



With a push of a button – geospatial network visualization

Effective from **HIGH-LEIT NT 4.22.1** and **HIGH-LEIT XW 5.6**, we support displaying geospatial information in process visualization directly in the control system.

Options thereby offer a lot more than simple schematic depiction of a network diagram and are available for distribution systems for electricity, gas and water on every level – high/medium/low voltage and high/medium/low pressure respectively.

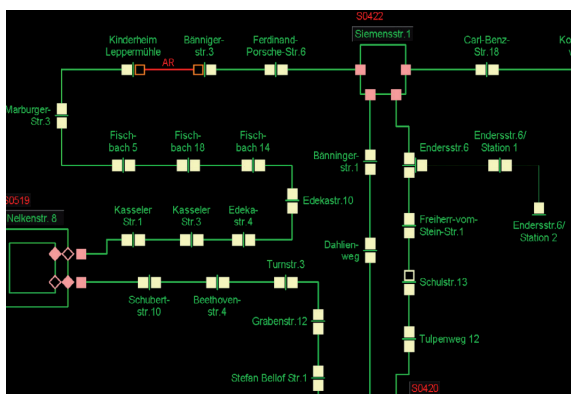
So far, the visualization of geospatial information about networks had only been possible via external GIS viewers.

The benefit of an add-on for our grid control system: in contrast to GIS viewers, current network conditions (eg disturbances) are available at any time and include even geospatial information.

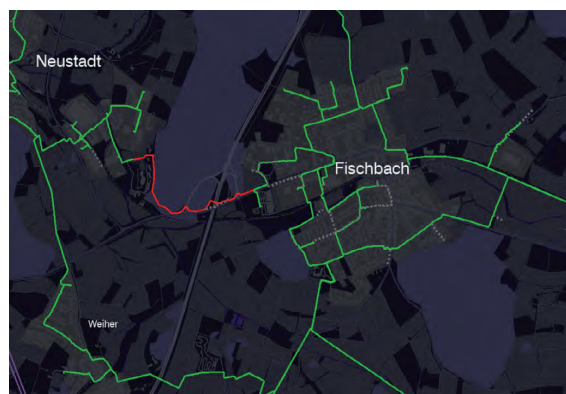
Visualization of geospatial information in the grid control system offers assistance with

- monitoring networks in standard operation;
- maintenance works required to support upkeep tasks;
- locating and resolving faults in case of disturbances.

The visualization of geographic information (streets, buildings, house numbers, etc) is based on imports from publicly available maps.



Network details given as diagram



Network details given as geospatial visualization

Until now, this type of geospatial visualization had been reserved for large system operators. The only alternative was a static display in corresponding GIS viewers. Our solution now provides the benefits of realistic depiction of the environment including current conditions of networks even to small and medium-sized energy companies and municipalities.

How to import network data provided by a geographic information system (GIS)

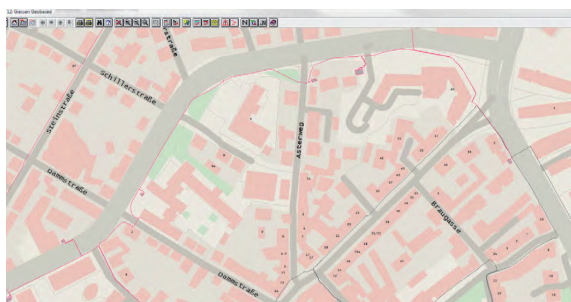
A simple export from the GIS is all you need to display network data. However, the export must at least contain geographic coordinates of all lines and line sections (see sample file).

As a prerequisite, the grid control system has to provide the attribute **GIS reference** or **Name** including a corresponding ID for each line or line section. Finally, topology must be licensed and configured to enable colouring of lines.

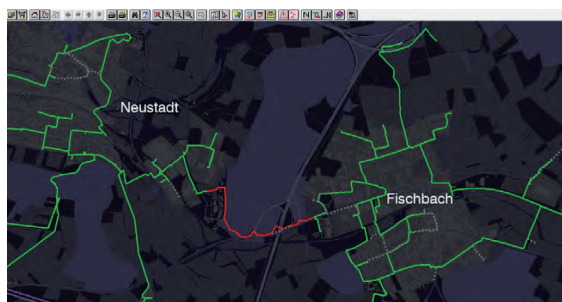
Furthermore, local area substations can be imported in the same way in a separate file.

Workshops with GIS providers are not required. All you need to do is talk with the person responsible for GIS at your system operator and find out whether the particular GIS meets the demands placed by data export.

Scripts are designed in a way that they can be repeated easily in case of, for example, changes within the network. We recommend that your administrators repeat script execution twice a year.



Day scheme



Night scheme

Two themes are available for the geographic view – light (day) and dark (night). You should use the theme that matches best with the overall design of your control system images.

GIS-ID des Leistungsabschnitts <i>(kennt nur das GIS)</i>	Name der Leitung <i>(in GIS und Leitsystem bekannt)</i>	Leitungstyp <i>(hier nicht relevant)</i>	UTM X-Koordinate/	UTM Y-Koordinate/
150814503	S0785-S0779	NAEKBA 3x120	475976,768	5609974,760
150814503	S0785-S0779	NAEKBA 3x120	475979,910	5609972,770
150814503	S0785-S0779	NAEKBA 3x120	475989,870	5609965,622
150814503	S0785-S0779	NAEKBA 3x120	476004,164	5609955,019
150814548	S0778-S0793	3x NA2XS(F)2Y 1x150	477332,239	5609842,423
150814548	S0778-S0793	3x NA2XS(F)2Y 1x150	477332,344	5609843,418
150814548	S0778-S0793	3x NA2XS(F)2Y 1x150	477332,452	5609844,702
150814555	S0776-S0769	3x NA2XS(F)2Y 1x240	475886,068	5608336,844

Data export from GIS