External Call of Marushka Web Publication with Parameters

CONTENTS

# 1 Aim of the Example

In this example we will demonstrate call of the map client from external website or from an external application. This example was created in version 4.0.1.0, so it does not have to compatible with older versions.

2 Working with Example

o Unzip the **ExternalCall_EN.zip** into **C:\MarushkaExamples** folder. The target folder must be respected due to interconnection of paths with the project. In the case of placing the files in the different folder, it would not be possible to work with an example.

o Into folder (by default "*C:\Program Files\Geovap\MarushkaDesign\4-0-1-0\service\html*") of the current Marushka version copy files **Foot1.dat**, **Foot2.dat**, **Head1.dat**, **Head2.dat** and **logo.png**.

o Open the project **ExternalCall_EN.xml** in MarushkaDesign environment.

o Select form layers **Regions** and **Districts** in SQLite (WKB) data store, in the context menu choose Data – Load all:
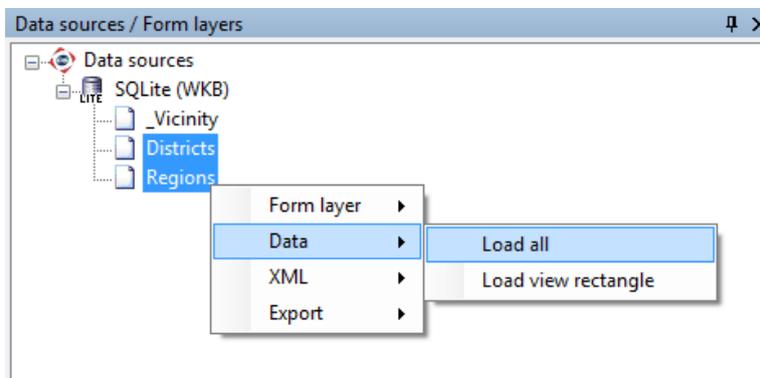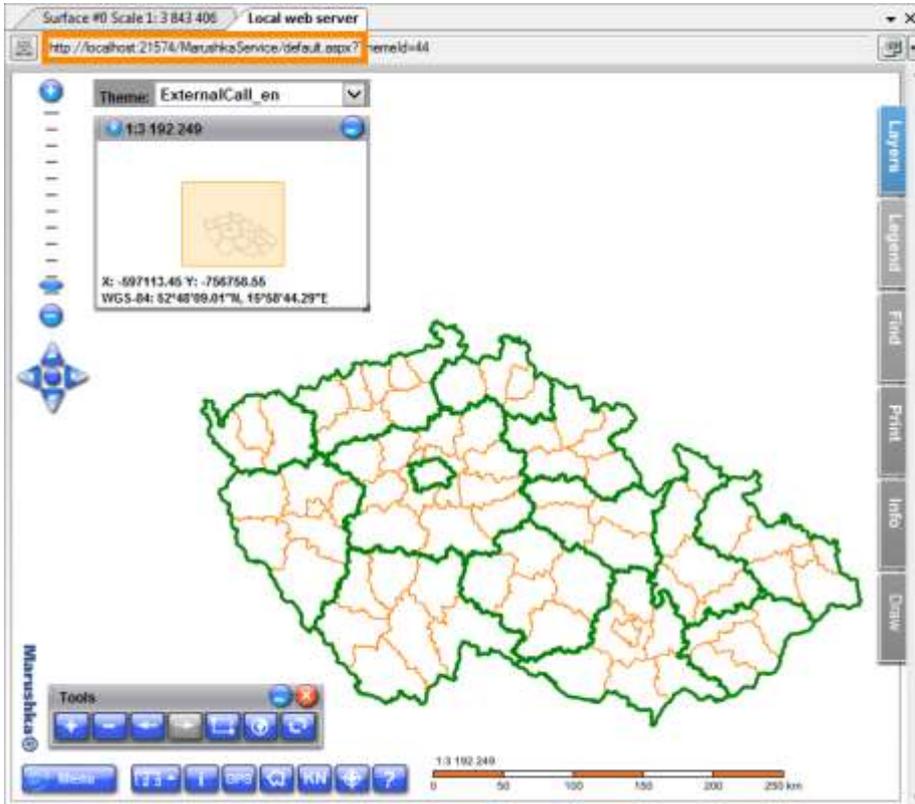

o In map window choose „Fit all":

o !Launch the local web server! (it will generate file in themes):
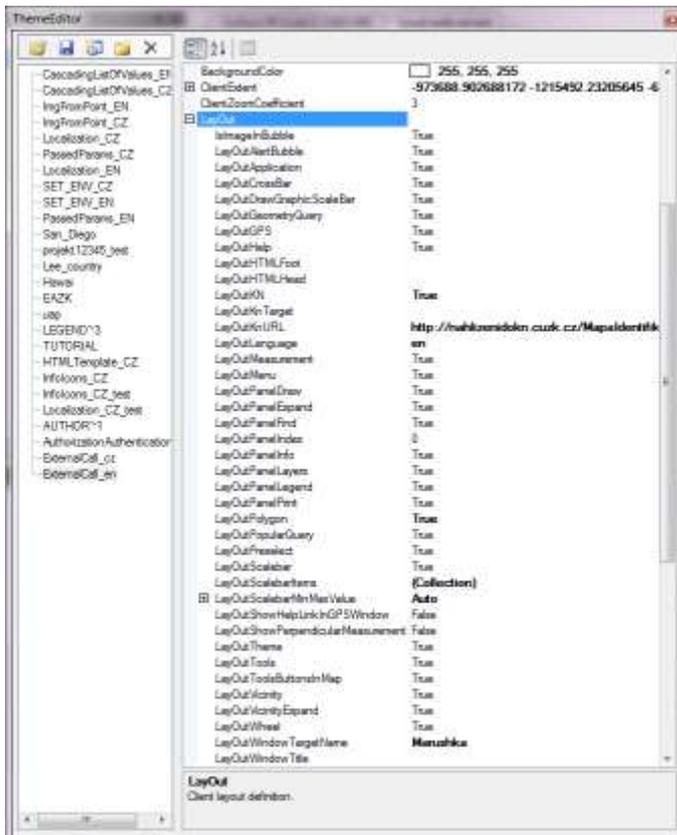

o In Theme editor define path to head and foot files (items **LayOutHTMLHead** and **LayOutHTMLFoot**).

o In a web browser (e.g. Internet Explorer) open a file **ExternalCall_EN.htm**.

3 Dialog Box Sample

Pic 1 Query result sample with highlighted local web server address (by orange rectangle)

Pic 2 Theme editor sample, section HTML client settings

4   A Brief Description of the Example in MarushkaDesign

This example contains SQLite database with two publish layers. In the SQLite (WKB) database data source are three form layers, one of which refer to the physical layer (database table) DISTRICTS and the second and third to the physical layer REGIONS. The data bearers are physical layers (database tables) "DISTRICTS" and "REGIONS".

File ExternalCall_EN.htm

When using default settings for this document (no modifications of parameters were performed) the URL is sent without parameters. When changing parameters, the modified parameters and their values are added at the end of the URL, and are separated by **"&"** character. It is because of that the user can easily find out which of the parameters were modified. For each modified field in this html website will be added one parameter with a specified value after start of MarushkaDesign.

The parameters in the call can suppress the use of components that are enabled in the client configuration. That is in theme definition in section *LayOut* (HTML client layout), if e.g. parameter *LayOutVicinity* (show overview map) is set to false, you cannot turn on vicinity map from the outside, but if it is enabled, you can disable it by the false value.

The names of the parameters applicable for calls are mostly the same as the names of variables in *LayOut* setting, instead of prefix *LayOut* they contain prefix *Mar*. For example, the parameter for disabling the overview map is *MarVicinity*, in theme editor it is called *LayOutVicinity*. For more see chapter 5 of this document.

4.1   Server Settings

In the first section in the first row we have to first enter the *Local server address* (copied from the top row in the local web server of MarushkaDesign). In the second row we have to enter the current *Theme ID*, which can be also found out in the opened local web server. Next are optional parameters *Username* and *Password*. Use these parameters just in the case of using authorized access to the web server. Attention, the password is not encrypted in any way!

1. Server settings

Local server address:	http://localhost:21574/M
Theme ID [ThemeID]:	16

Authorization

Username [UserName]:	
Password [Password]:	

4.2   Area Settings

In the second section, select the option in which will the Marushka server start. There are four available options:

A) Without area definition
B) *Default area defined by middle point and scale*, when you enter the center point in the target coordinates and the scale in which will be the desired map rendered.
C) *Displaying the default* map *window by the rectangle* defined by coordinates in the target units in order xmin xmax ymin ymax. Individual parameters are separated by a space. The first time map is rendered the localization query is evaluated and moves the limiting rectangle into the localization result. If the result contains elements for highlight, they get highlighted.

D) *Starting localization query with a parameter.* Map window of the Marushka server will be displayed in the cutout, which is defined by this query result. In the file is pre entered localization query with functional area district Břeclav. The district is listed in the second parameter field; the first parameter field is used to define the region. Instead of the first and second parameter can be specified any reality corresponding pair region – district in the Czech Republic. It is essential to specify the appropriate pair – code list of the second parameter is dependent on the outcome of the code list of the first parameter. When you specify the incompatible pair of parameters, the query would return no result.

2. Area settings

- ○ **Without area definition**
- ○ **Default area by the middle point and scale**

  Middle point [MarMiddlePoint]: -740257 -1045552

  Scale [MarScale]: 200000

- ○ **Default area by rectangle**

  Default area by rectangle [MarExtent]: -912414 -1236061 -425569 -927305

- ● **Start Marushka with localization:**

  GID of localization query [MarQueryId]: 98F36261

  Number of localization query parameters [MarQParamCount]: 2

  First parameter [MarQParam0]: Jihočeský

  Second parameter [MarQParam1]: Jindřichův Hradec

4.3   A List of Layers after Initialization

In the third part you can specify a *list of switched on publish* and *information layers*, which will be rendered after the initialization of the map window. In both cases you can choose from five options. Alert, the info layer can be turned on only along with its corresponding publish layer! Thus, for example, you can switch on info layer 1 along with the publish layer 1. But it is not possible to switch on info layer 2 along with the publish layer 1 – just the publish layer 1 without info layer 2 would display.

The default setting means, that the layers are loaded exactly as they were defined in the project. In this case are by default switched on both publish layers, both info layers are switched off.

3. A list of layers after initialization

A list of switched on publish layers [MarUid]: Default setting ▾

A list of switched on info layers [MarUidi]: Default setting ▾

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4.4   Environment Parameters

In the fourth part in the category *Show/hide individual controls*, you can set various environment parameters. It is primarily about the appearance of map window and displaying of individual components. Mostly you can only set if the element will be displayed or not. The only exception is *Active panel index*, which defines the tab, which will be active after the start of the web publication. For this index it is possible to enter the values from 0 to 5, 0 is the default value.

In the category Additional options you can set the HTML head file name and HTML foot file name, here is pre-defined option Default setting. It is also possible to set the Web browser window title, Turn on/off zoom using the mouse wheel, or set the Window target name.

4. Environment parameters

Show/hide individual controls:

Vicinity [MarVicinity]:	true
Scalebar [MarScalebar]:	true
Menu [MarMenu]:	true
Toolbar [MarTools]:	true
Active panel index (0-5) [MarPanelIndex]:	0
Panel exapand [MarPanelExpand]:	true
"Layers" tab [MarPanelLayers]:	true
"Legend" tab [MarPanelLegend]:	true
"Find" tab [MarPanelFind]:	true
"Print" tab [MarPanelPrint]:	true
"Info" tab [MarPanelInfo]:	true
"Draw" tab [MarPanelDraw]:	true
Theme menu [MarTheme]:	true
"Application" button [MarApplication]:	true
"Measurement" button [MarMeasurement]:	true
"Info" button [MarPreselect]:	true
Activating function Info [MarPreselectOn]:	true
"GPS" button [MarGPS]:	true
"KN" button [MarKN]:	true
Controll cross for movement in map window [MarCrossBar]:	true
Popular query [MarPopularQuery]:	true

Additional options:

Html head file name [MarHTMLHead]:	Default setting
Html foot file name [MarHTMLFoot]:	Default setting
Web browser window title [MarWindowTitle]:	
Zooming using the mouse wheel [MarWheel]:	true
Window target name [MarWindowTargetName]:	

4.5 Special Application

In last part it is possible to call a client in a special mode *GetFence*, which is used to specify the polygon (fence). After the call, the client switches to mode "*Selection by polygon*" and if the user successfully completes (enters) the fence/polygon, the client returns coordinates to the specified URL (which is entered into the field on the second line of this section). On the last line you can specify the *Maximum fence limit* in the target units of the data store (here m²).

The parameters in this section will be sent only if the application parameter *GetFenceMode* is set to option "start application", otherwise none of these parameters will be sent.

5. Special application

Application (GetFenceMode): start application ▼
URL site for processing: www.googlemaps.com
Maximum fence limit [MarFenceLimit]: 50000000

4.6 MarushkaDesign Start

Finally, it is necessary to run Marushka, which calls the Marushka window with user defined parameters. This is done by pressing this button: Launch Marushka

5 Supported Call Parameters in Version 4.0.1.0

Authorization

Parameter of call	Description	Values
UserName	User name	*string*
Password	Password	*string*

Layout and Client layout definition

Parameter of call	Theme variable	Description	Values
MarApplication	LayOutApplication	*Display button application*	true/false
MarCrossBar	LayOutCrossBar	*Display navigation crossbar*	true/false
MarGeometryQuery	LayOutGeometryQuery	*Display button geometry query*	true/false
MarGPS	LayOutGPS	*Display button GPS*	true/false
MarHTMLFoot	LayOutHTMLFoot	*HTML foot file name*	Files placed in folder HTML, e.g. foot.dat, to disable empty value
MarHTMLHead	LayOutHTMLHead	*HTML head file name*	Files placed in folder HTML, e.g. head.dat, to disable empty value
MarMeasurement	LayOutMeasurement	*Display button measurement*	true/false
MarMenu	LayOutMenu	*Display menu*	true/false
MarPanelDraw	LayOutPanelDraw	*Display panel draw*	true/false
MarPanelExpand	LayOutPanelExpand	*Maximize panel tabs*	true/false
MarPanelFind	LayOutPanelFind	*Display panel find*	true/false
MarPanelIndex	LayOutPanelIndex	*Current panel index*	[0,1,2,3,4]
MarPanelInfo	LayOutPanelInfo	*Display panel information*	true/false
MarPanelLayers	LayOutPanelLayers	*Display panel layers*	true/false
MarPanelLegend	LayOutPanelLegend	*Display panel legend*	true/false
MarPanelPrint	LayOutPanelPrint	*Display panel print*	true/false
MarPolygon	LayOutPolygon	*Display button selection by polygon*	true/false
MarPreselect	LayOutPreselect	*Display info tool (function click in the map ->navigate through selected elements-> display information)*	true/false
MarPreselectOn	-	*Activate function info*	true/false
MarScalebar	LayOutScalebar	*Display scale bar*	true/false
MarTheme	LayOutTheme	*Display theme selection*	true/false
MarTools	LayOutTools	*Display tools panel*	true/false
MarVicinity	LayOutVicinity	*Display overview map*	true/false
MarWheel	LayOutWheel	*Zoom using mouse wheel*	true/false
MarKN	LayOutKN	*Display button KN*	true/false
MarPopularQuery	LayOutPopularQuery	*Display/hide popular query*	true/false

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Queries, localization

Parameter of call	Description	Values
MarQueryID	Unique query ID, item GId in query properties	GID
MarQParamCount	Number of parameters of localization query	[0 .. n]
MarQParamX	Value of parameter with index X. Indexed from 0. Value is entered URLEncoded	string
MarMiddlePoint	Middle point of area, values are separated by space	[x y]
MarScale	Scale of display	string

Special client mode

Parameter of call	Description	Values
action	Action type	getfence
returnFenceURL	URL site for processing	string
MarFenceLimit	Maximum fence limit	string

Layers, info layers and extent, theme

Parameter of call	Description	Values
ThemeID	Theme Id	[0 .. n]
MarExtent	This parameter defines HTML start limiting rectangle. The values are separated by spaces (or %20, because they should be URLEncoded). Current values are in the coordinate system S-JTSK and in mm.	[xmin ymin xmax ymax]
MarUid	List of layers to be turned on after the call. Layers are identified by a global ID of publish layer. Individual values are separated by spaces.	[GID1 GID2 GID3 …]
MarUidi	List of info layers to be turned on after the call. The layers are identified by a global ID of publish layer. Individual values are separated by spaces.	[GID1 GID2 GID3 …]

6 Client Call with Localization Example

In theme with id=13 is defined localization query "*Localize group*". This query contains two parameters (QueryParams property value=Region; District). This query has property GId = 98F36261. Client is called with the following parameters:

    ThemeID=13
    MarQueryID=98F36261
    MarQParamCount=2
    MarQParam0=Jihomoravský
    MarQParam1=Břeclav

Parameters contain Czech characters, so encode them using URLEncoded UTF-8.

    ThemeID=13
    MarQueryID=98F36261
    MarQParamCount=2
    MarQParam0=Jihomoravsk%c3%bd%0d%0a
    MarQParam1=B%c5%99eclav

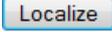The resulting query to the server using the GET method looks as follows:

http://adresaserveru/Marushka/default.aspx?ThemeID=13&MarQueryID=98F36261&MarQParamCount=2&MarQParam0= Jihomoravsk%c3%bd%0d%0a&MarQParam1= B%c5%99eclav

If you use an HTML form, and POST method call, the coding is done automatically.

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7 Calling Marushka Using JavaScript Interface

It is also possible to call Marushka after its load in Iframe via JavaScript interface (without necessity to always reload the whole webpage).

A list of all functions that can be called using this method is listed in path **(current MD installation)/bin/service/js/interface.js**.

In an attached archive is a file **IntefaceCall_CZ.html**, in which is called function **MarushkaLocalize()**, which is a function that triggers a predefined localization after full load of Marushka inside Iframe. This function is called after clicking on the button Localize , which triggers the function which locates the given area. A full HTML with a called function, you can view in e.g. Notepad when you open the file InterfaceCall.html.