

8.3 Protocol Hub

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

Configuration

CONFIGURATIONIMPORTED SIGNALSEVENT LOGPROTOCOL CONNECTIONSSCRIPT-RUNNER

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:

Choose FileNo file chosen

Import configuration

PLC (IEC-61499) Boot file:

Choose FileNo file chosen

Import FBOOT file

IEC61850 Client model file:

Choose FileNo file chosen

Import client model file

IEC61850 Server model file:

Choose FileNo file chosen

Import server model file

DOWNLOAD CONFIGURATION

Template configurations:

Download

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 the importing process will be stopped.
- Import .fboot file for PLC.
- Import the IEC61850 Server model file
- Import IEC61850 Client model file
- Download the current configuration Excel file.
- Download a template configuration Excel file.

Imported Signals

CONFIGURATIONIMPORTED SIGNALSEVENT LOGPROTOCOL CONNECTIONSSCRIPT-RUNNER

IMPORTED SIGNALS

☒ Column filter

☒ Device name

☒ Signal alias

☒ State

Save Changes

☒ Signal name

☒ Value

☒ Attributes

☒ Device alias

☒ Units

☒ Time

| Device name | Signal name | Device alias | Signal alias | Value | Units | State | Attributes | Time |
|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|------------------------|
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| SMS receiver | sms sim select | sms1 | sms-select | 0 | | | | 2024-06-17 15:14:49.92 |
| SMS receiver | sms modem reset | sms1 | sms-modem | | | | | |
| SMS receiver | sms relay select | sms1 | sms-relay | | | | | |
| Internal data | sim select | wcc1 | sim-select | 0 | | | cot=10 | 2024-06-17 15:14:49.92 |
| Internal data | modem reset | wcc1 | modem-reset | | | | | |
| Internal data | internet status | wcc1 | internet-status | 1 | | | | 2024-06-17 15:11:47.77 |
| Internal data | roaming status | wcc1 | roaming-status | 0 | | | | 2024-06-17 15:11:47.78 |
| Internal data | signal quality | wcc1 | signal-quality | -119 | | | | 2024-06-17 15:11:47.78 |
| Internal data | sim status | wcc1 | sim-status | 1 | | | | 2024-06-17 15:11:47.78 |
| Internal data | relay on | wcc1 | relay | 0 | | | | 2024-06-17 15:11:47.78 |
| SMS receiver admin | SMS reboot | sms-admin | sms-reboot | | | | | |

The imported signals section shows basic information about the applied configuration. This section is used for viewing only. Column filter allows to filter the signals according to the information needed.

Event Log

CONFIGURATIONIMPORTED SIGNALSEVENT LOGPROTOCOL CONNECTIONSSCRIPT-RUNNER

DEVICE EVENTS

☒ Auto refresh

☒ Column filter

☒ Device name

☒ Signal alias

☒ Attributes

Save Changes

☒ Signal name

☒ Value

☒ Direction

☒ Device alias

☒ Timestamp

Number of items: 50

| Device name | Signal name | Device alias | Signal alias | Value | Timestamp | Attributes | Direction |
|----------------------|----------------------|----------------------|----------------------|----------------------|-------------------------|----------------------|----------------------|
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| WCC Lite | GPIO Relay | wcc1 | relay | 42.000000 | 2024-06-17 12:22:42.200 | cot=10 | M |
| WCC Lite | GPIO Relay | wcc1 | relay | 42.000000 | 2024-06-17 12:22:42.200 | cot=7 | M |
| WCC Lite | GPIO Relay | wcc1 | relay | 42.000000 | 2024-06-17 12:22:42.200 | | C |
| WCC Lite | Date second | wcc1 | date-second | 42.000000 | 2024-06-17 12:22:42.200 | | M |
| WCC Lite | Netstat ETH1 RX | wcc1 | netstat-eth1-rx | 0.027000 | 2024-06-17 12:22:42.50 | | M |
| WCC Lite | Netstat ETH0 RX | wcc1 | netstat-eth0-rx | 0.027000 | 2024-06-17 12:22:41.862 | | M |
| WCC Lite | Uptime | wcc1 | uptime | 195.760000 | 2024-06-17 12:22:41.505 | | M |
| WCC Lite | RAM usage | wcc1 | ram-usage | 34.100000 | 2024-06-17 12:22:41.487 | | M |
| WCC Lite | CPU usage | wcc1 | cpu-usage | 50.000000 | 2024-06-17 12:22:41.481 | | M |
| WCC Lite | LED blue heartbeat | wcc1 | blue-heartbeat | 0.000000 | 2024-06-17 12:22:41.393 | | M |
| WCC Lite | GPIO Relay | wcc1 | relay | 1.000000 | 2024-06-17 12:22:41.390 | | M |
| WCC Lite | GPIO Relay | wcc1 | relay | 39.000000 | 2024-06-17 12:22:39.805 | cot=10 | M |

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. The newest events are shown at the top of the list. WCC Lite will timestamp the status data with a time resolution of one millisecond. Column filter allows to filter the data according to the information needed.

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 */og* field set to 1.

Protocol Connections

CONFIGURATIONIMPORTED SIGNALSEVENT LOGPROTOCOL CONNECTIONSSCRIPT-RUNNER

PROTOCOL CONNECTIONS

| Device name | Device alias | Protocol | Host | Status | Timestamp |
|----------------------|----------------------|------------------------|----------------------|----------------------|----------------------|
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| IOMod 8Di8DO | IOMod88 | IEC 60870-5-101 master | PORT1 | Disconnected | 2024-06-17 15:25:20 |
| DNP3 SCADA system | DNP3_SCADA | DNP3 slave | 192.168.1.2 | Disconnected | 2024-06-17 15:24:50 |
| Modbus SCADA system | Modbus_SCADA | Modbus TCP slave | 192.168.1.2 | Disconnected | 2024-06-17 15:24:49 |
| IEC104 SCADA system | IEC104_SCADA | IEC 60870-5-104 slave | 192.168.1.2 | Disconnected | 2024-06-17 15:24:43 |
| IEC101 SCADA system | IEC101_SCADA | IEC 60870-5-101 slave | PORT2 | Disconnected | 2024-06-17 15:24:41 |

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

Revision #3

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