENI**, in the context menu choose Data – Load all:



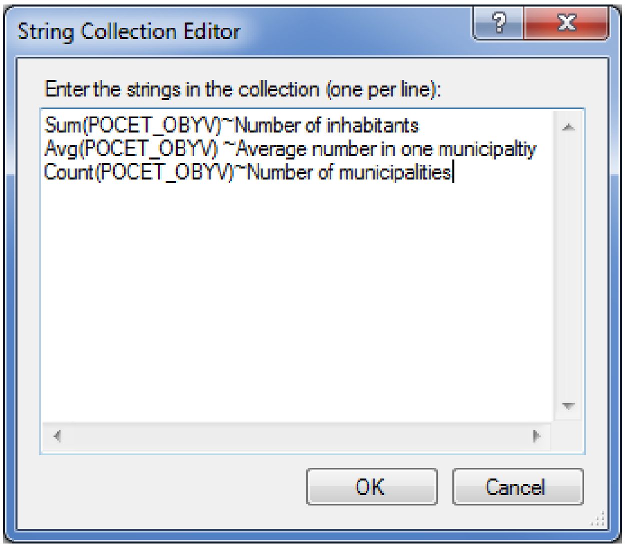
- In map window choose „Fit All“:



- Launch the local web server:



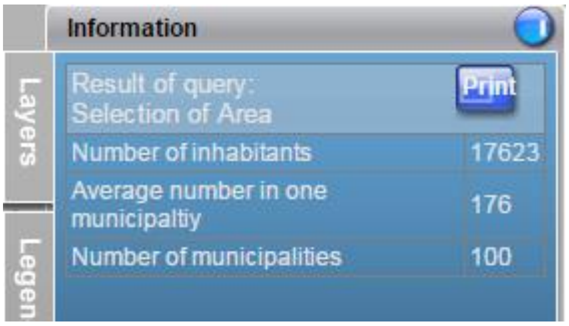
3 Dialog Box Sample



Enter the strings in the collection (one per line):

```
Sum(POCET_OBYV)~Number of inhabitants
Avg(POCET_OBYV) ~Average number in one municipaltiy
Count(POCET_OBYV)~Number of municipalities
```

Img 1: String Collection Editor PostProcessExpression



Result of query: Selection of Area	
Number of inhabitants	17623
Average number in one municipaltiy	176
Number of municipalities	100

Img 2: Query Selection of Area result example

4 A brief description of the Example in Marushka Design

This example demonstrates how to define the query type **PostProcessExpression** in Marushka Design. This query is controlled by SQL and allows the user to define an expression that is executed only after the main query is finished. This way, it is possible to perform calculations based on the selection of geometry.

In this sample project is included form layer **UP_CLENENI** that contains two polygons in the area of interest. Furthermore, the project contains a form layer node **Funkční plochy (functional areas)**, displaying land use in the area of interest.

The query library contains two queries, the first query is called **Selection of Area** and selects query form the database table WWWQUERY with ID=20002. In this query is in the category *Misc ~ PostProcessExpression* are set following strings:

```
Sum(POCET_OBYV)~Number of inhabitants

Avg(POCET_OBYV) ~Average number in one municipaltiy

Count(POCET_OBYV)~Number of municipalities
```

These operations are performed after the end of query with ID=20002 and here these do specifically count the population in a particular territorial unit, the average population in one municipality and number of municipalities in the area of interest. These queries, however, can be defined arbitrary, but must be feasible in SQL.

The second query is called **Resulting Numbers** and joins table with landuse in functional areas with the table containing a number of residents in these areas.

Following the execution of this query is executed PostProcessExpression from the previous query, which performs the predefined operations.

The queries work so that after the launch of the project in the browser, the user clicks on button i and then clicks on polygon on the map. Publish layer Built up Areas contains only two polygons, but there is applied PostProcessExpression, therefore in the query result is displays three values: Number of inhabitants, Average number in one municipality and Number of municipalities. The layer Functional Areas does not contain PostProcessExpression, therefore, it returns just one query result.

In this example, the user chooses one of two larger territorial units. In this unit are based on geometry chosen all the subordinate territorial units. The values of population for these units are taken and using the phrases PostProcessExpression are calculated the resulting three values that are returned as a result of the query.

Finally, it is necessary to mention, that Numbers of inhabitants are fictitious and do not correspond to reality.