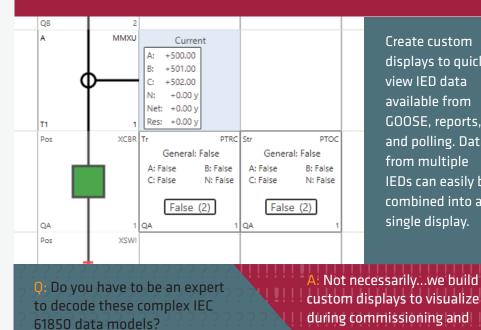
Custom Displays



displays to quickly available from GOOSE, reports, and polling. Data IEDs can easily be combined into a

custom displays to visualize data during commissioning and maintenance tests.

Use cases

• Lab Testing - perform ad hoc testing and

troubleshooting in the lab

- Commissioning find and debug issues during configuration and testing of IEDs
- Maintenance visualize data from multiple IEDs during test set up

Debug and test your system throughout the design, build, and maintenance phases

Services

Full IEC 61850 Services are supported for Client/Server and Publisher/Subscriber:

Read	Sampled Values
Write	Service Tracking
Reporting	Dynamic Data Sets
Discovery	Logging
Controls	File Transfer
GOOSE	Security

Trial version available for download at www.TriangleMicroWorks.com

IED Simulation Options

Simulate an IED based on any valid SCL File (SCD, CID, ICD, etc.)

Simulate an IED based on the data model that is read from a real IED

Publish and subscribe GOOSE messages with simulated IED

Generate reports, GOOSE, and logs with simulated data changes



61850 Test **Suite Pro**

61850 TEST SUITE PRO

TYNY XXIYA

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Overview

61850 Test Suite Pro facilitates testing at different stages all the way from the lab to the field. The complexity of IEC 61850 is presented in a clear way that is relevant to the job at hand. Configuration of the tool is fast and settings can be saved for quick access for a particular substation or test.

Mine Data Across Substation

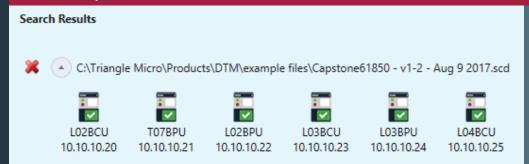
						Clear Filters					
Drag a column header and drop it here to group by that column											
Ŧ	IED Name T	Logic T	LogicalNo Class	Name T	Common Data Class	Used in GOOSEControl(s)					
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	T07BPU	QA	PTRC	Ор	ACT						
	T07BPU	QA	PTRC	Str	ACD						
	L02BPU	QA	PTRC	Tr	ACT	*					
	L02BPU	QA	PTRC	Ор	ACT						
	L02BPU	QA	PTRC	Str	ACD						

Q: Is there an easier way to find the data I need from the right IED?

The Data Miner allows you to find data across multiple IEDs in a substation. Filters can be customized for each job function. For example, protection data available from GOOSE can be filtered.

We use the data miner to find the substation data we need.

Browse Multiple IEDs



Multiple IEDs in a substation can be browsed to easily find the data you need. Available IEDs can be scanned by IP address range or using configuration from SCL files.

Design and configuration information from SCL files is used to make testing easier and faster.

Large data models for multiple IEDs or an entire substation can be parsed and filtered to show relevant data for your test.

Examples of Functionality

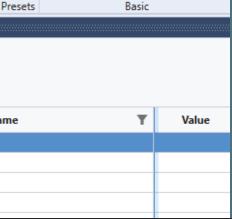
GOOSE ID T	Valid T	ls Subscribed Y To	Num Timeouts	Found in File	Resolved From File	Time Allowed To Live
T07BPULDInst/LLN0gcb1	True	False	0	True	True	2000
L02BCUQ/LLN0gcb1	True	False	0	True	True	2000
L02BPULDInst/LLN0gcb1	False	False	1	True	True	2000
L02BPULDInst/LLN0gcb2	False	False	1	True	True	2000
L02BPULDInst/LLN0gcb3	False	False	1	True	True	2000
L02BPULDInst/LLN0gcb4	False	False	1	True	True	2000
L03BPULDInst/LLN0gcb1	True	True	0	True	True	2000
	-	True	0	True	True	2000
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Q : Will GOOSE	investiga	iting all thes as on the net	2???????		A: No, which C	ם בום ב
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Q: Will GOOSE take a	investiga message	iting all thes as on the net	2???????		A: No, which C	we use th GOOSE st
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Q: Will GOOSE take a Intuitive Interface	investiga message lot of tim	ating all thes as on the net ae?	e work		A: No, which C timed c	we use th GOOSE str out, or sin

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Workspace	• Searc	ch						
Data Miner	√ ▼	Na						
		L03BCUQ						
Advanced Client		LLN0						
		A DataSets						
Compare Model		▶ ds_gcb1						

File T		Discovery T		Drag a column header and drop it here to group by that column						
4	L03BPULDInst		L03BPULDInst		Category Type	Ŧ	Error Type 🛛 🔻	File Value T	Discoved Value	Message T
	▶ LLN0		LLN0		DataObjects		Value	No Multiplier	у	Value not equa
	▶ LPHD1		LPHD1							
	QAPTOC1		QAPTOC1							
	QAPDIF1		QAPDIF1							
	P QAPTRC1		QAPTRC1							
	QARBRF1		QARBRF1							
	▶ T1MMXU1		T1MMXU1							
	QAPIOC1		QAPIOC1							
	NamPlt		NamPlt							
	P INdifield									

The GOOSE Tracker sniffs GOOSE on the network to identify streams that are valid, mis-configured, simulated, or timed out. The GOOSE Event Viewer shows an event log with time stamps, quality, and data values.

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The user interface makes it easy to navigate multiple tools and displays. Learning the new tools is easy with built-in help topics and search.

A variety of tools are included to test different aspects of IEC 61850 systems. The Advanced Client provides access to test all services and view the entire data model.

The Compare Model tool identifies any potential IED mis-configurations. The data model from the IED is compared to SCD or CID configuration files and differences are highlighted.