

isa NEWSLETTER

NEWSLETTER NEWSLETTER NEWSLETTER

IEC61850 Interface - Relay testing with Ethernet-based substation communication protocol

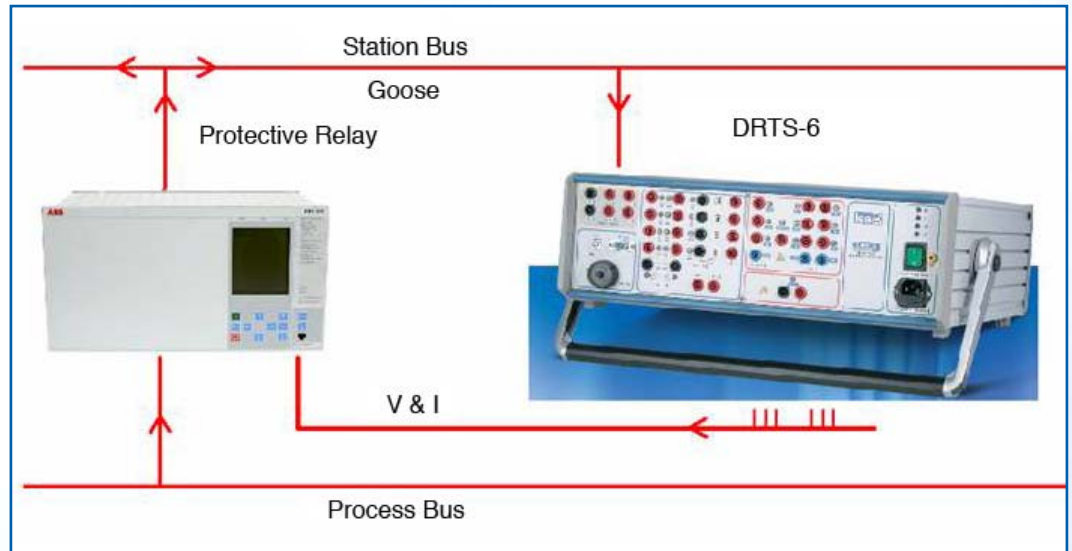
We are proud to announce our new development, the IEC61850 interface for relay testing with Ethernet-based substation communication protocol.

The standard IEC61850 describes the communication of devices in substations. IEC61850 messages coming from the devices connected to the substation network (such as a relay) are also called GOOSE.

GOOSE messages describe binary status signals over the substation network and are also used for relays tripping.

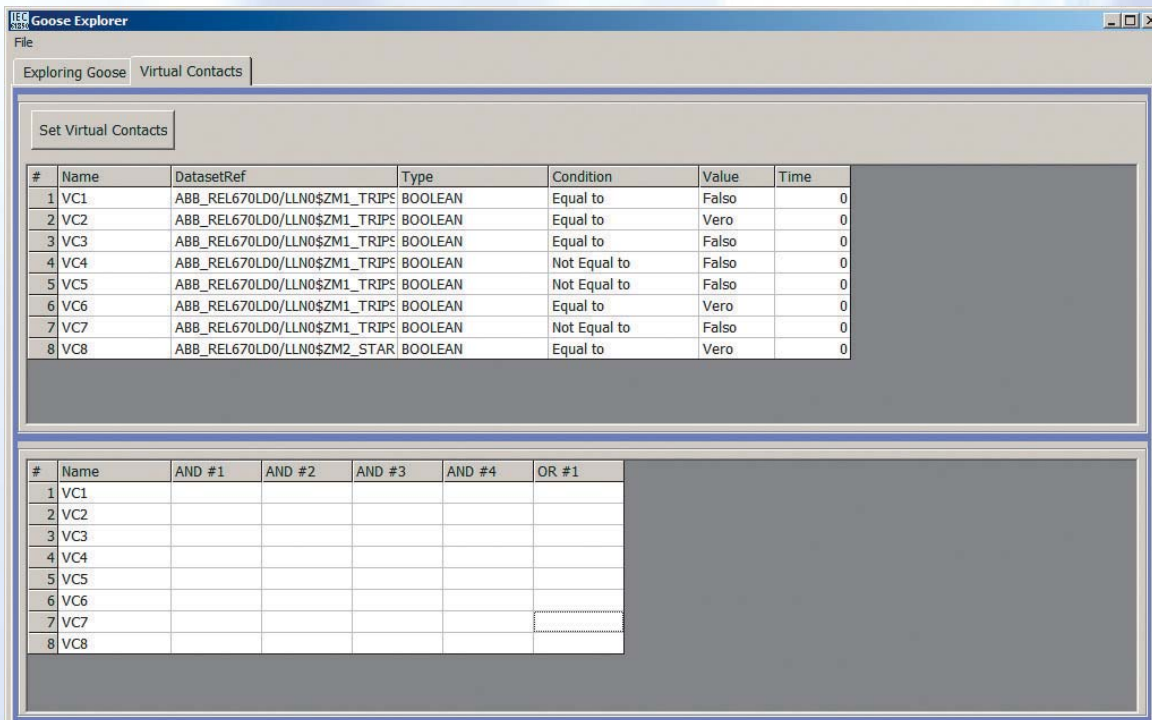
For relay testing applications within IEC61850 substations it is necessary to access to these data. This new feature is performed by ISA Automatic Relay Test Set DRTS-6 and with the new software TDMS rev. 5.01.

By means of a dedicated hardware upgrading and a new software, ISA DRTS-6 can expand his testing capabilities by handling those IEC61850 messages. The IEC61850 Interface is mounted directly on the front panel of the DRTS-6. It is possible to upgrade old DRTS-6 units.



By means of the Goose Explorer it is possible to explore the IEC61850 messages on the network. The window shows a File menu, a main area divided in two pages (Exploring Goose and Virtual Contacts) and the Activity Log.

The first action to perform in order to use effectively the Goose Explorer is to catch the messages on the network and to capture the messages and these are immediately displayed in the Goose list frame.



Goose List

Order Goose List by

#	Src Mac Address	Dest Mac Address	Goose ID	Data set Reference	Event Timestamp
1	00:80:82:59:1C:34	01:0C:CD:01:00:02	ABB_REL670LD0/LLN0\$GO\$G_ZM1_TRIPS	ABB_REL670LD0/LLN0\$ZM1_TRIPS	2007-10-02 15.58.27,938
2	00:80:82:59:1C:34	01:0C:CD:01:00:03	ABB_REL670LD0/LLN0\$GO\$G_ZM2_STARTS	ABB_REL670LD0/LLN0\$ZM2_STARTS	2007-10-02 16.00.35,954
3	00:80:82:59:1C:34	01:0C:CD:01:00:03	ABB_REL670LD0/LLN0\$GO\$G_ZM2_STARTS	ABB_REL670LD0/LLN0\$ZM2_STARTS	2007-10-02 16.00.35,954
4	00:80:82:59:1C:34	01:0C:CD:01:00:03	ABB_REL670LD0/LLN0\$GO\$G_ZM2_STARTS	ABB_REL670LD0/LLN0\$ZM2_STARTS	2007-10-02 16.00.35,954
5	00:80:82:59:1C:34	01:0C:CD:01:00:03	ABB_REL670LD0/LLN0\$GO\$G_ZM2_STARTS	ABB_REL670LD0/LLN0\$ZM2_STARTS	2007-10-02 16.00.36,977
6	00:80:82:59:1C:34	01:0C:CD:01:00:04	ABB_REL670LD0/LLN0\$GO\$G_ZM2_TRIP	ABB_REL670LD0/LLN0\$ZM2_TRIP	2007-10-02 16.00.36,977
7	00:80:82:59:1C:34	01:0C:CD:01:00:01	ABB_REL670LD0/LLN0\$GO\$G_TRIP	ABB_REL670LD0/LLN0\$TRIPS	2007-10-02 16.01.47,938

By selecting a row of the Goose List, it is possible to see the details of the Data Structure handled by the selected DataSet Reference. The Goose Details grid is loaded accordingly.

The amount of messages that can travel on a IEC61850 network can be burdening due to the amount of objects connected to it.

In order to select a portion of the messages, especially only the meaningful once, related to the device undergoing the test, it is possible to set Filters.

Once the user has performed an Exploring of the messages, be it with or without Filters, it is possible to set Virtual Contacts. As the name describes, this is not a physical contact of the ISA Instrument, but is a 'virtual' contact or a condition that becomes true for a device on the network. This condition is verified by means of the occurrence of a very specific goose.

Please feel free to contact us for any additional informations or for a demonstration.

#	Name	AND #1	AND #2	AND #3	AND #4	OR #1
1	VC1	✓				
2	VC2	✓				
3	VC3		✓			
4	VC4		✓			
5	VC5			✓		
6	VC6			✓		
7	VC7					✓
8	VC8			✓		

Virtual Contact. It is possible to set the Virtual Contacts trip conditions.



ISA srl
 Via Bergamo, 41
 21020 TAINO (Va) Italy
 Tel. + 39 0331 956.081
 Fax + 39 0331 957.091

Web site: www.isatest.com
 E-Mail: isa@isatest.com