StruxureWare Power Monitoring Expert 8.1

The StruxureWare™ Power Monitoring Expert system provides power monitoring and management for an enterprise. With this system you can measure, manage, and improve your energy availability, reliability, and efficiency.

Summaries of what's new in this version are organized in the following topics:

Related software

The following information describes the software requirements for Power Monitoring Expert software.

Windows operating systems

You can install Power Monitoring Expert software on servers using any of the following Windows operating systems.

NOTE: Power Monitoring Expert software can be installed on servers in a domain environment, however it cannot be installed on domain controllers. If Power Monitoring Expert software is installed on a server that is subsequently changed to a domain controller, the software ceases to function correctly.

- Windows 7 Professional/Enterprise, SP1
- Windows 8.1 Professional/Enterprise
- Windows 10 Professional/Enterprise
- Windows Server 2008 R2 Standard/Enterprise, SP1

- Windows Server 2012 Standard, SP1

- Windows Server 2012 R2 Standard

SQL Server editions

If no supported SQL Server version is detected during the installation of Power Monitoring Expert on a Standalone Server, then SQL Server 2014 Express is installed. Note that if you install SQL Server 2014 Express, you can upgrade to SQL Server 2014 Standard at a later time. However, you cannot upgrade from SQL Server 2014 Express to SQL Server 2012 Standard.

If a supported edition of SQL Server Express is already installed but not configured with a database instance for use with Power Monitoring Expert, the installer adds the required database instance. Otherwise, one of the following SQL Server editions needs to be installed prior to installing Power Monitoring Expert software. (See the "Installing SQL Server" topic in the *StruxureWare Power Monitoring Expert Installation Guide* for more information.)

Note that supported 32-bit and 64-bit SQL Server editions can only be installed on supported 32-bit and 64-bit Windows operating systems, respectively. For example, a 32-bit SQL Server edition is not supported on a 64-bit Windows operating system.

SQL Server Editions	Standalone Server	Distributed Database Server
SQL Server 2008 R2 Express, SP3	Yes	No
SQL Server 2012 Express, SP2	Yes	No
SQL Server 2014 Express, SP1	Yes	No
SQL Server 2008 R2 Standard/Enterprise, SP3	Yes	Yes [1]
SQL Server 2012 Standard/Enterprise/Business Intelligence, SP2	Yes	Yes [2]
SQL Server 2014 Standard/Enterprise/Business Intelligence, SP1	Yes	Yes [2]

[1] Supported for a distributed database server configuration on Windows Server 2008 R2 Standard/Enterprise SP1.

[2] Supported for a distributed database server configuration on Windows Server 2012 Standard SP1, and on Windows Server 2012 R2 Standard.

Localized versions

Localized versions of the software are supported as follows:

- A localized version of Power Monitoring Expert software is expected to be installed on an operating system and SQL Server of the same locale. For example, a Spanish version of the product and SQL Server should be installed on an operating system with a regional setting of Spanish.

- The English version of Power Monitoring Expert software is expected to work with non-English operating systems and SQL Server versions. For example, an English version of the product can be installed on an operating system with a regional setting of German with a German version of SQL Server.

Virtual environments

Power Monitoring Expert can be installed on hypervisors supported by the FlexNet License Administrator software. This is the same licensing software that is used to manage StruxureWare Power Monitoring Expert licenses. Consult the Flexera Software web site for more information.

The virtual environments need to be configured with one of the supported Windows operating systems and SQL Server editions. It is recommended that you copy the contents of the Power Monitoring Expert DVD to a local drive in your virtual environment and double-click `MainSetup.exe` to start the installation process.

Client computers

Engineering Client computers require Windows 7, 8.1, or 10 operating systems.

NOTE: Before you install an Engineering Client on a Windows 8.1 or Windows 10 system, you need to install .NET Framework 3.5 SP1 on your client computer.

Web Client computers require network connectivity to a Power Monitoring Expert primary server to access the Web Applications component of Power Monitoring Expert. The browsers that can be used on Web Client computers are listed below in *Other Software used with the product*.

Other software used with the product

The software referenced below is officially supported for Power Monitoring Expert software.

- Microsoft Excel 2010, 2013, or 2016 is required for reports exported in Excel format in the Web-based Reports application, or for the Excel-based Reporter application.

- Browsers supported on Web client workstations for the applications included in the Web Applications component:

  - Microsoft Internet Explorer versions 10 and 11.

  - Microsoft Edge*.

  - Google Chrome version 42 and later*.

  - Mozilla Firefox version 35 and later*.

  - Apple Safari versions 7 or 8 and later versions, respectively, on Mac computers.

* The browsers support the web application framework and Dashboards, Diagrams, and Trends applications. Alarms and Tables are dependent on browser support of the Silverlight plugin.

You can directly access an application from a client computer. For example, to directly access the Trends application, enter `http://`*`domain_name`*`/Web/#Trends` in the browser. (*`domain_name`* is the fully-qualified name of the server hosting Power Monitoring Expert.)

- Browsers supported on tablets to directly access the Dashboards, Diagrams, and Trends applications:
  - Safari and iPad tablets using iOS7 and iOS8 operating systems.
  - Browsers on tablets using Android operating systems 4.4 - 4.4.4, and 5.0.

  To directly access the Trends application with a tablet, enter `http://`*`domain_name`*`/Trends` (without the # character) in the browser. (*`domain_name`* is the fully-qualified name of the server hosting Power Monitoring Expert.) This opens the Trends application without the banner, and permits resizing of the content.
- .NET Framework 4.6.
- Microsoft Silverlight version 5.2 or later.

Authentication changes when installing the product's databases

When you install a Standalone Server setup type, or a Database Server setup type as part of a distributed installation, note the following authentication changes:

- For the **Windows Authentication** option on the **Database Software** page in the Installer, the Windows user needs to be a member of the sysadmin SQL Server role.

  Note that in previous releases, Windows authentication was provided by the ION user account, which had sysadmin privileges. For security reasons, the ION user account no longer has sysadmin privileges.
- For the **SQL Server Authentication** option, the SQL Server user needs to be a member of the sysadmin SQL Server role.

If you install the product with SQL Server Express, it is recommended that you change the SQL Server Express sa account password.

See the *Power Monitoring Expert Installation Guide* for further information.

Upgraded web application framework and web-based applications

The web application framework and the Dashboards, Diagrams, and Trends applications within the Web Applications component have been upgraded to work with a wider range of supported browsers.

The Alarms and Tables applications are dependent on browser support of the Silverlight plugin.

The Web Application framework provides options to add a logo, to update the text on the banner, and to apply a color theme to borders and other elements of the user interface.

The Dashboards application has also been upgraded to enable the use of a customer-specific background image or color.

Dashboard gadgets have been upgraded to include:

- The ability to resize and re-position the gadgets, and to display a gadget in full-page mode.

- New functionality, such as the availability of a context menu to edit, duplicate, copy to other dashboards, or to delete the gadget.

- The addition of multiple target lines in selected gadgets.

See the *Web Applications Help* for more information.

Optional Power Quality Advisor module

The Power Quality Advisor module is new for this release and it is subject to licensing. It includes gadgets, reports, and diagrams that:

- Assist you in determining power quality base lines.

- Monitor power quality in facilities with a readily available power quality rating index.

- Provide estimates of the financial impact of power-quality-related downtime or outages.

- Provide a visual representation of power factor penalties.

- Identify the type, the source (internal or external), and the potential impacts of power quality events.

- Provide a color-based indication of power quality conditions to help you diagnose the power quality of your system.

For additional information, see the "Power Quality Advisor" topic in the *Web Applications Help*.

Optional modules

The following modules are included in the product and they can be separately enabled through licensing. In previous releases, the modules (and their associated reports) were available only with specific product configurations, such as Power Monitoring Expert Healthcare Edition and Power Monitoring Expert Data Center Edition.

The folder names indicate the intended purpose of the reports organized within each folder.

- Billing and Allocation
- Energy Analysis
- Equipment Performance
- Generator Performance
- Power Capacity
- Power Efficiency
- UPS Performance

Reports that are included by default (that is, included as part of the base product), are organized in Energy Management, General, Power Quality, and Usage Trending folders.

For additional information, see the "Reports" topic in the *Web Applications Help*.

Security enhancements

Power Monitoring Expert databases

Database Manager now uses Windows Authentication exclusively. To use Database Manager, the logged-in Windows user needs to be a member of the sysadmin SQL Server role, which is set in SQL Server Management Studio.

For scheduled jobs in Windows Task Scheduler, the password for the IONMaintenance account needs to be updated before you perform any Task Scheduler actions.

For most database functions available in SQL Server Management Studio, the user needs to be a member of the sysadmin SQL Server role.

See the "Database Manager" section in the *Power Monitoring Expert Help* for more information.

TCP/IP Address

The TCP/IP address supported for Ethernet gateway sites and Ethernet devices is IPv4 and IPv6.

Upgrade Support

Side-by-side upgrades from the following previous releases are supported:

- ION Enterprise 6.0.1.
- StruxureWare Power Monitoring 7.0.1
- Power Monitoring Expert 7.2.2 and 8.0.

A side-by-side upgrade consists of moving the configuration and data from an older version of the software to the newer version. Each version exists at the same time but on different computers.

An in-place upgrade from StruxureWare Power Monitoring 7.0.1 or from Power Monitoring Expert 7.2.2 or 8.0, is valid if your current system uses one of the supported operating systems and SQL Servers for Power Monitoring Expert 8.1. Upgrades from other operating systems or SQL Server combinations require data migration.

When upgrading from previous versions, you should take into account the amount of time and the large amount of hard drive space that may be required.

Contact Technical Support or your local Schneider Electric representative for advice regarding software upgrades.

Product Documentation

The following Power Monitoring Expert documentation is applicable to this version of the product.

- *What's New*, document number 7EN12-0293-00.

- *Before Installing your Software*, document number 7EN52-0383-00.

- *Using the SQL Server 2012 DVD*, document number 7EN52-0391-00.

- *Using the SQL Server 2014 DVD*, document number 7EN52-0397-00.

- *Installation Guide*, document number 7EN02-0380-00.

- *User Guide*, document number 7EN02-0379-00.

- *Hierarchy Manager – Help Topics*, document number 7EN52-0338-00.

- *Web Applications – Help Topics*, document number 7EN52-0384-00.

The following documents are available through the Power Monitoring Expert Exchange Community. Contact your Schneider Electric representative for further information.

- *Design Guide*, document number 7EN42-0118-00.

- *IT Infrastructure Preparation and Security Guide*, document number 7EN42-0120-00.

- *Licensing Guide*.

- Documentation related to product upgrades.

Online information available in the product includes:

- *Power Monitoring Expert Help* – accessible from within installed components, such as Management Console, Vista, and Designer.

- *Alarm Configuration Help* – accessible in a browser-based help format from the Alarm Configuration user interface.

- *Hierarchy Manager Help* – accessible in a browser-based help format from the Hierarchy Manager user interface.

- *Web Applications Help* – accessible in a browser-based help format from the Web Applications user interface.