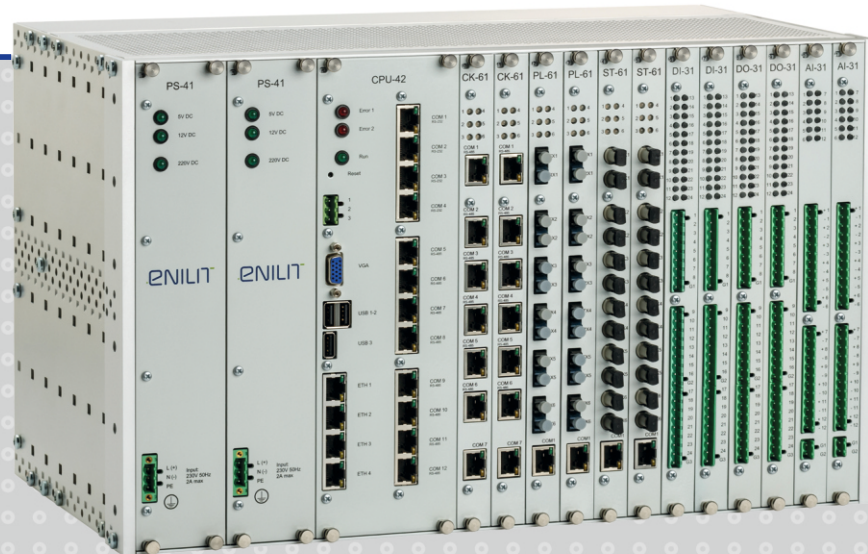


ENILIT

Smart RTU solution



UAB Enilit is a private limited company which delivers high-tech equipment for substation automation projects. During the decade of dynamic business in the local and international market we have built an extensive experience working with various SCADA systems, relay protection and remote terminal unit devices.

As a response to the individual needs of the customers, UAB Enilit has developed a remote terminal unit **Enilit RTU** with the unique user-friendly software **Enilit CMS** for the configuration and management of the unit.

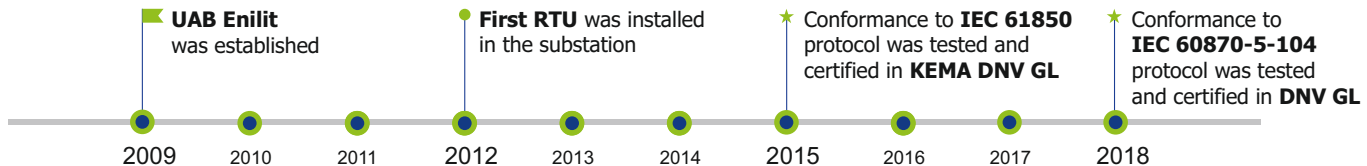
Our experience and continuous interest in energy innovation allows us to quickly respond to the changing needs of our customers and to follow the up-to-date European and world standards.

Our customers:

- integrators of electrical systems.

Users of Enilit RTU:

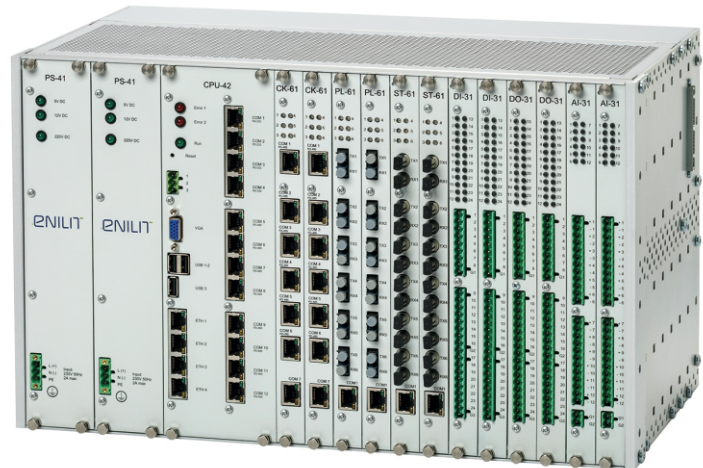
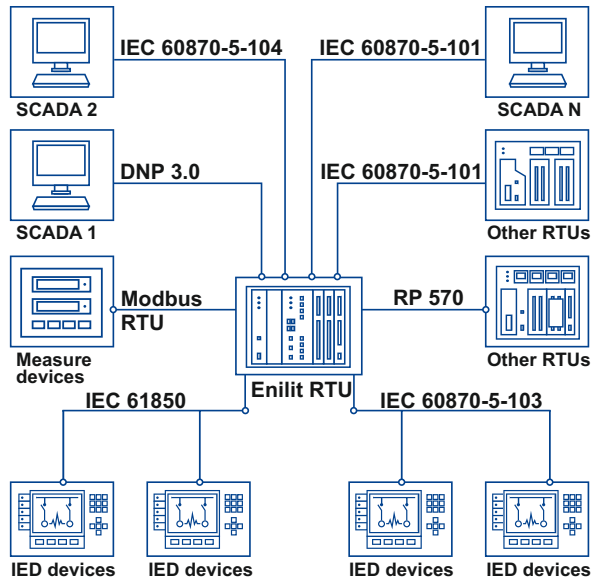
- electricity distribution companies;
- electricity transmission companies;
- electricity power generation companies;
- large industrial companies.



Remote terminal unit

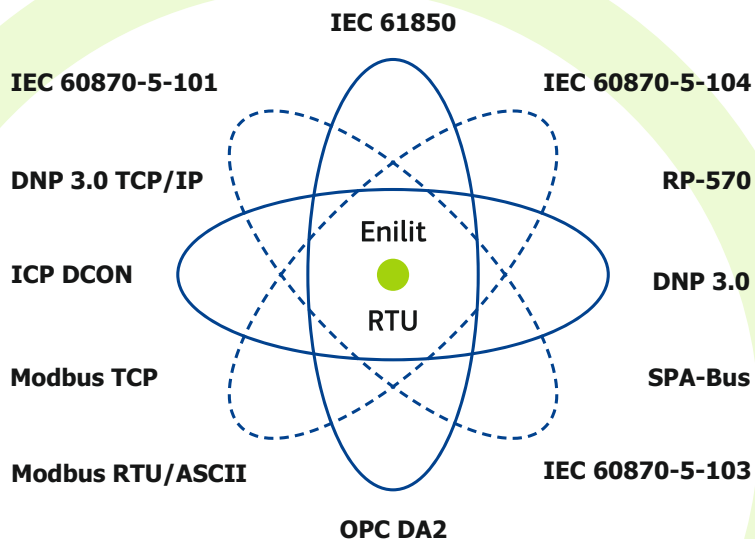
ENILIT RTU

A remote terminal unit (RTU) is a microprocessor-controlled electronic device that interfaces physical world's objects to a distributed control system or SCADA (Supervisory Control and Data Acquisition System) by transmitting telemetry data to the system and employing messages to control the connected objects from the supervisory system.



Data concentrator / Protocol gateway

A wide range of supported protocols and hardware ports makes Enilit RTU useful in any situation where **data concentrator or protocol gateway** is needed:



Protocol gateway monitors, manages and maintains the remote equipment. The gateway possesses the following features:

- Unlimited data exchange multiple sessions using communications protocols (Server, Client or both) of IEC 61850, IEC 60870-5-101, IEC 60870-5-103, IEC 60870-5-104, DNP 3.0 serial, DNP 3.0 TCP/IP, Modbus RTU/ASCII, Modbus TCP, RP-570, OPC DA2, SPA-Bus, ICP DCON, and other on request;
- A gateway between energy protocols and OPC DA/UA for multi-vendor SCADA software;
- Parallel Redundancy Protocol (IEC 62439-3 PRP-1) supported as a standard without extra "red box";
- Two-way data exchange using standard communications protocols;
- A programmable logic that complies with the IEC 61131-3 standard.

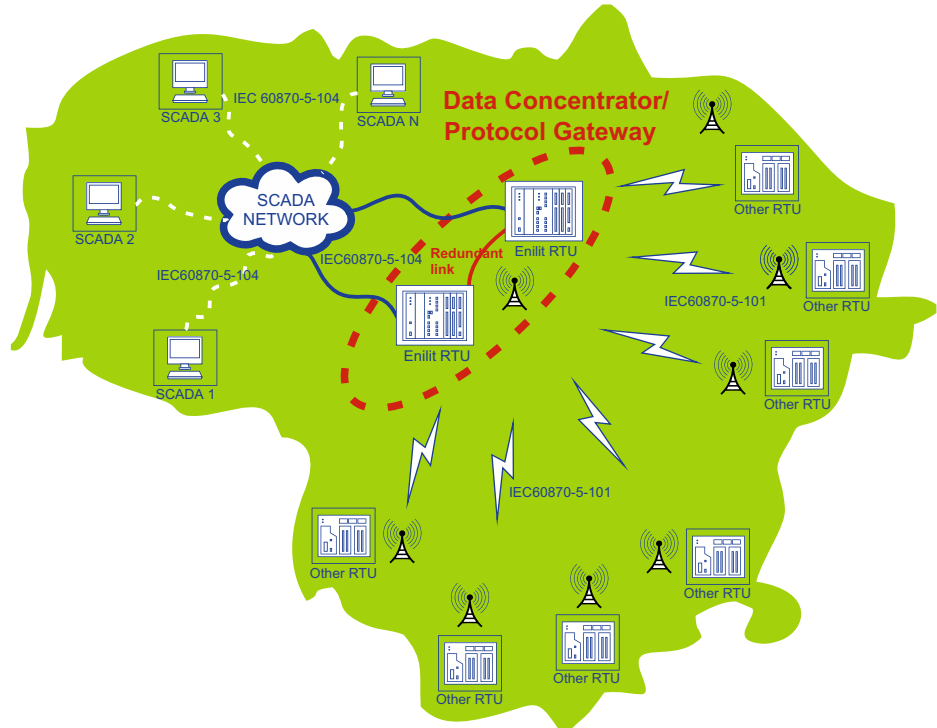
Redundant RTU solution

Hot-Standby redundancy is a default setting used in Enilit RTU.

The primary and secondary RTU systems run simultaneously. The data is mirrored to the secondary RTU in real time so that both systems contain identical information. This method allows switching over fast from the active to standby RTU because both of the RTUs have the same data. Even if the serial connection speed 115,200 kbs is used, it is possible to transfer about 500 events per second between the RTUs.

To support redundancy, RTUs must be connected with each other **with minimum one** LAN, RS-485 or RS-232 interface cable. These communication paths are used to exchange real time data between the active to standby RTU. It is **possible to use a maximum of 4 redundant connections** between RTUs.

- RS-485 or RS-232 (COM1-COM12);
- RS-485 or RS-232 (COM1-COM12);
- LAN (ETH1-ETH4);
- LAN (ETH1-ETH4).



Enilit RTU is already working:

in countries

Lithuania • Malaysia • Bosnia & Herzegovina • Poland • India • Kingdom of Saudi Arabia.

with SCADA systems

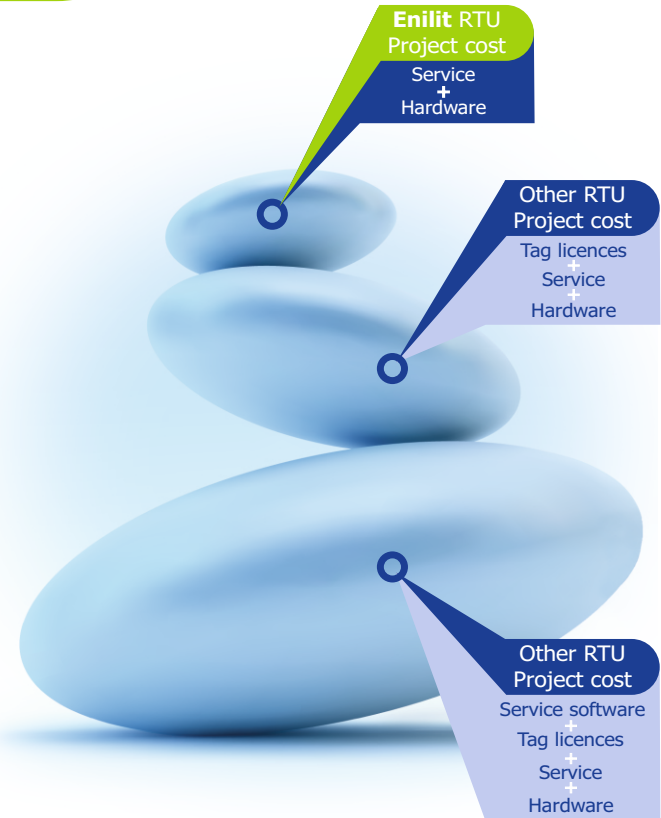
ABB MicroSCADA • Wonderware Intouch • Martem SCADA • General Electric XA/21

with Relay protection terminals and RTUs

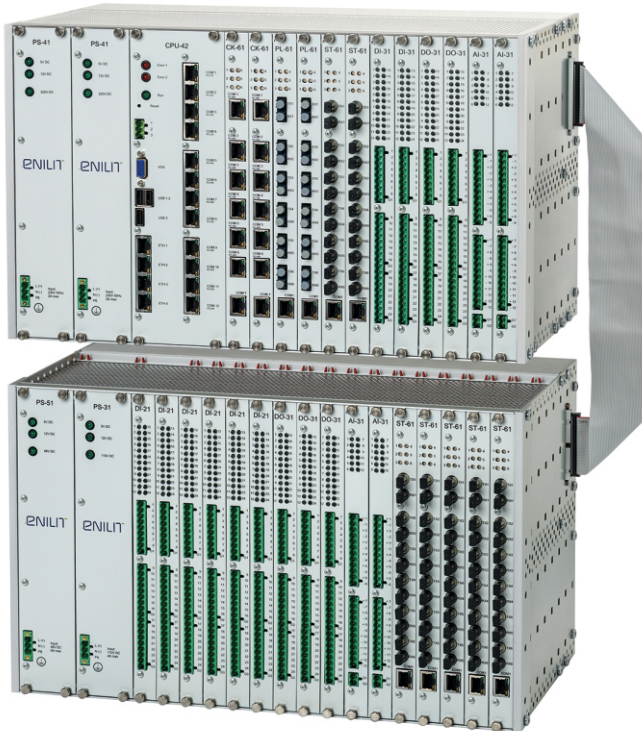
Alstom	Siemens	Schneider Electric	ABB	Elektrometal Energetyka SA
P 143	7SJ6421	Vamp 40	RTU 560	e ² Tango 800
P 145	7SJ6451	Vamp 257	REF 630	
P 443	7UT6131	Vamp 265	REC 670	
C 264	7SJ85	Vamp 300F	REB 670	
P 446	AK 1703			
P 841				
P 746				

ENILIT RTU – cost-effective solution

- We respect your time and resources, therefore, our friendly and flexible team provides immediate support minding individual client needs and challenges.
- The unique built-in software Enilit CMS is the core tool which makes Enilit RTU both most user-friendly and cost-efficient – comfortable and work time saving:
 - The **configuration and operation of Enilit RTU is carried out online** on the device – no other software or cable is needed, which saves time on preparation, configuration, commissioning and overall installation of the equipment as well as daily maintenance;
 - The **built-in protocol analyzer** and real time signal and command testing tool allows seeing online the data received and sent through Enilit RTU and to simulate each signal, command or measurement from Enilit RTU through each of protocols;
 - The user-intuitive approach of Enilit CMS software **reduces the time to train service staff** to use the software;
 - Great Tag capacity concept will not cause any extra costs in the future use of the device even if the number of tags exceeds **20 million tags**.



Enilit RTU – flexible and compatible solution



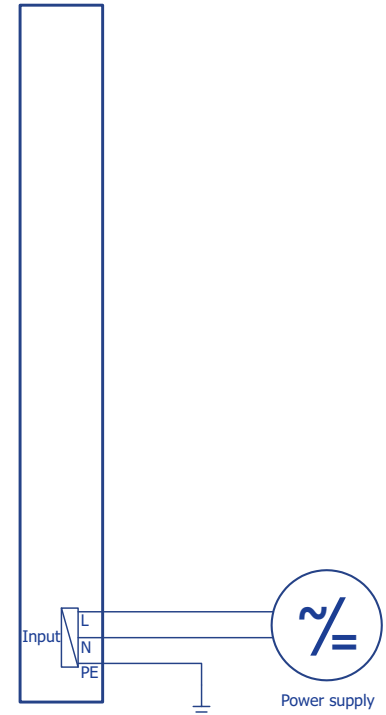
- Enilit RTU comes in two 19" wide and 6U high aluminium frame system racks;
- Connection between racks max. 15 m length;
- Main RACK:
 - 2 x PS modules;
 - 1 x CPU module;
 - 12 x input / output modules;
- Extension with double RACK:
 - 2 x PS modules;
 - 16 x input / output modules;
- DI, DO, AI or ST modules could be installed in any order according to the customer request. Any type of module is allowed to be inserted in any slot.
- Environmental working conditions:
 - Dry heat test: 70°C for 24 hrs;
 - Damp heat test: 95% RH and 40°C for 48 hrs.

Power supply PS module

- The second redundant power supply module can be installed;
- The second module works as a redundant hot standby power supply, switching reaction time is immediate;
- Input range:
 - PS 11: 115V AC;
 - PS 21: 230V AC;
 - PS 31: 110V DC;
 - PS 41: 220V DC;
 - PS 51: 48V DC;
- Protection against polarity reversal.



Enilit RTU
PS



Central processor CPU module



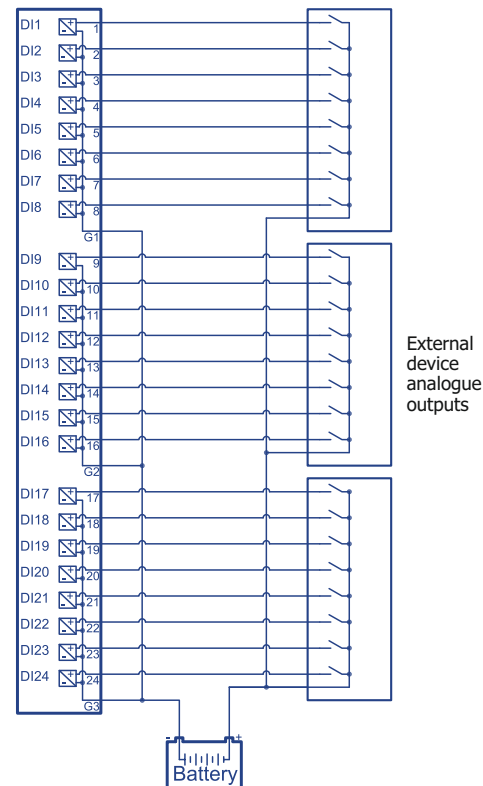
- 64-bit microprocessor of 1.6 Ghz;
- Intel Atom internal watchdog;
- 2 GB Dynamic memory DRAM;
- 32 GB Flash memory (for software, databases, events, waveforms, parameters);
- 4 pcs. Ethernet-based 10/100 BaseTx ports (not switched – all 4 ports are able to work with different information network gateway and have unique MAC) can be used for TCP IP type protocols as:
 - IEC 61850; IEC 60870-5-104; DNP 3.0 TCP; Modbus TCP;
- 12 pcs. of RS232/RS485 COM ports (RJ45 interface) can be used for RS type protocols as IEC 60870-5-101, IEC 60870-5-103, DNP 3.0 serial, Modbus serial and other:
 - CPU 41 has 0 x RS232 ports and 12 x RS485 ports;
 - CPU 42 has 4 x RS232 ports and 8 x RS485 ports;
 - CPU 43 has 8 x RS232 ports and 4 x RS485 ports;
 - CPU 44 has 12 x RS232 ports and 0 x RS485 ports.

Digital input DI module

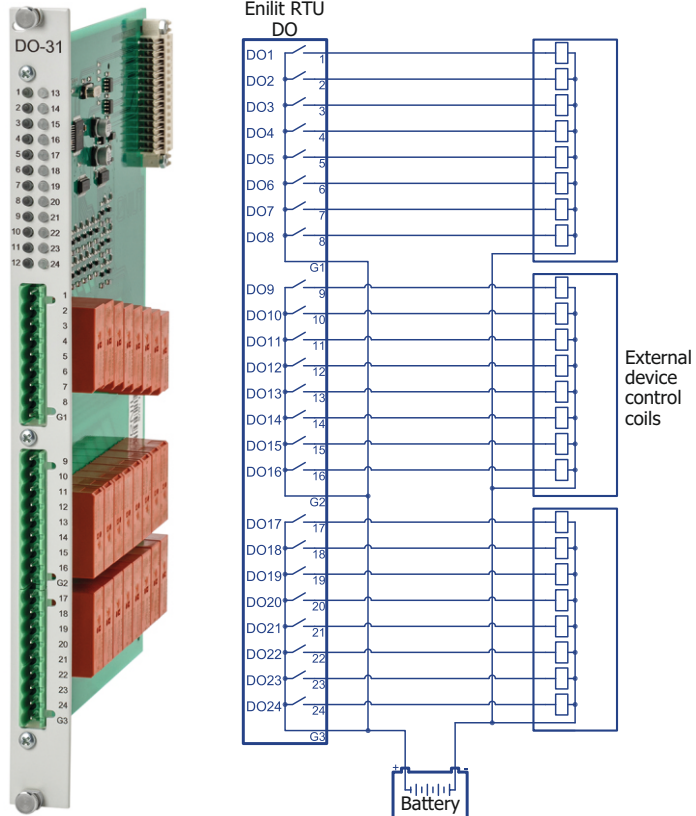
- 24 pcs. optically isolated DI with 1 common minus for each 8 inputs;
- Input types: digital input, BCD code, pulse counter;
- Each digital input can be configured as a single or double signal on the same DI module;
- LED indication for each digital input status;
- Protection against reversal polarity;
- Isolation: 2,5 kV - 50/60 Hz lmin;
- 1 ms time tagging;
- Filtering;
- Input range:
 - DI 11: 24V DC (16 ... 30V);
 - DI 21: 48V DC (34 ... 72V);
 - DI 31: 110V DC (80 ... 150V);
 - DI 41: 220V DC (150 ... 264V).



Enilit RTU
DI



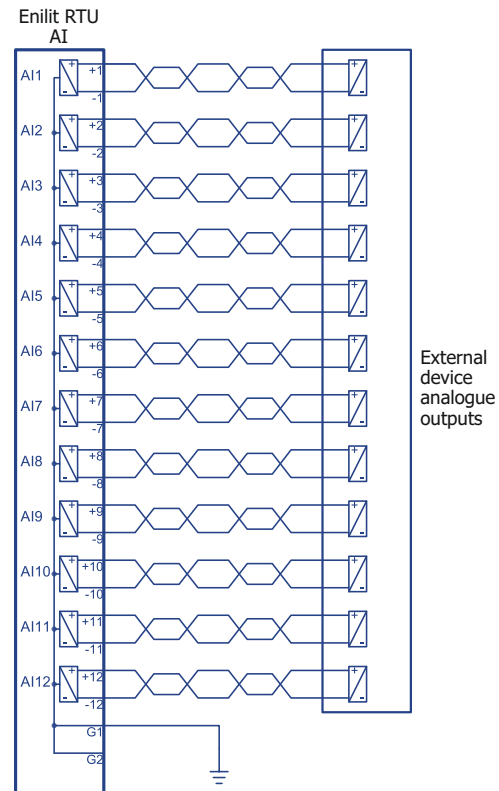
Digital output DO module



- 24 pcs. single pole relays with one normally open (NO) contact;
- Each digital output channel can be configured as Latch Type Short or Long Pulse Type and can be executed in either Direct Execute or Select Before Operate Execute manner;
- Each digital output can be configured in a single or double remote control or a set point output on the same module;
- LED indication for each digital output status;
- Contact ratings according to EN60947-5-1:
 - AC15, 250V AC, 3A;
 - DC13, 24V DC, 2A;
 - DC13, 250V DC, 0.2A.

Analog input AI module

- 12 pcs. of independent optically isolated analog inputs;
- Input range (current or voltage are selectable for each input by the internal jumper position):
 - AI 31 current: -20 mA to +20 mA;
 - AI 31 voltage: -10 V to 10 V;
- lower and upper range limits for each analogue input can be defined separately;
- LED indication for each analog input status;
- 20 ms time tagging;
- 16 bits ADC.



Communication modules CK, ST, PL



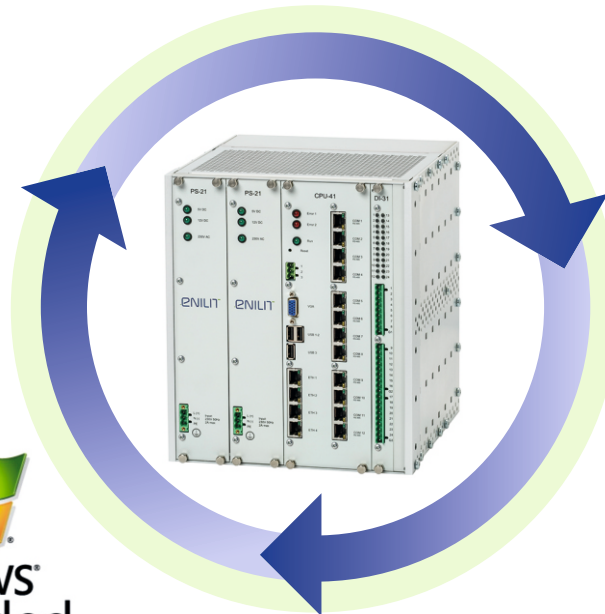
- Six communication channels can be used for RS serial type protocols as IEC 60870-5-101, IEC 60870-5-103, DNP 3.0 serial, Modbus serial and other;
- Various types of connectors:
 - RJ-45 type;
 - Glass FO ST type;
 - Plastic FO PL type;
- Status LED indication for each channel;
- Communication module can be installed in a separate rack without CPU (only power supply required);
- 1 pcs. of RS-485 port to connect to the CPU COM port via an external cable.

Enilit CMS – handy software tool for configuration and control

Enilit CMS is the software, a hundred percent programmed by the engineers of UAB Enilit, for the configuration and management of Enilit RTU. Windows based Enilit CMS tool enables to configure I/O features, Master, Slave protocols, PLC, Tags connections and also performs live diagnostics at local stations and remotely over TCP/IP.

ENILIT CMS

C - Configuration
M - Management
S - Software

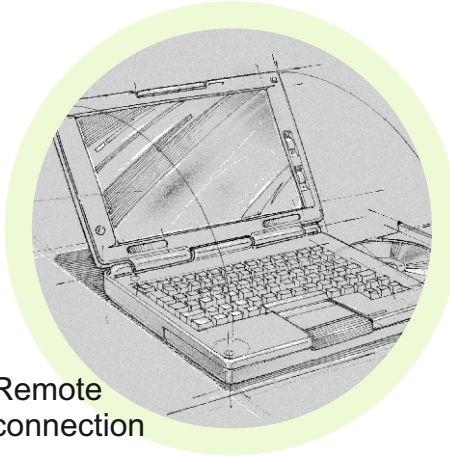


ISaGRAF

creates synergy

It is used to provide advanced logic functionality in compliance with the standard **IEC 61131-3**

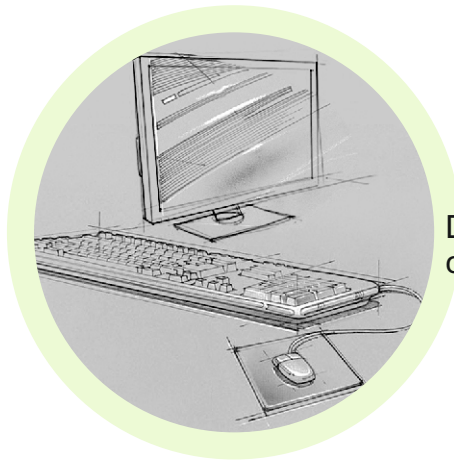
Monitoring and configuration options



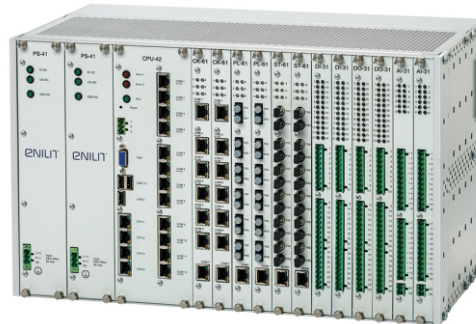
Remote connection

There are two ways connecting Enilit RTU:

- Remote desktop connection;
- Direct connection (no PC required, only a monitor, keyboard and mouse are needed).



Direct connection



Cyber data security

Cyber security measures are implemented according to the standard **IEEE 1686-2013**

Main Cyber data security functions implemented in Enilit RTU:

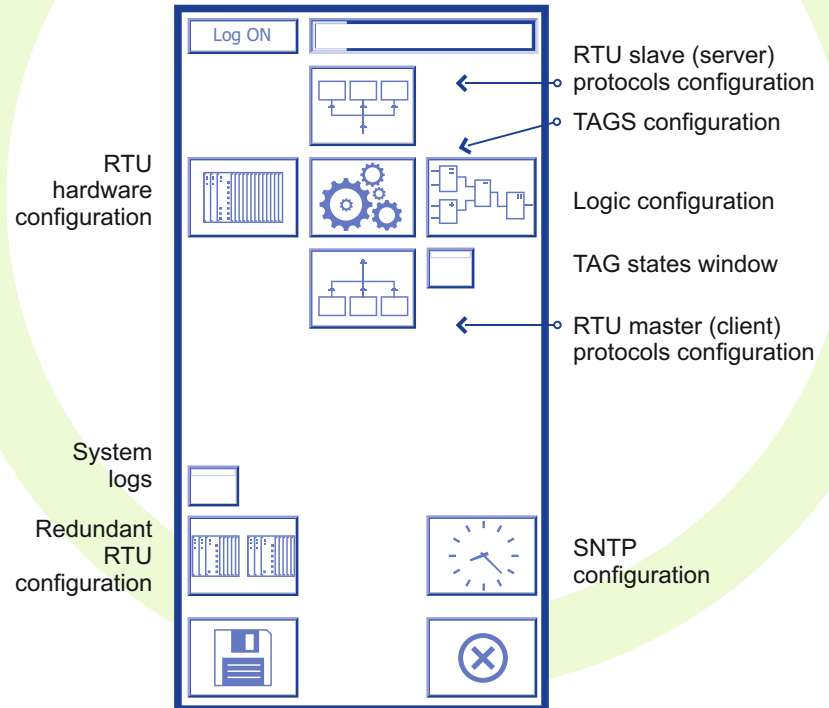
- Electronic access to Enilit RTU is password protected. It is not possible to gain access to the device without a proper password.
- Strong user-created passwords are enforced:
 - A minimum of 8 characters is used;
 - At least one uppercase and one lowercase letter;
 - At least one number;
 - At least one non-alphanumeric character (e.g., @%&*).
- Authorization levels by password:
 - View Data – the ability to view operational data (voltage, current and etc.);
 - View Configuration Settings – the ability to view configuration settings of Enilit RTU;
 - Force Values – the ability to manually override real data with manually entered data;
 - Configuration Change – the ability to change configuration files;
 - Password Management – the ability to create, delete or modify passwords;
 - Audit Log – the ability to view and download the audit log.



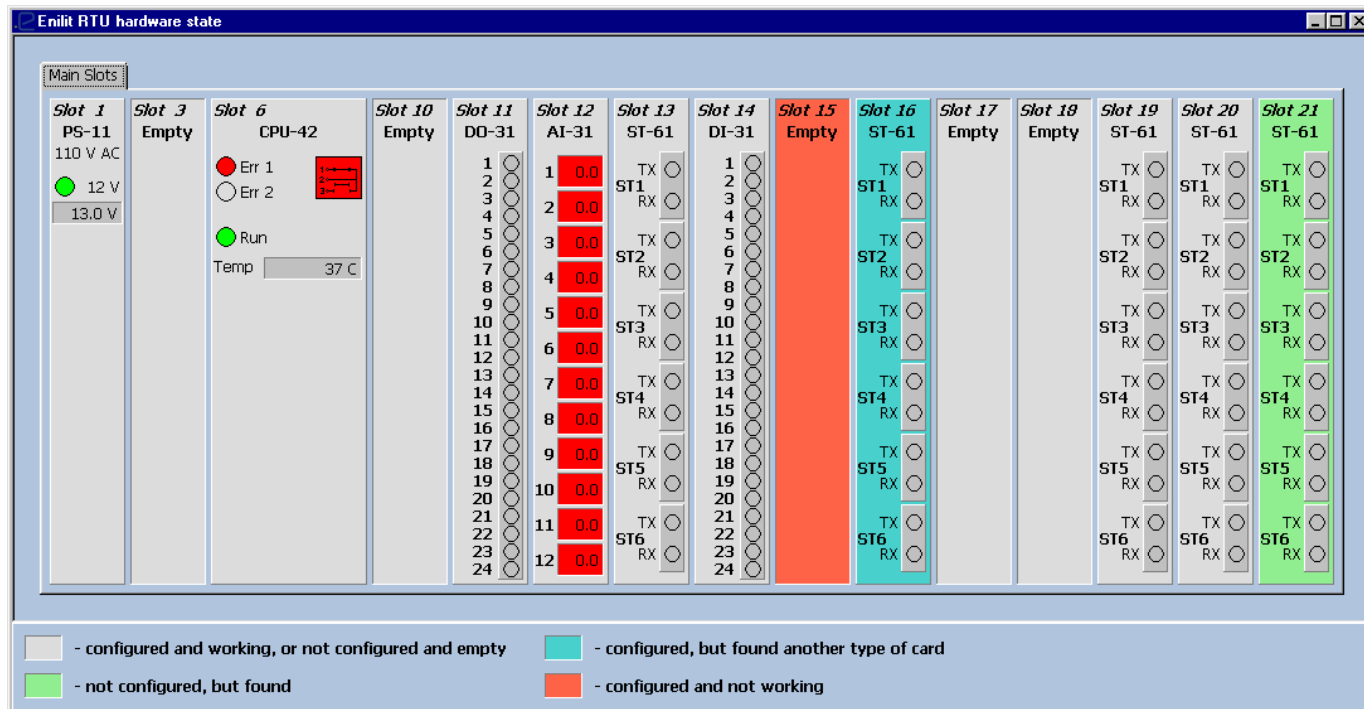
Enilit CMS - unique and user-friendly software

- No special software and cable required;
- Settings are changed online (no compilation, no upload, no restart);
- Simple user-friendly configuration;
- Built-in communication protocol analyser;
- Built-in real time signal and command testing tool;
- Unlimited programmable logic.

Demo software is available for download and testing on Windows operating system PC
<http://enilit.eu/downloads>



RTU hardware monitoring



TAG management

TAG Manager Shadow Mode

File About

Root

- Substation
 - Feeder1
 - CB status
 - CB command
 - Status1
 - Status2
 - Measurement
 - Ia
 - Ib
 - Ic
 - Uab
 - Ubc
 - Uca
 - P
 - Q
 - S
 - Feeder2
 - CB status
 - CB command
 - Logic status
 - Logic command

Parameters Tags

Status Commands

Branch	Name	Type	State	Value	Time	Quality	Cause
11 Substation\Feeder1	CB status	Status Integer 64 bits	Close	1	2018.06.10 15:38:05.598	Ok	Spontaneous
28 Substation\Feeder1	Status2	Status Integer 64 bits	OFF	0		0x00000000 Not init	Not defined
27 Substation\Feeder1	Status1	Status Integer 64 bits	ON	1	2018.06.10 15:33:56.292	Ok	Spontaneous
24 Substation\Feeder1\Measurement	S	Status Float 64 bits		256000	2018.06.10 15:34:35.655	Ok	Spontaneous
23 Substation\Feeder1\Measurement	Q	Status Float 64 bits		56000	2018.06.10 15:34:57.057	Ok	Periodic
22 Substation\Feeder1\Measurement	P	Status Float 64 bits		200000	2018.06.10 15:35:07.795	Ok	Periodic
21 Substation\Feeder1\Measurement	Uca	Status Float 64 bits		6	2018.06.10 15:35:23.231	Ok	Background
20 Substation\Feeder1\Measurement	Ubc	Status Float 64 bits		6	2018.06.10 15:36:10.599	0x00010000 Not synchronized	Background
19 Substation\Feeder1\Measurement	Uab	Status Float 64 bits		6	2018.06.10 15:36:31.469	0x00000020 Overflow	Background
18 Substation\Feeder1\Measurement	Ic	Status Float 64 bits		1500	2018.06.10 15:36:48.774	0x00000008 Invalid	Background
17 Substation\Feeder1\Measurement	Ib	Status Float 64 bits		600	2018.06.10 15:37:01.106	Ok	General Interrogation
16 Substation\Feeder1\Measurement	Ia	Status Float 64 bits		2000	2018.06.10 15:37:19.360	0x00000020 Overflow	Test mode
13 Substation\Feeder2	CB status	Status Integer 64 bits	Open	0	2018.06.10 15:37:54.028	Ok	Spontaneous
32 Substation\Feeder2	Logic status	Manual Status Integer 64 bits	ON	1	2018.06.10 15:38:19.825	Ok	Calculated

Server / Client communication port monitoring

```
Monitor : New IEC-104 slave (server) protocol
[Enabled] [Follow] [Log to file] [New file]
15:47:46.113 TX >> APCI : Send Sequence Number : 2
15:47:46.113 TX >> APCI : Receive Sequence Number : 1
15:47:46.113 TX >> 68 0E 04 00 02 00 64 01 0A 00 01 00 00 00 00 14
15:47:46.114 RX << 68 14 02 00 02 00 67 01 06 00 01 00 00 00 00 22 B4 2F 0C 0A 06 12
15:47:46.115 RX << APCI : Information
15:47:46.115 RX << APCI : Send Sequence Number : 1
15:47:46.115 RX << APCI : Receive Sequence Number : 1
15:47:46.115 RX << AL : Ti=C_CS_NA_1 : Clock synchronisation command
15:47:46.115 RX << AL : VSQ={ Number=1 }
15:47:46.115 RX << AL : COT={ { Activation } }
15:47:46.115 RX << AL : ORG=0
15:47:46.115 RX << AL : CAA=1
15:47:46.115 RX << IO : IOA=0
15:47:46.115 RX << IO : TM=2018.06.10 12:47:46.114 WD:0
15:47:46.117 TX >> IO : IOA=0
15:47:46.117 TX >> IO : TM=2018.06.10 12:47:46.115 WD:0 SU
15:47:46.117 TX >> AL : Ti=C_CS_NA_1 : Clock synchronisation command
15:47:46.117 TX >> AL : VSQ={ Number=1 }
15:47:46.118 TX >> AL : COT={ { Activation confirmation } }
15:47:46.118 TX >> AL : ORG=0
15:47:46.118 TX >> AL : CAA=1
15:47:46.118 TX >> Length : 20
15:47:46.118 TX >> APCI : Information
15:47:46.118 TX >> APCI : Send Sequence Number : 3
15:47:46.118 TX >> APCI : Receive Sequence Number : 2
15:47:46.118 TX >> 68 14 06 00 04 00 67 01 07 00 01 00 00 00 00 23 B4 2F 8C 0A 06 12
15:47:56.117 RX << 68 04 01 00 08 00
15:47:56.117 RX << APCI : Supervisory
15:47:56.117 RX << APCI : Receive Sequence Number : 4
15:48:16.117 RX << 68 04 43 00 00 00
15:48:16.117 RX << APCI : TestFR activation
15:48:16.117 TX >> Length : 4
15:48:16.117 TX >> APCI : TestFR activation
15:48:16.117 TX >> APCI : TestFR confirmation
```

```
Monitor : New IEC-104 client (master) protocol
[Enabled] [Follow] [Log to file] [New file]
15:47:46.116 RX << AL : ORG=0
15:47:46.116 RX << AL : CAA=1
15:47:46.116 RX << IO : IOA=0
15:47:46.116 RX << IO : QOI=Station interrogation (global)
15:47:46.116 RX << Length : 14
15:47:46.116 RX << APCI : Information
15:47:46.116 RX << APCI : Send Sequence Number : 2
15:47:46.116 RX << APCI : Receive Sequence Number : 1
15:47:46.116 RX << AL : Ti=C_IC_NA_1 : Interrogation command
15:47:46.116 RX << AL : VSQ={ Number=1 }
15:47:46.116 RX << AL : COT={ { Activation termination } }
15:47:46.116 RX << AL : ORG=0
15:47:46.116 RX << AL : CAA=1
15:47:46.116 RX << IO : IOA=0
15:47:46.116 RX << IO : QOI=Station interrogation (global)
15:47:46.318 RX << 68 14 06 00 04 00 67 01 07 00 01 00 00 00 00 23 B4 2F 8C 0A 06 12
15:47:46.318 RX << Length : 20
15:47:46.318 RX << APCI : Information
15:47:46.318 RX << APCI : Send Sequence Number : 3
15:47:46.318 RX << APCI : Receive Sequence Number : 2
15:47:46.318 RX << AL : Ti=C_CS_NA_1 : Clock synchronisation command
15:47:46.318 RX << AL : VSQ={ Number=1 }
15:47:46.318 RX << AL : COT={ { Activation confirmation } }
15:47:46.318 RX << AL : ORG=0
15:47:46.318 RX << AL : CAA=1
15:47:46.318 RX << IO : IOA=0
15:47:46.318 RX << IO : TM=2018.06.10 12:47:46.115 WD:0 SU
15:47:56.117 TX >> Length : 4
15:47:56.117 TX >> APCI : Supervisory
15:47:56.117 TX >> APCI : Receive Sequence Number : 4
15:47:56.117 TX >> 68 04 01 00 08 00
15:48:16.117 TX >> Length : 4
15:48:16.117 TX >> APCI : TestFR activation
15:48:16.117 TX >> 68 04 43 00 00 00
```

Logic functions on Enilit CMS (no IsaGraf required)

Create new Logic

2 ↓

Main	
Priority	0
Tag ID	40
Tag	35 kV\Group 1\Status 1
Logic	
Operation	==
Result TRUE	2
Result FALSE	1

Result TRUE
On TRUE result set Tag value to defined. Leave empty, if You do not want to

Cancel Add Close Add

Create new Logic

2 ↓

Main	
Priority	0
Tag ID	40
Tag	35 kV\Group 1\Status 1
Logic	
Operation	==
Result TRUE	=
Result FALSE	==

Operation
Logic Operation used for value calcu

Cancel

- <>
- <
- <=
- >
- >=
- OR**
- OR Bits
- AND
- AND Bits
- XOR
- XOR Bits
- +
-
- *
- /

Enilit RTU tested and certified



IEC 61850 Certificate Level A¹

No. 10010305-OPE/INC 15-3064

Issued to:

UAB "Enilit"
Vilniaus str. 134 - 221
LT-46352 Kaunas
Lithuania

For the client system:

Enilit RTU Remote Terminal Unit
Software version: Enilit RTU CMS version 4.0
S/N: 0032

The client system has not been shown to be non-conforming to:

IEC 61850 Edition 2 Parts 6, 7-1, 7-2, 7-3, 7-4 and 8-1

Communication networks and systems for power utility automation

The conformance test has been performed according to IEC 61850-10 Edition 2, the UCA International Users Group Edition 2 Client Conformance Test Procedures version 1.0 with TCP² 1.0 with product's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement for the IEC 61850 interface in Enilit RTU (Remote terminal unit), dated November 27, 2015", "Model Implementation Conformance Statement for the IEC 61850 Client Interface in Enilit RTU (Remote terminal unit), dated November 27, 2015" and "TTSUES Implementation Conformance Statement for the IEC 61850 Edition 2 Client Interface in Enilit RTU (Remote terminal unit), dated November 27, 2015" and the extra information for testing: "Protocol Implementation extra Information for Testing (PITIT) for the IEC 61850 Client Interface in Enilit RTU (Remote terminal unit)", dated November 27, 2015".

The following IEC 61850 conformance blocks have been tested with a positive result (number of relevant and executed test cases / total number of test cases):

1 Basic Exchange (21/24)	9 GOOSE Control Block (2/2)
2 Data Sets (8/10)	12a Direct Control (7/9)
3 Substitution (3/3)	12b SBO Control (9/11)
4 Setting Group Selection (3/3)	12c Enhanced Direct Control (7/9)
4+ Setting Group Definition (4/5)	12d Enhanced SBO Control (9/11)
5 Unbuffered Reporting (21/23)	13 Time Synchronization (3/4)
6 Buffered Reporting (26/28)	14 File Transfer (8/8)
	15 Service Tracking (4/17)

This certificate includes a summary of the test results as carried out at DNV GL in The Netherlands with IEC 61850 IED simulator 5.29.06 and Unica 61850 Analyzer 5.29.02. This document has been issued for information purposes only, and the original paper copy of the DNV GL verification report No. 10010305-OPE/INC 15-3063 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to DNV GL by Enilit. The manufacturer's production process has not been assessed. This certificate does not imply that DNV GL has approved any product other than the specimen tested.

Amnien, November 27, 2015

M. Adriaenssen
Head of Department
Operational Excellence

Issued by:

DNV GL
DNV KEMA is now DNV GL

R. Schimmel
Verification Manager

¹ Level A - Independent test lab with certified ISO 9001 Quality System
² TCP² - Test procedures change list

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KEMA Nederland B.V. Utrechtseweg 310, 6812 AR Amnien, P.O. Box 9035, 6800 ET Amnien, The Netherlands
T +31 26 356 2025 F +31 26 351 36 83 salesdesk@dnvgl.com www.dnvgl.com

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DNV-GL

ATTESTATION OF CONFORMITY

No. 10096758-INC 18-2605

Issued to:

Enilit
Vilniaus str. 134-221,
LT-46352 Kaunas,
Lithuania

for the product:

Enilit RTU
Type: IEC 104 Controlled station,
Software Version: Enilit CMS V4.0
Interface Type: Ethernet (RJ45)

With the implemented communication protocol:

IEC 60870-5-104 ed.2 (TS 2006)

Network Access for IEC 60870-5-104 using standard transport profiles in Standard direction and the Enilit default Protocol Implementation Document for IEC 60870-5-104 V.3.

The product has not been shown to be non-conforming to the specified protocol standard, including the interface requirements.

End-to-End data element tests for the information and control points as described in manufacturer Protocol Implementation Conformance Statement (PICS) have been performed on the product's protocol implementation. Functional tests in controlled mode are performed for the following levels:

- Station initialization
- Redundancy
- Cyclic data transmission
- Data acquisition through read
- Acquisition of events
- General interrogation
- Clock synchronization
- Command transmission
- Transmission of Integrated Totals
- Parameter Loading
- Test procedure
- File Transfer

The test campaign did not reveal any errors in the product's protocol implementation.

This Attestation is granted on account of tests made at location of DNV GL in Amnien, The Netherlands and performed with DNV GL UniGrid Telecontrol Simulator version 2.0.0 running CS104 Test Suite version 1.41 and UniGrid Telecontrol 104 Analyser version 3.2.0. The tests, including remarks and limitations, are laid down in DNV GL report no. 10096758-INC 18-2604.

The tests have been carried out on one single specimen of the product, submitted by Enilit. The Attestation does not include an assessment of the manufacturer's production process. Conformity of his production with the specimen tested by DNV GL is not the responsibility of DNV GL.

Amnien, June 12, 2018

S.J.T Mulder
Business Leader
Interoperability of smart power systems

Issued by:

DNV GL
DNV KEMA is now DNV GL

Davood Mohammadi Sooran
Test Consultant

IMPORTANT: Remarks apply to this implementation. See the resulting report for full details. Publication of this document is allowed. Publication in total or in part and/or reproduction in whatever way of the contents of the above mentioned report(s) is not allowed unless permission has been explicitly given either in the report(s) or by previous letter.

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In conformity with the following EC Directives:

EMC Directive 2014/30/EC

IEC EN 55022:2010;
IEC EN 55024:2010;
IEC EN 61000-3-2:2006;
IEC EN 61000-4-2:2009;
IEC EN 61000-4-4:2012;
IEC EN 61000-4-5:2006;
IEC EN 61000-4-6:2014;
IEC EN 61000-4-8:2010;
IEC EN 61000-4-16:2015;
IEC EN 61000-4-17:2008;
IEC EN 61000-4-18:2011;
IEC EN 61000-4-29:2004.

LVD Directive 2014/35/EC:

IEC EN 60950-1:2006/A11:2009.

Environmental testing:

IEC EN 60068-2-2:2007;
IEC EN 60068-2-78:2013;
(95% RH and 40°C for 48 hrs.
& 70°C for 24 hrs).



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