Legend
in MarushkaDesign

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1 Aim of the Example

In this example we will demonstrate a few ways to display a legend in MarushkaDesign. This example was created in version 4.0.1.0., so it does not have to be compatible with older versions.

2 Working with Example

- o Unzip the **Legend_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.

- o Open the project **Legend_EN.xml** in MarushkaDesign environment.

- o Select all the form layers from SQLite data store, in the context menu choose Data – Load All:
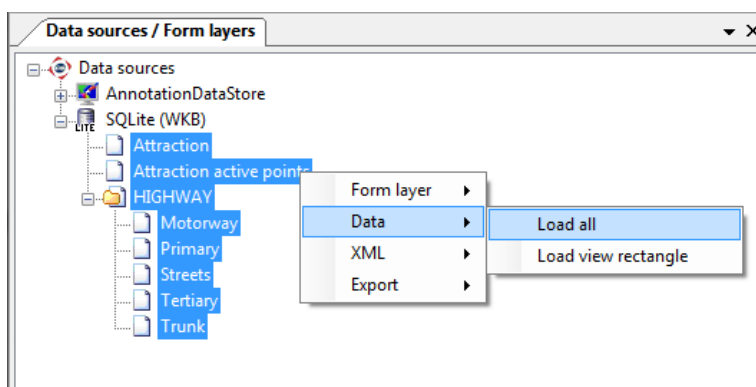
- o In map window choose „Fit All":

- o Launch the local web server:

3 Dialog Box Sample

Fig 1: Setting of items *DBColumnsToClient* for form layers *Attraction* and *Attraction active points*
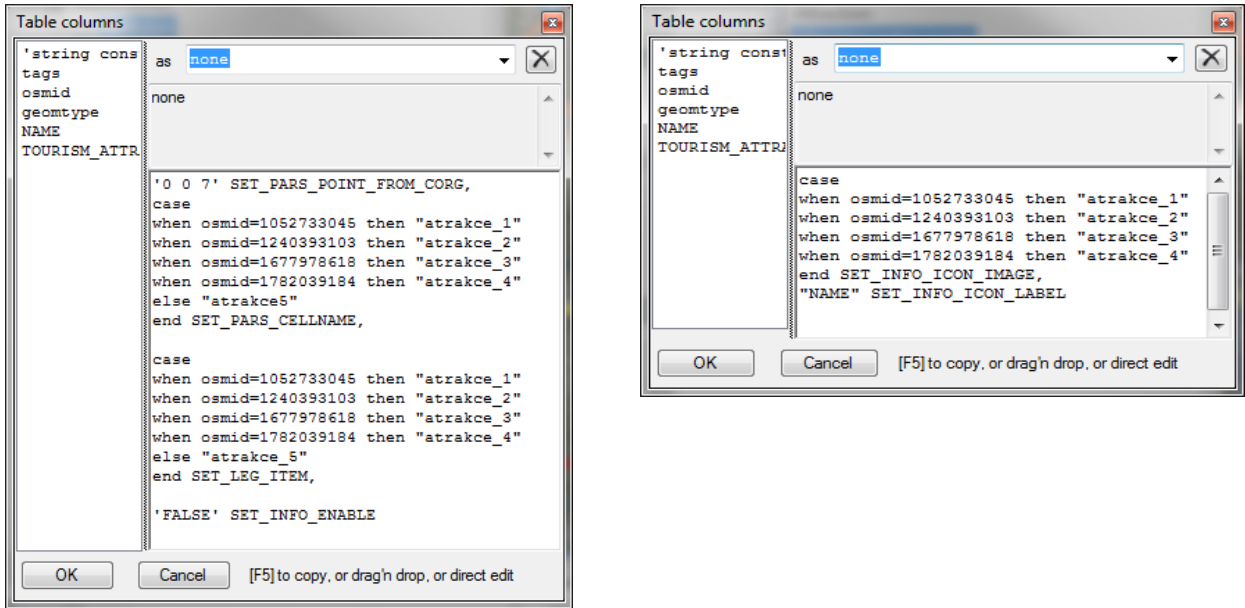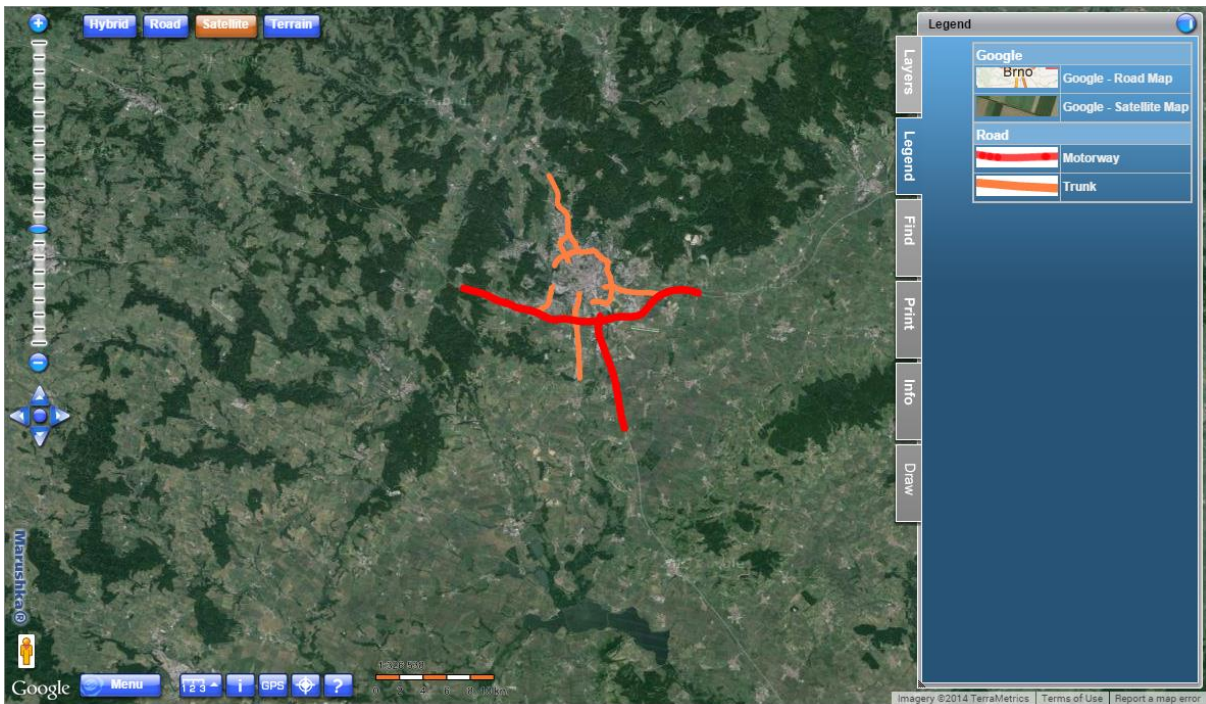

Fig 2: Local WEB server environment, scale 1: 326 538

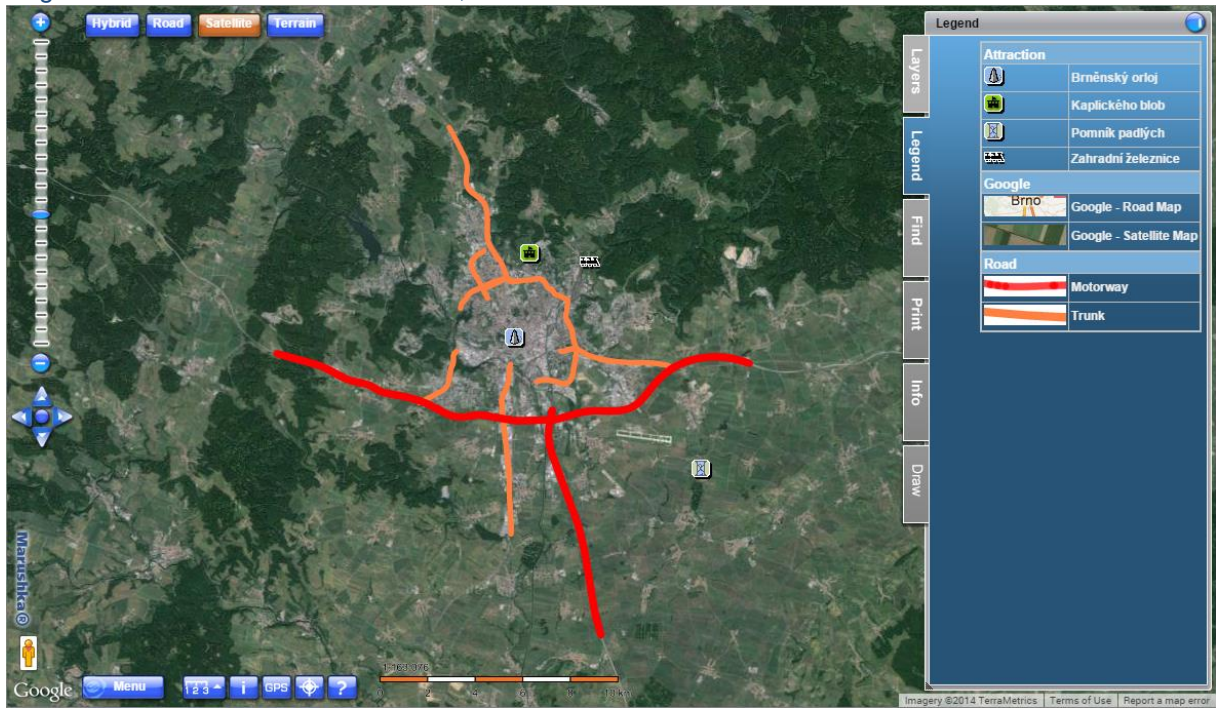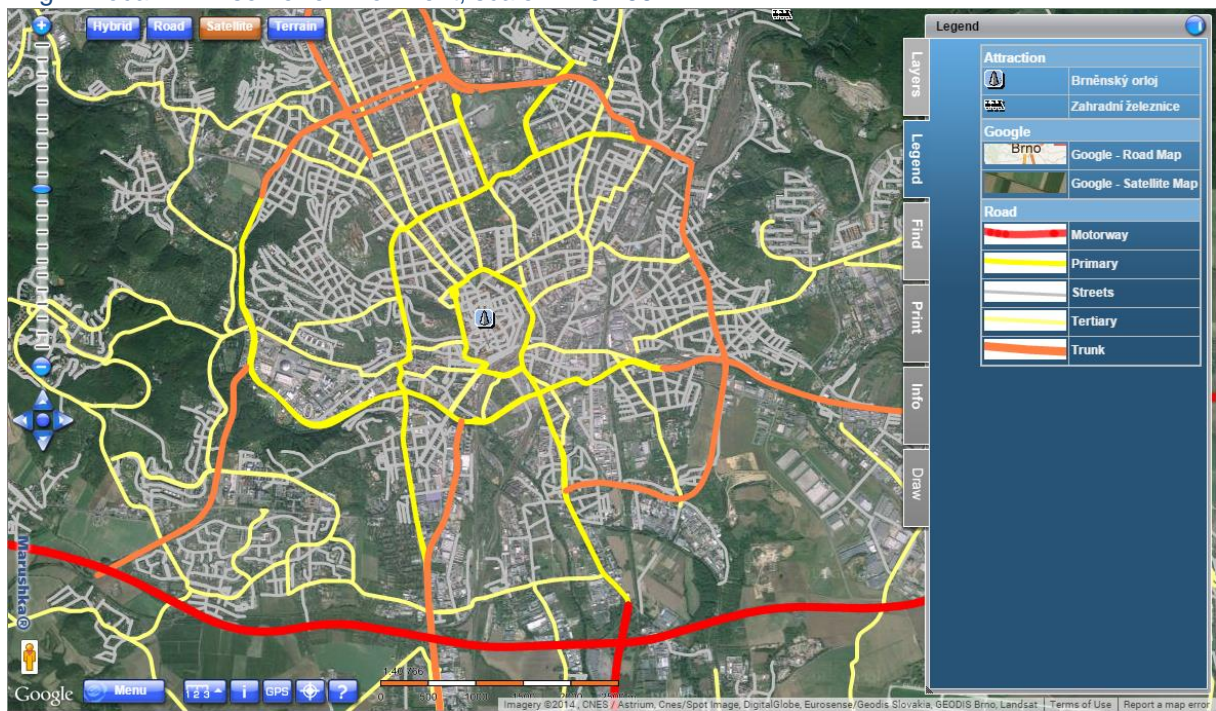Fig 3: Local WEB server environment, scale 1: 163 376

Fig 4: Local WEB server environment, scale 1: 40 766

4   A Brief Description of the Example in MarushkaDesign

The test example contains a database in SQLite with three publish layers. In data store SQLite are 7 form layers, there is also an Annotation data store with one annotation layer *Annotation*. All the form layers in a folder HIGHWAY refer to the table *Silnice* and two other form layers (*Attraction* and *Attraction active points*) refer to the table TOURISM_ATTRACTION. This example shows four display types of legend in MarushkaDesign and also brings closer look to use of annotation layer. In this example is used underlying Google map, the default checked is layer *Satellite*.

All the items of the legend are raster cells of the target data store, which have in property *LegItems* set values *CaptionItem* or *InfoIcon*. You can have a look on the list of potential items in the cell library, tab legend (it is also possible to change the sorting of the cells by dragging the mouse – "drag and drop", if it is required).

1) All the form layers **in folder HIGHWAY** render a road network of the city Brno. Each form layer represents one type of road network (*Highways, Streets*, etc.).

These layers have in form layer properties in item *LegendItems* set a list of legend items (1 to n). These legend items are displayed in the legend in the case that at least one element from the form layer was selected.

Note that the maximum effect on the legend displaying does have items *FromScale* and *ToScale*, e.g., if the scale is in the range between *FromScale* and *ToScale* and if the spatial query in the given territory selects some element. Attention, spatial query of the limiting rectangle selects also elements that may not directly interfere with the visible map, but they just interfere with their limiting rectangle, so these are also chosen!

For all the elements originating from the same form layer is displayed the same set of items in the legend.

The form layer displaying streets (*Streets*) is displayed for better visual clarity only up to scale 1: 50 000. This means, that in scale higher than 1: 50 000, this item will not be displayed, either in the map or in the legend. Other form layers are also displayed up to various scales, in order to illustrate their addition to the legend.

2) Form layer ***Attraction*** renders point elements in a way that it replaces them by the raster cells. Simultaneously, using pseudo column `SET_LEG_ITEM` the layer dynamically adds items to the legend. This process is implemented dynamically, which means, that for each element the user is able to define the legend using SQL command, which is the biggest difference from the previous case.

The SQL expression is used in the case that it assigns to specific values of column *osmid* specific cells from the cell library by the cell name. In case, that neither of these values do correspond, the expression also contains the else statement, which says that in that case is to be assigned a cell named "*atrakce_5*". This case is used here only for illustration, in the real project the value is usually defined by column in DB table.

In this form layer is used pseudo column `SET_PARS_POINT_FROM_CORG`, which is used to create a point element from a source element.

Pseudo column `SET_PARS_CELLNAME` is used to assign icon displayed in the map to the element.

Pseudo column `'FALSE' SET_INFO_ENABLE` disables generating of active information icons for the element. You can try switching the activation of information icons by setting to value `'TRUE'`.

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3) Form layer ***Attraction active points*** displays "clickable elements - icons", information image icon is automatically added to legend, because it is desirable. Image icon itself, gives some information (e.g. bus evokes the bus stop). If you want to suppress automatic adding of information icons to legend, use pseudo column `'FALSE'` `SET_INFO_ICON_LEGEND_ENABLED`.

Pseudo column `SET_INFO_ICON_IMAGE` specifies the name of raster cells to be used for clickable icon in HTML publication.

Pseudo column `SET_INFO_ICON_LABEL` sets a text of information icon that automatically display after hover on the symbol in HTML publication.

4) Annotation layer ***Annotation*** was added because we wanted to display a legend that will be constantly displayed. At the annotation layer as well as in point 1 can be set in the property *LegendItems* legend items we want to display. It is also important to set the scale in which the annotation layer is displayed. There it is set from 0 to 1: 1 000 000 000, so it will be always displayed.

This annotation layer specifically displays text ©*Geovap* with justification bottom right (item *Just*), setting the initial offset along the axis x (*StartOffsetX*) by 25 pixels, setting a start offset for the y axis (*StartOffsetY*) by 20 pixels.

Into the annotation layer legend were added two raster cells, namely cells *Google – Road Map* and *Google - Satellite Map*. These two items will be displayed constantly in the tab legend and they do serve as a legend for underlying Google maps, which are also constantly displayed.

The legend sorting can be changed in the properties of the data source in item *LegendSort*. Option *Custom* is selected automatically when user intervention to legend sort in the cell library occurs; the cell is selected and by performing drag and drop is moved to a new location. By default, the legend is sorted by the value in the parameter *Caption*, but it is also possible to set sorting by value *CellName* or *GId*.

Individual cells within the data store can be sorted into categories by using tilde (~) in property *Caption* in a following way: *category name~cell name*. You can have a look at legend sorting into Cell library of this example. The cells in Marushka in tab legend will be then sorted by these categories, as you can see in Figures 1 - 3. To achieve this functionality, it is necessary to set item *LegendSort* to value *Caption*.

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