SIEMENS

Powermanager Migration Export Tool

Contents

Information Security

Notice!

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1 Online Support

Click the following link for technical support:
http://www.siemens.com/lowvoltage/technical-support

Click the following link for the list of all FAQs, Hot fixes, and Service Packs:
www.siemens.com/Powermanager/support

For additional information to work with Powermanager, refer to the Powermanager manual/Help.

1.1 Security Information

Siemens provides products and solutions with industrial security functions that support the secure operation of plants, systems, machines, and networks.

In order to protect plants, systems, machines, and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial security concept. Siemens' products and solutions constitute one element of such a concept.

Customers are responsible for preventing unauthorized access to their plants, systems, machines, and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g., firewalls and/or network segmentation) are in place.

For additional information on industrial security measures that may be implemented, please visit https://www.siemens.com/industrialsecurity.

Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats.

To stay informed about product updates, subscribe to the Siemens Industrial Security RSS Feed under https://www.siemens.com/industrialsecurity.

2 Overview

Powermanager allows you to migrate projects of powermanager V3.6 HF1 to powermanager V5.1 or higher.
This process includes migration of configurations and data of the projects. Configurations of the project including all device, report, and system settings and system trends are part of the migration operation. Archived data over required period for selected devices is also a part of this operation.
NOTE: For the ease of reference, all powermanager versions above V5.1 will be referred as ***new powermanager***.
You can perform this operation by using the migration tool. The migration operation consists of two key workflows:

- Export from powermanager V3.6 HF1: Allows you to select the configurations and the data to be migrated from powermanager V3.6 HF1 to new powermanager.
  NOTE: You should have powermanager V3.6 HF1 to perform the export. Upgrade to powermanager V3.6 HF1, if you are using an older version of powermanager.

- Import to new powermanager: Allows you to import the exported files from powermanager V3.6 HF1 to new powermanager.
  NOTE: You should have new powermanager to perform the import. Upgrade to new powermanager if you are using an older version of powermanager.

Migration Rundown:

To save time, we recommend you perform the procedures involved in migration workflow in the following sequence:

1. Configuration Export
2. Configuration Import
3. Data Export
4. Data Import

new powermanager and powermanager V3.6 HF1 must be available in two different machines to perform the procedures in the recommended sequence. Refer section **Hardware Category Definitions** in System_Description_pm_6.0 document for hardware requirements. Ensure that the machines involved in the migration process are in the same time zone.

NOTE: To transfer the exported folders from one machine to another, you are recommended to have USB stick or USB Hard disk.

Below are few important details to be noted before continuing with the migration operation:

- Only server projects can be migrated. If you have an existing client setup, you must setup the client afresh in new powermanager.

- Custom panels are not included in this migration operation. Refer new powermanager Help for more information on working with Graphics Editor to create similar templates.
- The device types that are not supported in new powermanager but supported in powermanager V3.6 HF1 must be imported as Third-party device types in new powermanager. Refer **Prerequisites for Import** section below for more information.
- Device and Area/System level device type configuration are not migrated for Third-party device types, Classic device types (PAC1500, 3VL COM21, GMD), SEM3 and PAC1200. However, Archival configuration for the devices will be migrated in case the measurement point is selected for data migration and data is available.
- The migration of the distributed system must be done for each project separately.
  If the distributed project has source elements from another distributed project, then those source elements will not be migrated and has to be re-configured in new powermanager system after migration.
  Migration of devices is handled as below:

Device	Migration Supported	Comments
PAC Devices	✓	PAC1500 is migrated as a third-party device type. Refer **Prerequisites for Import** section for more information.
SEM3	✓	-
SICAM Devices	✓	P850 and P855 will be migrated as PAC5100 and PAC5200 respectively.
Breakers	✓	3VLCOM21 is migrated as a third-party device type. Refer **Prerequisites for Import** section for more information.
Generic Modbus Device	✓	This device type is migrated as a third-party device type. Refer **Prerequisites for Import** section for more information.
Manual Measuring Device	✗	-
Virtual Devices (Logical Devices)	✓	• Virtual devices include: - Average Value - Calculation Value - Virtual Counter - Converter • KPI is migrated as a virtual device type. • Virtual devices are not listed for data export. All the result values are selected for export.

Monitoring Functions	✗	Monitoring functions include Limit Control and Load Monitoring.
Third-party Devices (XML imported Third-party Device types)	✓	-

- The descriptions of Areas and Sectors are not migrated from powermanager V3.6 HF1 to new powermanager.
- System and Area level configurations of PAC5100 and PAC5200 device types are considered for P850 and P855 device type respectively in new powermanager.
- OPC UA/DA and MindSphere configurations are not migrated as these features are not supported in new powermanager.
- Manually corrected values are migrated.
- Alarm configuration of 3VLCOM21, PAC1500, GMD and third-party device types (xml imported device types) will not be migrated. If necessary, reconfigure the alarms after migration.

3 Export from powermanager V3.6 HF1

This section provides information on the export operation required for migration.

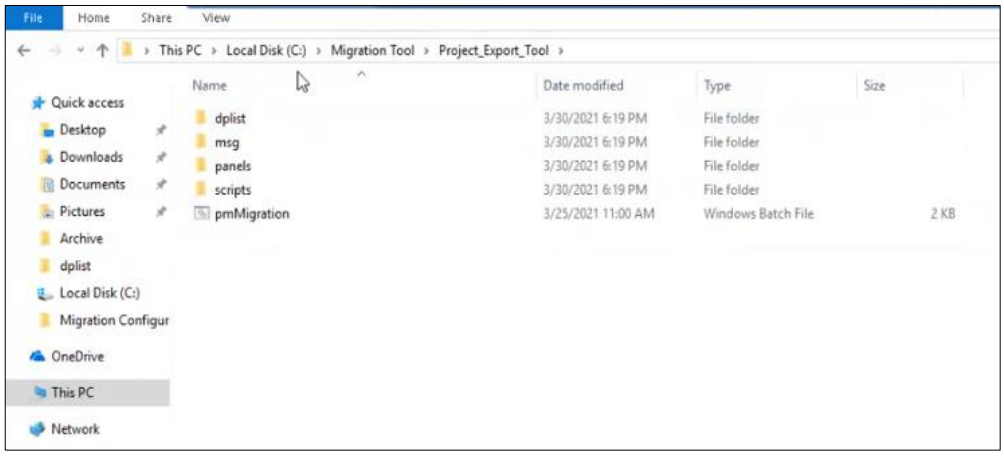
Pre-export Checklist:

- Ensure you have sufficient disk space available for the export operation.
- Archive backups of powermanager V3.6 HF1 should be re-mounted if needed for data export.
- Ensure you take project and data backup before migration.

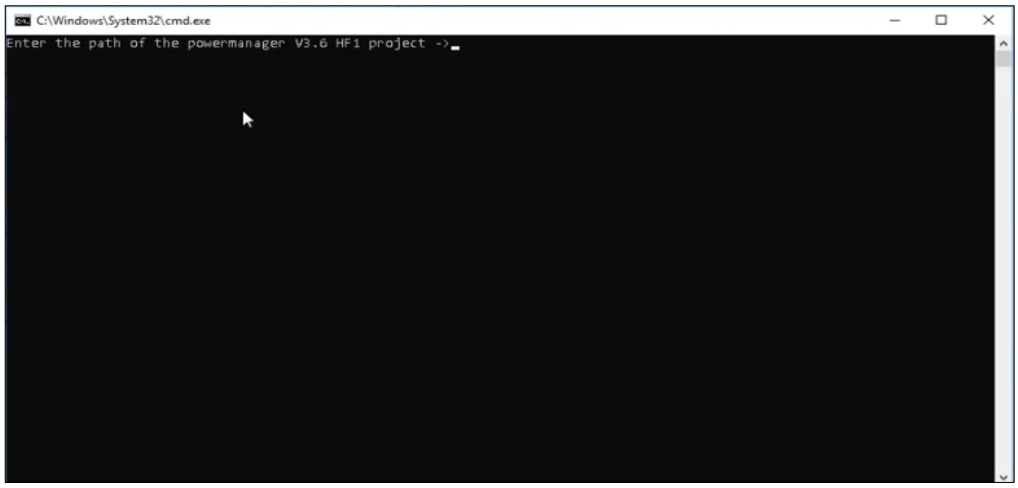
3.1 Prerequisites for Export

Login to powermanager V3.6 HF1 and verify all the required configurations and data of the project to be migrated are available. Perform the following steps to run the Powermanager Migration Export Tool.

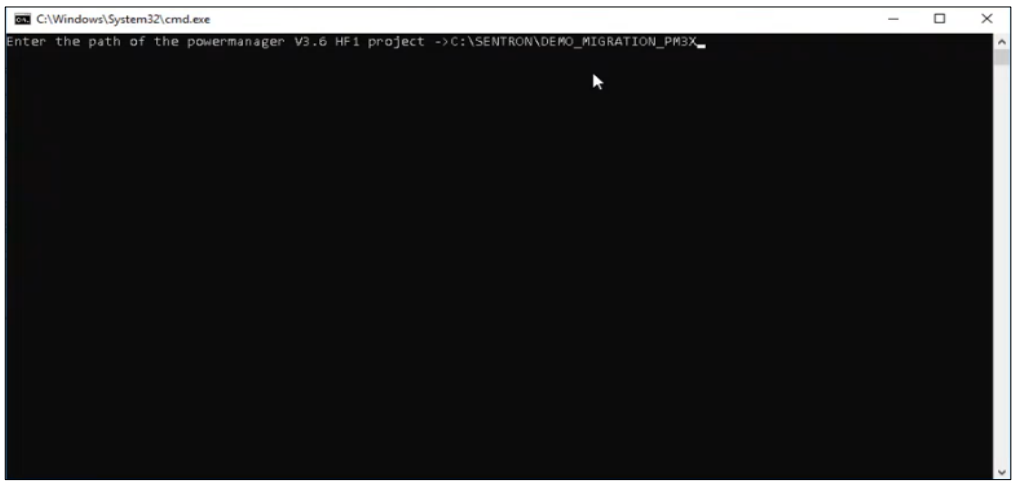
- Download and unzip the file containing the Migration Tool from the SIOS portal.



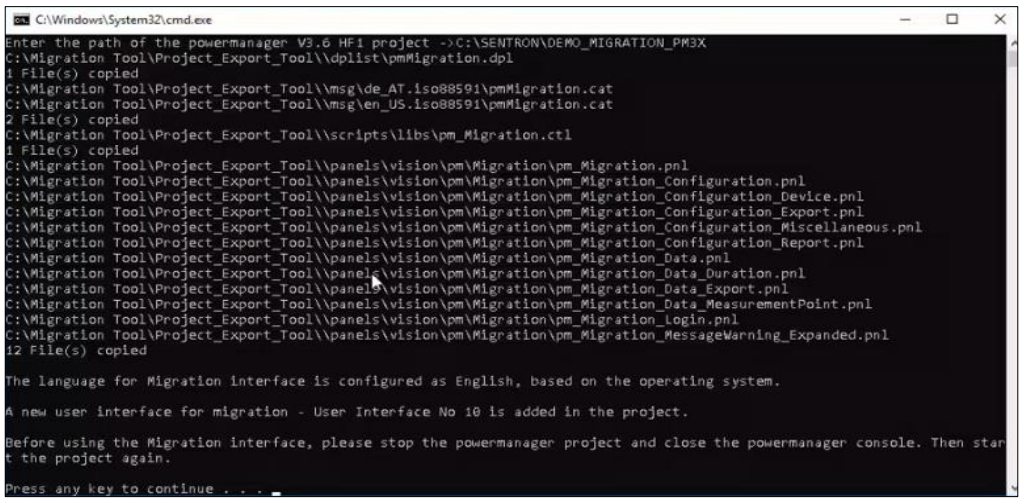
- Run the ***pmMigration*** batch file as administrator.
  - You will be prompted to enter the project path.



- Select the path of the project you want to migrate.
  The path can be like the below example:
  C:\SENTRON\ProjectName
- Enter the project path and click **Enter**.

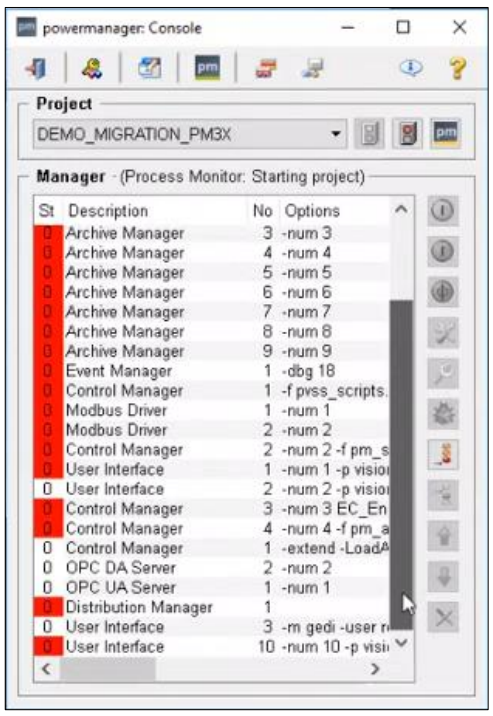


- Stop the project and close all powermanager applications and consoles to proceed with migration.

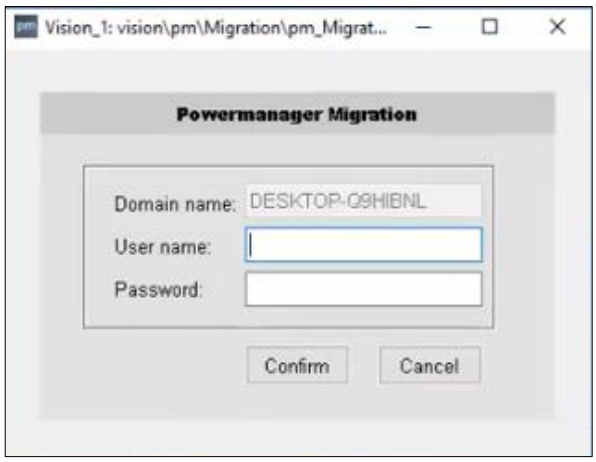


NOTE: The Powermanager Migration Export tool is available in English and German languages. The language will be selected by the tool depending on the available operating system. The language is set to English for all operating systems other than German.

- Restart the project to be migrated.
  - The Powermanager Migration Export tool login screen appears. The Powermanager Migration Export tool is added as a new User Interface (number 10) in the powermanager Console.

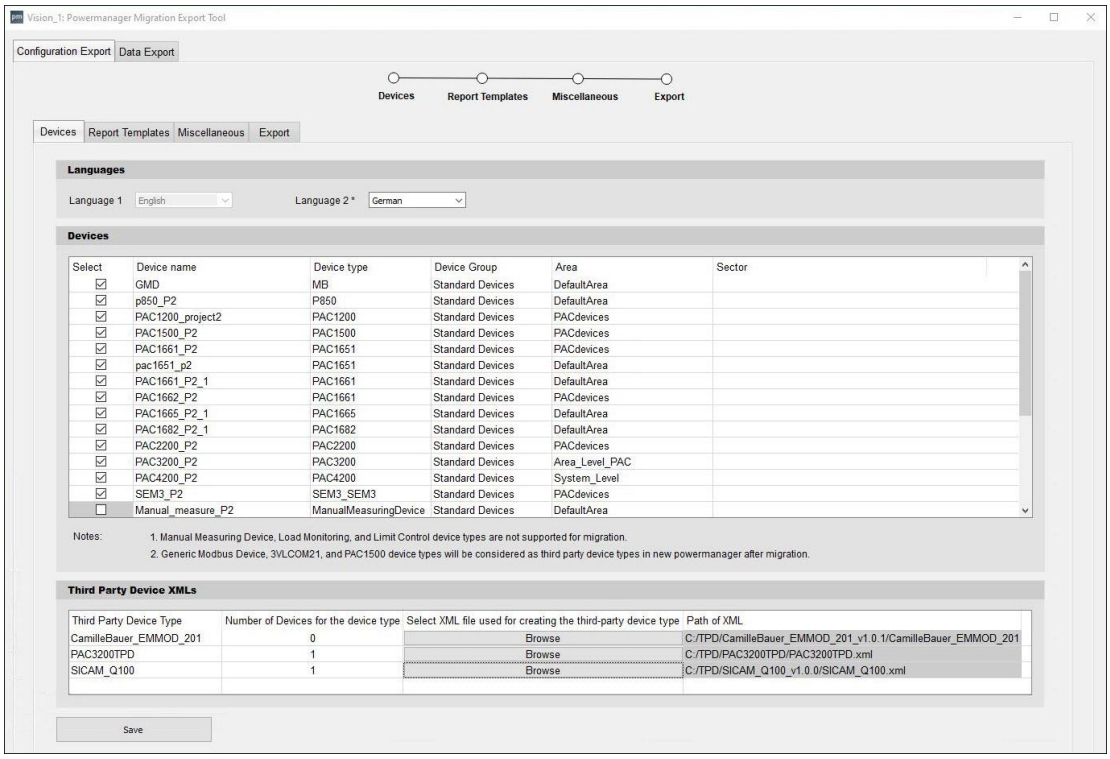


- Enter the **Username** and **Password** used to login to powermanager V3.6 HF1 project to login to the migration tool.



NOTE: You must be a powermanager V3.6 HF1 Admin user to login to the Powermanager Migration Export tool.

The Powermanager Migration Export tool is now available.



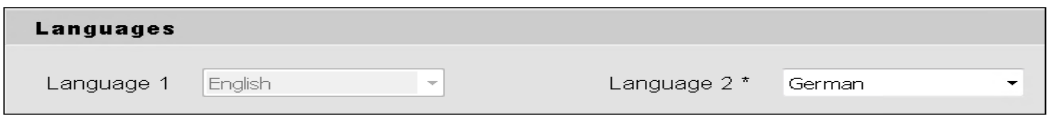
3.2 Configuration Export

Ensure that all the prerequisites mentioned in the **Prerequisites for Export** section are met. Perform the following steps for Configuration Export.

NOTE: We recommend you stop all device communication before proceeding with the export operation.

Devices Tab

- Select the required description language from the **Languages** section.

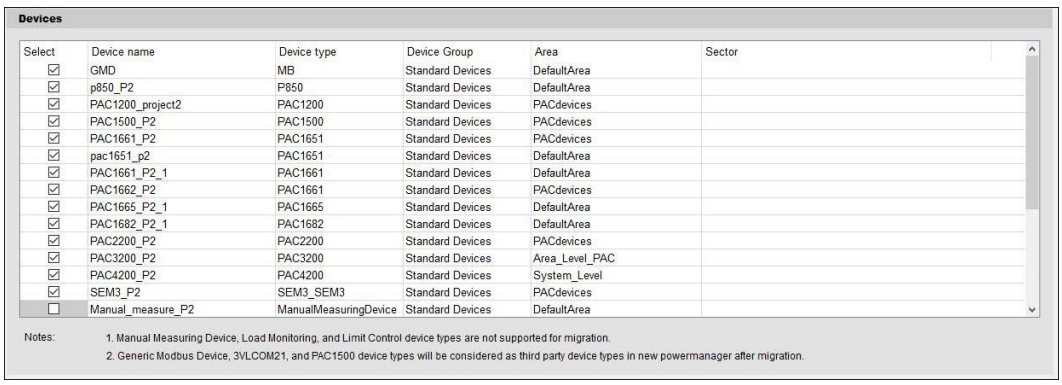


Languages: Allows you to select the description language. This section has the following options:

Language 1: Displays the default language assigned for all descriptions. This field cannot be changed.

Language 2*: Allows you to select the description languages from the available list of supported languages. This is a mandatory field.

- By default, all supported devices from the **Devices** section will be selected.



Devices: Allows you to select the device configurations to be migrated. This section has the following columns:

Select: Select the checkbox under this section to select the device. All the devices supported for migration is selected by default. Migration non-supported devices are highlighted in grey and cannot be selected for migration. Such devices are not migrated even as Third party devices.

Device Name: Displays the name of the selected device.

Device Type: Displays the device type.

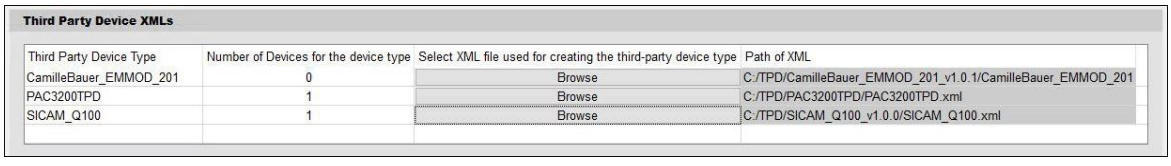
Device Group: Displays the device group.

Area: Displays the area under which the device is available.

Sector: Displays the sector hierarchy under which the device is available.

NOTE: Device passwords are not included in the migration operation. Update the device passwords in new powermanager after the completion of migration.

- Select the required third-party device type XMLs under the **Select Third Party Device XMLs** section.

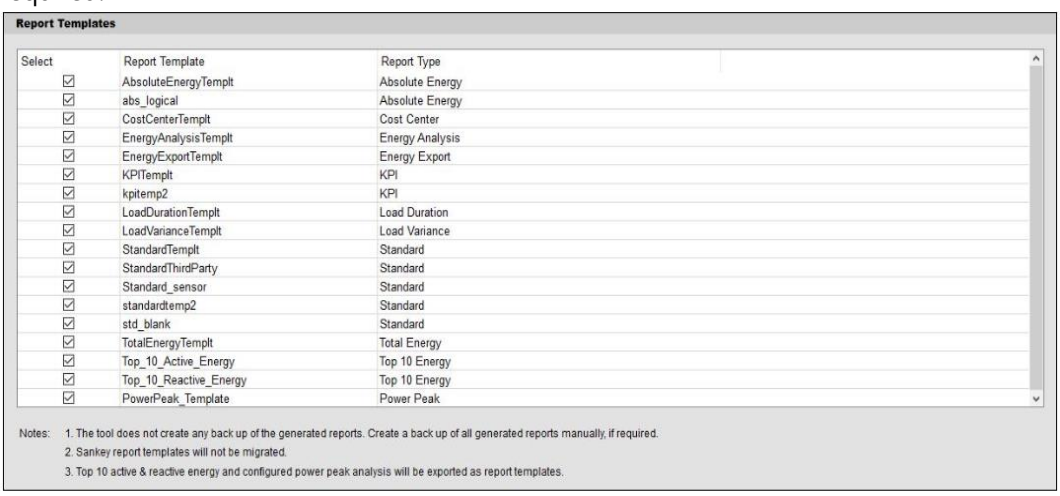


- **Select Third Party Device XMLs**: Allows you to select the required third-party device type XML to be migrated. This section has the following columns:
  Third-Party Device Type: Displays the third-party device type
  Number of Devices for the device type: Displays the number of devices of the device type.
  Select XML file used for creating the third-party device type: Allows you select the third-party device type XML files.
  Path of XML: Displays the location of the third-party device type XML files.
- Click **Save**.

NOTE: You must select the XML files for all the third-party devices selected in the Devices section.

Report Templates Tab

- By default, all the **Report Templates** will be selected. De-select any report templates if required.



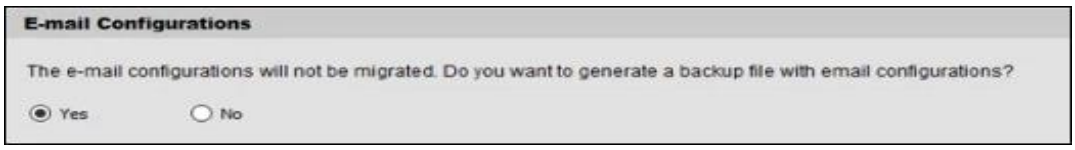
Report Templates: Allows you to select the report templates. This section has the following columns.
Select: Select the checkbox under this section to select the required report template. All the report templates are selected by default.
Report Template: Displays the report template name.
Report Type: Displays the report type.

NOTE: 1) Only report templates are migrated and not the generated reports.
2) Migration is not supported for Sankey Report.
3) Only scheduling configuration of the Top 10 report templates is migrated.
4) The Power peak analysis is migrated as a report template.
5) KPI and Energy Export report templates are migrated as Standard report templates in new powermanager.

- Click **Save**.

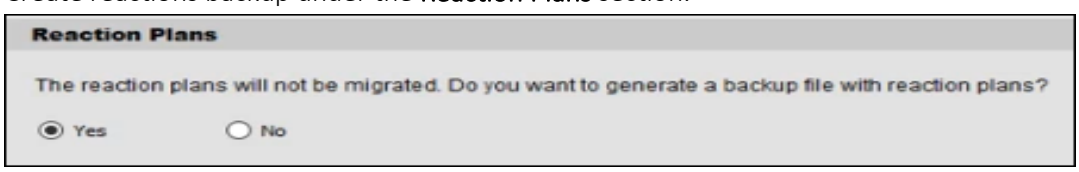
Miscellaneous Tab

- Create email configurations backup under the **E-mail Configurations** section.



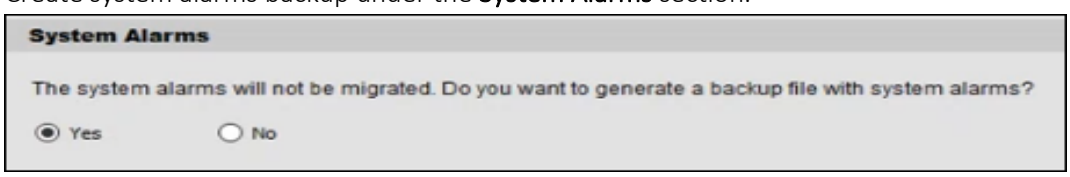
E-mail Configurations: Allows you to create a backup of the email configurations.
Select **Yes** to create a backup of all email configurations.
NOTE: We recommend you create a backup of the email configurations. The backup file is not imported as a part of the migration import operation. Refer the backup file to configure the E-mail in new powermanager.

- Create reactions backup under the **Reaction Plans** section.



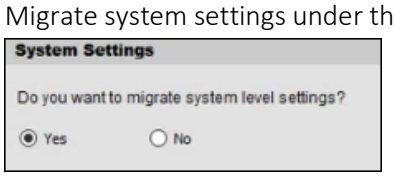
Reaction Plans: Allows you to create a backup of the reactions.
Select **Yes** to create the backup of all reactions.
NOTE: We recommend you create a backup of the reactions. The backup file is not imported as a part of the migration import operation. Refer the backup file to configure the reactions in new powermanager.

- Create system alarms backup under the **System Alarms** section.



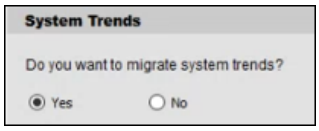
System Alarms: Allows you to create a backup of the system alarms.
Select **Yes** to create backup of all system alarms.
NOTE: We recommend you create a backup of the system alarms. The backup file is not imported as a part of the migration import operation.

- Migrate system settings under the **System Settings** section.



System Settings: Allows you to migrate all system settings.
Select **Yes** to migrate all system settings and configurations.
All archive smoothing, driver smoothing, system dashboard, and synchronization configurations are included.

- Migrate system trends under the System Trends section.

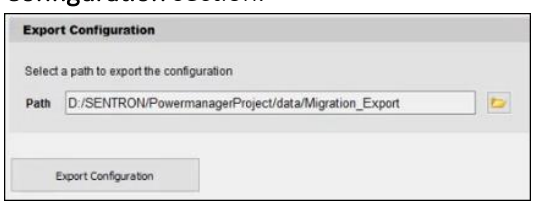


System Trends: Allows you to migrate all system trends.
Select **Yes** to migrate all system trends.

- Click **Save**.

Export Tab

- Select the path for the export and complete the configurations export under the **Export Configuration** section.



Path: Allows you to select the path to where the files need to be exported to.
Export Configuration: Allows you to complete the complete configurations export.

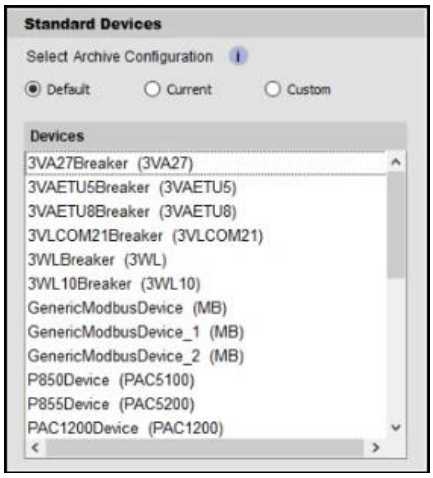
The file containing the configurations export is available in the above specified folder.

3.3 Data Export

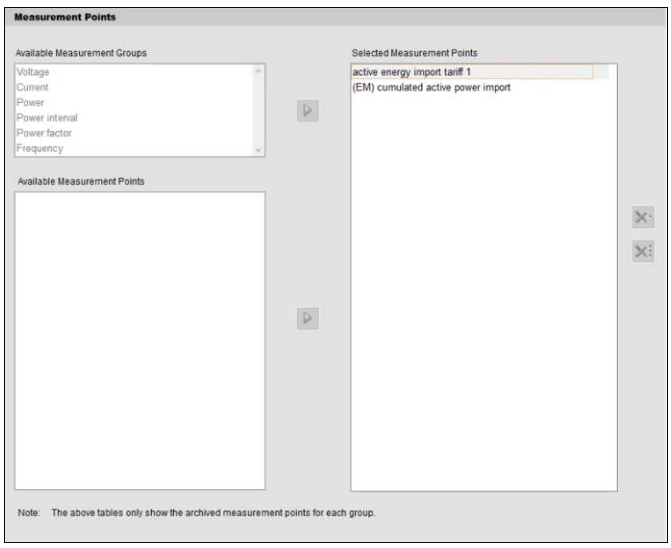
Archived data over required period for selected devices is also a part of this operation. To perform data export, ensure that the configuration export is complete, and all the prerequisites mentioned the **Prerequisites for Export** section are met. Perform the following steps for data export.

Measurement Points Tab

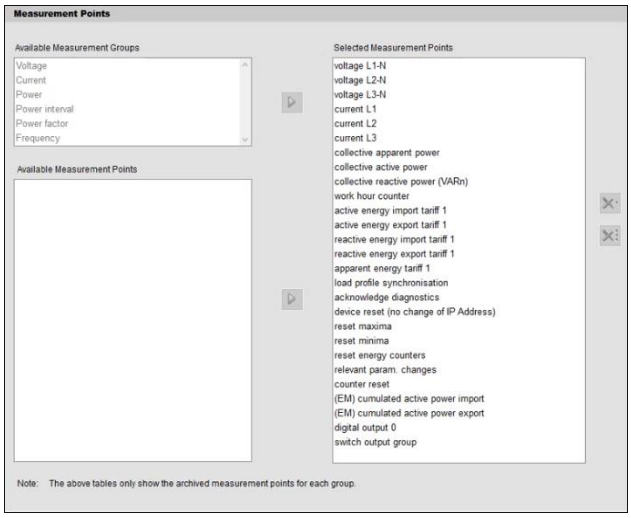
- Select Archive Configuration for the measurement points to be migrated.



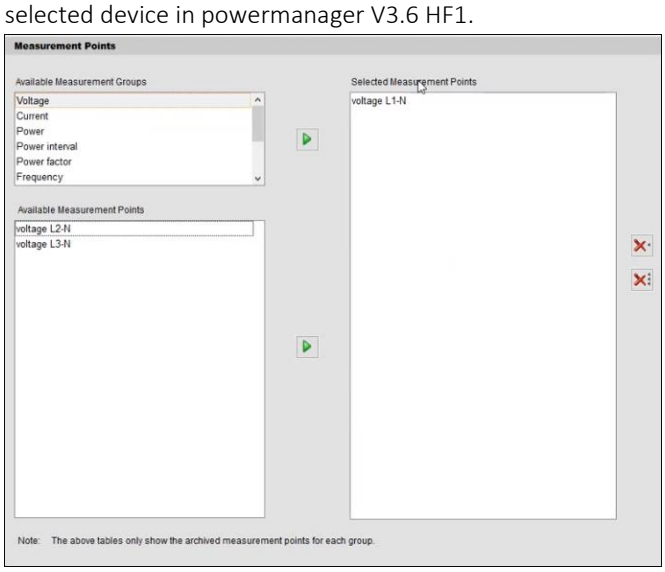
Devices: Allows you to select the devices for which the data must be exported. All the devices selected in the configuration export are listed here.
Default: Select to export the measurement points that are archived by default when a device is created in new powermanager.
Example: The measurement points archived by default for a PAC3200 device are active energy import tariff 1 and cumulated active power import.



Current: Select to export all the archived measurement points configured in powermanager V3.6 HF1.

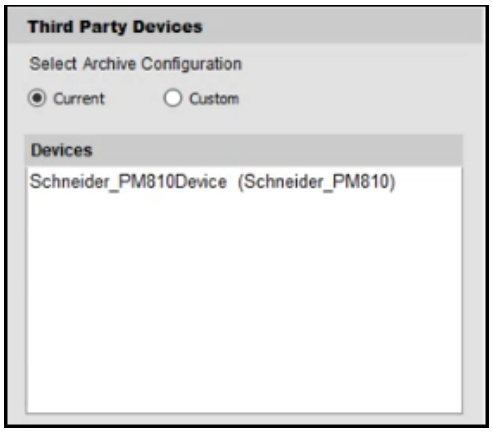


Custom: Select to choose measurement points from all the archived measurement points for the selected device in powermanager V3.6 HF1.



NOTE: Logical devices are not listed for data migration. All the result values are selected for export.

- Select the devices for which the measurement points need to be exported under the **Third Party Devices** section.

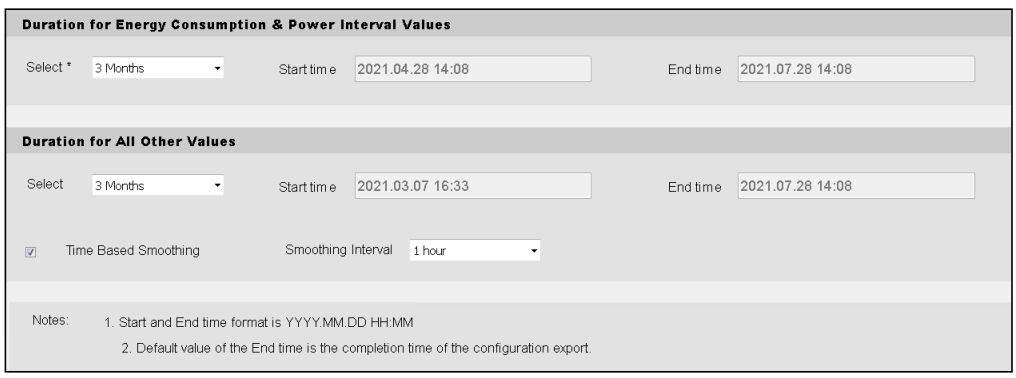


Devices: Allows you to select the devices for which the data must be exported. All the third-party devices selected in the configuration export are listed here.
Current: Select to export all the archived measurement points configured in powermanager V3.6 HF1.
Custom: Select to choose measurement points from all the archived measurement points for the selected device in powermanager V3.6 HF1.

- Click Save.

Duration Tab

- Select the duration for which the data must be exported.



NOTE: The default time duration for the data export is from the selected start time to the time configuration export is completed.

Duration for Energy Consumption & Power Interval Values: Allows you select the duration for which the data must be exported for energy consumption and power interval values. This section has the following options.
Select*: Select the duration for which the data must be exported from this dropdown.
Start time: Displays the start date and time for the selected duration, if the default duration is selected in the Select* dropdown.
Allows you to select the start time and date, if the custom option is selected in the Select* dropdown.

End Time: Displays the end date and time for the selected duration, if the default duration are selected in the **Select*** dropdown.
Allows you to select the end time and date, if the custom option is selected in the **Select*** dropdown.

Duration for all Other Values: Allows you to select the duration for which the data must be exported for all other values except energy consumption and power interval values. Default duration is set to 3 months.

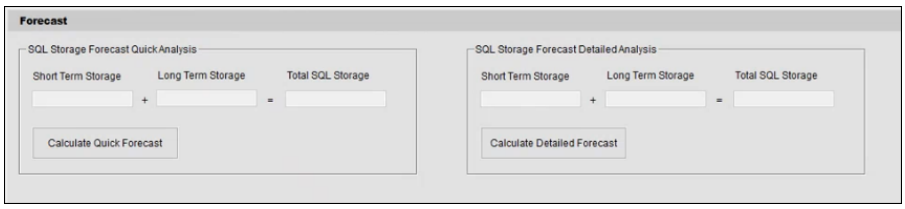
NOTE: Other values data (excluding energy consumption and power interval) can be exported only for last three months.

Time Based Smoothing: It allows you to reduce the volume of data to be exported.
Smoothing Interval: Select the smoothing interval for time based smoothing. This helps to reduce the amount of data considered for migration and to reduce the SQL size needed. After the smoothing interval time has elapsed, the next value will be considered for migration. Any values during the smoothing interval are discarded.

- Click **Save**.

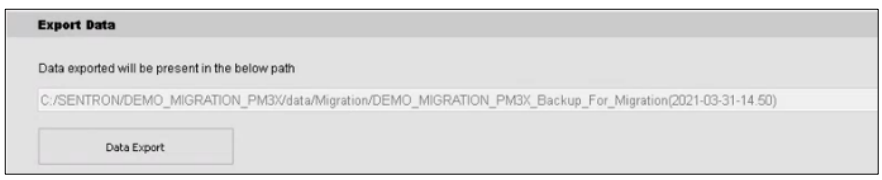
Export Tab

- Click **Calculate Quick Forecast** or **Calculate Detailed Forecast** to view the SQL storage analysis needed for new powermanager database.



SQL Storage Forecast Quick Analysis: Provides you a detailed estimate of the required SQL storage space.
SQL Storge Forecast Detailed Analysis: Provides you a detailed estimate of the required SQL storage space. This process can take a few minutes to an hour depending on your data.

- Click **Data Export** in the **Data Export** section to proceed with the export operation.



Export Data: Displays the path where the data export files are made available.

The file containing the data export is available in the above specified folder.

3.4 Post Export Operations

Perform the following steps to proceed with migration.

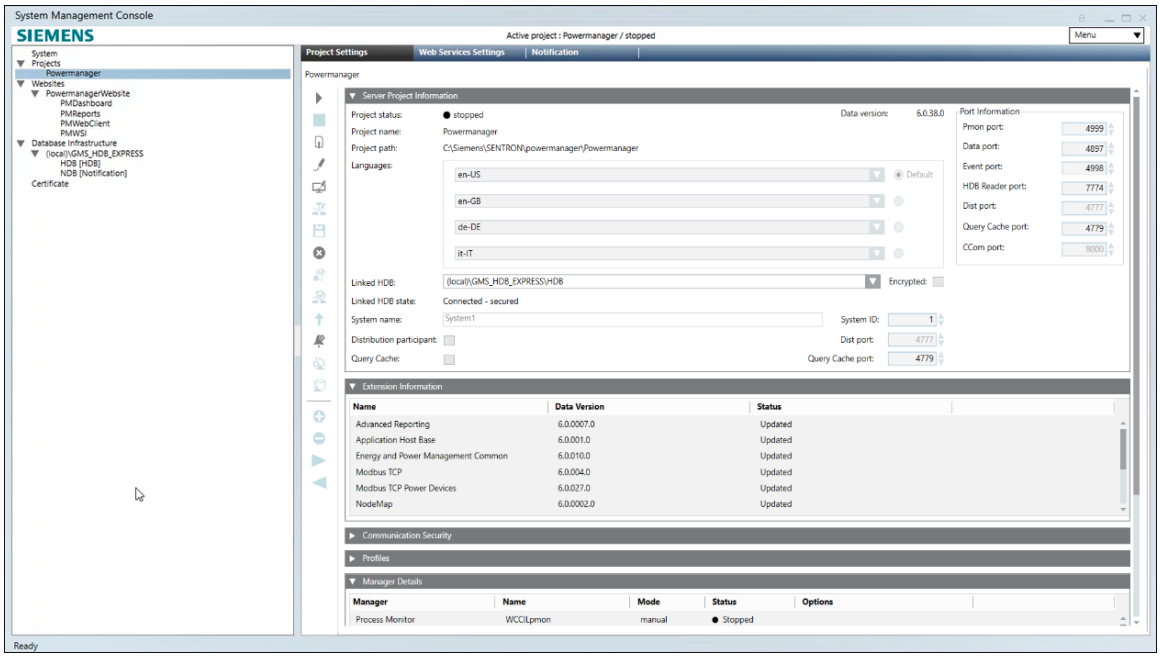
- Copy the files containing the configuration and data export to the machine with new powermanager.

4 Import to new powermanager

This section provides information on the import operation required for migration.

Pre-import Checklist:

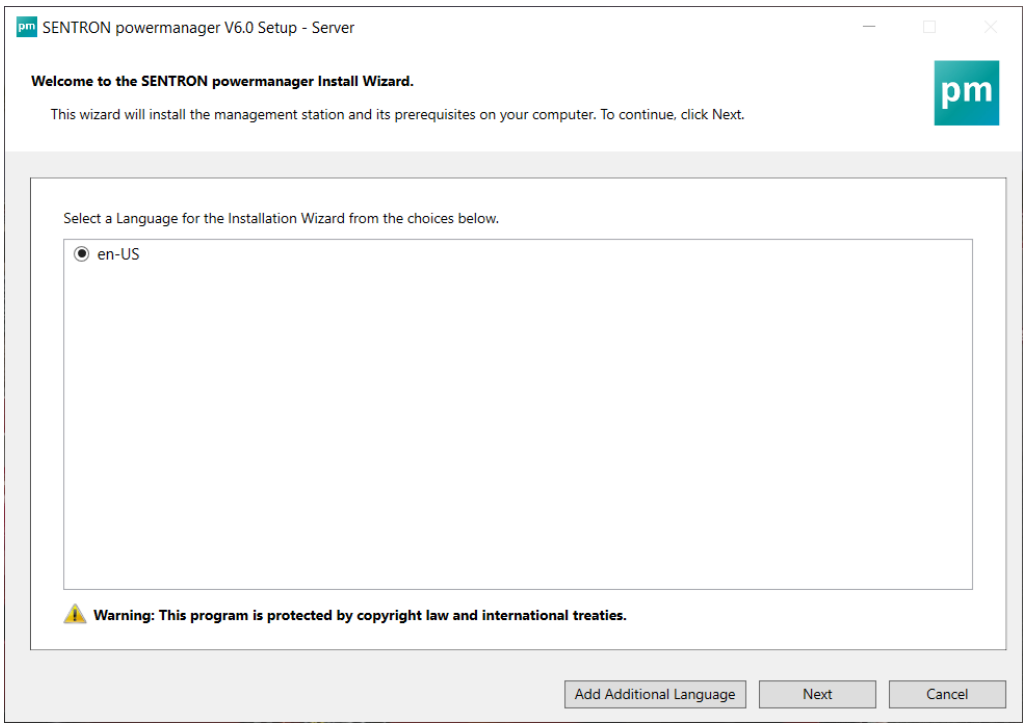
- During installation of new powermanager, select checkbox Migration (select if you are migrating from powermanager V3.6 HF1) and click Next.
  NOTE: If the checkbox is not selected, Powermanager Migration feature will not be available after installation.
  To add Powermanager Migration feature post installation follow the below steps:
  - Launch **Powermanager SMC** and Navigate to **Projects** node.
  - Click **Stop**.



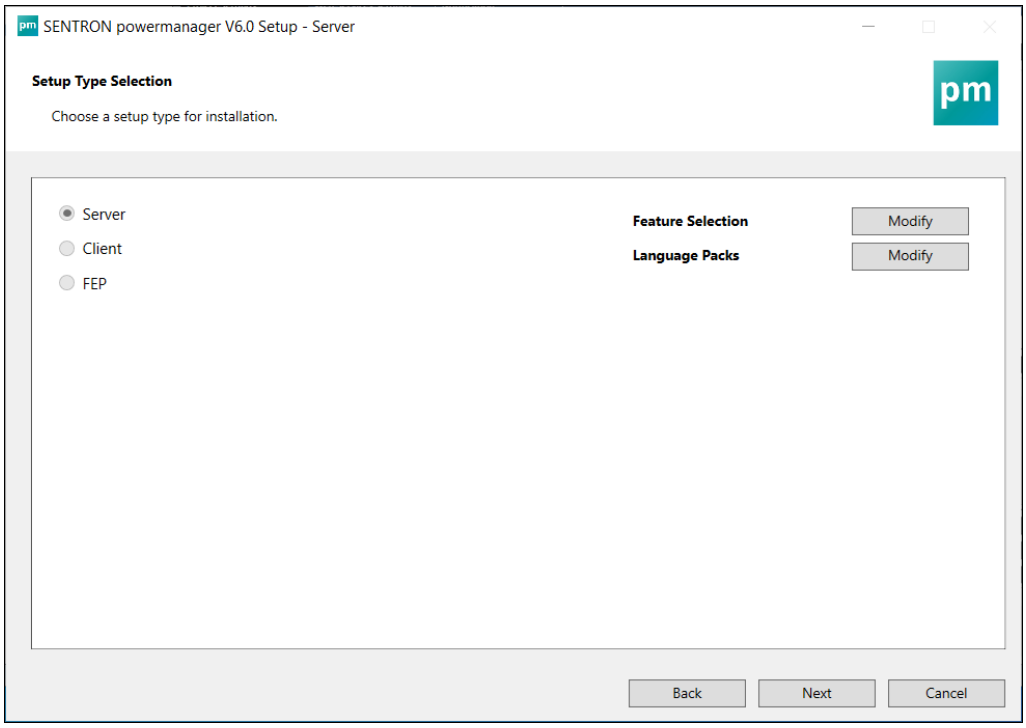
  - Close all the applications related to powermanager.
  - Launch **Update powermanager V6.0** from desktop.
    NOTE: If **Update Powermanager V6.0** is not available on desktop, refer to path "C:\Siemens\SENTRON\powermanager\GMSMainProject\Bin\Gms.InstallerSetup.exe"
    Administrative rights are required to launch **Update Powermanager V6.0.**

- Click **Yes** on User Account Control window.

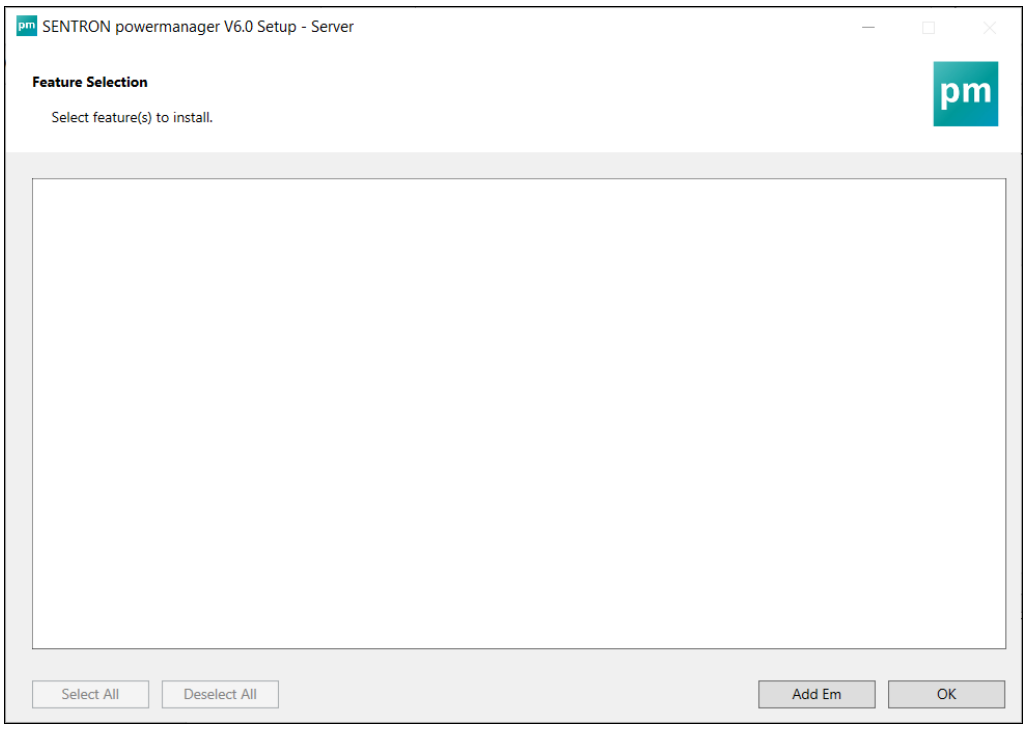
- Click **Next**.



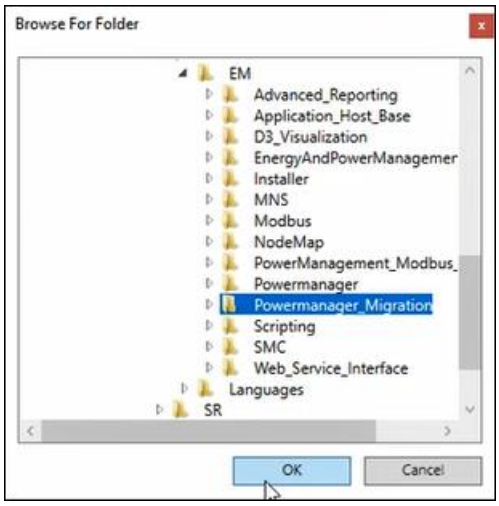
- Select **Server** and click **Modify** for Feature Selection.



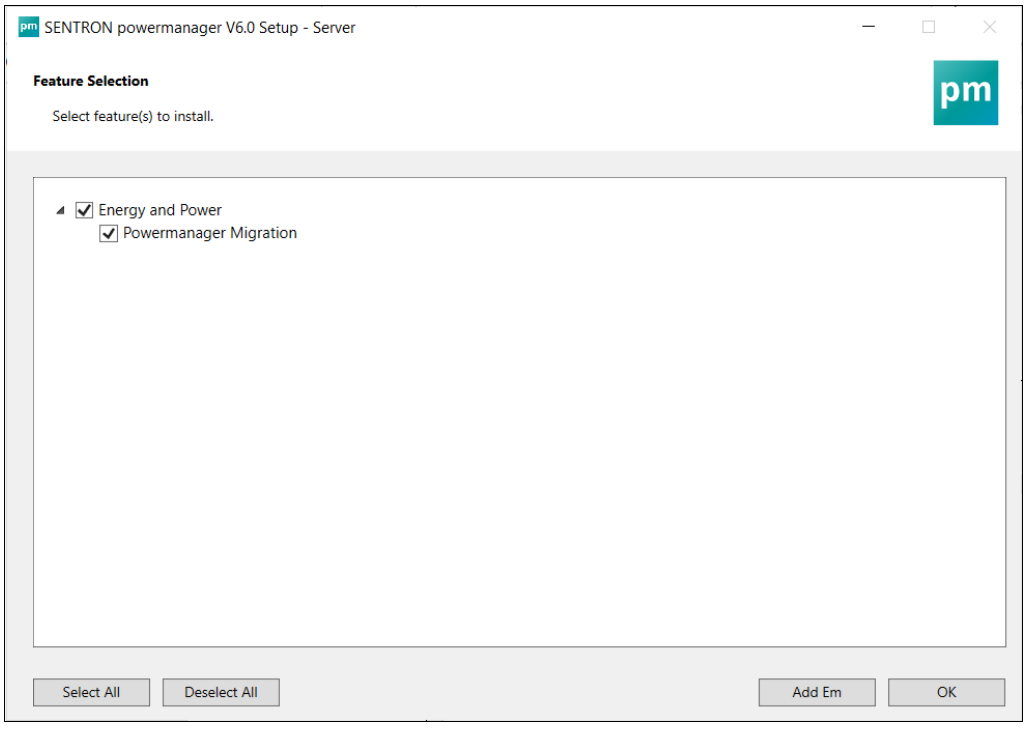
- Click **Add Em**.



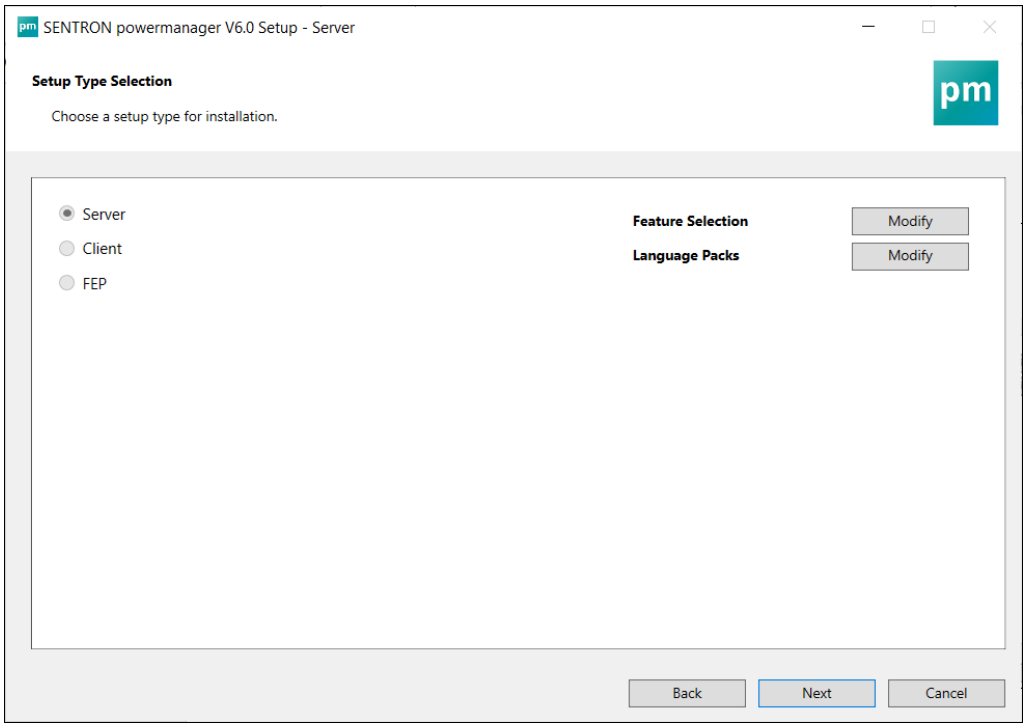
- Browse for powermanager setup folder.
- Navigate to **powermanager setup folder\DCC\EM\Powermanager_migration** and click **OK**.



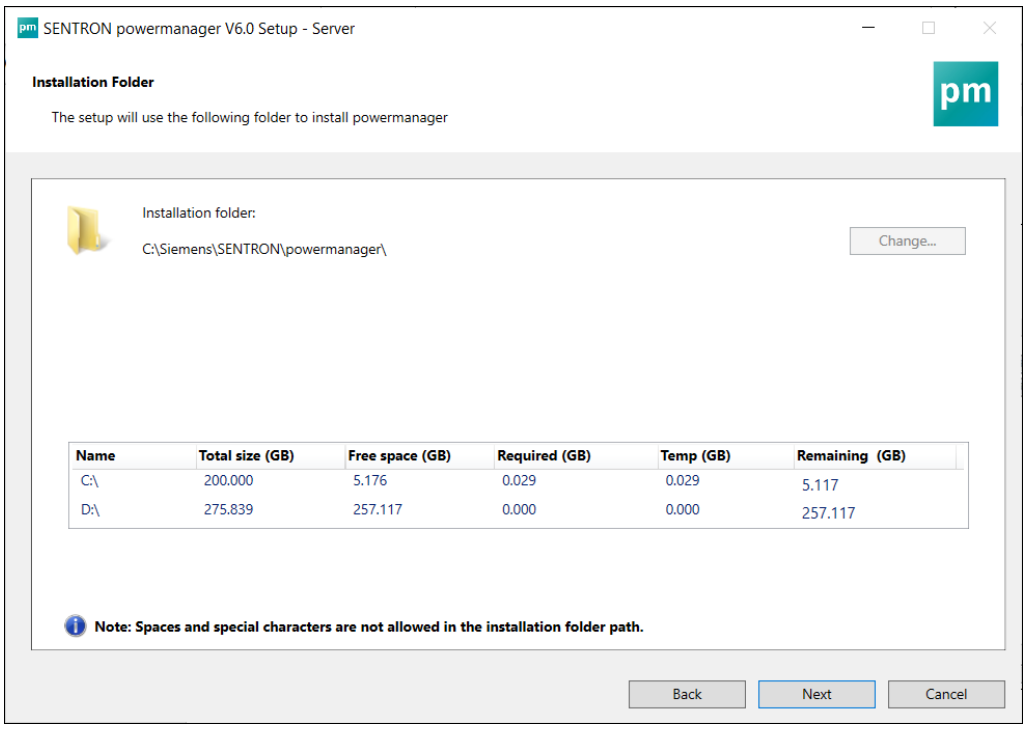
- Click **OK**.



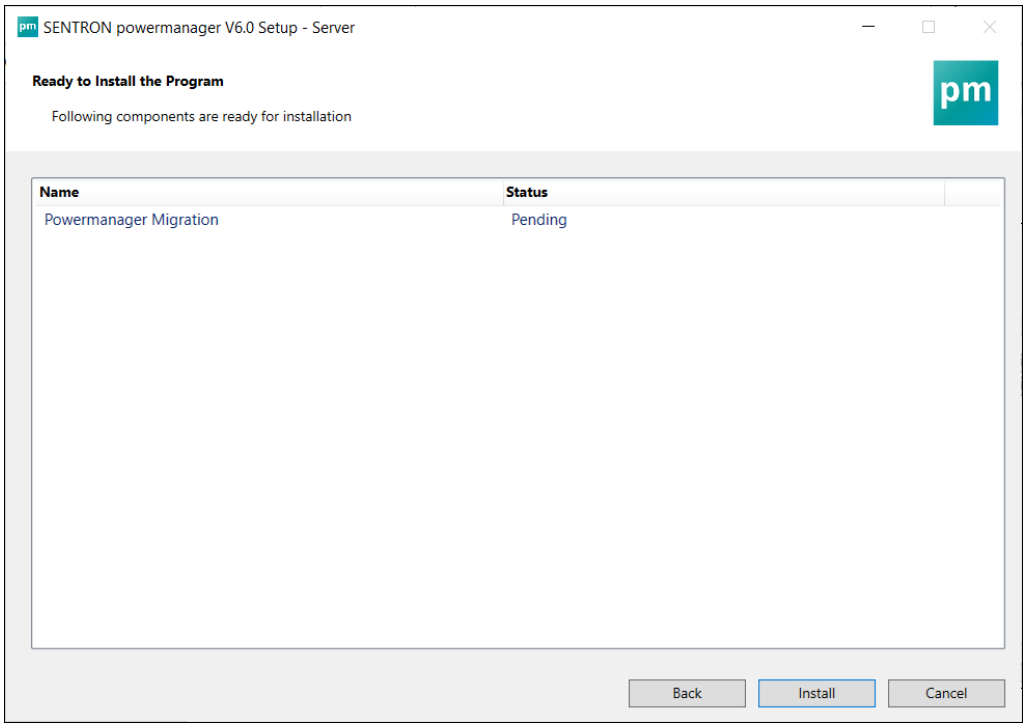
- Click **Next**.



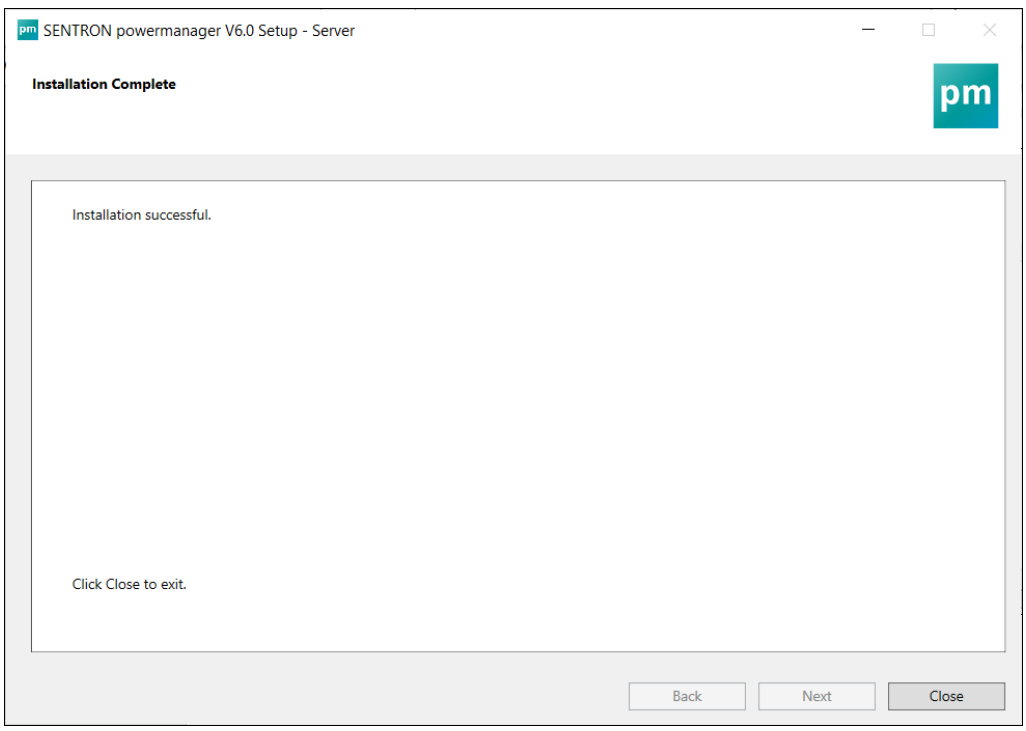
- Click **Next**.



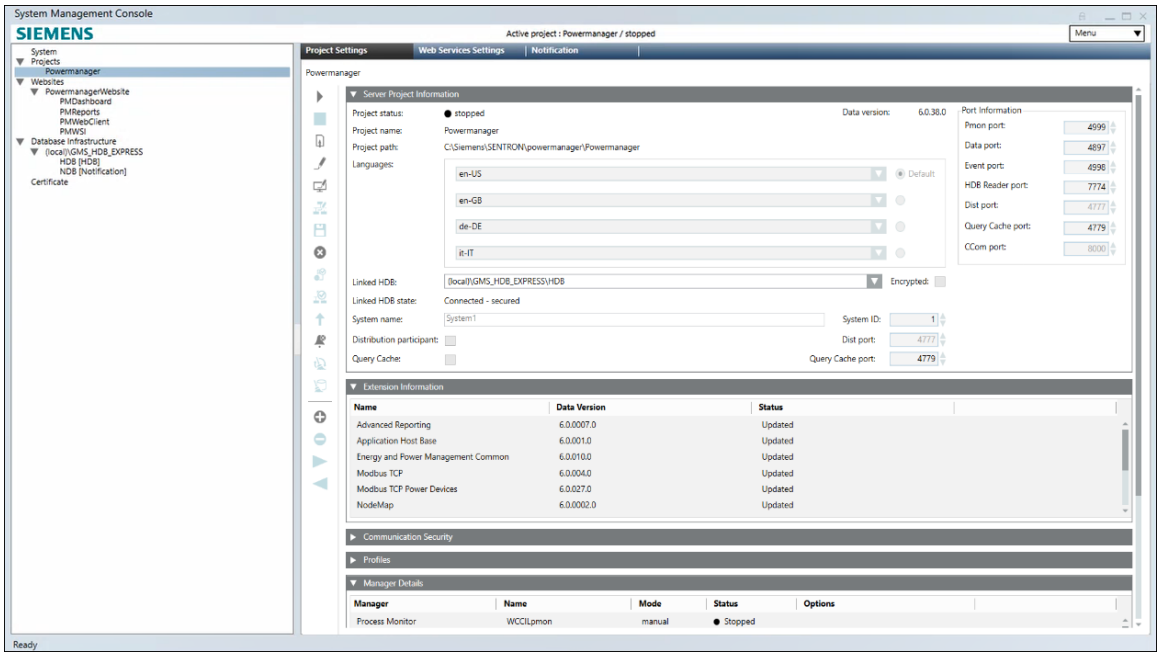
- Click **Install**.



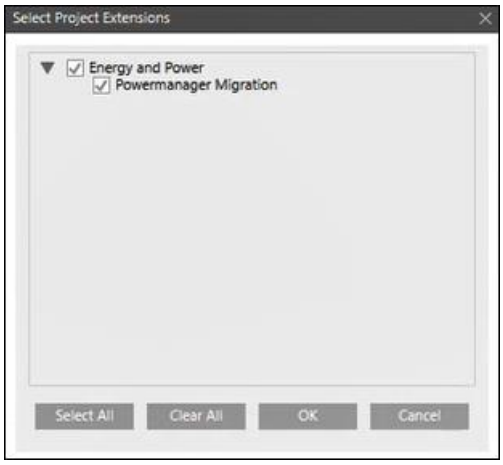
- Click **Close**.



- Add Powermanager Migration feature in the project using the below steps:
  - Launch **Powermanager SMC** and navigate to **Projects** node.
  - Select project name and click **Add to project.**



  - Select **Powermanager Migration** and click **OK**.



  - Click **Save**.
  - Start the project.
- Ensure that you have the required new powermanager license available and activated.
  Licensing for powermanager is controlled through a tool called, License Management Utility (LMU). Once powermanager is installed, the License Management Utility (LMU) is installed on every system.
  Before launching the powermanager client application, you must first enable and manage licenses for powermanager. Otherwise, only the demo licenses are configured, and you will need to close the powermanager client application in very short time.

To protect powermanager against piracy, a special activation is required. You can activate the license for powermanager from LMU using the below steps:

- Launch SMC either by double-clicking the **SMC** icon on the desktop or from Windows **Start** menu.
- Refer to **Help > Engineering Step-by-Step > Installing the Software > Additional Installer Procedures > Activating a Customer License.**

- Ensure that new powermanager supported version of SQL is available.
- Ensure that database size and storage size are sufficient corresponding to the SQL forecast of the SQL operation.
- Ensure that a historical database (HDB) is connected and accessible to the project, the long term storages created and switched to **ON** state.

  You can create long term storages using the below steps:

  - Launch **Powermanager SMC** either by double-clicking the **SMC** icon on the desktop or from Windows **Start** menu and click **Yes**.
  - In the SMC **System** tree, select **History Infrastructure**.
  - Click **Scan Local**.
  - When the scan is completed, select **GMS_HDB_EXPRESS SQL**.
  - Click **Link**.
  - Click **Add** to create the HDB.
  - In the **Long Term storage** section, click **Add Storage** to create long term storage.
  - Select the **Start** check box for the storage.
  - Click **Save**.

  The History Database is created and displays in the SMC tree. This may take a few minutes depending on the selected database size. When you create a new HDB it gets automatically linked to the SQL Server. The long term storage is created when the state in the **State** column in the **Storage** table changes to **ON**.

  For additional information, refer to **Powermanager Help** >**Engineering Step-by-Step** > **Setting Up the Project** > **Creating History Infrastructure** > **Create a New HDB with Long Term Storage**.

4.1 Prerequisites for Import

Ensure that new powermanager Server is installed, refer to **Readme.pdf** (section 4.1 Installation Prerequisites). You have the privileges of a **DefaultAdmins** user or a **PowerManagerAdmins** user.
If user had reports scheduled in powermanager V3.6 HF1, ensure that Software user account is created in new powermanager, and group membership is assigned to PowermanagerAdmins.
Enter created Software account username during configuration import.
Refer new powermanager help section for more details: **Engineering Step-by-Step >User and User Group Administration >User Administration.**
NOTE: Migration is not supported for new powermanager Client setup.
Perform the following steps to proceed with migration:

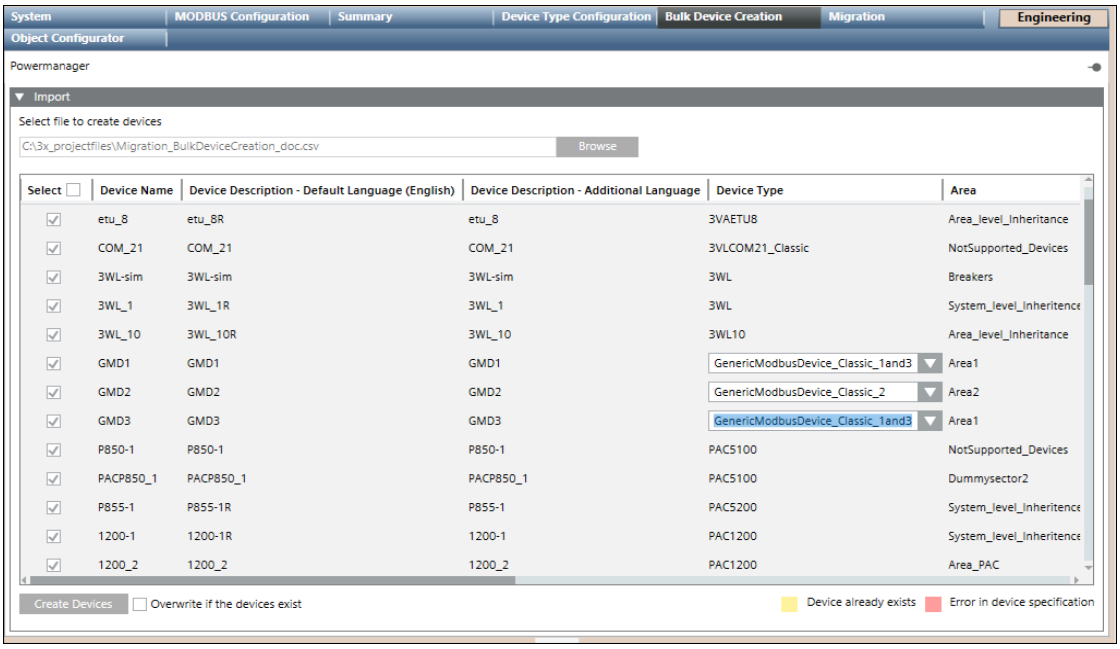
- Copy the files containing the configuration and data export to the machine with new powermanager.

- Create the third-party device types, if any.
  You must create the third-party device type to be migrated in new powermanager. JSON files for corresponding third-party device types are created by the migration tool during the configuration export. These JSON files are available in configuration export folder. You can create third-party device types using the below steps:
  - Select **Applications** > **Powermanager.**
    The **System** tab displays.
  - Select **Third Party Device Type** expander and proceed as follows:
    - Drag and drop the library to the **Library Name** field.
    - Click **Browse** to select the JSON file.
    - In the **Open** dialog box, select the required JSON file from the location and click **Open**.
  - Click **Create Device Type**.

NOTE: Device types like 3VLCOM21 and PAC1500 are supported in powermanager V3.6 HF1 but not supported in new powermanager. JSON files for these device types are created as a part of the export operation.
These files are available in path: ***[Projectname]_Backup_For_Migration(yyyy-mm-dd-hh.mm)\Configuration\Device\Classic_DeviceType_Jsons.***

- Edit the JSON files for the Generic Modbus Device (GMD) types, if any.
  A JSON file is created for GMD type by the migration tool during the configuration export. This JSON file is available in configuration export folder.
  Open the JSON file of the GMD type using the powermanager device engineer tool. Perform the required property configurations and create the new JSON files for corresponding GMD groups. Consider the below example to create GMD device type JSON files in powermanager device engineer tool:
  - Open JSON file **GenericModbusDevice_Classic** from configuration export folder in third-party tool **PowermanagerDeviceEngineer**.
  - Review and configure **Device Features** page properties as per powermanager V3.6 HF1 and click **Next**.
  - Review and configure **Device properties** page properties and click **Next.** Make sure the property configurations are correct and configured as per powermanager V3.6 HF1 GMD device type.
  - Review and configure **Device Configuration** and save the JSON file.
  - If necessary, rename the device type using **Edit** option from **Device Type Name**.
    NOTE: Do not rename the datapoint properties. If you rename, configuration and data import failure will occur.
- Logical grouping of GMDs:
  - If multiple GMDs are created with same configuration in powermanager V3.6 HF1, then during bulk device creation in new powermanager, you must select the same device type.
  - For different GMD configurations of powermanager V3.6 HF1, individual JSON files should be configured in powermanager device engineer tool.
  - One JSON file should be created for one type of configuration and that type should be selected during bulk device creation.

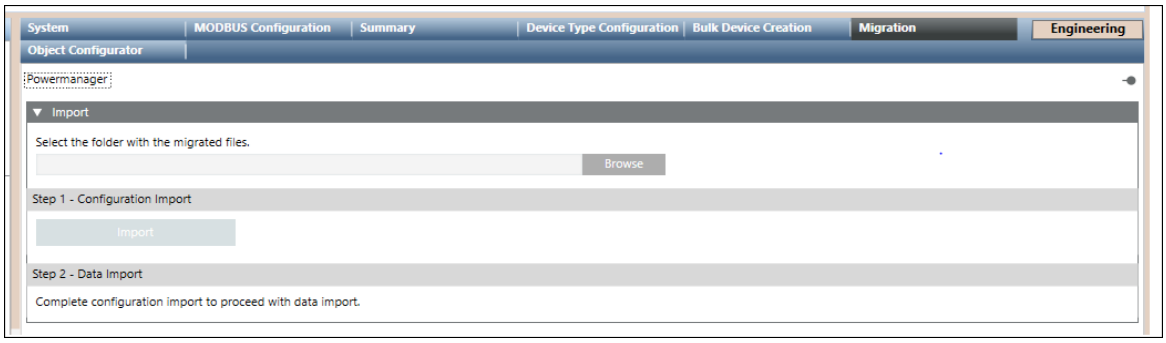
- Consider the below example to understand logical grouping of GMD and create corresponding JSON files in powermanager device engineer tool:
  Consider three devices GMD1, GMD2 and GMD3 in powermanager V3.6 HF1.
  GMD 1 has configuration 1 and GMD2 has configuration 2 and GMD3 has similar configuration as GMD1. In this case user must create two separate GMD device types:
  - One device type JSON for GMD1 and GMD3 as they have same configuration
  - One device type JSON for GMD2



- Create the devices in new powermanager under **Bulk Devices Creation** tab:
  - In **Engineering** mode, click **Bulk Device Creation**.
  - Browse ***.csv*** file to create devices.
    NOTE: A ***.csv*** file with the device configurations is created during the export operation. Use this .csv to create the devices.
    These files are available in path: ***[Projectname]_Backup_For_Migration(yyyy-mm-dd-hh.mm)\Configuration\Device\BulkDeviceCreation.***
  - Select the required **Device Type** from the available dropdown for GMDs.
  - Provide the **Username** and **Password** for all SEM3 devices.
  - Import the JSON files to new powermanager to work with these devices. Refer steps from section **4.1 Prerequisites for Import** > **Create the third-party device types** to import JSON files to new powermanager.
  - Click **Create Devices**.

- Switch to operating mode and start all device communication.

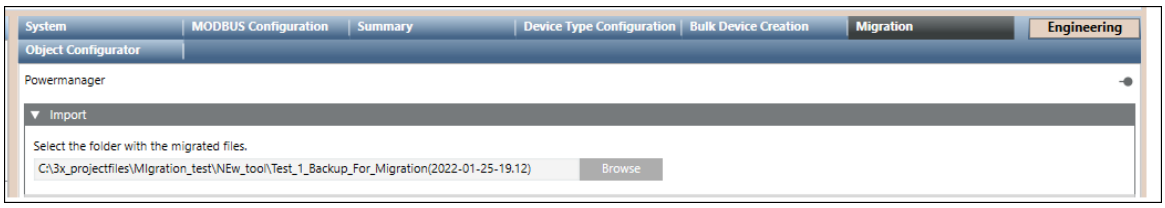
- Switch to engineering mode and navigate to **Migration** tab to proceed with the import operation.



4.2 Configuration and Data import

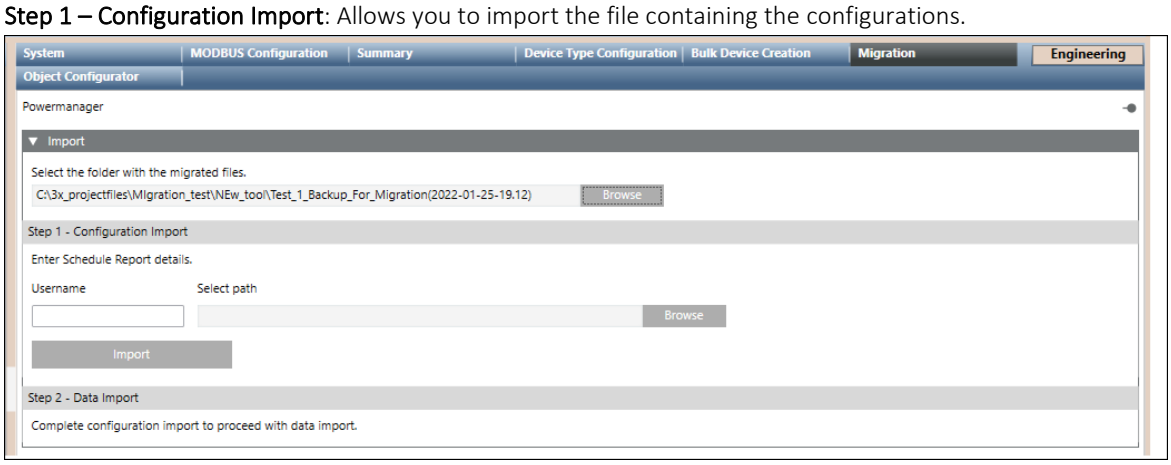
Perform the following steps to proceed with configuration import.

- Select the folder with the migrated files under the Import expander.

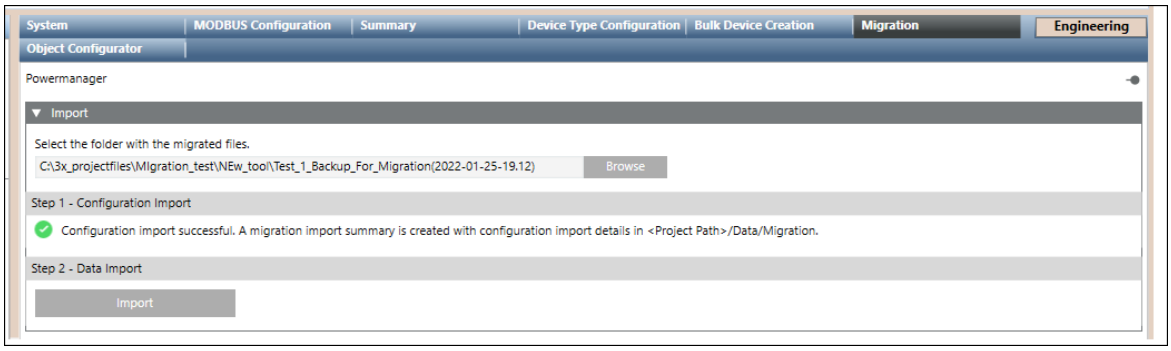


Select the folder exported from powermanager V3.6 HF1: Allows you to select the folder with the configuration or the data export.

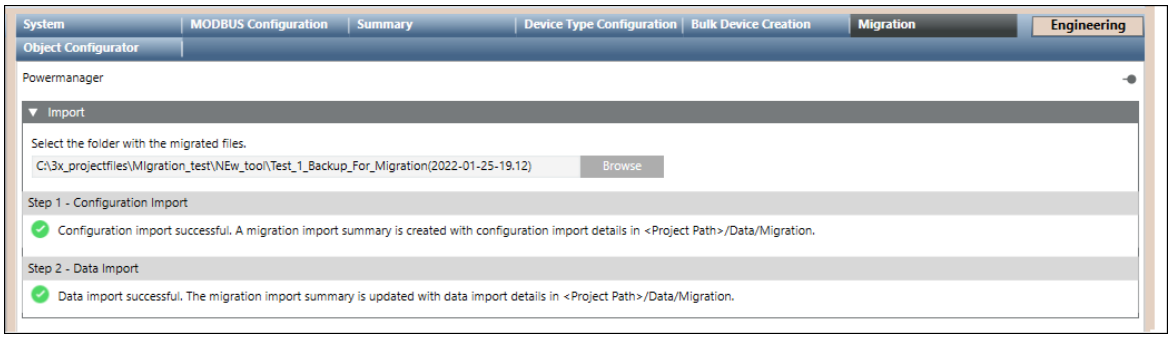
Step 1 – Configuration Import: Allows you to import the file containing the configurations.



Step 2 – Data Import: Allows you to import the file containing the data.



The configuration and the data import are successful.



NOTE: You are recommended to verify all the configurations in new powermanager system after migration.

5 Migration Summary

Configuration Export, Data Export, Configuration Import and Data Import are the activities performed during migration. After every export and import activity, migration summary report will be created for each activity.

Export summary will be available as <Exported Folder>/Migration_Export_Summary.txt

Import summary will be available as

<Project Path>/Data/Migration/Migration_Import_Summary.txt

NOTE: You can compare between export and import summary reports to get the migration status.

6 Troubleshooting

Troubleshooting

Error	Situation	What to do
Data import could not start	User clicks on data import with incorrect HDB configuration	1.Verify if HDB is linked to the project. 2.Verify if Siemens GMS HDB service is running in SMC (system node >management tab >services section). 3.Verify if short term and long term archives/storages are created in HDB and in ON state. After performing above troubleshooting, proceed with data import.
Migration tab is not available after login to new powermanager	Migration EM is not installed or not added in the project	If Migration EM is not installed, refer section **Import to new powermanager**. If migration EM is not added in the project, click **Add to project** and add powermanager migration EM.
Server is not properly running during import in new powermanager	Migration(import) running on HDB writer manager goes to blocked state in SMC	User should wait till completion of complete migration activity.
The scheduled report file is corrupted	User trying to open the generated scheduled report file	In powermanager application re-save the report definition.

1. Read the notes in the **Readme.pdf** file carefully.

2. For up-to-date hot fixes / service packs for powermanager see:
   www.siemens.com/Powermanager/support

For further support, see the Technical Support information below.

Technical Support:	Internet: http://www.siemens.com/lowvoltage/technical-support