

# StruxureWare Power Monitoring Expert 8.0

The StruxureWare™ Power Monitoring Expert system provides power monitoring and management for an enterprise of one or many facilities. 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.
- Tables application.
- Trends application.
- Hierarchy Manager application.
- Vista.
- Virtual Processor modules.
- Security enhancements.
- Devices supported since the previous release.
- Upgrade support.
- Product documentation.

## 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.

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### 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.

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

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- 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.

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 <sup>1</sup>
SQL Server 2012 Standard/Enterprise/Business Intelligence, SP2	Yes	Yes <sup>2</sup>
SQL Server 2014 Standard/Enterprise/Business Intelligence, SP1	Yes	Yes <sup>2</sup>

<sup>1</sup> Supported for a distributed database server configuration on Windows Server 2008 R2 Standard/Enterprise SP1.

<sup>2</sup> 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.

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 or 8.1 operating systems.

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### Note

If you install an Engineering Client on a Windows 8.1 system, you need to install .NET Framework 3.5 SP1 on your client computer.

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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 or 2013 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 (Dashboards, Diagrams, Tables, Trends, Alarms, Reports):
  - Microsoft Internet Explorer versions 10 and 11.
  - Google Chrome version 42 and later. Note that supporting the Chrome browser is dependent on its support of the Silverlight plugin.
  - Mozilla Firefox version 35 or later.
  - Apple Safari versions 7 or 8 and later versions, respectively, on Mac computers.
- Browsers supported on tablets to access the Diagrams application only:
  - Safari on iPad tablets using iOS 7 or iOS 8 operating systems.
  - Browsers on tablets using Android operating systems 4.4 - 4.4.4, and 5.0.
- .NET Framework 4.5.2.
- Microsoft Silverlight version 5.2 or later.

## Tables application

A **Favorite Measurements** category is now available in the Measurements panel of the Tables application.

Favorite Measurements provides a way to convert an existing device measurement to a calculated value for display in the real-time table. Favorite measurements can be configured, modified, or deleted by users with access levels of Operator, Controller, or Supervisor. Each defined favorite measurement is available for selection in the **Measurements** panel under the **Favorite Measurements** category.

See the "Tables" topic in the Web Applications online help for more information.

## Trends application

The new Trends application is available using the browser-based Web Applications component. The application:

- Allows you to monitor current system conditions by displaying real-time data in a graphical format.
- Includes options for:
  - Real-time monitoring directly from the device, from the database, or from a combination of the device and the database.
  - A visual target indicator and threshold ranges to help you identify when action is required.
  - Multiple y-axes and configurable chart options.
- Assists with root-cause investigation with zoom capability and data export to a CSV file.

You can directly access a trend via a URL. For example, you can send a link in an email and the recipient can view the trend that you have configured. You need to share the trend for others to have access. (Display the trend in a new window to obtain the URL information.)

See the "Trends" topic in the Web Applications online help for more information.

## Reports application

Several changes have been implemented in the browser-based Reports application.

- All of the reports have been enhanced with additional parameters and several new reports are now available in the **Report Library**. In addition, the reports are now organized by folder names indicating their intended purpose. For example, the **Energy Management** folder contains the Energy Cost, Energy Period Over Period, Energy Usage by Shift, and Load Profile reports.
- In previous releases, the reports were grouped in the **Default** folder. If you upgrade from a previous release, the reports are organized into the new folder structure. Any reports that you saved in the **Default** folder in a previous release will be grouped under a **Default** folder after the upgrade.
- Smart Mode measurement selection has been implemented for hierarchies and virtual meters, and is applicable to several of the reports listed in the **Report Library**.

Smart Mode automatically selects the best measurement for Demand and Energy measurements. The measurement selected is based on a subset derived from all of the available measurements in a particular measurement category. The underlying operation determines the applicable measurement for each device to produce equivalent results for reporting purposes.

For example, if you select **Real Energy** in Smart Mode, data for the Real Energy measurement is used if it is applicable for the device. If the data does not exist for Real Energy, then Real Energy Total is used if applicable. If not, then Real Energy Into the Load is used, and so on. This progression through a subset of measurements continues

until a real energy measurement applicable to the device is found. It is then included as part of the Smart Mode **Real Energy** selection. This usually produces equivalent results for reporting purposes.

- Detailed measurement selection is still available for selecting specific measurements from a full list of all available measurements.

## Alarm Configuration

The Alarm Configuration application allows you to configure software alarms for multiple sources and measurements. Each alarm configuration is represented as an Alarm Rule. The rule includes a threshold value, pickup and dropout delays, an update rate, and the alarm priority.

See *Alarm Configuration Help*, available from the Alarm Configuration application, for information about creating, configuring, and enabling alarm rules.

## Hierarchy Manager

Hierarchy Manager now includes meter apportionment and virtual meter capability by default.

- Meter apportionment allows you to assign a percentage of a device, for example, to more than one tenant in an area.
- A virtual meter allows you to aggregate measurements from any combination of devices, apportioned meters, or other virtual meters available in Hierarchy Manager. The newly created virtual meter can be assigned to a node in Hierarchy Manager just like any other device, and appears in dialogs that have a **Views** selection. You can even create an apportioned meter from a virtual meter.
- You can select a hierarchy view or a virtual meter for several of the reports in the **Report Library**.

See the Hierarchy Manager online help for more information.

## Vista

The following changes have been implemented in Vista and they are visible in the Diagrams application:

- Transparent GIF and PNG images, and animated GIF images are now supported for Status Objects. This is in addition to the image formats currently supported: BMP, JPG, WMF and transparent WMF, and EMF.
- Status Objects now support multi-conditions, for example, HighHigh, High, Normal, Low, and LowLow for applicable devices with enumerated registers. You can specify custom colors for the conditions or use the default colors.

## Virtual Processor modules

New Virtual Processor modules are now available:

- Change of Value
- Database Import
- Email

- External String
- MultiState Display

In addition, N/A handling has been implemented in the following modules:

- Arithmetic
- Averaging

See the *ION Reference* for descriptions of these modules.

## Security enhancements

### The Diagrams application and user authentication

User authentication for the Diagrams application is enabled by default. It is also enabled if you upgrade from previous versions of the product.

If you access Diagrams from a browser on a Web Client computer using the URL `http://server_name/ion` (where *server\_name* is the fully-qualified name of the server or its IP address), you are prompted to log in using your Power Monitoring Expert user name and password.

If you access the Diagrams application on the server which hosts the IIS service, user authentication is not required. This also applies for any http request originating from applications within the server hosting the IIS service. For example, if a Web Image gadget in the Dashboards application is configured to access Diagrams, user authentication is not required.

Contact your Schneider Electric representative if you want to disable user authentication for Diagrams.

## Devices supported since the previous release

The following devices are now supported in the product:

AccuSine	Enercept
Acti 9 Smartlink Ethernet	Enersure iBCPM
Altivar_61	Micrologic IFE/ IFM Series
CM100, CM200	PM8000 Series
Compact NSX control support	SER 3200
EM1000 Series	TesysT
EM3460	Varlogic NRC12
EM3500	Veris BCPM
EM6400 Series	

## 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

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 is valid if your current system uses one of the supported operating systems and SQL Servers for Power Monitoring Expert 8.0. 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 7EN12-0278-00.
- *Before Installing your Software*, document number 7EN52-0325-00.
- *Using the SQL Server 2012 DVD*, document number 7EN52-0326-00.
- *Installation Guide*, document number 7EN02-0358-00.
- *User Guide*, document number 7EN02-0357-00.
- *Hierarchy Manager – Help Topics*, document number 7EN52-0338-00.
- *Web Applications – Help Topics*, document number 7EN52-0337-00.

The *Design Guide*, document number 7EN42-0109-00, is available on the Solutions Expert Community. Contact your Schneider Electric representative for further information about this document.

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.