What's new in the PM8000 firmware version 1.4.1 (v1.4.1)

This document lists the new and updated features in the firmware version 1.4.1 (v1.4.1) for the PowerLogic™ PM8000 series meter.

What's in This Document

Additional information and resources

Visit www.schneider-electric.com to download the firmware upgrade files and related resources.

- The firmware upgrade files.
- The latest template files.
- The latest version of ION Setup to support the new features (You can also select **Help > Check for Updates** from within ION Setup).
- The latest user manual, datasheets and installation sheets.

Security enhancements

A number of enhancements have been implemented in this firmware version to help improve the meter's security and assist in making your facility NERC CIP compliant.

Syslog server support

The meter can now push event log information directly to a centralized syslog server, enabling you to include meter information in your system security analysis.

Designated reader and user information in the event log

The Event Log now includes an association between security-related events and the username that triggered the event.

You can also assign a designated reader. An entry in the event log is considered unread until reviewed or backed up to external storage by the designated reader.

Enabling/disabling communications ports and protocols and changing port numbers

You can now enable, disable or change the port number of the network protocols supported on your meter.

Serial communication ports can now be disabled when not in use. These can be disabled through the display and ION Setup.

Advanced security username and password entry when using the display

When advanced security is enabled, you can now use an onscreen keyboard to login on the display with an advanced security username / password combination configured using ION Setup.

New user permission setting

A new comm configure user permission has been added to advanced security. When selected as part of setting up user permissions, it allows the user to configure the communication settings for the meter.

Increase number of users in Advanced Security

The number of users in advanced security has been increased from 16 to 50.

New communications functionality

This firmware release adds additional communications functionality.

DHCP

The meter can function as a DHCP (Dynamic Host Configuration Protocol) client. This means the meter can now request an IPv4 or IPv6 address assignment from a DHCP server, simplifying network setup and meter commissioning.

Domain name resolution (DNS)

A DNS (Domain Name System) server maps domain names to IP addresses. If you configure the meter to use a DNS server, the meter can communicate with other network resources using their domain names, rather than their IP addresses, and vice versa. For example, if your network has an SMTP server with the domain name of smtp.company.com, you can enter smtp.company.com as the SMTP Server address in the meter's communications settings.

IPv6 full support

The meter now supports using IPv6 for all in-going and out-going Ethernet protocols, except for IEC 61850.

Increased onboard log storage capacity

This firmware release introduces changes to the meter's logging architecture to allow for the use of more onboard memory for logging.

Webpage waveform viewer

This firmware adds a waveform viewer to the meter's webpages, which you can use to view waveforms generated as a result of power quality events.

The meter uses COMTRADE files, created when a waveform is captured by the meter, to generate the waveforms displayed on the webpages. You can select which waveform records and which channels or parameters to view, view details of a particular point in the waveform and zoom in/out on the waveform.

The latest framework has been changed so that COMTRADE files are generated by default when a waveform is captured by the meter. All you need to do is enable waveform recording on the meter.

> **NOTE:** You need to update the meter's webpages in order to see the waveform viewer. To update your webpages, copy the resources folder from the firmware upgrade package into the web folder on meter's ftp site (see the *User manual* for instructions on accessing the ftp site). This replaces the contents of the existing resources folder with the new one.

Other changes in v1.4.1

Firmware v1.4.1 introduced some additional functionality to the meter.

High-speed relative setpoints

The meter now supports high-speed inputs to Relative Setpoint modules.

You can connect inputs from high-speed modules to Relative Setpoint modules so you can trigger a setpoint on events with half-cycle time intervals.

New register to identify device manufacturer

The *Vendor Name* register has been added to the Factory module to provide device manufacturer information.

GPS time synchronization changes

You can configure the meter's behavior when using GPS time synchronization.

You can set it so the meter:

- accepts GPS time sync signals only when the GPS receiver indicates that it has locked onto a satellite source, or
- accepts time sync signals regardless of whether or not the GPS receiver indicates that it has locked onto a satellite source.

See the Clock module description in the *ION Reference* for more information.

Legacy meter replacement

Other improvements made on this firmware address issues related to replacing legacy products on a Modbus serial (RS-485) bus connected to Power Monitoring Expert systems. Contact Technical Support for more information.