

EcoStruxure Building Operation

iLOQ Integration

SmartConnector

Installation & User Guide

October 2024



Life Is On

Internal

Schneider
Electric

EcoStruxure Building Operation

iLOQ Integration

SmartConnector

Installation & User Guide

October 2024


Copyright © 2024 Schneider Electric. All rights reserved.

The Schneider Electric brand and any registered trademarks of Schneider Electric Industries SAS referred to in this guide are the sole property of Schneider Electric SA and its subsidiaries. They may not be used for any purpose without the owner's permission, given in writing. This guide and its content are protected, within the meaning of the French intellectual property code (Code de la propriété intellectuelle français, referred to hereafter as "the Code"), under the laws of copyright covering texts, drawings and models, as well as by trademark law. You agree not to reproduce, other than for your own personal, non-commercial use as defined in the Code, all or part of this guide on any medium whatsoever without Schneider Electric's permission, given in writing. You also agree not to establish any hypertext links to this guide or its content. Schneider Electric does not grant any right or license for the personal and non-commercial use of the guide or its content, except for a non-exclusive license to consult it on an "as is" basis, at your own risk. All other rights are reserved.

Trademarks and registered trademarks are the property of their respective owners.

Life Is On

Internal

Schneider
 **Electric**

Contents

- 1 Functional Overview 6
- 2 Restrictions & Limitations 7
- 2.1 SmartConnector Service Version..... 7
- 2.2 EWS Supported Systems 7
- 2.3 ILOQ Service Supported System..... 7
- 3 Installation 8
- 4 Configuration & Settings..... 9
- 4.1 Processor Configuration 10
- 4.2 Adding the Custom Assembly to the Service 11
- 5 Revision History 17
- 6 References..... 18

1

Functional Overview

The iLOQ Integration SmartConnector is a Windows Service that uses a Configurable framework to communicate with Security Expert to read the latest events using a SOAP interface. The SmartConnector then packages the XML data into objects that are then pushed into iLOQ using the Api's provided.

In this phase 3 development, Access Rights have been removed and the Key Id is now being imported from iLOQ into SX. Access rights were determined to be properties that were not adequate as unique values for users as Access rights are associated to a key and therefore would cause issues down the line if the key was transferred over to a new user.

The key id (Rom_ID) is now being imported directly into the credential fields in SX. The processor, iLOQ to SX is responsible for implementing this functionality.

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 **2.5.4.18** or greater, use with any other lower 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.

2.3 ILOQ API Supported System

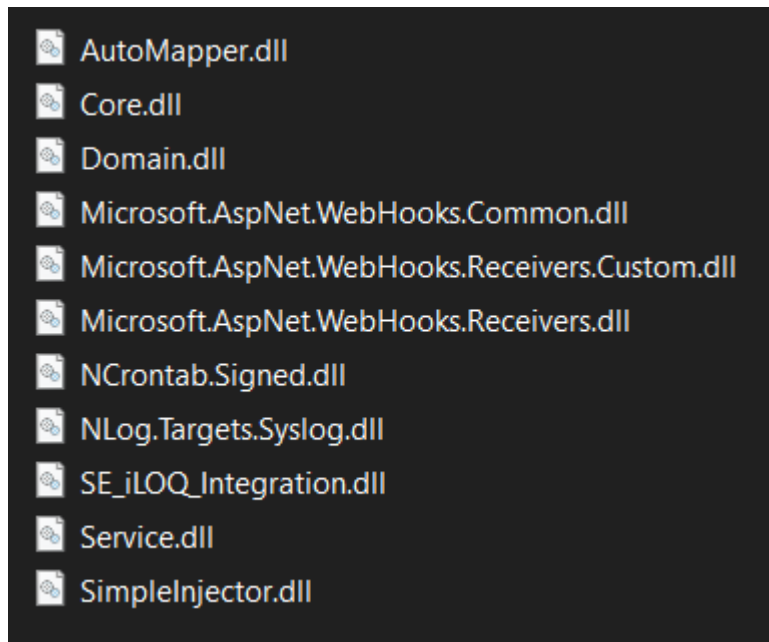
The SmartConnector has been tested and validated against the ILOQ Service REST API v2.

Other versions may cause issues and are not supported. Please check with your supplier.

3 Installation

To install the SmartConnector Runtime, please follow the relevant documentation that is available via the SmartConnector website (<https://smartconnectorserver.com>).

The following assemblies should be deployed to the service installation directory which normally is “**C:\Program Files (x86)\Schneider Electric\SmartConnector**”.



IMPORTANT STEP

Before continuing, please ensure you do the following:

In your SmartConnector directory locate the file **Mongoose.Service.exe.config**. Once located, open the file in any text editor and add the following service binding information by simply copying and pasting it making sure it is pasted after the closing startup tag which should look like `</startup>` and before the closing configuration tag which should look like `</configuration>`.

```
<system.serviceModel>
  <bindings>
    <basicHttpBinding>
      <binding name="BasicHttpBinding_IService1" allowCookies="true"
        bypassProxyOnLocal="false" maxBufferPoolSize="20000000"
        maxBufferSize="20000000"
        maxReceivedMessageSize="20000000" textEncoding="utf-8"
        transferMode="Buffered"
        useDefaultWebProxy="true" messageEncoding="Text"/>
      <binding name="BasicHttpBinding_IService11" allowCookies="true"
        bypassProxyOnLocal="false" maxBufferPoolSize="20000000"
        maxBufferSize="20000000"
        maxReceivedMessageSize="20000000" textEncoding="utf-8"
        transferMode="Buffered"
        useDefaultWebProxy="true" messageEncoding="Text">
        <readerQuotas maxDepth="32" maxStringLength="200000000"
          maxArrayLength="200000000" />
        <security mode="Transport" />
      </binding>
    </basicHttpBinding>
  </bindings>
  <client>
    <endpoint address="http://10.141.213.80:8030/SecurityExpertSOAPService/Service.svc"
      binding="basicHttpBinding" bindingConfiguration="BasicHttpBinding_IService1"
      contract="SeExpService.IService1" name="BasicHttpBinding_IService1" />
    <endpoint address="https://desktop-
      urcoa5t:8040/SecurityExpertSOAPService/Service.svc" binding="basicHttpBinding"
      bindingConfiguration="BasicHttpBinding_IService11"
      contract="SeExpService.IService1" name="BasicHttpBinding_IService11" />
  </client>
</system.serviceModel>
```

4

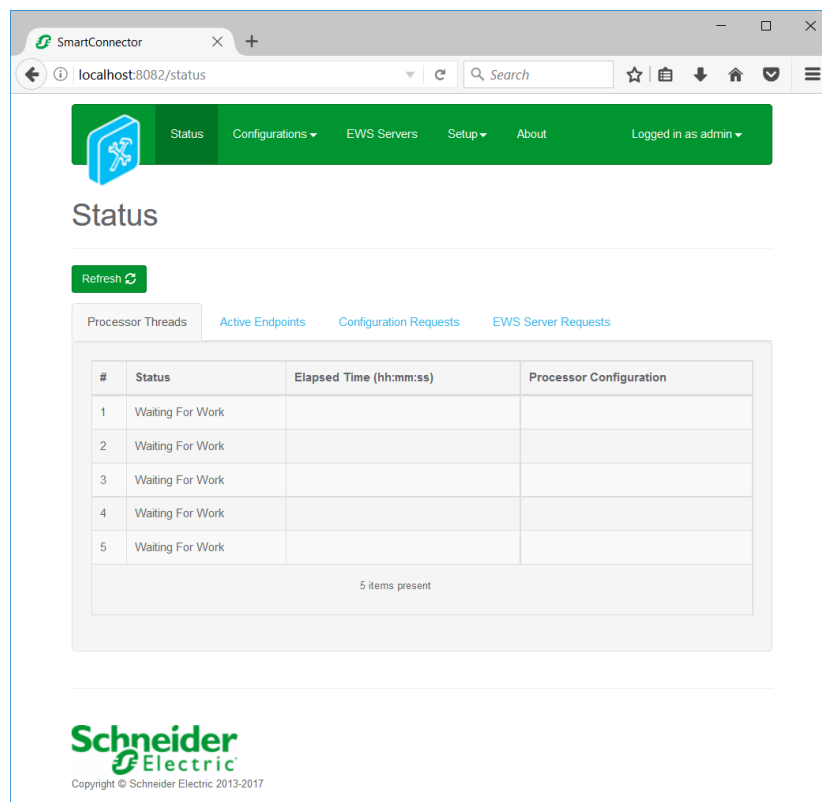
Configuration & Settings

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 the SmartConnector web interface in a browser window. The address bar displays 'localhost:8082/status'. The navigation menu includes 'Status', 'Configurations', 'EWS Servers', 'Setup', and 'About'. The user is logged in as 'admin'. The main content area is titled 'Status' and features a 'Refresh' button. Below this, there are tabs for 'Processor Threads', 'Active Endpoints', 'Configuration Requests', and 'EWS Server Requests'. The 'Processor Threads' tab is active, showing a table with the following data:

#	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		

At the bottom of the table, it indicates '5 items present'. The Schneider Electric logo and copyright information 'Copyright © Schneider Electric 2013-2017' are visible at the bottom of the page.

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 SE_iLOQ_Integration (this will be highlighted green when selected)

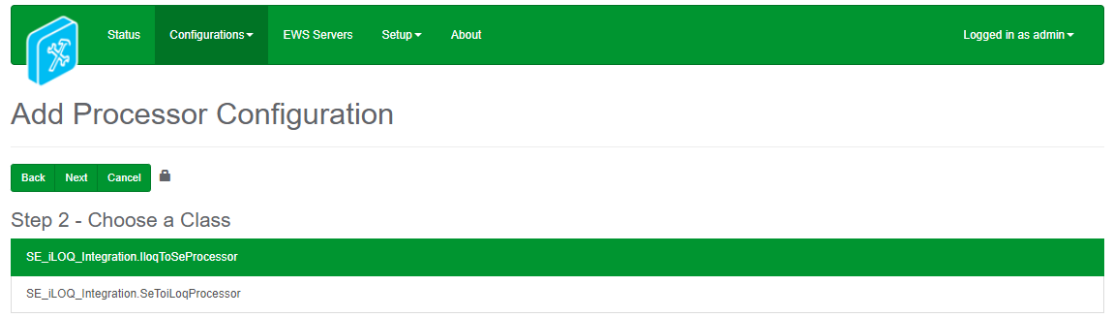
The screenshot shows a web application interface for "Add Processor Configuration". At the top, there is a navigation bar with tabs: "Status", "Configurations" (selected), "EWS Servers", "Setup", and "About". On the right of the navigation bar, it says "Logged in as admin". Below the navigation bar, the title "Add Processor Configuration" is displayed. Underneath the title, there are three buttons: "Back", "Next", and "Cancel". The main content area is titled "Step 1 - Pick an assembly". It features a search bar with the text "Mongoose.Process" and a "0 candidates" indicator. Below the search bar, a list of assembly candidates is shown. The first candidate, "SE_iLOQ_Integration", is highlighted in green and has a "2 candidates" indicator. Below the list, there are several input fields for assembly details: "Assembly Description", "Assembly Company", "Assembly Copyright" (with the value "Copyright © 2021"), and "Assembly Version" (with the value "1.0.0.0").

Copyright © 2022 Schneider Electric Buildings LLC. All rights reserved. This product includes functionality that is covered by patents and patents pending. Please contact Schneider Electric for details.

Select Next and proceed to Step 2 Choose a Class

Step 2 - There will be 2 classes available to select as the screen shot shows. Each one of them will have to be set up as they represent 2 separate processors each of which will be responsible for taking information from Security Expert and injecting them into iLOQ and the other will be responsible for taking Lock Log data from iLOQ into Security Expert.

Select one of them and proceed to the next window.



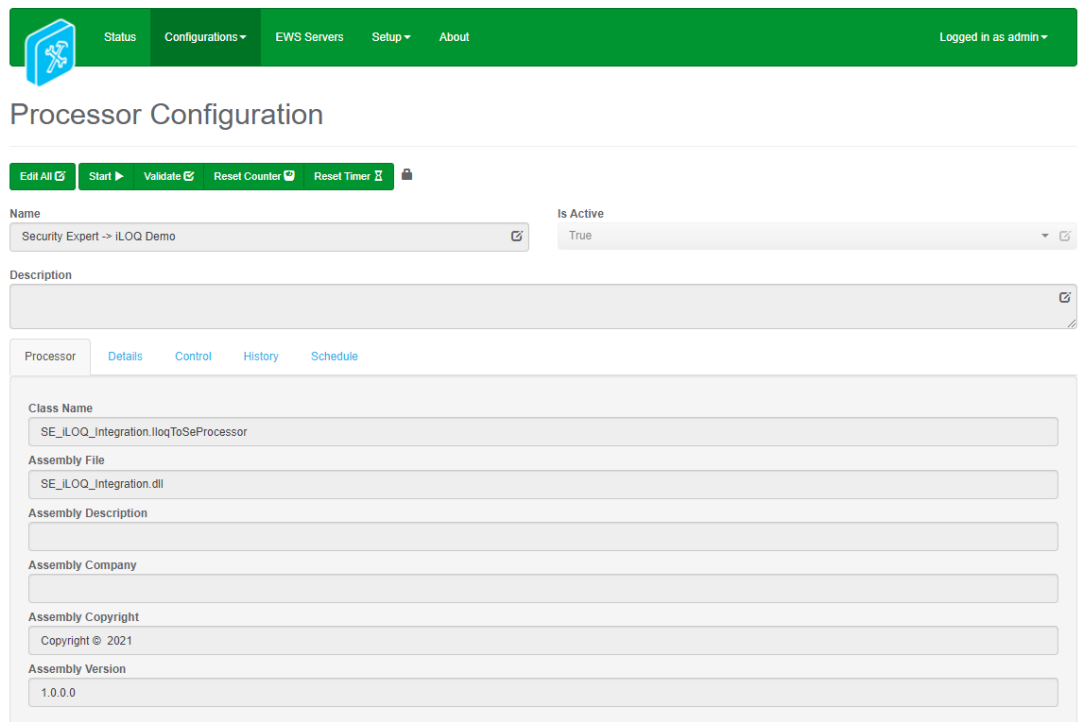
The screenshot shows the 'Add Processor Configuration' interface. At the top, there is a green navigation bar with a wrench icon, 'Status', 'Configurations' (selected), 'EWS Servers', 'Setup', and 'About'. On the right, it says 'Logged in as admin'. Below the navigation bar, the title 'Add Processor Configuration' is displayed. A secondary bar contains 'Back', 'Next', and 'Cancel' buttons. The main content area is titled 'Step 2 - Choose a Class' and shows a list of classes. The first class, 'SE_ILQQ_Integration.IloqToSeProcessor', is highlighted in green. The second class, 'SE_ILQQ_Integration.SeToIloqProcessor', is visible below it.



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.



The screenshot shows the 'Processor Configuration' screen. The top navigation bar is identical to the previous screenshot. Below the title 'Processor Configuration', there is a bar with 'Edit All', 'Start', 'Validate', 'Reset Counter', and 'Reset Timer' buttons. The main form has a 'Name' field containing 'Security Expert -> ILOQ Demo' and an 'Is Active' dropdown set to 'True'. Below this is a 'Description' field. A tabbed interface shows 'Processor' as the active tab, with other tabs for 'Details', 'Control', 'History', and 'Schedule'. The 'Processor' tab contains several input fields: 'Class Name' (SE_ILQQ_Integration.IloqToSeProcessor), 'Assembly File' (SE_ILQQ_Integration.dll), 'Assembly Description', 'Assembly Company', 'Assembly Copyright' (Copyright © 2021), and 'Assembly Version' (1.0.0.0).



Remember to repeat steps 1 to 3 for the second class.

Once the processors have been setup, it is now time to configure them. In the configuration window select the Details Tab, you will then be presented with the screen to enter the configuration information under the **Settings** item in the tree. Much of the configuration has default options however they should be checked and validated for the installation. Edit the applicable fields as follows.

Ilog Base Url

This property will need the base url to the api's that are needed to access iLOQ for Get/POST/PUT operations.

Ilog Username

This property represents the Username that is needed as part of the credentials for creating a session for the api's to be used.

Ilog Password

This property represents the Password that is needed as part of the credentials for creating a session for the api's to be used.

Ilog Customer Code

This property represents the Customer Code that is needed as part of the credentials for creating a session for the api's to be used.

Ilog Api Key

Leave this property blank as it not needed. This may change later down the line.

Ilog Api Secret

Leave this property blank as it not needed. This may change later down the line.

Ilog Polling – ONLY AVAILABLE IN ILOQ TO SECURITY EXPERT PROCESSOR

This property represents a polling rate in seconds i.e. how often is the system going to read Lock Logs from iLOQ. This property is only available in the iLOQ to Security Expert processor.

Sec Exp Soap End Point

This property represents the End Point to your Security Expert instance for e.g. <http://<IPADDRESS>:<PORT>/SecurityExpertSOAPService/Service.svc>. The text box will be populated with a default value however it will need to be changed to your own local or remote instance.

Connection Name

This property represents the name of the SOAP binding which describes how a SOAP message can be carried in HTTP messages either with or without the HTTP Extension Framework. Leave it as the default value.

Username

This property represents the Username that will be needed as part of the credentials to gain access to your Security Expert instance.

Password

This property represents the Password that will be needed as part of the credentials to gain access to your Security Expert instance.

Site Id

This property represents an additional parameter that is needed so that a user can add, retrieve and update records in Security Expert.

Custom Fields

This property allows the user to represent custom fields under the iLOQ tab in Security Expert. Please remove Access Rights fields from the previous version as these are no longer required. The 'Iloq Person Number' and 'Add to iLOQ' fields should remain. Below are the fields which will be seen when adding a custom field.

Custom Field ID

Specify the ID of the Custom Field to be created in Security Expert

Custom Field Type

Specify the custom field type that needs to be created.

Is Primary

If set to true, the value of the custom field will be treated as unique value.

Max Events – ONLY AVAILABLE IN SECURITY EXPERT TO ILOQ

This property represents the number of events that you would like to extract out of Security Expert during a polling cycle. If you set it to for e.g. 200 and polling is set to 5 seconds, then that would mean that after every 5 seconds, the processor will try to get 200 events out of security expert.

Security Expert Polling – ONLY AVAILABLE IN SECURITY EXPERT TO ILOQ

This property represents a polling rate in seconds i.e. how often is the system going to read Lock Logs from iLOQ. This property is only available in the iLOQ to Security Expert processor.

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



A complete configuration will appear as follows:

Processor – Security Expert To iLOQ

The configuration interface is titled "settings" and contains the following fields:

- Sec Exp Soap End Point ***: `http://localhost:8030/SecurityExpertSOAPService/Service.svc`
- Connection Name ***: `BasicHttpBinding IService1`
- Username ***: `ilock`
- Password ***: `- Encrypted -`
- Site Id ***: `1`
- Max Events ***: `200`
- First Event Id ***: `1`
- Security Expert Polling ***: `10`
- iLoq Base Uri ***: `https://s10.ilq.com/ilqpool2wss65/api/v2/`
- iLoq Username ***: `Admin`
- iLoq Password ***: `- Encrypted -`
- iLoq Customer Code ***: `ILQ_69668`
- iLoq Api Key**: `Empty`
- iLoq Api Secret**: `Empty`

The "Custom Fields" section is expanded to show one item:

- Item**
 - Custom Field Id ***: `0`
 - Custom Field Type ***: `Text`
 - Is Primary ***: `True`

Processor – iLOQ To Security Expert

The image shows a configuration form for the 'Processor – iLOQ To Security Expert'. The form consists of several input fields, each with a plus icon on the left and a copy icon on the right. The fields are:

- Iloq Base Url ***: `https://s10.i loq.com/i loqpool2wss65/api/v2/`
- Iloq Username ***: `Admin`
- Iloq Password ***: `- Encrypted -`
- Iloq Customer Code ***: `ILOQ_69686`
- Iloq Api Key**: `Empty`
- Iloq Api Secret**: `Empty`
- Iloq Polling ***: `10`
- Sec Exp Soap End Point ***: `http://localhost:8030/SecurityExpertSOAPService/Service.svc`
- Connection Name ***: `BasicHttpBinding_IService1`
- Username ***: `ilock`
- Password ***: `- Encrypted -`
- Site Id ***: `1`

Below these fields is a section for **Custom Fields**, which includes a plus icon and a minus icon. Under this section, there is an **Item** section with a plus icon and a minus icon. The **Item** section contains three fields:

- Custom Field Id ***: `0`
- Custom Field Type ***: `Text`
- Is Primary ***: `True`

Once you have configured the processors correctly, you should then be able to start them.

A log file in the following directory `C:\ProgramData\SmartConnector\Logs` will allow you to see what the processors are doing. A log file is generated every day so open the one with the current date.

5 Revision History

Version	Assembly File Details	Date
1.1.0.2145	Service.dll	10/08/2024
1.1.0.2145	Core.dll	10/08/2024
1.1.0.2145	Domain.dll	10/08/2024
1.1.0.2145	SE_iLOQ_Integration.dll	10/08/2024

Assembly files required:

AutoMapper.dll
Core.dll
Domain.dll
Microsoft.AspNet.WebHooks.Common.dll
Microsoft.AspNet.WebHooks.Receivers.Custom.dll
Microsoft.AspNet.WebHooks.Receivers.dll
NCrontab.Signed.dll
NLog.Targets.Syslog.dll
SE_iLOQ_Integration.dll
Service.dll
SimpleInjector.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)