

StruxureWare™ Power Monitoring Expert

Side-by-side Upgrade Guide using Configuration Manager

From:

Power Monitoring Expert 7.2.2

To:

Power Monitoring Expert 8.2

Configurations:

Standalone to Standalone

MRP: **7EN42-0157-00**

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Safety Information

Important Information

Read these instructions carefully and look at the equipment to become familiar with the device before trying to install, operate, service or maintain it. The following special messages may appear throughout this bulletin or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of either symbol to a "Danger" or "Warning" safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

DANGER

DANGER indicates a hazardous situation which, if not avoided, **will result in** death or serious injury.

WARNING

WARNING indicates a hazardous situation which, if not avoided, **could result in** death or serious injury.

CAUTION

CAUTION indicates a hazardous situation which, if not avoided, **could result in** minor or moderate injury.

NOTICE

NOTICE is used to address practices not related to physical injury.

Please Note

Electrical equipment should be installed, operated, serviced and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

A qualified person is one who has skills and knowledge related to the construction, installation, and operation of electrical equipment and has received safety training to recognize and avoid the hazards involved.

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Safety Precautions

During installation or use of this software, pay attention to all safety messages that occur in the software and that are included in the documentation. The following safety messages apply to this software in its entirety.

WARNING

UNINTENDED EQUIPMENT OPERATION

- Do not use the software for critical control or protection applications where human or equipment safety relies on the operation of the control action.
- Do not use the software to control time-critical functions because communication delays can occur between the time a control is initiated and when that action is applied.
- Do not use the software to control remote equipment without securing it with an authorized access level, and without including a status object to provide feedback about the status of the control operation.

Failure to follow these instructions can result in death or serious injury.

WARNING

INACCURATE DATA RESULTS

- Do not incorrectly configure the software, as this can lead to inaccurate reports and/or data results.
- Do not base your maintenance or service actions solely on messages and information displayed by the software.
- Do not rely solely on software messages and reports to determine if the system is functioning correctly or meeting all applicable standards and requirements.
- Consider the implications of unanticipated transmission delays or failures of communications links.

Failure to follow these instructions can result in death, serious injury, equipment damage, or permanent loss of data.

 WARNING**POTENTIAL COMPROMISE OF SYSTEM AVAILABILITY, INTEGRITY, AND CONFIDENTIALITY**

- Change default passwords to help prevent unauthorized access to device settings and information.
- Disable unused ports and default accounts to help minimize pathways for malicious attackers.
- Place networked devices behind multiple layers of cyber defenses (such as firewalls, network segmentation, and network intrusion detection and protection.)
- Use industry-accepted Information Technology and Operational Technology cyber security practices to help prevent loss or exposure of data, modification or deletion of logs and data, and interruption of services.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

Introduction

Each field deployed power monitoring system is unique. Some systems have been modified very little from the factory defaults, while others may have been completely customized. The various configuration items and settings are stored in different locations and in different formats in the system. The Configuration Manager automatically migrates most of the configuration items, including the database files. However, you will need to migrate some items manually after the Configuration Manager is done.

This guide helps you move the configuration of a PME 7.2.2 system to a newly-installed PME 8.2 system using the Configuration Manager.

Side-by-side upgrade

A side-by-side upgrade is used when the new PME software is installed on a different computer. It is referred to as *side-by-side* because both systems—the old and the new—exist at the same time but on different computers.

Common reasons for moving the software to a new computer include:

- The operating system version or the database (DB) server version on the old system is no longer supported by the new PME version.
- The computer hardware of the old system is outdated and needs to be replaced.
- The old system cannot be decommissioned until the new system is fully deployed.
- You want to start with a fresh computer environment for the installation of the new version of the software but retain the configuration of the old system.

Configuration Manager

This guide assumes that you are using the Configuration Manager to assist in the upgrade process. Use the Configuration Manager to analyze the source and target systems and transfer a configured PME 7.2.2 PME 8.2 system to a newly-installed PME 8.2 system.

Purpose

This document is intended for Application Engineers, system integrators, or other qualified project execution teams who are responsible for the upgrading and configuration of an old PME system to a newly installed PME 8.2 system on a different computer using Configuration Manager. Experience using previous versions of the software is recommended.

Competencies

To maximize your chance of successfully completing the tasks described in this document, you should:

- Be familiar with the power monitoring software products.
- Be familiar with the Windows Operating System.
- Have some experience editing the Windows System Registry.
- Know how to stop and start Services in the Windows Services application.
- Know how to restart Internet Information Services (IIS) using IIS Manager.

Estimated Task Time

Section	Estimated Time
Introduction	20 minutes
Step 1 – Prepare both systems	45 minutes (+ possible troubleshooting time)
Step 2 – Transfer the Configuration	30 minutes + 12 min/GB database size (ION_Data, ION_Network, ApplicationModules, Archives)
Steps 3 to 5 – Manually Complete the Upgrade	90 minutes (+ possible troubleshooting time)
Step 6 – Perform a Post-upgrade System Check	60 minutes (+ possible troubleshooting time)
Step 7 – License the new system	15 minutes (+ possible troubleshooting time)
Total upgrade time =	260 minutes using Configuration Manager

Note: Time estimates are for engineers who are experienced in deploying and customizing Power Monitoring Expert.

Glossary

Certain acronyms, abbreviations, and technical terms are used throughout this document and are defined in the table below.

Term	Description
DB	Database (e.g., ION_Data).
Device	A meter or a point of data collection.
Distributed System	A PME installation where parts of the system are installed on different computers. Several combinations are possible, but the most common is the separation of the PME applications and the Database server onto different computers. For example, a simple distributed install would have all the PME relevant programs and services installed on one computer and SQL Server with the PME databases installed on a second computer. In this case, the computer running the applications is called the Application Server, and the computer running SQL Server is called the Database Server. A distributed system can also have Web client computers that run Web browsers to view the PME Web applications such as Dashboards, Tables, Alarm Viewer, and Reports inside the Web framework.
Downloadable Devices	Standard Edition (SE) – Full support including logs etc; may be released as an installer but will become native in the subsequent release of PME. Limited Edition (LE) – Only real-time and PC based logging; created and supported by Schneider Electric; will never become native. Custom Edition (CE) – Only real-time and PC based logging; created by Schneider Electric or 3rd party. CEs are used on an as-is basis; they were previously referred to as L2 or Jenny Type device drivers. SE and LE drivers are available in the download area and can be released as dPacks. CE drivers are available on the Marketplace as-is.
IIS	Internet Information Services
OS	Operating System
PME	Power Monitoring Expert
Standalone Server	A single computer running all parts of a PME system. See “Standalone System” for more details.

Term	Description
Standalone System	A PME installation where all parts of the system are installed on the same computer, i.e., all applications and services, the SQL database server, and the databases are on a single computer. This single computer is then referred to as Standalone Server. A standalone system can also have Web client computers which are running Web browsers to view the PME Web applications like Dashboard, Tables, Alarm Viewer, and Reports inside the Web framework. Configuration Manager supports standalone systems.
VM	Virtual Machine (as compared to a physical computer).
Web Client	A computer in a PME system that runs a Web browser to view the Web applications like Dashboard, Tables, Alarm Viewer, and Reports inside the Web framework.

Supporting Documentation

The following PME 8.2 documents provide supplemental information to the instructions found in this document and for the PME 8.2 software in general. The documents are available on the [Schneider Electric Exchange](http://www.schneider-electric.com) Web site or at www.schneider-electric.com.

- *Power Monitoring Expert 8.2 Installation Guide*, document number 7EN02-0392.
- *Power Monitoring Expert 8.2 User Guide*, document number 7EN02-0391.
- *Power Monitoring Expert Licensing Guide*
- *Power Monitoring Expert 8.0 Hierarchy Configuration Guide*, document number 7EN42-0108-00.

Online information available in the product includes:

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

Upgrading a system using Configuration Manager

UpgradingMigrating a configuration from an old system to a new system using Configuration Manager is accomplished in six steps and must be done in the following order:

- ["Step 1 – Prepare both systems" on page 14](#)
- ["Step 2 - Transfer the Configuration" on page 16](#)
- ["Step 3 - Initialize the Configuration" on page 18](#)
- ["Step 4 - Manually Recreate Customizations" on page 23](#)
- ["Step 5 - Service the System" on page 33](#)
- ["Step 6 - Perform a Post-upgrade System Check" on page 35](#)

Note: The old PME system can keep running while the configuration is upgraded. However, you might experience some performance degradation if two systems are working with the devices.

Note: The procedural steps covered in this document do not include configuring new features in PME 8.2.

Step 1 – Prepare both systems

Before upgrading, it is important to understand the operational state of both the old and the new systems.

Assess the old system

Assess the old system by completing the following procedures:

1. Review the old PME system to see if Devices, Vista Diagrams, Reports, and any other configurations are working as expected.
2. Check the system log for errors. Correct any items in error or note them down so you can address them on the new system after the migration.
3. Check the size of the historical data database (ION_Data) and look for database archives that need to be migrated.

Note: Verify that the database archives you want to include for upgrade are compatible with PME 7.2.2. Database archives saved to a configuration archive that are not PME 7.2.2. compatible will not be written to the new system.

4. Check the size of other tables and databases and consider what is needed in the new system. Upgrading these tables can take a very long time if there are large amounts of data being transferred and upgraded. Trim large databases to avoid long upgrade times.
5. Determine whether the old report packs have been upgraded to work on the new system. Report packs must be upgraded to be compatible with PME 8.2 before they can be installed on the new system.
6. Run the Diagnostic Tool that is found at `...\[Install location]\Schneider Electric\Power Monitoring Expert\Diagnostics Tool\Diagnostics Tool.exe`.

The Diagnostics Tool output provides a snapshot of the current state of the system. Reviewing this helps in identifying current or potential issues. It is advised that you select all the commands to run to get a full view of this system. Unzip the files (if compressed) and open the HTML page by clicking on `index.html` for an overview of the results. Fix any issues as needed before upgrading.

Note: The migration of the ION_Data database is often the most time consuming part of the system migration. You can expect this process to take about 1 hour for each 15 GB in database size. It is often better to trim the database or archive portions that are no longer needed before the migration. This is especially important for large database sizes. Plan this part of the migration carefully.

Install and assess the new system

IMPORTANT! The procedures in this document are based on the assumption that PME 8.2 is installed correctly on the new computer, and that it is in a factory default configured state. Any custom configuration that exists on the new system will be overwritten by the procedures in this document. Any configurations made to the target system might cause the upgrade to fail in unexpected ways.

Install Power Monitoring Expert 8.2. After installation is complete, assess the new system:

1. Check a few of the basic functions such as the system log for errors, and inspect the System Configuration Report.
2. Open the Web Application and ensure that there are no Dashboards and that the default Web Reports are available.
3. Run the Diagnostics Tool: `...\[Install location]\Schneider Electric\Power Monitoring Expert\Diagnostics Tool\Diagnostics Tool.exe`
4. Ensure that the remaining trial license period is sufficient for transferring the source configuration and validating the new system.

IMPORTANT! You should have at least four times the size of the PME databases in free hard disk space to allow for: backups, disk usage during the database upgrade process, and increase in the database size after the upgrade. Before writing a saved configuration to a PME 8.2 system, Configuration Manager performs a disk space check to ensure there is sufficient disk space for the configuration and databases. If there is not enough free disk space, Configuration Manager will display a warning.

Step 2 - Transfer the Configuration

Use Configuration Manager to transfer the configuration from the source system to the target system.

WARNING

UNINTENDED EQUIPMENT OPERATION

- Before writing a configuration verify that the system is not performing critical control actions that may affect human or equipment safety.
- Verify correct system operation after writing a configuration.
- Verify that you are writing to the correct new, factory installed target system.
- Avoid introducing malicious software into your system.

Failure to follow these instructions can result in death or serious injury.

WARNING

INACCURATE DATA RESULTS

- Before writing a configuration verify that the system data results are not used for critical decision making that may affect human or equipment safety.
- Verify correct system data results after writing a configuration.
- Avoid introducing malicious software into your system.

Failure to follow these instructions can result in death, serious injury, equipment damage, or permanent loss of data.

NOTICE

LOSS OF DATA

- Back up the system configuration before writing a new configuration.
- Verify the correctness of a configuration before writing it to the system.

Failure to follow these instructions can result in permanent loss of data.

To transfer the configuration:

1. On the PME 7.2.2 system:
 - a. Open Configuration Manager.
 - b. Click **Read from System**.

- c. After the operation completes, review the log for errors. Correct errors that could cause problems on the new system.
 - d. (Optional) Repeat steps b. and c. until the errors and warnings have been eliminated or have a known recovery process that will be applied on the destination system.
 - e. (Optional) Add explanatory notes or attach files to the configuration.
 - f. Click **Save to Archive**. You can optionally save the PME 7.2.2 historical data.
 - g. Copy the archive file for transfer to the new PME 8.2 system.
2. On the PME 8.2 system:
 - a. Open Configuration Manager.
 - b. Click **Load from Archive** to load the PME 7.2.2 archived configuration.
 - c. Click **Write to System** to write the configuration to the PME 8.2 system.

Note: During the write to system, the Configuration Manager will prompt for the system key from the old PME 8.2 source system.

Note: See ["Known Issues" on page 38](#) for a list of issues related to writing a configuration to a new PME 8.2 system.

- d. Review the log for errors. Correct any errors that will cause problems on the new system.

IMPORTANT! The PME 8.2 system is NOT operational yet. You must manually complete the upgrade. See the following sections for detailed information on how to complete the upgrade

For detailed information on how to use Configuration Manager, open Configuration Manager and click **Help**.

Step 3 - Initialize the Configuration

After you use Configuration Manager to write the PME 7.2.2 configuration to the new PME 8.2 system, the PME 8.2 system is NOT in an operational state yet. You must manually initialize the new system.

Carefully review the topics in this section to initialize the new system.

Reconfigure the System

The PME installer configures many settings when installing PME. During upgrades using Configuration Manager, some of these settings are affected and must be reconfigured when Write to System completes.

Run the PME installer in reconfigure mode on the target system after Write to System completes to ensure that all application settings are configured correctly.

If the source system has a customized hierarchy, see ["Known Issues" on page 38](#) to update it.

Install Missing Drivers

PME is installed with a large number of device drivers. Many more drivers are available for download from the Exchange community.

Tip: Configuration Manager flags missing device drivers as warnings in the log file, and indicates whether there are newer versions that should be installed.

IMPORTANT! Install any required, missing device drivers on the new system after the Write to System is complete and before the system, sites, and devices are enabled.

To install required drivers:

1. Log in to the [Schneider Electric Exchange Community](#).
2. Download the correct install files for the PME target version from the Exchange.
3. Install them on the target system.

Custom Device Drivers

Some LE device drivers (drivers that were downloaded) from the old PME system may have become Standard Edition (SE) drivers (i.e. default drivers) in PME 8.2. This results in two

entries in the device type list for the same type.

You can see these device type entries in the Management Console: one is an LE type carried over from the earlier version; the other is the SE version that was installed during upgrade.

Items in **red** are mandatory

Group	
Name	
Device Type	TeSysT
TCP/IP Address	TeSysT
Computer	Tesys T
Enabled	SER 3200
Description	SER 2408
	PM810 LE

Manually changing the device type can unlink previously logged data. Therefore, an upgrade to SE should be performed.

The original LE device type might work on the target system but it might not be as fully-featured as the natively-released version.

Note: A possible consequence of upgrading the device type is that any custom diagrams may no longer work correctly.

To upgrade the driver:

1. In Management Console right-click on the device instance to be upgraded, and select **Upgrade LE Device**.

A warning message is displayed asking to confirm that it is okay to stop and restart PME Services.

2. Click **OK** if this is acceptable.

Clicking OK executes the device upgrade. A message is displayed when the upgrade is finished.

After you close the Upgrade status window, the device type of the instance will change.

Example: TeSysT to TeSys T:

✓	SER3200	SER	SER 3200	10.
✓	TesysT	Tesys	Tesys T	10.
✓	MicroLogicH	Micrologic	Micrologic H	10.

This procedure applies to both CE and LE drivers listed below. The list of drivers that need to be upgraded in PME 8.2 include:

Device Type	ION E 6.0	SPM 7.0.1	PME 7.2.2	PME 8.2	instance-based Upgrade possible	Comments
Altivar 61	CE	CE	CE	Native	Yes	
CM100-200	CE	CE and SE Installer	CE and SE Installer	Native	Yes	
EM3460			LE	Native	Yes	
Enercept	CE	CE	CE and SE Installer	Native	Yes	
PM5300, 5100, 5500	PM5000 series LE	Native	Native	Native	No	
PM600	CE and LE	CE and Native*	CE and Native*	Native	Yes	*due to Register Pruning issues
TeSysT	CE	CE	CE and SE Installer	Native	Yes	
Varlogic NRC12	CE	CE and SE Installer	CE and SE Installer	Native	Yes	

This may not be the complete list for all version upgrade paths.

Note: Any missing LE Drivers should be downloaded from the [Schneider Electric Exchange](#) and installed separately. Make sure you download PME 8.2 versions.

Reports Database

Verify that the correct reporting database is selected.

To verify the reports database:

1. Open Management Console.
2. Under **Tools > Reporting Configuration > Reporting Configuration Manager** click **Location of report data** in the **Reports** tab and ensure it is set to the database that you want to report on.

Web report subscriptions

Since the system was moved from one computer to another, it is possible that file paths that were previously configured for saving reports as part of a subscription need to be changed.

To update these file paths:

1. In the Reports Web Application open Manage Reports.

Report Library

Filter Report Library

- Billing and Allocation
- Energy Analysis
- Energy Management
- Equipment Performance
- General
- Generator Performance
- Operating Theatre
- Power Capacity
- Power Efficiency
- Power Quality
- Power Quality Advisor
- UPS Performance
- Usage Trending

Generator Capacity Report

Title Generator Capacity Report

EPSS Group ATS-A Initiated G1,G2,G4,G5 G1, G2, G4, G5, G6
[Exclude Sources](#)

Reporting Period Last 7 Days [start of day 12/31/2016 to end of day 1/6/2017]
Server Local Time

Aggregation Period Daily

Include Data Table ☐ Yes ☒ No

Include Data Warnings ☐ Yes ☒ No

Generate Report

2. Click **Subscribe** and then **Edit Subscription**.

Manage Reports

☐ Manage ☐ Share ☒ Subscriptions

Add Subscriptions... Filter by Subscription or Report name

Subscription Name	Report Name	
GenCapacity	Generator Capacity Report	 

1 - 1 of 1 Subscriptions

Close

3. Select **File share** and enter the UNC path.

Modify Subscription

Subscription Name
GenCapacity

Output Format
☒ Excel ☐ Tiff ☐ PDF (Letter) ☐ HTML ☐ XML

Delivery Mode
☐ Email ☒ File share ☐ Printer

UNC Path where the report should be saved
\\server\Reports

☐ Overwrite existing file

Subscription Schedule
☐ On Alarm ☐ Once ☐ Hourly ☐ Daily ☐ Weekly ☒ Monthly
☐ Absolute Monthly ☒ Relative Monthly

Pick the week of the month to run the report. First

Test Now

Cancel Save

Note: The Windows IONUser account needs write permission to the folder where the report is being delivered.

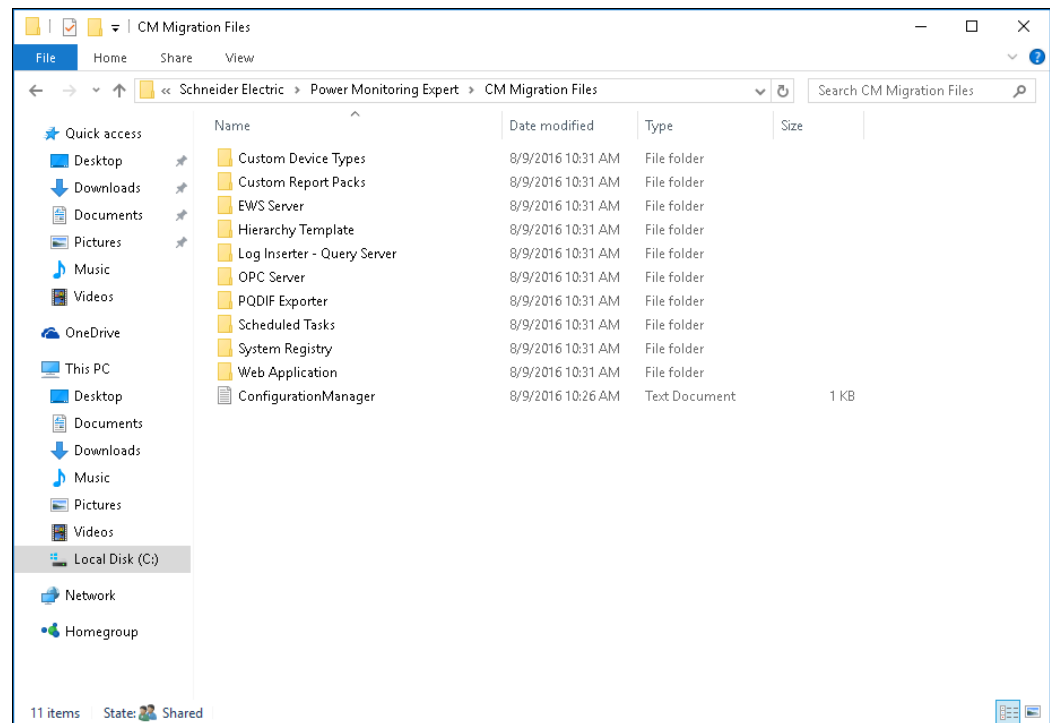
4. Click **Save**.

Step 4 - Manually Recreate Customizations

Configuration Manager copies all configuration files to the target system, however, it does not install all configuration files on the new target system because:

1. The PME 7.2.2 source system contains customizations that cannot be automatically transferred by Configuration Manager.
2. The PME 8.2 target system contains new default values and changes that should not be overwritten.

Configuration Manager copies all customized configuration files that are not automatically installed in the system to ... \Power Monitoring Expert\CM Migration Files. For example:



Review this folder and decide which customizations you want to recreate on the new system.

The topics that comprise this section consist of all possible configuration customizations. However, most systems in the field will use a small subset of these.

Alert Monitor

To update the COM port and modem settings for Alert Monitor:

1. Navigate to `...\config\AlertMonitor\{MachineName}.AlertMonitor.config`.
2. Edit the alert monitor configuration file to specify ports and modems.

Custom Report Templates

Report templates must be compatible with the version of PME that they are running on. Older versions of custom report templates are not compatible with newer versions of PME.

To upgrade the templates to versions that are supported on the new PME system:

Copy compatible templates onto the target system and install them after Configuration Manager has finished the Write to System.

Default Device Drivers

It is possible to customize device drivers in PME 7.2.2, for example, by adding software logging. This is typically done through the Modbus Device Type Editor (MDI). The customizations are stored in the ION and XML translator files under `...\config\translators`.

To recreate default device driver customizations:

1. Navigate to `...\Power Monitoring Expert\CM Migration Files`.
2. In the MDI, determine whether the files copied to the CM Migration Files folder were customized.
3. Manually recreate any desired customizations on the target system by customizing the PME 8.2 version of the driver.

Note: Since this process may need to be followed for any future PME upgrades, note the customizations for future upgrades.

Dial Out Modems

Any modems—physical or WinModem—that were used on the source system to connect to remote devices, or equivalent hardware resources, need to be setup and configured on the target computer or operating system.

Check the communication port mappings as they may be different.

Test each modem or serial port to verify that everything works as expected.

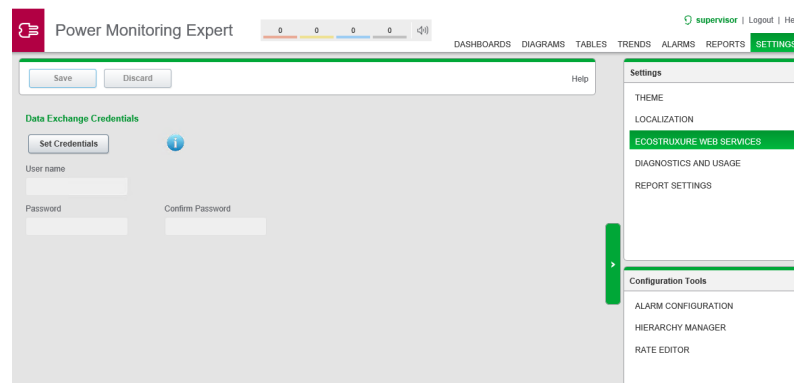
EWS User

The user account management for EWS has changed in PME 8.2. In previous versions of the software any user account could be used for EWS server authentication. Starting in PME 8.2, a specific EWS user account must be used. Since the configuration transferred with Configuration Manager does not include this EWS account, it must be created manually.

Note: EWS server must be enabled in PME for the user account configuration UI to be visible in the web application Settings.

To create an EWS user account in PME:

1. Ensure EWS server is enabled.
2. Open the web applications.
3. Under **SETTINGS > ECOSTRUXURE WEB SERVICES** click **Set Credentials**
4. Enter a User name and Password and click **Save**



Note: Update all EWS clients with the new account details.

EWS Server Settings

It is possible to customize EWS configuration parameters, create custom device type extension files, and customize default device type extension files.

To recreate customize EWS configuration parameters:

1. In Windows Explorer, navigate to `... \Applications\EWS\`.
2. Compare the target default files to the source files in the `CM Migration Files` folder.

3. Open `web.config.xml` and manually recreate the settings you want to use on the target system.

To recreate custom device type extension files for EWS:

1. In Windows Explorer, navigate to `...\system\WebServices\Extensions\.`
2. Compare the target default files to the source files in the `CM Migration Files` folder.
3. Copy the custom device type definition XML files that you want to include to the new system.

To recreate customized default device type extension files:

1. In Windows Explorer, navigate to `...\system\WebServices\Extensions\.`
2. Compare the target default files to the source files in the `CM Migration Files` folder.
3. Recreate the customized default device type definitions you want to use on the target system.

Update EWS Server

In Management Console, select **Update EWS Server** to initialize the EWS server. (This step is only needed if EWS is used in the target system.)

LogInsenter and Query Server

LogInsenter and Query Server in PME are controlled by the settings and configuration of the Log Acquisition and Query modules.

Note: Customization to these files is quite rare. Determine whether Power Monitoring Expert performance enhancements require the recreation the LogInsenter and Query Server customizations.

To recreate the module customizations:

1. In Windows Explorer, navigate to `...\config\cfg\logsrv\` and open the module configuration files.

2. Compare the target default files to the source files in the `CM Migration Files` folder.
3. In ION Designer, open LogInserter and edit the Log Acquisition and Query modules to include the source customizations. See *Power Monitoring Expert 8.2 User Guide* for details.

OPC Server Settings

It is possible to create custom device type definitions for OPC, customize the default device type definitions for OPC, and customize `DefaultMeasurements.xml`.

To recreate custom device type definitions for OPC:

1. Check the `CM Migration Files` folder to see if there are any custom device type definitions for OPC.
2. In Windows Explorer, navigate to `... \system\IONServices\DefaultMeasurementsExt\` and copy the custom device type definition XML files that you want to include to the new system.

To recreate customized default device type extension files for OPC:

1. In Windows Explorer, navigate to `... \system\IONServices\DefaultMeasurementsExt\`.
2. Check the default device type extension XML files from the source in the `CM Migration Files` folder.
3. Recreate the customized default device type definitions that you want to include to the new system.

To recreate customizations in `DefaultMeasurements.xml`:

1. Check the `DefaultMeasurements.xml` copied to the `CM Migration Files` folder to see if it was customized.
2. In Windows Explorer, navigate to `... \system\IONServices\`.
3. From a sub directory, duplicate an existing OPC `ext.xml` file.

Note: These files are merged in memory into the master `DefaultMeasurements.xml` file without needing to modify the master file.

4. Open the file, delete the content of the original device and then replace it with the new device content.
5. Save the file.

Update OPC Server

In Management Console, select **Update OPC Server** to initialize the OPC server. (This step is needed only if OPC is used in the target system.)

PQDIF Exporter

Configuration Manager does not automatically install the PQDIF configuration files because the older files are not compatible with the newer version of PME.

To update the PQDIF configuration files:

1. In Windows Explorer, navigate to `...\config\exporters\PQDIF\`.
2. Compare the target default files to the source files in the `CM Migration Files` folder.
3. Recreate the customized PQDIF configuration files that you want to include to the new system. See *Power Monitoring Expert 8.2 User Guide* for details.

Update PQDIF Exporter Database Connection

To update the PQDIF exporter database connection:

1. In Windows Explorer, navigate to `...\config\exporters\PQDIF\config\`.
2. Open `PQDIFExporterConfig.xml` and edit the file to specify database connection settings.

PME Registry Keys

Configuration Manager installs only the `NetworkDiagram` key and any custom `DeviceInfo` keys on the target system. Any other customizations to the registry must be recreated manually.

To recreate PME registry keys:

1. Review the source registry keys in the `CM Migration FileSystem Registry\system\Registry\Registry.xml`.

2. Recreate any customized registry keys on that you want to use on the target system.
See *Power Monitoring Expert 8.2 User Guide* for details.

PME Services

Configuration Manager does not transfer customizations in services settings from the source to the target.

Recreate PME Services settings customizations in service settings using Microsoft Windows Services.

Additionally, custom VIPs need to be manually started after Configuration Manager completes the Write to System and the system is ready to be put into service.

Scheduled Jobs

Configuration Manager does not automatically install scheduled jobs from the source system to the target system.

To recreate scheduled jobs on the new system:

1. In the `CM Migration Files` folder, check the copied files or review the scheduled jobs on the source system and then compare it to the target system configuration.
2. Recreate any desired customizations manually on the target system. See *Power Monitoring Expert 8.2 User Guide* for details.

Note: Ensure that the user permissions for Windows Task Scheduler are set correctly on the target system.

Update RepGen report parameters

Update the server name in the report .xls files.

To update the server name in the Excel report workbooks:

1. Open a report workbook from the `...\Schneider Electric\Power Monitoring Expert\config\reports` folder.
2. Right-click any tab and then unhide the `|PRIVATE| Datasheets`.
3. Update the server name on the far right end of the entries in this sheet to the new server name. Repeat this step for all the Excel reports in the Reports directory.

If a report is configured to be saved to disk (instead of shown on screen only), you need to update the report and re-save it in the new PME location before you generate any saved reports.

To update a report:

1. Open Reporter and click the radio button for **Manage Reports**.
2. Highlight a report and click **Edit**.
3. Click the **Distribution** tab.
4. Verify that the Save Excel report folder path is correct or create a new one.
5. Click **OK**.
6. Click the radio button for **Generate Reports** and then generate the report to verify it is working properly.

Web Application Framework

Configuration Manager does not automatically install the source system `framework.xml` file on the target system because it is not compatible with PME 8.2.

To recreate `framework.xml` customizations:

1. In the CM Migration Files folder, check the copied `framework.xml` file and compare it to the PME 8.2 default `framework.xml` file in `... \Applications\ApplicationFramework\`.
2. Back up `framework.xml` on the new system and then edit the file as needed.

Web Application web.config

Configuration Manager does not automatically install the source system `web.config` file on the target system because there could be settings in the file that are incompatible between source and target system.

To recreate `web.config` customizations:

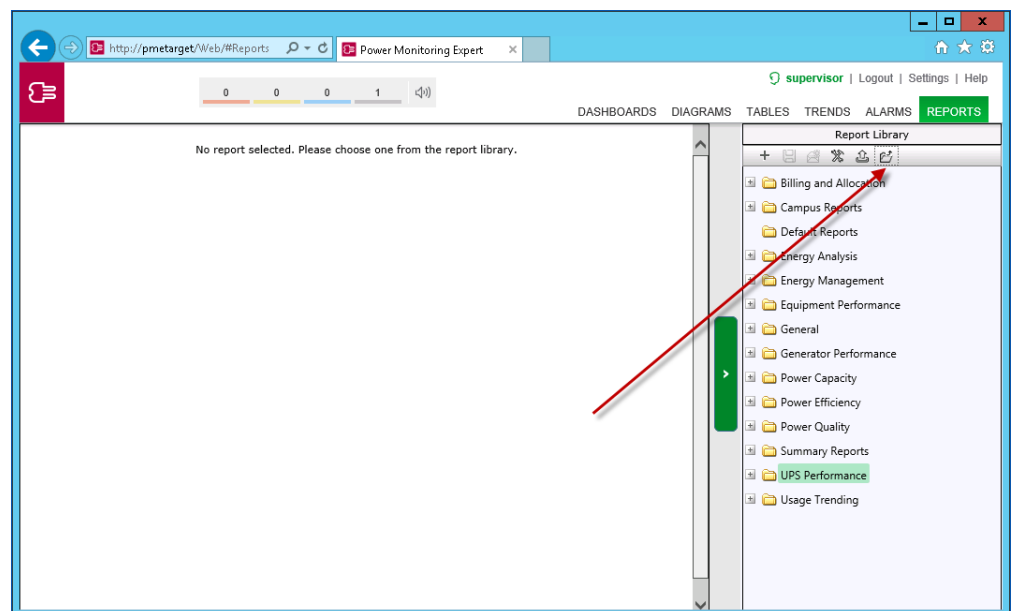
1. In the CM Migration Files folder, check the copied `web.config` file and compare it to the PME 8.2 default `web.config` file in `... \Applications\SystemDataService\`.
2. Back up `web.config` on the new system and then edit the file as needed.

Web Report Packs

Report packs must be compatible with the version of PME they are running on; older versions of custom report packs are not compatible with newer versions of PME. Upgrade the report packs to versions that are supported on the newer PME system.

To install the report packs:

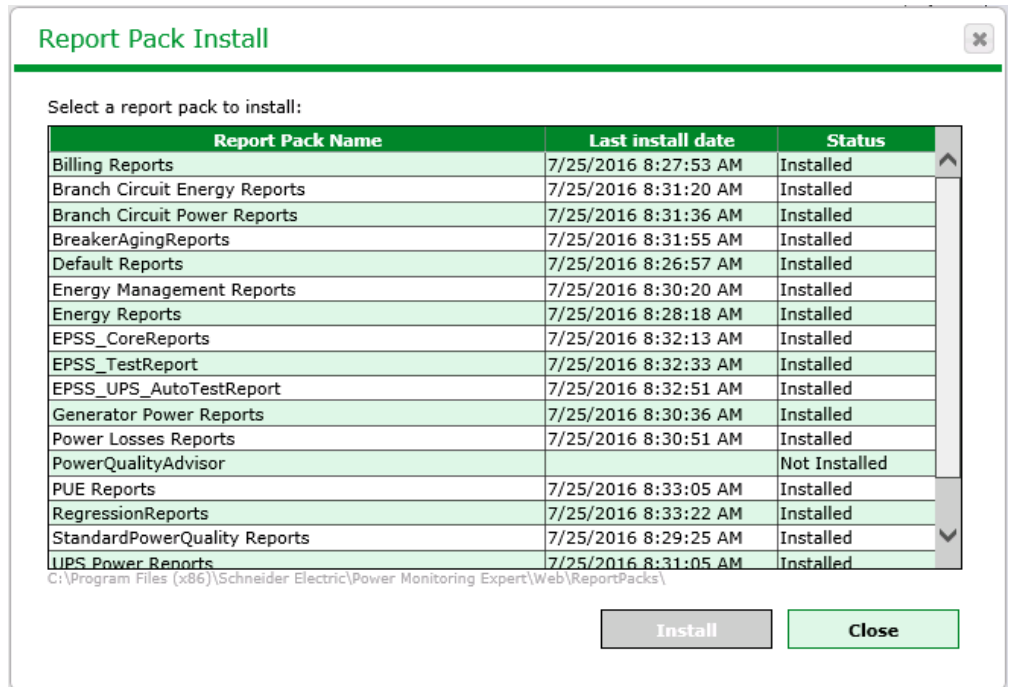
1. Review the custom report packs in the `CM Migration Files` folder.
2. On the target system, upgrade the report packs to `... \Power Monitoring Expert \Web \Report Packs`.
3. The Report Packs should be available in the Reports application. If not, then open **Web Applications > Reports**. In the Report Library section in the right pane, click **Upload Report Pack (Admin)**.



Note: The reports list in the Report Library may be empty until the custom reports have been installed.

4. Select the report packs to install and then click **Install**.

For example:



Step 5 - Service the System

After manually recreating configuration customizations, the system is ready to be put into service. Review the steps in this section to finalize the upgrade.

System reboot

At this point, many configuration changes are complete and it is recommended that you reboot the system.

PME Hotfixes

If the target system had any hotfixes applied to it, they need to be reinstalled after you reboot the system.

Clear browser cache

Following an upgrade, it is recommended that you:

1. Delete the browser cache.

This will clear any old configurations or cached pages that might have been on the system before the upgrade. If you are unsure about how to do this, an Internet search can help you find out how to delete the cache on every supported browser.

2. Re-run saved Web reports and re-save them.

This ensures that the reports can be read correctly on the new system.

Enable Server, Sites, and Devices

Configuration Manager leaves the server, sites, and devices in a disabled state after Write to System. This is a safety precaution to ensure that the PME system does not go into service until it is ready and its correct configuration has been verified.

WARNING

UNINTENDED EQUIPMENT OPERATION

- Do not use the software for critical control or protection applications where human or equipment safety relies on the operation of the control action.
- Do not use the software to control time-critical functions because communication delays can occur between the time a control is initiated and when that action is applied.
- Do not use the software to control remote equipment without securing it with an authorized access level, and without including a status object to provide feedback about the status of the control operation.

Failure to follow these instructions can result in death or serious injury.

Perform all required manual tasks, especially installing missing device drivers, and then enable the server, sites, and devices through the Management Console.

Test that each device can display the default diagram. If communication problems exist, address them before proceeding.

Step 6 - Perform a Post-upgrade System Check

Verify that the PME 8.2 system is configured correctly. Use the checklist below to do a system walk-through. For each item in the checklist, make sure the system behaves the way you expect.

For example:

- Are all devices configured and communicating?
- Is all the information present?
- Are measurements being displayed and are they updating?
- Are reports running and returning the expected data?

Some of the new features in PME 8.2 need to be configured before they will provide the expected information or functions. Configuring these new features is not part of this document. Refer to the PME 8.2 user documentation and other product resources for information on configuring these features.

Checklist

To perform a system walk-through on your newly upgraded system:

1. Check the system log in the Management Console for errors.
2. Check the Devices, Sites, and other settings in Management Console.
3. Check the availability of the archived databases for reporting in the Reporting Configuration Manager in the Management Console.
4. Log into Vista, verify the network diagram, real time data, and data logs.
5. Verify that Vista diagram links function.
6. Check the data and functions provided by the VIPs.
7. Log into the Web Applications.
8. Run the reports, Diagrams, Tables and Dashboards.
9. In Web Reporter, run saved/custom reports and verify the report subscription.
10. Log into the Reporter (also known as RepGen) application and generate the saved reports.
11. Check any scheduled tasks.
12. Review the user accounts and passwords to ensure they meet your cybersecurity requirements.

For maintenance, follow the standard maintenance best practices recommended for PME 8.2.

Step 7 – License the new system

The installed software includes a 90-day trial license for all features of the product. You must activate valid purchased software licenses within 90 days, or some software functionality is disabled.

Once you are satisfied with the upgrade, return your 7.2.2 licenses and then activate the 8.2 licenses on the new PME 8.2 system.

Note: Once you return the licenses, the old system will not be fully functional.

Check the following to make sure it is functioning as expected:

1. Check the system log in the Management Console for errors.
2. Log into Vista, verify the network diagram, real time data, and data logs.
3. Log into the Web Applications.
4. Run the reports, Diagrams, Tables and Dashboards.

For more information on licensing, refer to the *Power Monitoring Expert 8.2 Installation Guide*. To find the installation guide, open the Management Console and then click **Help > Installation Guide**.

For quick answers to the most common licensing questions, refer to the [PME Licensing Guide](#). (You will need to provide your PME Exchange Community login credentials.)

Refer to the online help in Schneider Electric Floating License Manager for additional information.

Contact the Software Registration Center if you experience any problems activating your software licenses. Click **Help > Support** in Schneider Electric Floating License Manager for the contact information.

Reference

Known Issues

Component: Customized Diagrams

Issue: Upgraded source 7.2.2 system has far too many customized Diagrams

Cause: When IONE 6.0.1 was upgraded to PME 7.2.2, the diagrams were copied to the new system. When Configuration Manager reads the 7.2.2 system, Configuration Manager considers these diagrams as being customized.

Solution: No action required.

Component: Customized Diagrams

Issue: Configuration Manager does not copy a file on Write to System.

Cause: PME 8.2 ships with `_iEM3150_3250.bmp` and `_iEM3155_3255.bmp`. If either of these files are in a saved archive, Configuration Manager does not consider them to be modified files because it compares the file content, not the dates.

Solution: Ignore the diagrams. If you do not want the diagrams to display in the Configuration Manager Content grid, or do not want to take up disk space in the archive or on the target system:

- Delete the diagrams (or remove them from the PME folder structure) on the source system before using Configuration Manager.
- Delete the diagrams on the target system after the Write to System completes.

Component: Database archive information

Issue: Configuration Manager displays an incorrect archive size and start date.

Solution: Verify the database size in Windows Explorer. The default database archive location is `...\Power Monitoring Expert\Database\Archive`.

Component: Hierarchy

Issue: Hierarchy is overwritten by reconfigure system.

Configuration Manager extracts the source system hierarchy template (.xml file) and saves a copy to the `CM Migration Files` folder on the target. Import this hierarchy XML file on the target as described in the guide.

Solution: To manually recreate the source hierarchy on the target PME 8.2 system, see *StruxureWare™ Power Monitoring Expert 8.0 Hierarchy Configuration Guide*.

Component: Hierarchy

Issue: Hierarchy nodes with apportionment are wrong.

Cause: A Spanish source system using one locale was copied to a Spanish system using a different locale.

Solution: Configuration Manager supports Spanish systems using the same locale only.

Component: Historical Devices

Issue: Query Server and VIPs display as historical devices after write to system

Cause: There is no way to know which sources are actual devices or software nodes as both as classified as "physical" sources.

Solution: Complete the manual configuration steps and start the services. Once the services start the Query Server and VIPs will no longer appear as historical devices.

Component: PQDIF Exporter

Issue: PQDIF Exporter using the source server name on the target system

Cause: The SQL Server instance for the PQDIF Exporter combines the server name and the database instance name. Since Configuration Manager does not know the database instance name on the target, it keeps the source name.

Solution: Manually update the PQDIF Exporter SQL Server instance using the target server name and database instance name.

Component: Logical Device Types / Managed Circuit Types

Issue: After writing an IONE 6.0.1 source archive to a new PME 8.2 system, 11 new logical device types / managed circuit types appear on the target PME 8.2 system.

Cause: The Database Manager scripts include these device types by default.

Solution: No action required. You can ignore the 11 new logical device types / managed circuit types.

Component: Topic Equivalencies

Issue: Customized Smart Measurements do not get copied to the target system

Cause: The database upgrade scripts overwrite customized Smart Measurement values.

Solution: Manually recreate Smart Measurements on the new system. Smart measurements are stored in the `Configuration.Configuration...` tables in the Application Modules database.

Component: Vista Diagrams

Issue: After upgrading a source archive to a new PME 8.2 system, customized Vista diagrams do not display when **Open Diagram for Meter** option is selected.

Cause: Newer versions of default Vista diagrams on the target system open by default.

Solution: Manually recreate the customized DMG files or change the link type in the parent diagram to **Open User Diagram**, and then link to the customized DMG file.

Default Device Drivers

Use the list of PME 7.2.2 default device drivers to determine which device drivers were customized on the old system.

3300 ACM	ION 7330	Sepam Series 10
3710 ACM	ION 7350	Sepam Series 20
3720 ACM	ION 7500	Sepam Series 40
3800 RTU	ION 7500 RTU	Sepam Series 48
ACCESS 9200	ION 7550	Sepam Series 60
ACCESS 9200 (MODBUS)	ION 7550 RTU	Sepam Series 80
ACCESS 9300	ION 7600	SER 2408
ACCESS 9330	ION 7650	Twido Modular PLC (WAGES) D12/28/44
ACCESS 9340	ION 7700	Vigilohm IM20_LE
ACCESS 9350	ION 8300	
ACCESS 9360	ION 8400	
ACCESS 9500	ION 8500	
ACCESS 9500 RTU	ION 8600	
ACCESS 9510	ION 8600C	
ACCESS 9510 RTU	ION 8650	
ACCESS 9600	ION 8650C	
ACCESS 9610	ION 8800	
ACCESS 9700	ION 8800C	
Acti 9 Smartlink	Micrologic A	
BCPM	Micrologic A Compact NSX	
CM2000 Series	Micrologic E	
CM3000 Series	Micrologic E Compact NSX	
CM4000 Series	Micrologic H	
DM6200	Micrologic P	
DM6300	Momentum PLC A8 (WAGES)	
EM1200 Series	Momentum PLC D10 (WAGES)	

EM3550	PM1200
EM3555	PM200 Series
EM4800-08 Delta	PM3250
EM4800-08 Wye	PM3255
EM4800-12	PM5100 Series
EM4800-24	PM5300 Series
EM5600	PM5350
EM7000 Series	PM5350 IB/PB
EnerSure BCPM xD	PM5500 Series
iEM3150/3250	PM600 Series
iEM3155/3255	PM700 Series
ION 6200	PM800 Series
ION 6200 (MODBUS)	PM810 LE
ION 7300	PM9C

Use the list of PME 8.2 default device drivers to determine which device drivers were customized on the old system.

9410	EM6436	WT 4000 Series
3300 ACM	EM6436 Dual	PM1200
3710 ACM	EM6438	PM200 Series
3720 ACM	EM6459	PM2000 Series
3800 RTU	EM7000 Series	PM3250
ACCESS 9200	Enercept Meter	PM3255
	EnerSure BCPM 2.0	PM5100 Series
ACCESS 9200 (MODBUS)	EnerSure BCPM xD	PM5300 Series
	EnerSure Enkapsis	PM5350
ACCESS 9300	EnerSure iBCPM	PM5350 IB/PB
ACCESS 9330	iEM2000 Series	PM5500 Series
	iEM3x50 Series	PM600 Series
ACCESS 9340	iEM3x55 Series	PM700 Series
ACCESS 9350	ION 6200	PM800 Series
	ION 6200 (MODBUS)	PM8000
ACCESS 9360	ION 7300	PM810 LE
ACCESS 9500	ION 7330	PM9C
	ION 7350	Power E Box
ACCESS 9500 RTU	ION 7400	Sepam Series 10
	ION 7500	Sepam Series 20
ACCESS 9510	ION 7500 RTU	Sepam Series 40
ACCESS 9510 RTU	ION 7550	Sepam Series 48
	ION 7550 RTU	Sepam Series 60
ACCESS 9600	ION 7600	Sepam Series 80
ACCESS 9610	ION 7650	SER 2408
	ION 7700	SER 3200
ACCESS 9700	ION 8300	Telvent Weather Service

AccuSine PCS Plus	ION 8400	Tesys T
	ION 8500	Twido Modular PLC (WAGES) D12/28/44
AccuSine PFV Plus	ION 8600	Varlogic_NRC_12
AccuSine_ PCS	ION 8600C	VarPlus Logic
	ION 8650	Vigilohm IM20_LE
Acti 9 Smartlink	ION 8650C	WT 4000 Series
Acti 9 Smartlink Ethernet	ION 8800	
	ION 8800C	
Altivar 61	MGE Galaxy 5000 Series	
BCPM	Micrologic 2.0/5.0/6.0 E	
BCPM Flex Cct	Micrologic 2.0/5.0/6.0 E IFE_IFM	
	Micrologic 2.0/5.0/6.0/7.0 A	
Breaker Aging And Wear Provider	Micrologic 2.0/5.0/6.0/7.0 A IFE_ IFM	
	Micrologic 2.0/5.0/6.0/7.0X	
CM100-200	Micrologic 5.0/6.0/7.0 H	
CM2000 Series	Micrologic 5.0/6.0/7.0 H IFE_IFM	
CM3000 Series	Micrologic 5.0/6.0/7.0 P	
	Micrologic 5.0/6.0/7.0 P IFE_IFM	
CM4000 Series	Micrologic 5.2/6.2/5.3/6.3 A	
	Micrologic 5.2/6.2/5.3/6.3 E	
DM6200	Momentum PLC A8 (WAGES)	
DM6300	Momentum PLC D10 (WAGES)	
EM1000 Series	Momentum PLC D16 (EPSS)	
EM3460		
EM3550		
EM3555		

EM4200

EM4300
Series

EM4800-08
Delta

EM4800-08
Wye

EM4800-12

EM4800-24

EM5600

EM6400

EM6400 NG

EM6430

EM6433

EM6434

StruxureWare™ Power Monitoring Expert 8.2

PME 7.2.x to PME 8.2 Side-by-side Upgrade Guide using Configuration Manager

Schneider Electric

35 rue Joseph Monier
92500 Rueil Malmaison – France
www.schneider-electric.com

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