



EnerVista Viewpoint Maintenance

Troubleshooting and Reporting Tools

Viewpoint Maintenance is a must-have tool for any integrators or electrical staff involved in power system protection and maintenance. This software increases the security of your relays, reports your device's operating status and simplifies the steps to troubleshoot your device.

Key Benefits

- Reduce the time required to perform maintenance on your device
- Increase the security of your relays by identifying relay settings that have been changed
- Avoid costly downtime by reducing the time required to collect data for troubleshooting faults
- Improve maintenance scheduling by prioritizing service needed for your power system equipment
- Identify potential system problems before they become critical

Key Features

- Security Audit Trail tracks settings and configuration changes, who changed them, and the time and method of the change
- Single button click to download and compile all fault diagnostics into a single zip file for easy sharing with engineers who can help assess system problems
- Retrieve critical system information that will help assess potential system faults
- On-line and hard copy reports for easy viewing
- Easily identify the file name of the settings file loaded on the relays
- Support for the following GE Multilin IEDs: MM300, 350, 369, 469, 489, 745, 750/760, PQM II, B30, C30, C60, C70, C90 Plus, D30, D60, D90 Plus, F35, F60, G30, G60, L30, L60, L90, M60, N60, T35, T60*

* Consult the latest Viewpoint Maintenance release notes for a complete list of devices supported by this function.



Security Audit Trail*

The Security Audit Trail feature in Viewpoint Maintenance is the first of its kind, automatically tracking the details of settings changes to your relays along with the MAC address of the user who changed them. This traceability helps map out where a problem may have occurred and will help improve maintenance procedures to prevent them from happening again. This is also a valuable tool for ensuring the system configuration is the same as when it was commissioned.

Security Audit Trail Features:

- Date and time of hardware, firmware or setting changes made to your relays
- Logging of the MAC address of computers making settings changes
- Track method of how settings changes were made (i.e. keypad, serial port, Ethernet)
- Printer-friendly option to view hard copy reports
- Filter by date to identify changes to settings over time
- Ability to identify the name of settings files for accurate identification

EAST LANE 2 SECURITY/CHANGE HISTORY REPORT
Generated at: Sep 09 2005 14:30:40

Device Summary
 Device Name: East Lane 2
 Device Type: UR L90
 Order Code: L90-103MEX-HSA-WVC
 Firmware Version: 4.60
 Serial Number: MAGC24C000127
 IP Address: 3. 94.247.167

Settings Summary
 Setting File Name: FAST_LINE-2.uns
 Last Changed: Sep 09 2005 14:18:09.870000 via Ethernet
 Changed by Whom (MAC Address): 0088742D6F00

Setting Changes History

Event	Date of Change	# of Changes	Password Entered	Method of Change	Changed by Whom (MAC address)	Filename Uploaded	Status	Firm. Version
144	09/09/05 02:18 PM	15	No	Ethernet	0088742D6F00	FAST_LINE-2.uns	In Service	4.60
143	08/28/05 09:15 AM	1	No	Keypad			In Service	4.60
142	08/25/05 08:29 AM	1	No	Keypad			In Service	4.60
141	08/23/05 06:02 AM	1	No	Keypad			In Service	4.60
140	08/24/05 09:45 AM	18	No	Ethernet	008000C2E483	FAST_LINE-2.uns	In Service	4.60
139	08/19/05 05:12 AM	3	No	Ethernet	008000C2E483		Out of Service	4.60
138	08/19/05 03:12 AM	16	No	Ethernet	008000C2E483		Out of Service	4.60
137	08/18/05 02:30 PM	22	No	Ethernet	008749784BF		Out of Service	4.60
136	08/18/05 02:30 PM	12	No	Ethernet	008749784BF		Out of Service	4.60
135	08/18/05 02:30 PM	3	No	Ethernet	008000C2E483		Out of Service	4.60

Setting Changes Detail History

Event	Date of Change	Old Value	New Value	Item	Modbus Address
144	09/09/05 02:18 PM	Disabled	Enabled	Auxiliary UV 1 Events	3v6620
144	09/09/05 01:10 PM	Disabled	Enabled	Auxiliary UV 1 Function	3v6620
144	09/09/05 12:45 PM	Disabled	Enabled	Neutral OV 1 Events	3v6900
144	09/09/05 12:10 PM	2.300 p.u.	0.55 p.u.	Neutral OV 1 Pickup	3v6900
144	09/09/05 11:05 AM	Disabled	Enabled	Neutral OV 1 Function	3v6900
144	09/09/05 03:05 AM	Not Programmed	Programmed	Relay Programmed State	0x4260
144	08/24/05 09:49 AM	None	F5	Source x Auxiliary VT	0x458A
144	08/24/05 03:05 AM	None	F5	Source x Phase VT	0x458A
144	08/24/05 01:12 AM	None	F1	Source x Ground CT	0x458A
144	08/23/05 11:25 PM	None	F1	Source x Phase CT	0x458A
144	08/23/05 09:10 PM	None	F5	Source x Auxiliary VT	0x4583
144	08/23/05 06:33 PM	None	F5	Source x Phase VT	0x4583
144	08/23/05 04:15 PM	None	F1	Source x Ground CT	0x4583
144	08/23/05 02:21 PM	None	F1	Source x Phase CT	0x4583
144	08/23/05 02:02 PM	1.00:1	34550.50:1	Phase VT x Ratio	3v4562
143	08/23/05 01:10 PM	1A	05000A	Phase CT x Primary	3v4480
142	08/23/05 12:30 PM	Off	SRC 2 Pz	Data Logger Channels	0x418C
141	08/23/05 11:21 AM	Off	SRC 2 Vbg RMS	Data Logger Channels	0x418A
140	08/23/05 11:01 AM	Off	SRC 1 Vbg RMS	Data Logger Channels	3v4188
140	08/23/05 10:10 AM	Off	SRC 2 V_1 Angle	Data Logger Channels	3v4189
140	08/23/05 08:19 AM	Off	SRC 1 Vca RMS	Data Logger Channels	3v4184

- Date and Time that the Security Report was generated
- Description of the GE Multilin Relay
 - Equipment Name
 - Relay Model Number and Firmware version
 - Relay Serial Number
- Summary of the last time the configuration was changed
 - Name of settings file
 - Who loaded the file
 - When the file was loaded
- History of last 10 occurrences the configuration was changed
 - Date and time of configuration change
 - Number of settings changed at this time
 - Method used to change the relay settings
 - MAC address of computer sending settings
 - Name of the setting file sent to the Relay
 - The relay status after the settings changes
- Detailed description of all changes made to the relay's configuration
 - Date and time of configuration change
 - Description of the setting that was changed
 - Setting value before change was made
 - Setting value after change was made
- Convenient File Format
 - On-line and off-line copies
 - Easily zip these reports with other pertinent files such as settings files and fault reports to share with engineers

Supported in the following GE IED devices: UR, UR Plus, 350, 369, 745

* Consult the latest Viewpoint Maintenance release notes for a complete list of devices supported by this function.

Device Status Reports*

Reduce the time required to perform maintenance on your device by receiving a report that shows the health and operating status of your relays, meters, and the power system being monitored.

Status Reports Include:

- Current operating condition of the GE Multilin device
- Operating status of the equipment being protected
- Critical device settings that have not been programmed
- Operating history of the monitored devices
- Maintenance issues that need to be addressed
- LED simulated view of equipment targets and alarms detected



Pump Motor 1 SR469 Status Report

OVERVIEW

Generated at: 03/09/2005

Device Summary	
Device Name	Pump Motor 1
Device Type	SR 469
Order Code	SR469 P5-H8 A20-E
Firmware Version	2.9
Serial Number	A3002550

Relay Status	
Relay Password	Password Protected
Relay Test Mode	Test Mode Off
Relay Time	10.24 05/09/2005
Protection Elements	No Elements are enabled

Status: **IN SERVICE**

MOTOR STATUS

Motor Status	
STOPPED	
STARTING	
RUNNING	
OVERLOAD	
UNBALANCE	
GROUND	
HOT RTD	
LOSS OF LOAD	

Motor Load	
Motor Load	73%
Current Unbalance	4%
Unbalanced Phase Load	3%
Thermal Capacity Used	56%
Estimated Time to Trip	Never

Stator Differential Currents	
A Differential	20.4 A
B Differential	18.3 A
C Differential	19.6 A

Hottest Stator	
RTD	5
Temperature	180°F
Frequency	60.01 Hz

MOTOR ANALYSIS

Motor Running Hours	
Motor Running Hours	1286 Hrs
Time Between Starts Timer	43 mins

Motor Starts	
Number of Motor Starts	23
Number of Emergency Restarts	1

Starter Information	
Number of Starter Operations	25

Start Times	
Start Timer 1	3.6 s
Start Timer 2	3.7 s
Start Timer 3	3.8 s
Start Timer 4	3.3 s
Start Timer 5	4.8 s

GE Multilin EnerVista VIEWPOINT maintenance

- Date and Time that the Status Report was generated
- Description of the GE Multilin Relay and equipment being protected
 - Equipment Name
 - Relay Model Number and Firmware version
 - Relay serial Number
 - Intelligent Reporting raises red flags to draw attention to disabled protection or control elements
- Equipment Targets and Alarms detected by the relay
 - Motor Overload
 - Hot RTD Alarm
 - Loss of Load
- Current Operating Condition of the equipment
 - Motor Speed
 - Transformer Load
 - Tap Changer Position
 - Estimated Time to Trip
- Critical information that can aid in anticipating faults
 - Differential Currents
 - Temperature
 - Frequency
- Historical Information about the asset that aids in predicting maintenance requirements
 - Motor Running hours
 - Accumulated Loss of Life
 - Number of Breaker Operations

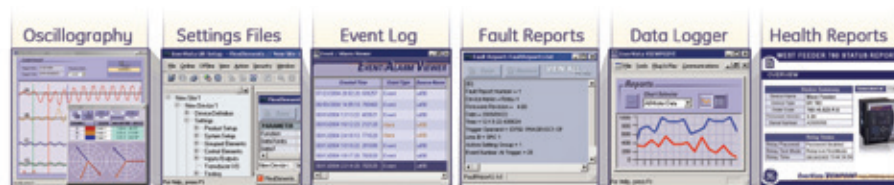
* Consult the latest Viewpoint Maintenance release notes for a complete list of devices supported by this function.

Comprehensive Fault Diagnostics*

Reduce time required to collect data for troubleshooting a fault with Viewpoint Maintenance. There is no need to access the setup program for the device or sift through settings to figure out what data is needed. With the click of a button, Viewpoint Maintenance will gather the required information including pertinent settings files, oscillography, events, fault reports, data logger and health reports and package it into a single zip file to allow for easy sharing with engineers to assist with your fault analysis.

Fault Diagnostics Features:

- Effortlessly collect the data required to diagnose a fault
- Automatically package all pertinent information into a .zip for easy file sharing
- Eliminate costly hours of troubleshooting by filtering data at the click of a button
- Assess why and how the fault occurred to improve preemptive maintenance procedures
- Avoid costly downtime and customer interruptions
- Reduce the amount of time required to troubleshoot a fault to get your system back up and running



①

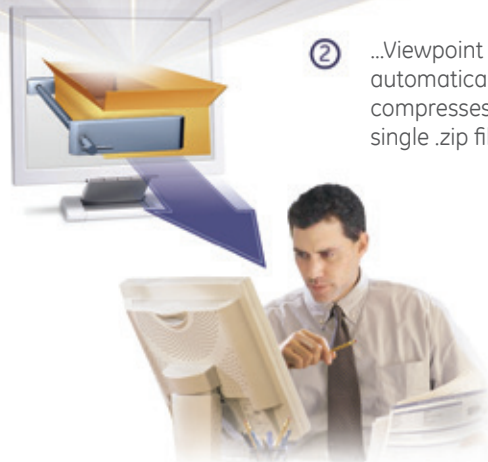
At the click of a button Viewpoint Maintenance will gather all required information including pertinent Settings Files, Oscillography, Events, Fault, Data Logger and Health Reports...

②

...Viewpoint Maintenance then automatically packages and compresses these files into a single .zip file...

③

...and stores the zipped file on your hard drive for easy emailing to your engineers or instantly emails to GE Tech support



Viewpoint Maintenance Software Selection Guide

VPM	*	*	EnerVista™ Viewpoint Maintenance
	1		Single License
	5		5 Pack
	10		10 Pack
	50		50 Pack
		G1	Additional 1 Year Updates

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