

8.3 Protocol Hub

Protocol HUB section stores configuration for every connected device. You can configure it by importing settings from an Excel file.

Configuration

CONFIGURATIONIMPORTED SIGNALSEVENT LOGPROTOCOL CONNECTIONS

Protocol configuration

IMPORT PROTOCOL CONFIGURATION

Here you can import Excel configuration file. Up to 1000 signals are allowed. All previous signals will be replaced.

Configuration file:

PLC (IEC-61499) Boot file:

IEC61850 Server model file:

DOWNLOAD CONFIGURATION

Current configuration (elsetaConfig.xlsx):

Template configurations:

In this tab a user can:

- Import new configuration from Excel file (.xls, .xlsx formats). If any errors in the file are found, the device will not be imported, and importing process will be stopped.
- Import .fboot file for PLC.
- Import IEC61850 Server model file
- Download current configuration Excel file.
- Download a template configuration Excel file.

Imported Signals

CONFIGURATION

IMPORTED SIGNALS

EVENT LOG

PROTOCOL CONNECTIONS

IMPORTED SIGNALS

| Device | Signal | Value | State | Attributes | Time |
|---------|--------------------|--------|-------|------------|------------------------|
| | | | | | |
| WCCLite | CPU usage | 100 | | | 2021-11-26 12:15:36.80 |
| WCCLite | Fault LED | 0 | | | 2021-11-26 12:13:47.51 |
| WCCLite | GSM Total RX | 0 | | | 2021-11-26 12:13:47.28 |
| WCCLite | GSM Total TX | 0 | | | 2021-11-26 12:13:47.28 |
| WCCLite | GSM signal quality | -116 | | | 2021-11-26 12:13:47.94 |
| WCCLite | Internet status | 1 | | | 2021-11-26 12:13:47.94 |
| WCCLite | LAN0 Total RX | 0 | | | 2021-11-26 12:13:48.61 |
| WCCLite | LAN0 Total TX | 0 | | | 2021-11-26 12:13:48.61 |
| WCCLite | LAN1 Total RX | 35.838 | | | 2021-11-26 12:14:47.33 |
| WCCLite | LAN1 Total TX | 4.227 | | | 2021-11-26 12:14:57.49 |
| WCCLite | RAM usage | 44.68 | | | 2021-11-26 12:15:26.80 |
| WCCLite | Relay output | 0 | | | 2021-11-26 12:13:47.51 |

The imported signals section shows basic information about applied configuration. This section is used for viewing only.

Event Log

CONFIGURATIONIMPORTED SIGNALSEVENT LOGPROTOCOL CONNECTIONS

DEVICE EVENTS

Auto refresh☒

Number of items:

| Device | Signal alias | Signal name | Value | Timestamp |
|----------------------|----------------------|----------------------|----------------------|----------------------|
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| wcc | lan1_tx | LAN1 Total TX | 5.768000 | 2021-11-26 12:23:47 |
| wcc | lan1_rx | LAN1 Total RX | 36.347000 | 2021-11-26 12:23:47 |
| wcc | ram_usage | RAM usage | 45.230000 | 2021-11-26 12:23:46 |
| wcc | cpu_usage | CPU usage | 64.000000 | 2021-11-26 12:23:46 |
| wcc | lan1_tx | LAN1 Total TX | 5.763000 | 2021-11-26 12:23:37 |
| wcc | lan1_rx | LAN1 Total RX | 36.342000 | 2021-11-26 12:23:37 |
| wcc | ram_usage | RAM usage | 45.380000 | 2021-11-26 12:23:36 |
| wcc | cpu_usage | CPU usage | 46.000000 | 2021-11-26 12:23:36 |
| wcc | lan1_tx | LAN1 Total TX | 5.756000 | 2021-11-26 12:23:27 |
| wcc | lan1_rx | LAN1 Total RX | 36.336000 | 2021-11-26 12:23:27 |
| wcc | ram_usage | RAM usage | 45.230000 | 2021-11-26 12:23:26 |
| wcc | cpu_usage | CPU usage | 82.000000 | 2021-11-26 12:23:26 |

Download events log archive:

Download

Event Log is the timestamped status data. It allows reviewing of the latest events and changes for devices state changes in chronological order. Newest events are shown at the top of the list. WCC Lite will timestamp the status data with a time resolution of one millisecond.

Initially, all breakers, protection contacts digital status input points in the WCCLite; events captured from IEDs (Intelligent electronic devices) shall be configured as Event Log points. It's possible to assign any digital status input data point in the WCCLite as an SOE point with an Excel template during configuration.

Each time a device changes state, the WCCLite will save it with timetag in internal storage. Event Log can also be downloaded by pressing the download button at the bottom of the page.

 Events are recorded only for devices that have the *log* field set to 1.

Protocol Connections

| CONFIGURATION | | | | |
|----------------------|------------------------|----------------------|----------------------|----------------------|
| IMPORTED SIGNALS | | | | |
| EVENT LOG | | | | |
| PROTOCOL CONNECTIONS | | | | |
| PROTOCOL CONNECTIONS | | | | |
| Device | Protocol | Host | Status | Timestamp |
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| iomod | Modbus Serial master | PORT1 | Disconnected | 2021-11-26 12:13:36 |
| scada3 | DNP3 slave | PORT2 | Disconnected | 2021-11-26 12:13:32 |
| iomod3 | IEC 60870-5-103 master | PORT2 | Disconnected | 2021-11-26 12:13:31 |
| scada2 | IEC 60870-5-104 slave | 192.168.1.10 | Disconnected | 2021-11-26 12:13:21 |
| scada1 | IEC 60870-5-101 slave | PORT1 | Disconnected | 2021-11-26 12:13:18 |
| | | | | |

The protocol connections section shows configured devices and their respective ports, statuses