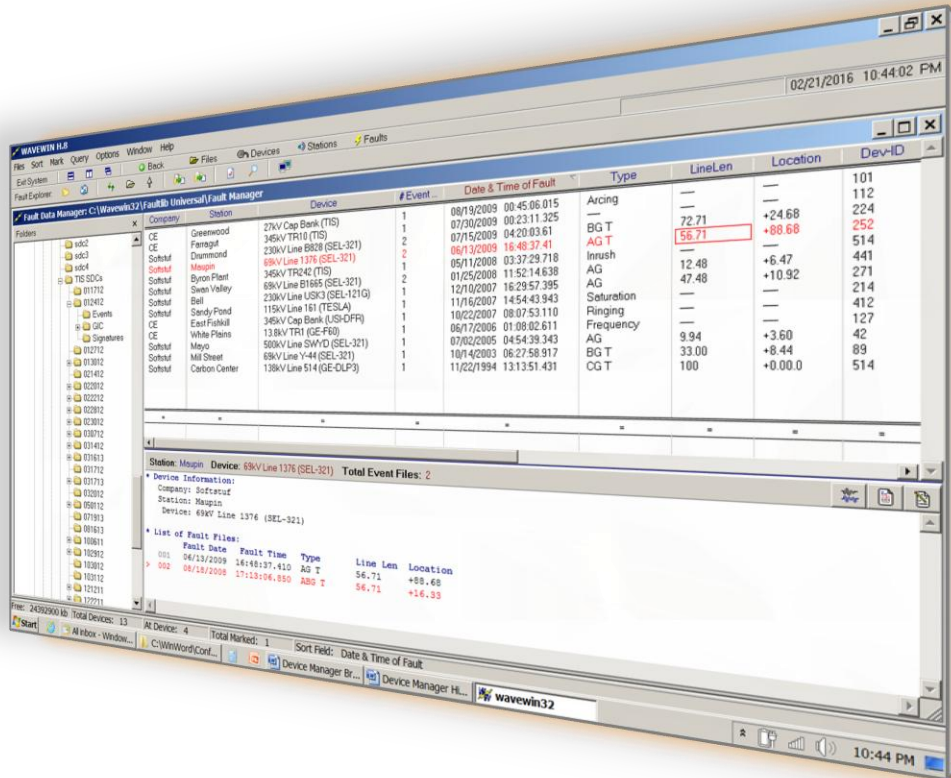# Wavewin Training Course (Outline & Agenda)

Fault and Disturbance Data Collection and Automatic Polling
Wavewin 102
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Prepared By

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Training on Data Collection Automation with Wavewin

(One Day Course)

The main objective of the training class is to provide an understanding of the basic Wavewin data collection tools and how to use them. The course is worth 8 professional development hours. Certificates will be provided to interested students upon request.

Summary:

Students will learn how to use Wavewin to collect data from various types of intelligent electronic devices (IEDs) such as numerical relays, disturbance recorders, event recorders, digital meters, remote terminal units, and so forth. The students will learn how to manually or automatically retrieve data from their IEDs including the latest fault data records, sequence of events records, metering logs, and device settings. Ethernet and serial communications over various types of connections (copper, fiber, wireless) will also be covered.

The training will focus on how to develop Wavewin applications for compliance with NERC DME and CIP requirements including access controls, settings integrity, and password management. Methods for management, query, and archival of massive amounts of data will also be covered.

The highlighted features include working with various types of networks and topologies such as port switches, data concentrators, and master stations. Report by exception, periodic and on demand polling of thousands of IEDs simultaneously using multiple types of protocols will also be covered. The data collection class is composed of 5 sessions as follows:

Session 1: Communication ports, networks, and topologies (integration)
Session 2: Standard and proprietary protocols (TCPIP, Telnet, FTP, ASCII, Binary)
Session 3: Configurations and polling schemes (manual and automatic data collection)
Session 4: Developing customized applications (compliance with IEEE and NERC standards)
Session 5: Reporting and managing of collected data (Historian logs and data repository)

Class Agenda:

08:00 - 08:30 Setup
08:30 - 09:30 Session-1 (networks and topologies)
09:30 - 10:30 Session-2 (standard and proprietary protocols)
10:30 - 10:45 Break
10:45 - 12:00 Session-3 (manual and automatic polling schemes)
12:00 - 01:00 Lunch
01:00 - 02:30 Session-4 (developing customized applications)
02:30 - 02:45 Break
02:45 - 04:00 Session-5 (reporting and data management)
04:00 - 04:30 Summary and Adjourn