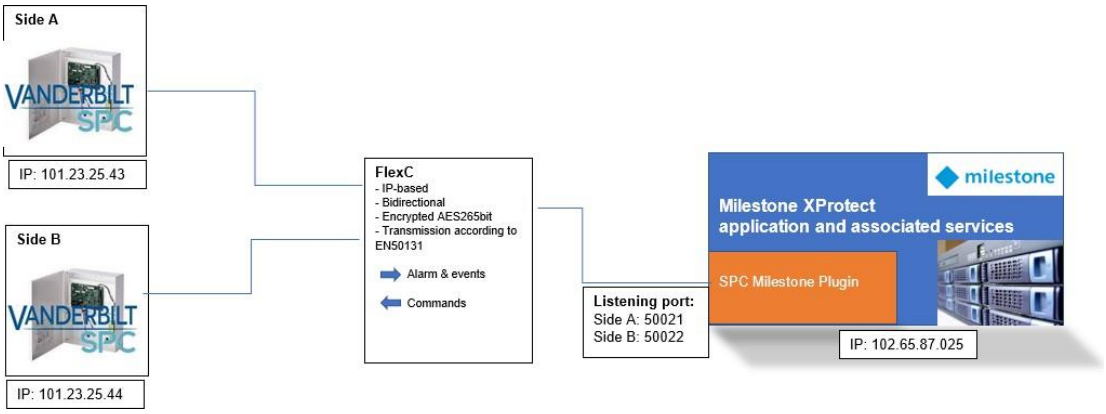
Overview

The SPC Milestone plugin has been developed by Vanderbilt and partners to provide an integration with the Milestone VMS system. This document provides a detailed overview on how to configure and commissioning the plugin. Please note that the information is provided as accurate at time of writing and may not reflect the most update Milestone system.

The Milestone plugin is provided by Vanderbilt under license and activates with a thirty-day free trail for a single SPC panel. When a plugin is purchased from Vanderbilt the plugin will support up to 20 SPC Panels.



Example image from multisite system connected to a Milestone XProtect system

The information contained in this document is to the best of knowledge, true and accurate. Whilst every effort has been made to ensure the accuracy, the document may be subject to errors or omissions.

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Contents

Revision History

Rev	Date	Remarks
0.1	2017-06-16	Initial draft
1.0	2020-05-20	Revised
1.1a	2021-10-27	Release version
1.1b	2021-11-19	Release (troubleshooting section added)
1.1d	2022-04-21	Release (copyrights updated)
1.1f	2023-02-08	Release (Product names updates)
1.1g	2024-10-17	Release

Installation

1. Download the Milestone plugin from Vanderbilt download centre.

2. Extract the installation package to the following folder (*):
   C:\Program Files\Milestone\MIPPlugins

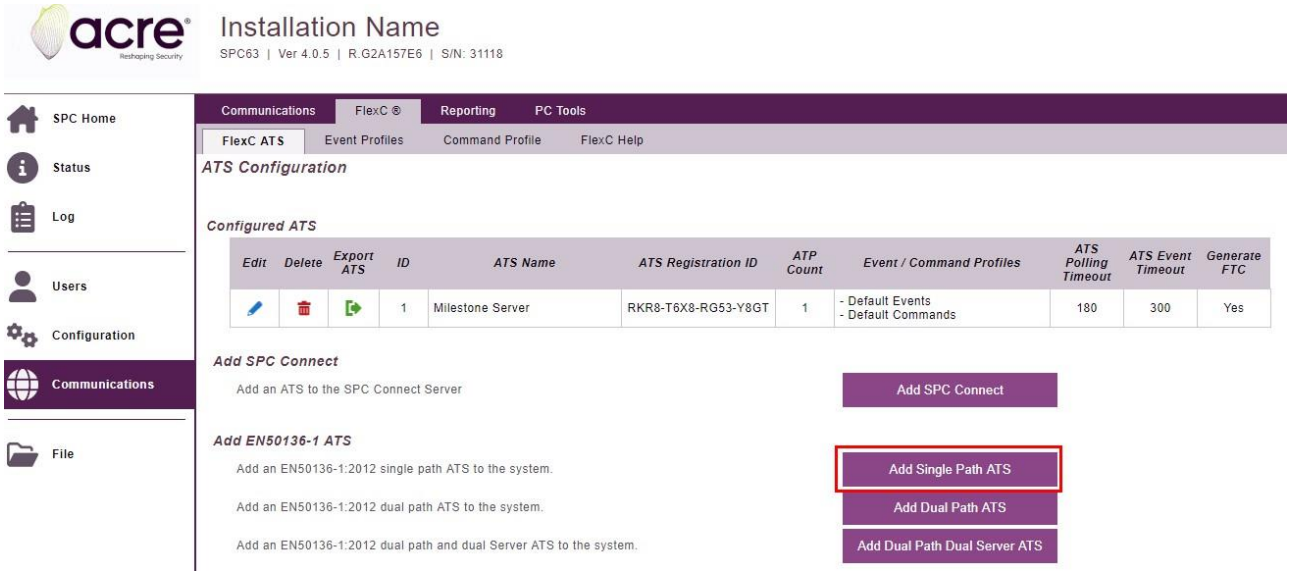
This is needed on the server running the Milestone XProtect Event Server and all machines running the management client.
(*) this is the default folder and can be different based on your Milestone installation settings.

For Milestone applications running on Window Server 2019 or above, you will be required to install CPlusPlusRedistributable_2010. This is included in the SPC Milestone Plugin Package.

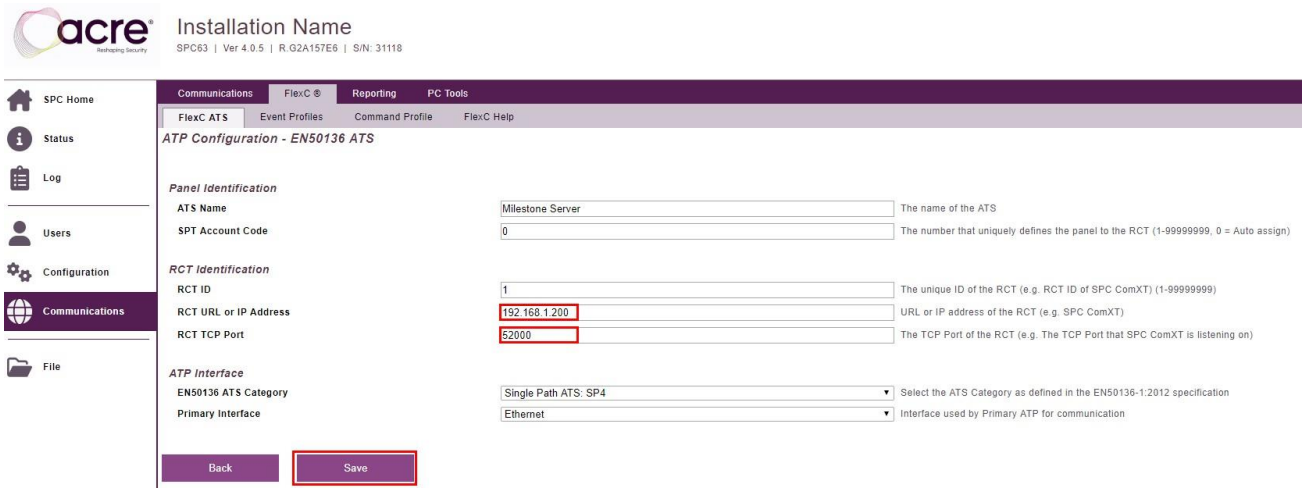
Configuration of SPC

The SPC panel must be configured to communicate with the Milestone system. The SPC creates a FlexC connection to the Milestone plugin in order to communicate status and command information. To configure all this, an ATS needs to be added in the 'FlexC' configuration tab.
For more information on FlexC ATS configuration please see
https://www.youtube.com/watch?v=SfdcvTbOPCo

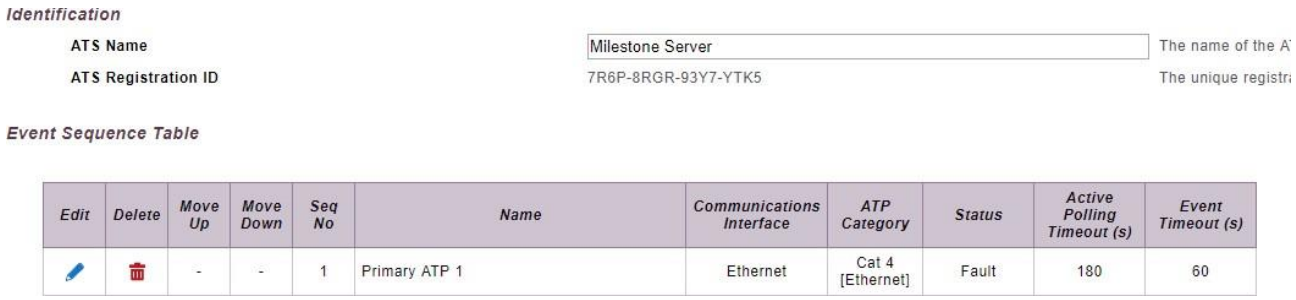
First, an ATS must be created.
Login to the SPC webserver/ enable Full Engineer mode/ navigate to Communications/ FlexC/ FlexC ATS/ click on "Add Single Path ATS".



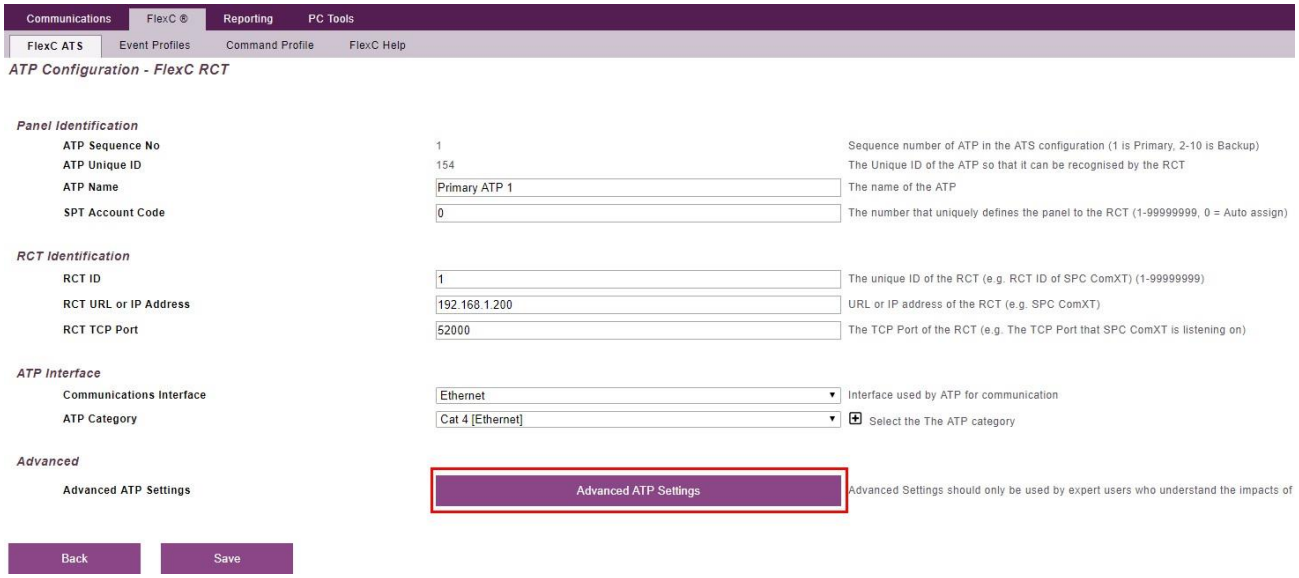
Enter the Milestone XProtect Event Server IP and port number. The port number must be unique to each SPC controller as this is how the Milestone application identifies each SPC panel. Finish by clicking on the save button.



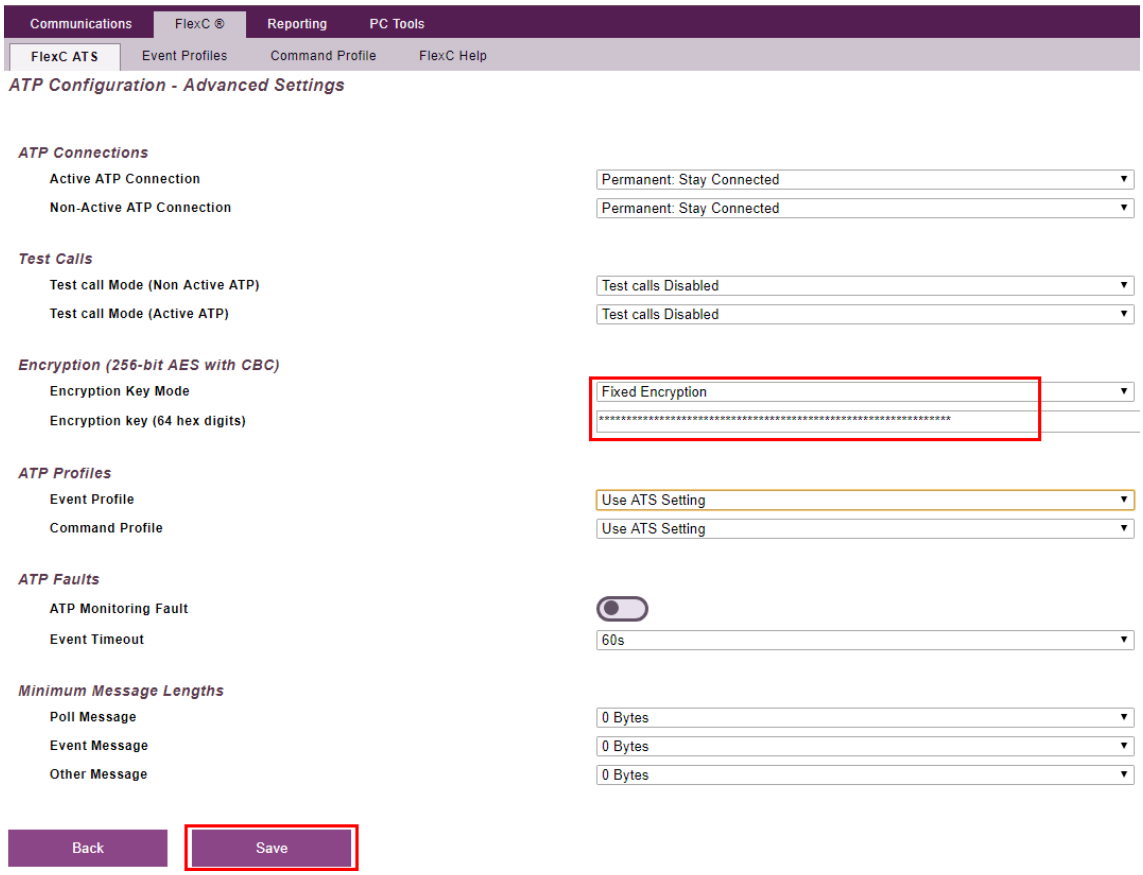
Click on the Edit button of the newly created ATP.



Net click on the Advanced ATP Settings" button.

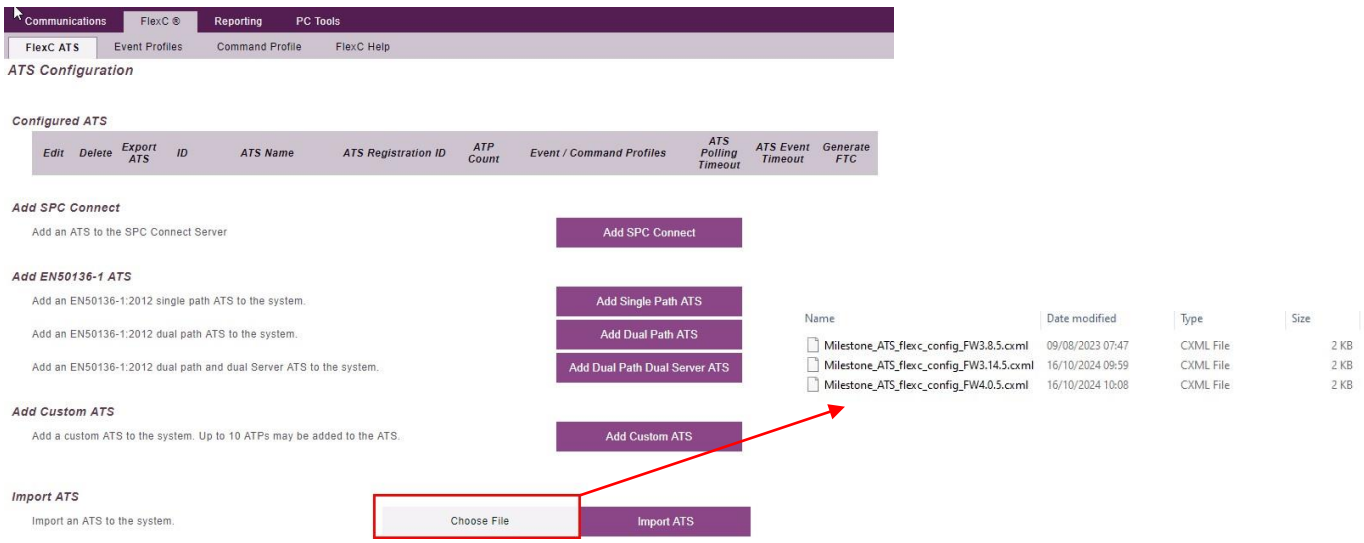


Milestone requires a fixed Encryption key to be entered.
Please define and enter a 64 digit long encryption key. (Allowed characters: a-z, 0-9)



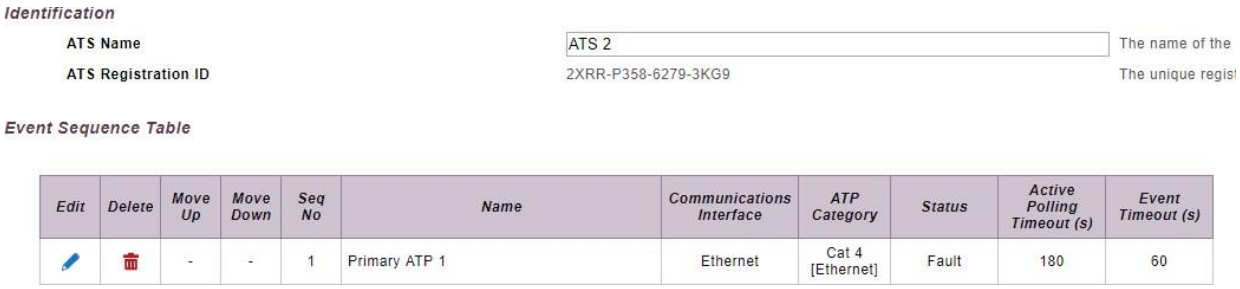
Finish by clicking on the Save button.

The SPC Milestone plugin package also contains .cxml file that can be used to automatically set up the FlexC connection. They are preconfigured for firmware versions 3.8.5, 3.9.1, 3.14.5 and 4.0.5. and can be found in the SPC Communication folder, within the SPC Milestone Plugin package.
To use these .cxml files, simply navigate to the FlexC tab within communications, click on the Choose File button and select the file version corresponding to the firmware version.



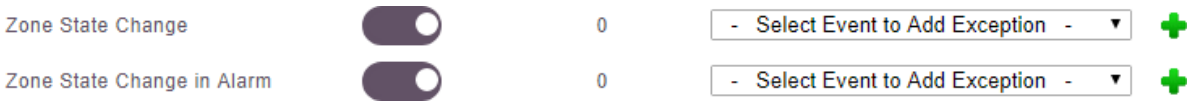
Finish by clicking on the “Import ATS” button. This will add the ATS as well as the Milestone Event and Command Profile. It will also prefill the default fixed encryption into the Milestone FlexC connection. This key can be found in the Communication folder within the SPC Milestone Plugin package.

To complete the setup, click on the Edit button.



Again click on the Edit button and manually configure the Milestone server IP address as well as the Port number. Complete by clicking on the save button.

The Event Profile contained within the 3.8.5 and 3.9.1.cxml file has both the Zone State change and Zone state Change in Alarm, enabled. As this is no longer required to update "zone status", it is recommended to disable both of these options as they can create a large number of events which can hinder the systems performance.



XProtect Management Client configuration

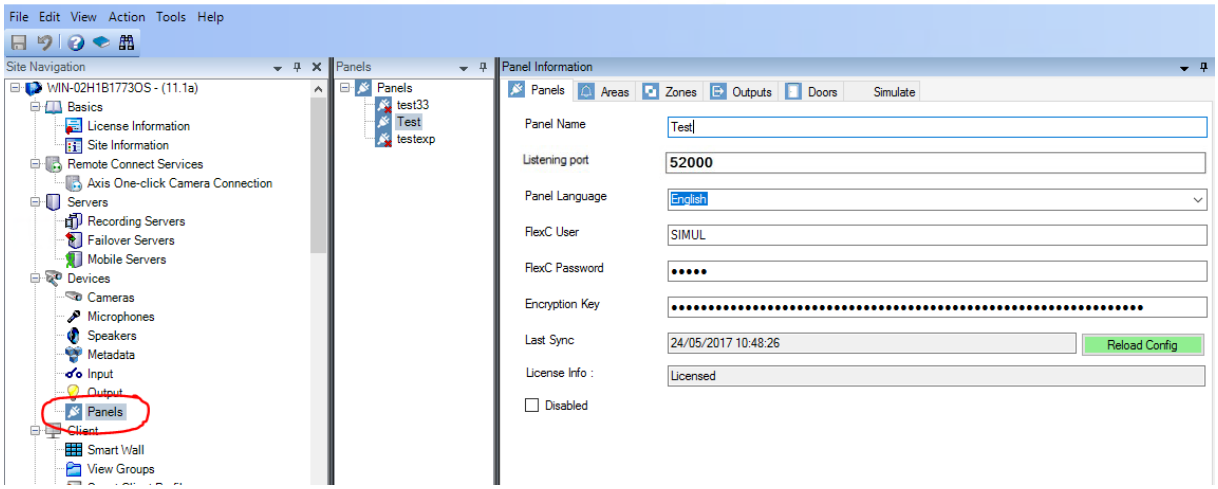
Milestone versions supported

XPROTECT Express	2022R3
XPROTECT Essential	2022R3
XPROTECT Express	2022R3
XPROTECT Expert	2022R3
XPROTECT Professional	2022R3
XPROTECT Professional+	2022R3
XPROTECT Corporate	2022R3

Note: The configuration of the plugin is performed in the XProtect Management Client, XProtect Smart Client is used for map and monitoring and operating the system. Please ensure the plugin is located in the correct folder.

Configuration is done in the XProtect Management Client. The plugin sits in the 'Devices' tree.

To add a panel, right click on Panels in the device tree. Enter a Panel name and Listening port. This should be the same as configured on the SPC ATP connection. Milestone uses the listening port to distinguish between different SPC panels therefore each panel and Milestone panel setup should have their own unique port number. Username is FlexC and password is FlexC. Enter the encryption key in the Encryption key box. This must match the encryption key entered into the ATP on the SPC panel. Enable the connection by deselecting the Disable button. Finish by clicking on the save icon in the top left corner.

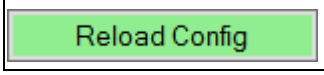


A list of configured SPC Panels is shown. When selecting a panel, the details panes on the right is populated with the configuration of the panel as known in the system.
The panel detail pane shows the configuration details to be able to connect to the panel. The language chosen here will be used as language to get the alerts from the alarm panel, and as language locale for the actions in the video client (currently not localizable yet)

Remark – Simultaneous SPC systems connected to one Milestone XProtect Event Server:
For multiple SPC connections connected to the same Milestone XProtect Event Server, please configure each SPC panel with its own unique listening port number and add a Firewall inbound rule for each port.

All other tab-pages contains a list of the items with their properties. All these properties are retrieved from the panel when performing ‘Reload Config’ from the panel pane.

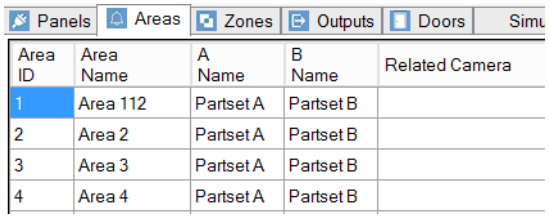
The button is only available when there is an active connection to the SPC.
Connection state is shown with the colour or the button:

	State Unknown. Waiting for the event server to get the state
	Panel is offline
	Panel is online, but credentials weren’t checked yet. If the panel stays in this state, probably the username or password are not OK
	Panel is online

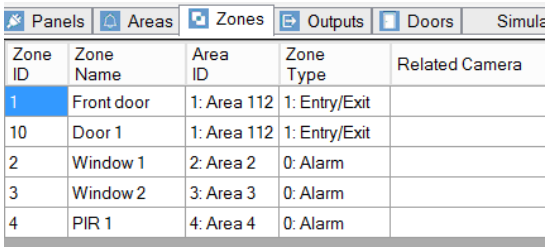
When the field FlexC User equals ‘SIMUL’, then the system will be simulated. Otherwise, a real system communication is expected.
When in simulation mode, the configuration will be retrieved from the file ‘configsimu.csv’.

The following items are retrieved from the SPC Panel:

Areas

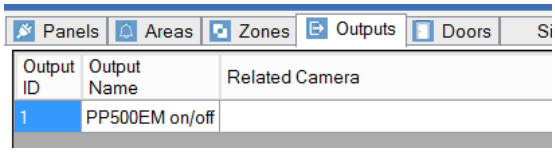


Zones



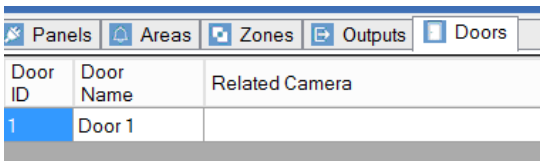
Remark: zones with as type ‘unused’ are not retrieved from the alarm panel.

Outputs



Remark: Only Mapping Gates are retrieved; other output types cannot be retrieved.

Doors



Remark: Other item types (eg expanders) cannot be retrieved from the SPC. Events on those items will be linked to the SPC panel item itself.
The only property that can be configured in the XProtect Management Client is the 'Related Camera'. When this is set, the camera image will be shown next to an event on this item.

XProtect Smart Client

Each item of the SPC panel can be put on the map in the XProtect Smart Client.
Depending on the state, the icon and the available actions on the context menu can change.
Each item also has an 'operational state', which results in a circle around the item.

This can have the following values: Ok, Warning, Disabled, Error, Active

Actions are only available when the SPC is connected.

For an overview of the operation of the XProtect Smart Client please check out the video on youtube.
https://www.youtube.com/watch?v=f0jklbWfjIc

Each item of the SPC panel can be put on the map in the XProtect Smart Client.

Troubleshooting

SPC panel and the Milestone server connection failure

Please compare the Receiver IP and port configuration with the Milestone XProtect Event Server IP and port details.
Please ensure that the SPC plugin listing port has been opened in the firewall.
Please check the encryption key details match for both acre Intrusion Controller and the Milestone panel setup.

SPCPlugin stops working after Milestone Upgrade

Due to the Milestone upgrade process, the SLC ID of the site will be changed, please send us the old and the new SLC ID. Our customer service team will check the validity date of the available license and will move the license to the new SLC ID. Send it to orders.international@acre-int.com .
(Activation will be performed within 3-4 working days)

Appendix

Panel Icon State

Icon changes on the connection state of the panel (see icons)

Actions

ID	Name	Condition
PANEL_ACT_SILENCE	Silence all Bells	-
PANEL_RELOAD_STATE	Manually refresh the state. (usually this done automatically every few seconds)	-
PANEL_ACT_RESET_ALERTS	Reset all alerts on the SPC system	-

Detailed States

ID	Name
PANEL.CONNECTIONSTATE	Current connection State
ALERT xxx	All alerts in the SPC are listed here, with the indication whether the alert is inhibited or isolated

Operational State

State	Condition
Disabled	Panel is Disabled
Error	Alert Count > 0 or panel is not online
Ok	else

Area Icon State

Icon changes on the state of the area (see icons)

Actions

ID	Name	Condition to perform action
AREA_ACT_UNSET	Unset Area	Area is not unset
AREA_ACT_SET_A	Area Set Partially A	Area is unset or area is PartSet B
AREA_ACT_SET_B	Area Set Partially B	Area is unset or area is PartSet A
AREA_ACT_SET	Set Area	Area is not set

Detailed States

ID	Name
AREA_MODE	Current mode of the area

Operational State

State	Condition
Warning	If a zone in this area is in warning
Error	If a zone in this area is in error
OK	else

Zone Icon State

Icon changes on the state of the zone (see icons)

Actions

ID	Name	Conditio nto perform action
ZONE_ACT_INHIBIT	Inhibit zone	Inhibit allowed and status is not inhibited
ZONE_ACT_DEINHIBIT	De-Inhibit Zone	De-Inhibit allowed and status is inhibited
ZONE_ACT_ISOLATE	Isolate Zone	Isolate allowed and status is not isolated
ZONE_ACT_DEISOLATE	De-Isolate Zone	De-Isolate allowed and status is isolated
ZONE_ACT_RESTORE	Restore alarm	Restore Allowed and current status > 3

Detailed States

ID	Name
ZONE_STATUS	Current status of the zone

Operational State

State	Condition
OK	State = ZONE_STATUS_OK
ERROR	ZONE_STATUS_ALARM, ZONE_STATUS_TAMPER, ZONE_STATUS_TROUBLE, ZONE_STATUS_POST, ZONE_STATUS_MASKED
Warning	else

Door Icon State

Icon changes on the state of the door (see icons)

Actions

ID	Name	Condition to perform action
DOOR_ACT_NORMAL	Set Door Normal	DOOR_MODE_LOCKED or DOOR_MODE_UNLOCKED
DOOR_ACT_OPENPERM	Open door Permanently	DOOR_MODE_LOCKED or DOOR_MODE_NORMAL
DOOR_ACT_LOCK	Lock Door	DOOR_MODE_NORMAL or DOOR_MODE_UNLOCKED
DOOR_ACT_OPENTEMP	Open door Momentarily	DOOR_MODE_NORMAL

Detailed States

ID	Name
DOOR_OPEN_STATE	DOOR_OPEN_STATE_CLOSED, DOOR_OPEN_STATE_OPEN
DOOR_STATUS	DOOR_STATUS_OK, DOOR_STATUS_OPEN_TOO_LONG, DOOR_STATUS_LEFT_OPEN, DOOR_STATUS_FORCED, DOOR_STATUS_TAMPER, DOOR_STATUS_OFFLINE,
DOOR_MODE	DOOR_MODE_NORMAL, DOOR_MODE_LOCKED, DOOR_MODE_UNLOCKED,

Operational State

State	Condition
OK	DOOR_STATUS_OK
ERROR	DOOR_STATUS_OPEN_TOO_LONG, DOOR_STATUS_FORCED, DOOR_STATUS_TAMPER, DOOR_STATUS_OFFLINE
Warning	else

Simulation Mode

The plugin can run in simulation mode. In this mode, no actual communication is performed. Configuration is fetched from the file configsimu.csv.
Events can be sent via the tab ‘Simulate’ in the XProtect Management Client. This window permits to simulate an event on the panel. An event consists of two parts: the event code and the related item. This must be separated by a semicolon as shown below.

This special mode is used for troubleshooting purpose only and it’s usage is reserved for Vanderbilt.