



## HIGH-LEIT NT

New Functions in Release 4.23

# SCADA System

## HIGH-LEIT NT

### Release 4.23

Already the last release of HIGH-LEIT NT has seen considerable improvements with regard to user friendliness, thanks to the introduction of geodata-based network visualization and the HIGH-LEIT Web feature. And we are pursuing these developments even further: With HIGH-LEIT 4.23, the central evaluation functions – Event and Alarm lists – have been given an additional sparkle.

Furthermore, we have upgraded and improved many functions in the fields of IT security, topology, switching application, new markers and many others.

### New Lists of Alarms and Events

We have prepared **completely new** alarms and events lists based on the latest technologies. By including **numerous comfort functions** we have made your work easier for you: It is now possible, for instance, to shift and scale columns via drag & drop. All lists have a standard design, quick filter and complex filter functions, as well as individual setting features.

#### Event List

The new event list includes a separate evaluation mode which enables quick search and filtering.

#### Alarm List

In order to recognize relevant alarms more easily, it is possible to mark individual list entries – manually or automatically – via a new **Info column** in the following manner:

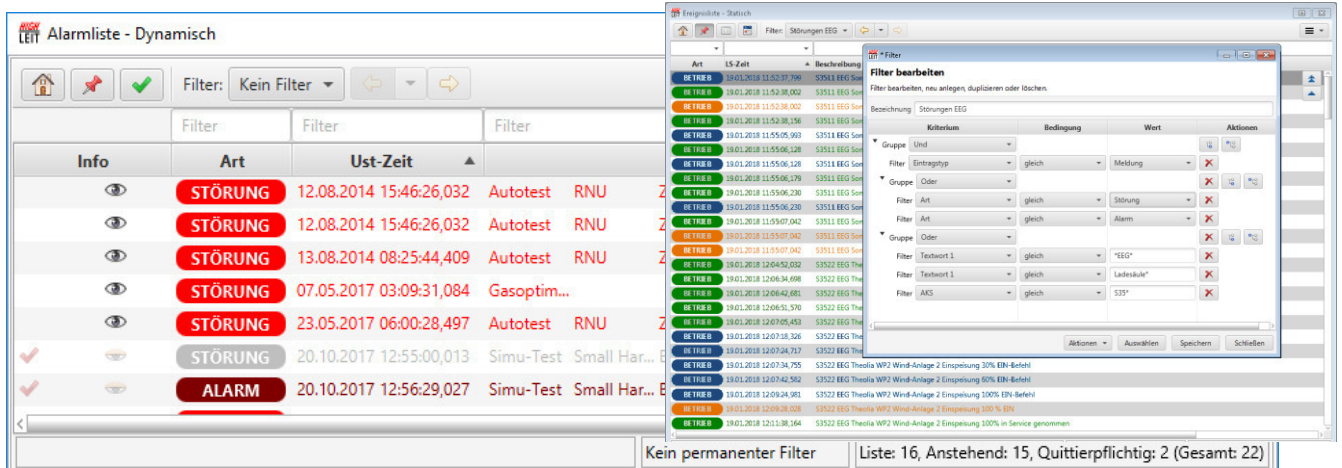
- Seen
- Re-submit
- Monitored
- Requires acknowledgement
- Requires individual acknowledgement

Entries can be easily shifted to a secondary list via the context menu, e.g. in order to separately manage long-term, uncritical entries.

### IT Security

By updating your system to release 4.23, you can protect your SCADA system even better against attacks. The FTP protocol has been completely replaced by the secure FTPS protocol. This upgrade refers to communication between

- Operator training simulator and server
- Excel Reports and server and
- Client and server.



The new Alarm and Event List do not only have a modern look but also make your work so much easier.

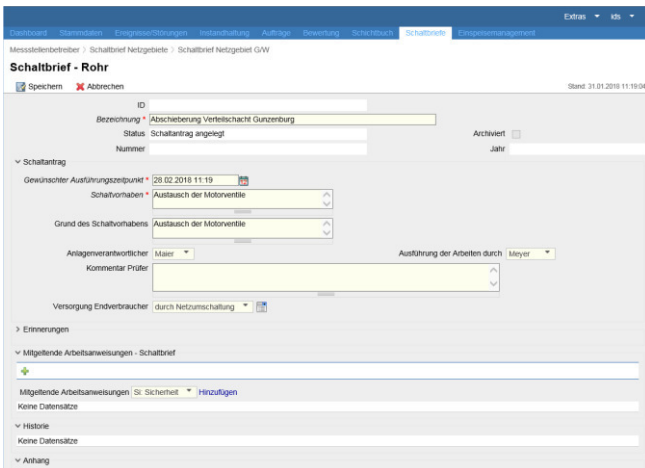
## Switching Application for Pipeline Networks

The HIGH-LEIT switching application function now enables you to assign switching logs to different grid areas.

As per release 4.23 we also offer suitable forms for pipeline networks. They are similar to the forms for electricity applications, thereby facilitating operations in a multi-utility environment.

Operators and administrators can also individually adjust access authorizations for their co-workers: every employee only sees what is necessary for them.

Moreover, it is possible to specify **work instructions** for the network area. These work instructions are automatically attached to reports that are generated as part of the switching log.



Equivalent to the Electricity switching operations log: Suitable form for pipeline media.

## Switching Sequences

Apart from operator interventions and image selections, an update to release 4.23 additionally enables the following **uploads**: graphs, records, event list, alarm list.

Documents (pdf, Excel, graphic files) and operator instructions in the form of comments can be attached to a switching sequence, thereby enabling the **execution of complete**

**operation processes**, e.g. by displaying working instructions from the quality management.

## FastModify in the Simulation Mode

The FastModify function enables you to synchronize switch positions in the simulation mode by a **simple double click** – it's quick and doesn't require extra acknowledgement.

## New Markers

### Dispatching of Staff

In order to know which staff are on assignments on site, you can now set **markers at systems and power lines**. Staff can be **assigned directly** from a list – including their area of responsibility, authorizations and phone number.

### Live Works

If, for instance, you want to execute **cleaning and maintenance works** in a local transformer station **in a safe manner while this station is live**, you can set the marker **“Live Works”** at the station as per release 4.23.

## Topology

### Three-Position Switch Disconnecter

In short: Three-position switch disconnectors can now be **visualized in the SCADA system**.

### Plausibility of Switch Positions

The plausibility check between measured values and topological status can be automatically checked for the elements *Line* and *Bus-bar* by means of measured values for voltage and current. The relevant component is then **marked in color**.

### Typified Switching Programs

Typified switching programs aid users in recurring switching operations. The new release includes the following new programs:

- Switching programs to achieve normal status in a branch
- Different programs for transformers (isolation, switching on or off, switchover).

Like with previous versions, creation of those (typified) switching programs is done automatically on the basis of the system topology and current statuses.

## User Authorizations

With 24/7 operation, it must be guaranteed that **at least one person** with the necessary user rights is logged in at any time for every system or group of installations. With the new version, HIGH-LEIT now enables you to monitor whether this is the case: If no person who is in charge is logged into the system, an alarm is set off.

## Operator Training Simulator for Power Grids

The operator training simulator enables the owners of power grids to coach their staff on potential disturbances and their elimination and prepare them for the deregulated energy **market in their familiar working environment**. For this purpose we have implemented the following upgrades:

- Assets/equipment for renewable energy plants and virtual power stations
- Simulation of telecontrol faults in an RTU
- Trainer support through snapshots and practical lessons
- Improvements in data upload from the HIGH-LEIT runtime environment
- Upgraded logs for checking the data model for the training server
- New standard values: If customer data are incomplete, the training simulator uses the new standard values, thereby reducing costs and efforts for parameterization.

## Additional Upgrades

### Logon Actions

The scope of logon actions have been expanded by the functions *Attributes List* and *Reports*. These applications are directly opened the moment you log into the system.

### Revision

Last but not least, we have optimized the **switchover time of servers** and have **accelerated data storage** with text words in the HIGH-LEIT database in the new release 4.23.

Would you like to know more about our solutions? Please get in touch!  
We are happy to help you.

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# HIGH-LEIT NT 4.23 – AT A GLANCE

<b>New Alarm and Event List</b>	<ul style="list-style-type: none"> <li>✓ New Look &amp; Feel: Modern and clear design</li> <li>✓ New functions to enhance user friendliness (e.g. quick search and quick filter function for the Event List or markers in the Alarm List)</li> </ul>
<b>IT Security</b>	<ul style="list-style-type: none"> <li>✓ Better protection of network against external attacks</li> <li>✓ Protocol conversion from FTP to FTPS</li> </ul>
<b>Switching Requests for Pipeline Networks</b>	<ul style="list-style-type: none"> <li>✓ Assignment of switching records to different network areas</li> <li>✓ New switching record form for pipeline networks</li> <li>✓ Individual access authorization</li> <li>✓ Deployment of working instructions</li> </ul>
<b>Switching Sequences</b>	<ul style="list-style-type: none"> <li>✓ Additional displays (graphs, reports, Event List, Alarm List)</li> <li>✓ Storage and execution of complete operation sequences</li> <li>✓ Quicker execution of switching operations in simulation mode</li> </ul>
<b>New Markers</b>	<ul style="list-style-type: none"> <li>✓ Staff assignment: Easy selection of staff for assignments in installations and systems Marking of systems and installations with staff on duty</li> <li>✓ Better and clearer overview of the grid and additional markers (e.g. "ordered while system is live")</li> </ul>
<b>Topology</b>	<ul style="list-style-type: none"> <li>✓ Visualization of three-position switch disconnectors</li> <li>✓ Plausibility check of switch positions</li> <li>✓ Typified switching programs for transformers</li> </ul>
<b>Responsibilities</b>	<ul style="list-style-type: none"> <li>✓ It must be ensured that at least one person in charge who has suitable user rights is logged into the system (only with 24/7 operation)</li> </ul>
<b>Operator Training Simulator for Power Grids</b>	<ul style="list-style-type: none"> <li>✓ New functions for training your staff in their familiar working environment (e.g. equipment for renewable energy plants and virtual power plants, telecontrol faults)</li> </ul>
<b>Additional Features</b>	<ul style="list-style-type: none"> <li>✓ Login actions have been expanded by attributes list and reports</li> <li>✓ Optimization of servers and acceleration of data storage</li> </ul>