

EcoStruxure Building Operation

Hilton PEP Integration

SmartConnector

Installation & User Guide

04-20018-02-en
September 2024



Life Is On

Internal

Schneider
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EcoStruxure Building Operation

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1 Functional Overview

The Hilton PEP PMS system interface is a middleware application that enables communication between Hilton PEP applications with EcoStruxure Building Operation via EcoStruxure Web Services (EWS). Each room in the PMS is represented in the EcoStruxure Building Operation model of the PMS. PMS attributes configured in the interface may be used to implement custom sequences. A multi-state value indicates the number of persons checked into a room as well as information for the guest's language and expected departure date. The interface can fully represent items in the PMS system with data synchronisation between the two systems. This ensures the SmartConnector database is maintained and kept up to date without any user intervention.

The processor leverages the SmartConnector Service framework and details of the application (release history, installation notes etc.) are available separately and are not covered in this manual.

The SmartConnector application is licensed on a single server basis but may also be configured to connect to both Automation Server (AS-P) devices as well as Enterprise Servers (ES).

2 Restrictions & Limitations

2.1 SmartConnector Service Version

The processors have been configured to operate with the SmartConnector version 2.5, use with any other version of the SmartConnector framework is not supported.





























2.2 EWS Supported Systems

The processors can support EcoStruxure systems operating with the EcoStruxure Web Services (EWS) protocol v1.1 and v1.2.

3 Installation

Please refer to the SmartConnector Installation and Configuration Guide.pdf for guidance on SmartConnector installation.

To deploy the PEP assembly, copy the following files into the service installation directory. Normally “C:\Program Files (x86)\Schneider Electric\SmartConnector”

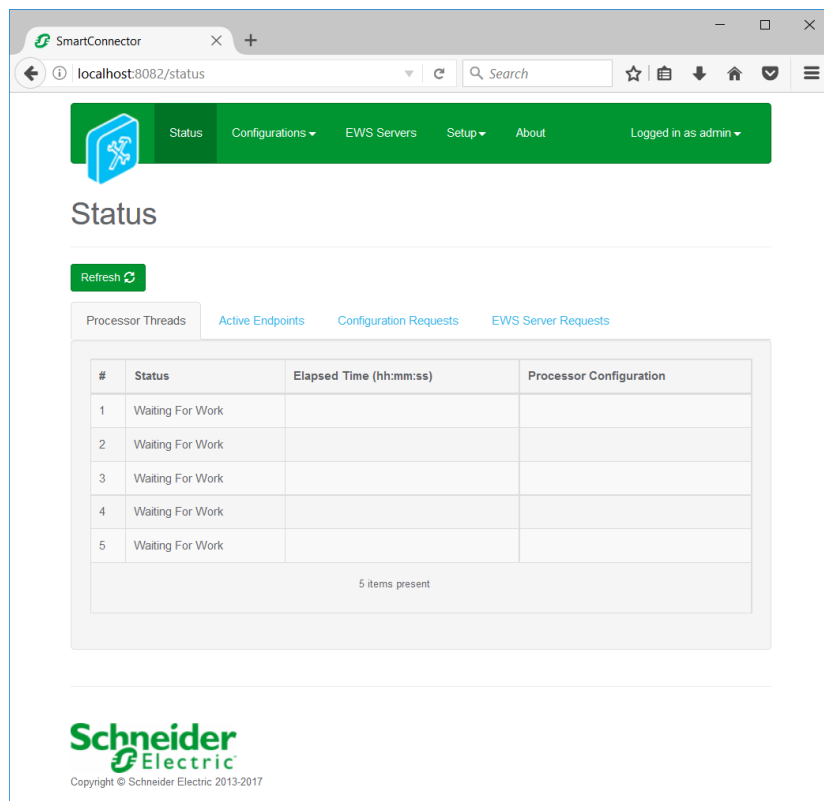
-  AMS.Profile.dll
-  BoDi.dll
-  BouncyCastle.Crypto.dll
-  Cucumber.Messages.dll
-  Gherkin.dll
-  Google.Protobuf.dll
-  ISC.FiasProtocol.dll
-  ISC.PEP.dll
-  ISC.PmsSql.dll
-  Microsoft.Rest.ClientRuntime.dll
-  Microsoft.SqlServer.ConnectionInfo.dll
-  Microsoft.SqlServer.Dmf.dll
-  Microsoft.SqlServer.Management.Sdk.Sfc.dll
-  Microsoft.SqlServer.ServiceBrokerEnum.dll
-  Microsoft.SqlServer.Smo.dll
-  Microsoft.SqlServer.SqlEnum.dll
-  NCrontab.Signed.dll
-  Newtonsoft.Json.Bson.dll
-  NLog.Targets.Syslog.dll
-  SmartConnector.Utilities.dll
-  System Buffers.dll
-  System.Memory.dll
-  System.Numerics.Vectors.dll
-  System.Runtime.CompilerServices.Unsafe.dll
-  System.Threading.Tasks.Extensions.dll
-  System.Web.Http.WebHost.dll
-  TechTalk.SpecFlow.dll
-  Utf8Json.dll

4 Configuration & Settings

4.1 Processor Configuration

With a default installation of SmartConnector, the configuration pages for the server can be reached at the following address on the server the service has been installed on:

<http://localhost:8082/>



The screenshot shows a web browser window with the URL `localhost:8082/status`. The page has a green navigation bar with a logo and menu items: Status, Configurations, EWS Servers, Setup, About, and Logged in as admin. Below the navigation bar, the page title is "Status". There is a "Refresh" button and four tabs: Processor Threads (selected), Active Endpoints, Configuration Requests, and EWS Server Requests. A table displays the status of five processor threads, all of which are "Waiting For Work". The table has columns for "#", "Status", "Elapsed Time (hh:mm:ss)", and "Processor Configuration".

| # | Status | Elapsed Time (hh:mm:ss) | Processor Configuration |
|---|------------------|-------------------------|-------------------------|
| 1 | Waiting For Work | | |
| 2 | Waiting For Work | | |
| 3 | Waiting For Work | | |
| 4 | Waiting For Work | | |
| 5 | Waiting For Work | | |

5 items present

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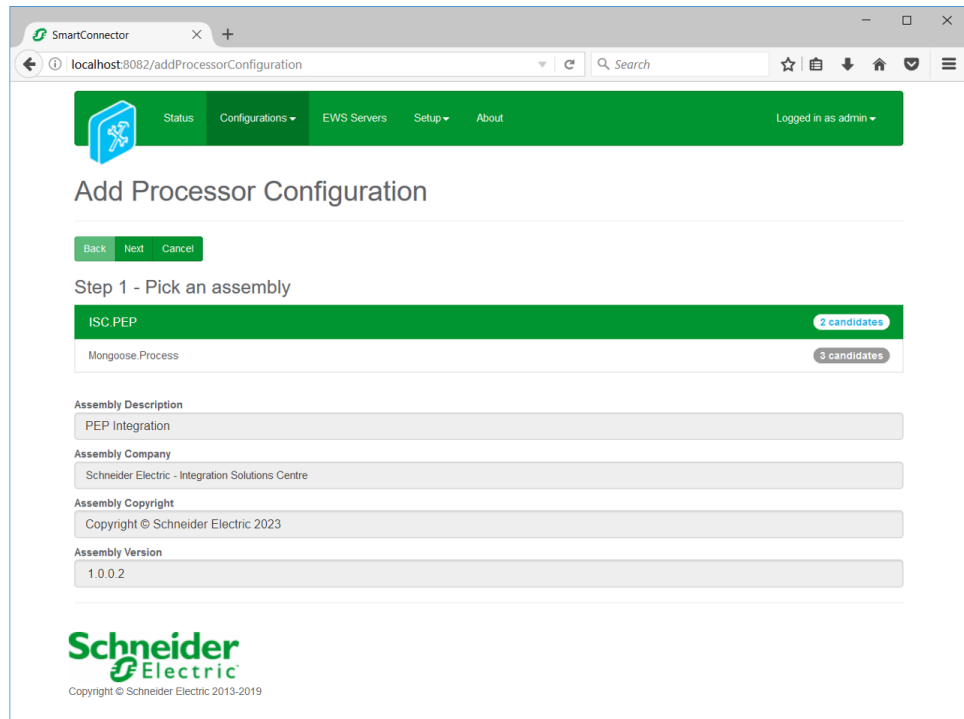
4.2

Adding the Custom Assembly to the Service

Switch to the Configurations tab and select Add New +



At the Add Configuration window, Step 1 – Pick an assembly, select the reference to ISC.PEP (this will be highlighted green when selected)



Select Next and proceed to Step 2 Choose a Class

Ensure the class ISC.PEPInterfaceProcessor is selected first

ISC.PEPInterfaceProcessor

Select Next and proceed to Step 3 Name Configuration

Enter a meaningful name and description for the Processor which will enable you to identify this process in the configuration window later.

Select Finish and proceed to the Configuration screen.

Smart Connector

127.0.0.1:8082/ProcessorConfiguration?id=15

Status Configurations EWS Servers Setup About Logged in as admin

Processor Configuration

Edit All Start Validate Reset Counter Reset Timer

Name: PEP Interface Processor Is Active: True

Description: Create connection with PMS to request and receive data. Send heartbeat and Update last connection time.

Processor Details Control History Schedule

Class Name: ISC.PEP.InterfaceProcessor

Assembly File: ISC.PEP.dll

Assembly Description: PEP Integration

Assembly Company: Schneider Electric - Integration Solutions Centre

Assembly Copyright: Copyright © Schneider Electric 2023

Assembly Version: 1.0.0.2

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In the configuration window select the Details Tab, you will then be presented with the screen to enter the configuration information. Much of the configuration has default options however they should be checked and validated for the installation. Edit the applicable fields as follows.

IP Address and Port Number

These properties should be set to Server's IP Address and Port Number respectively to establish connection with PEP server.

Restart Communication Time

This property is to set the amount of time (in minutes) that the service will wait to reset the connection after the last message received during a Data Swap.

Read Write Time Out

This property is to set amount of time (in milliseconds) that Read and Write operations block waiting for Data.

Heartbeat Mins

This property is to set the interval (in minutes) between Heartbeat messages.

Cache Message Expiry Duration Minutes

This property is to set the duration of a message held in Cache before it expires.

Cache Write Sleep Time

This property is to set the time interval (in milliseconds) that Cache waits before processing the next message.

PMS Connection Retry Interval

This property is to set the time interval (in seconds) between connection retries to PMS.

In the configuration window select the Control Tab, you will then be presented with several options to define the Processor's default behavior. It is recommended to set the following:

Runs On Start – Yes (To enable the Processor to automatically start with the machine)

Runs On Schedule – Yes (Although this processor should never terminate, attaching a short cycling schedule will ensure that if it stops unexpectedly, it will attempt to auto restart on the schedule.)

Manually Startable – Yes (To allow a user to start through the configuration window)

Manually Stoppable - Yes

The Save Button allows the process configuration to be saved to the database.



A complete configuration will appear as follows:

Expand All Collapse All

Details

Port Number *
5040

Restart Communication Time *
5

Ip Address *
127.0.0.1

Read Write Time Out *
2000

Heartbeat Mins *
1

Cache Message Expiry Duration Minutes *
30

Cache Write Sleep Time *
1

Pms Connection Retry Interval *
5

Follow the same procedure to configure the second Processor.

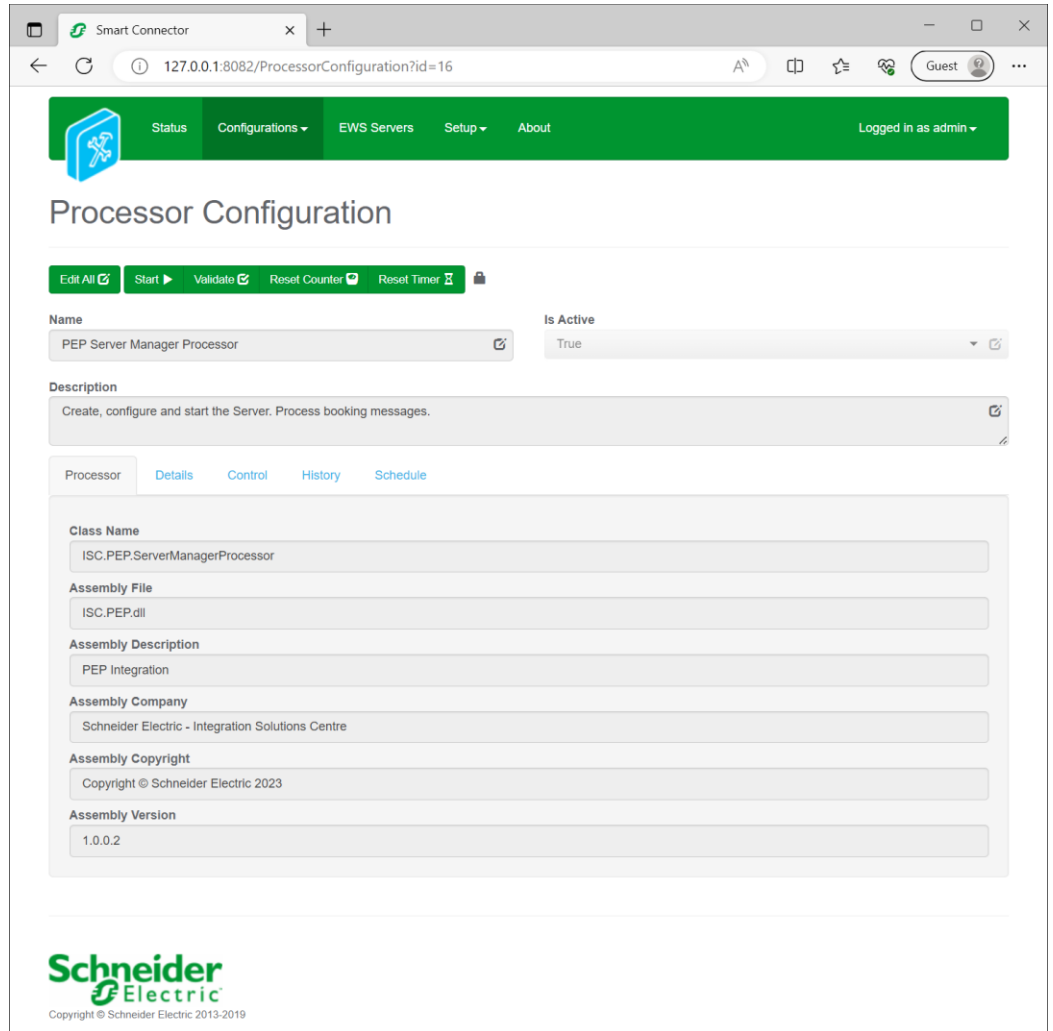
Ensure the class `ISC.PEP.ServerManagerProcessor` is selected

`ISC.PEP.ServerManagerProcessor`

Select Next and proceed to Step 3 Name Configuration

Enter a meaningful name and description for the Processor which will enable you to identify this process in the configuration window later.

Select Finish and proceed to the Configuration screen.



In the configuration window select the Details Tab, you will then be presented with the screen to enter the configuration information. Much of the configuration has default options however they should be checked and validated for the installation. Edit the applicable fields as follows.

User Name

This property is required to allow the EWS server connection to be authenticated.

Password

As above, this is the password related to the user credentials.

Server Address

This property should be set to the full address required to access the EWS Server being hosted. This is normally in the case of a StruxureWare ES or AS device as follows:

[http://<IPADDRESS>:<PORT\(8093\)>/EcoStruxure/DataExchange](http://<IPADDRESS>:<PORT(8093)>/EcoStruxure/DataExchange)

***Note that the address is case sensitive!**

Server Name

This property is just a friendly text name field to allow you to easily identify the specific Endpoint you are configuring.

Checkout Time

This property is just a default Date Time field to allow you to specify a checkout Time of your preference.

Room Text

This property is just a friendly text name field to allow you to identify the specific property you are configuring.

Occupied

This property is just a friendly text name field to allow you to identify the specific property you are configuring.

Departure Date

This property is just a friendly text name field to allow you to identify the specific property you are configuring.

Guest Language

This property is just a friendly text name field to allow you to identify the specific property you are configuring.

Folder Text

This property is just a friendly text name field to allow you to identify the specific property you are configuring.

In the configuration window select the Control Tab, you will then be presented with several options to define the Processor's default behavior. It is recommended to set the following:

Runs On Start – Yes (To enable the Processor to automatically start with the machine)

Runs On Schedule – Yes (Define a schedule that determines how often the server is updated with messages received from the PMS – Suggested value would be 15 seconds)

Manually Startable – Yes (To allow a user to start through the configuration window)

Manually Stoppable - Yes

The Save Button allows the process configuration to be saved to the database.



A complete configuration will appear as follows:

The screenshot shows a configuration form with a 'Details' tab. At the top, there are two buttons: 'Expand All' and 'Collapse All'. The form contains ten input fields, each with a red asterisk indicating a required field. The fields and their values are:

- User Name: admin
- Password: ~ Encrypted ~
- Server Address: http://localhost:8093/EcodStructure/DataExchange
- Server Name: New Server
- Checkout Time: 12:00:00
- Room Text: Room
- Occupied: Occupancy Status
- Departure Date: Departure Date
- Guest Language: Guest Language
- Folder Text: Folder for Room

Once the SmartConnector EWS Server Interface has been hosted in EcoStruxure Building Operation, rooms will be displayed as follows:





























The screenshot displays the SmartConnector EWS Server Interface. On the left, a tree view shows the hierarchy: Hilton PMS A > Room1 > RoomDD, RoomGL, RoomGN, RoomOCC, Room2, Room3, Connection Status, and Last Connection Datetime. The 'Room1' folder is expanded, and 'RoomDD' is selected. On the right, the 'Properties' tab is active, showing a table of room properties. The table has three columns: Name, Description, and Value. The data is as follows:

| Name | Description | Value |
|---------|----------------|-------------------------------|
| RoomDD | Departure Date | 01/01/1970 00:00:00 [Offline] |
| RoomGL | Guest Language | [Offline] |
| RoomGN | | [Offline] |
| RoomOCC | Occupancy Stat | 0 [Offline] |

5 Revision History

| Version | Assembly File Details | Date |
|---------|-----------------------|---------------------------------|
| 1.0.0.4 | ISC.FiasProtocol.dll | 25 th September 2024 |
| 1.0.0.4 | ISC.PEP.dll | 25 th September 2024 |
| 1.0.0.4 | ISC.PmsSql.dll | 25 th September 2024 |

Assembly files required:

-  AMS.Profile.dll
-  BoDi.dll
-  BouncyCastle.Crypto.dll
-  Cucumber.Messages.dll
-  Gherkin.dll
-  Google.Protobuf.dll
-  ISC.FiasProtocol.dll
-  ISC.PEP.dll
-  ISC.PmsSql.dll
-  Microsoft.Rest.ClientRuntime.dll
-  Microsoft.SqlServer.ConnectionInfo.dll
-  Microsoft.SqlServer.Dmf.dll
-  Microsoft.SqlServer.Management.Sdk.Sfc.dll
-  Microsoft.SqlServer.ServiceBrokerEnum.dll
-  Microsoft.SqlServer.Smo.dll
-  Microsoft.SqlServer.SqlEnum.dll
-  NCrontab.Signed.dll
-  Newtonsoft.Json.Bson.dll
-  NLog.Targets.Syslog.dll
-  SmartConnector.Utilities.dll
-  System Buffers.dll
-  System.Memory.dll
-  System.Numerics.Vectors.dll
-  System.Runtime.CompilerServices.Unsafe.dll
-  System.Threading.Tasks.Extensions.dll
-  System.Web.Http.WebHost.dll
-  TechTalk.SpecFlow.dll
-  Utf8Json.dll

6 References

SmartConnector Installation and Configuration Guide.pdf
(TDS-M-INSTALLCONFIG-US.BU.N.EN.12.2017.2.30.CC)

SmartConnector Version 2.2 Release Notes.pdf
(TDS-M-RELEASENOTES-US.BU.N.EN.12.2017.2.30.CC)

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