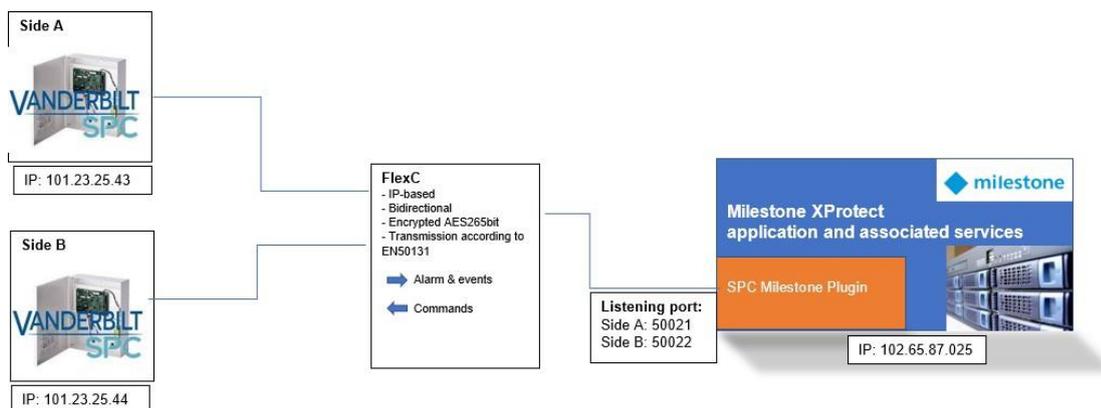


Overview

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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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.

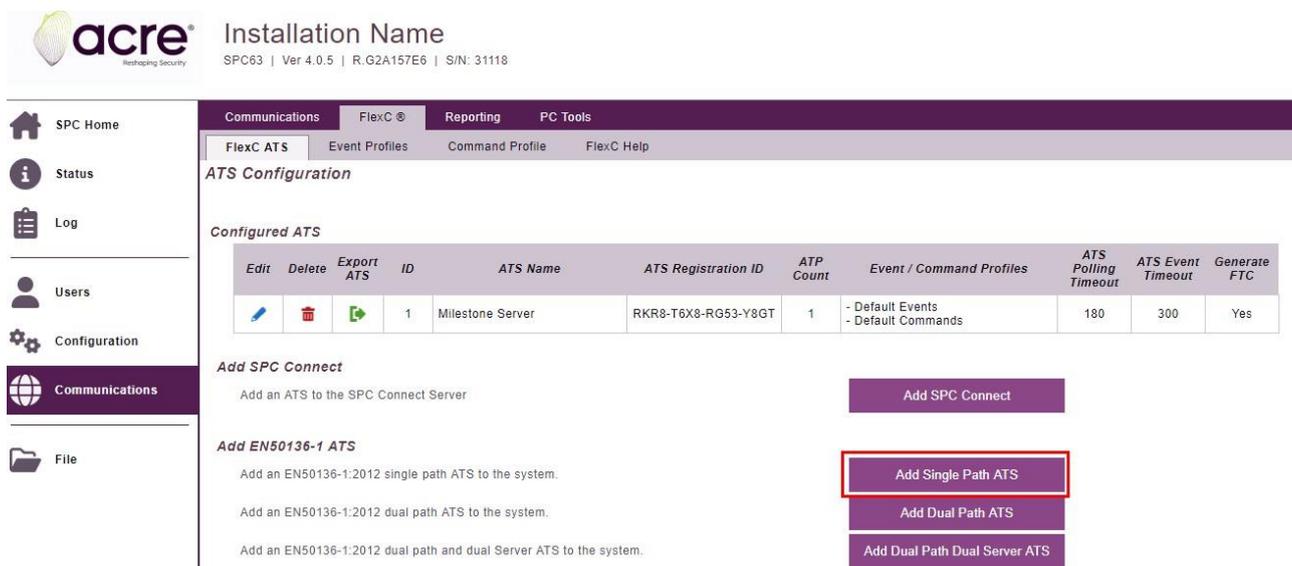
Configuration of SPC

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=SfdevTbOPCo>

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".



The screenshot shows the SPC webserver interface. The top header displays the 'acre' logo and 'Installation Name' with version details: SPC63 | Ver 4.0.5 | R.G2A157E6 | SIN: 31118. The left navigation menu includes 'SPC Home', 'Status', 'Log', 'Users', 'Configuration', 'Communications', and 'File'. The main content area is titled 'FlexC ATS' and contains a table of 'Configured ATS'.

Edit	Delete	Export ATS	ID	ATS Name	ATS Registration ID	ATP Count	Event / Command Profiles	ATS Polling Timeout	ATS Event Timeout	Generate FTC
			1	Milestone Server	RKR8-T6X8-RG53-Y8GT	1	- Default Events - Default Commands	180	300	Yes

Below the table, there are three sections for adding new ATS:

- Add SPC Connect**: Add an ATS to the SPC Connect Server. Button: Add SPC Connect
- Add EN50136-1 ATS**:
 - Add an EN50136-1:2012 single path ATS to the system. Button: Add Single Path ATS
 - Add an EN50136-1:2012 dual path ATS to the system. Button: Add Dual Path ATS
 - Add an EN50136-1:2012 dual path and dual Server ATS to the system. Button: Add Dual Path Dual Server 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.

Installation Name
SPC63 | Ver 4.0.5 | R.G2A157E6 | S/N: 31118

ATP Configuration - EN50136 ATS

Panel Identification

ATS Name: Milestone Server The name of the ATS

SPT Account Code: 0 The number that uniquely defines the panel to the RCT (1-99999999, 0 = Auto assign)

RCT Identification

RCT ID: 1 The unique ID of the RCT (e.g. RCT ID of SPC ComXT) (1-99999999)

RCT URL or IP Address: 192.168.1.200 URL or IP address of the RCT (e.g. SPC ComXT)

RCT TCP Port: 52000 The TCP Port of the RCT (e.g. The TCP Port that SPC ComXT is listening on)

ATP Interface

EN50136 ATS Category: Single Path ATS: SP4 Select the ATS Category as defined in the EN50136-1:2012 specification

Primary Interface: Ethernet Interface used by Primary ATP for communication

Buttons: Back, Save

Click on the Edit button of the newly created ATP.

Identification

ATS Name: Milestone Server The name of the A

ATS Registration ID: 7R6P-8RGR-93Y7-YTK5 The unique registr

Event Sequence Table

Edit	Delete	Move Up	Move Down	Seq No	Name	Communications Interface	ATP Category	Status	Active Polling Timeout (s)	Event Timeout (s)
		-	-	1	Primary ATP 1	Ethernet	Cat 4 [Ethernet]	Fault	180	60

Net click on the Advanced ATP Settings™ button.

ATP Configuration - FlexC RCT

Panel Identification

ATP Sequence No: 1 Sequence number of ATP in the ATS configuration (1 is Primary, 2-10 is Backup)

ATP Unique ID: 154 The Unique ID of the ATP so that it can be recognised by the RCT

ATP Name: Primary ATP 1 The name of the ATP

SPT Account Code: 0 The number that uniquely defines the panel to the RCT (1-99999999, 0 = Auto assign)

RCT Identification

RCT ID: 1 The unique ID of the RCT (e.g. RCT ID of SPC ComXT) (1-99999999)

RCT URL or IP Address: 192.168.1.200 URL or IP address of the RCT (e.g. SPC ComXT)

RCT TCP Port: 52000 The TCP Port of the RCT (e.g. The TCP Port that SPC ComXT is listening on)

ATP Interface

Communications Interface: Ethernet Interface used by ATP for communication

ATP Category: Cat 4 [Ethernet] Select The ATP category

Advanced

Advanced ATP Settings: **Advanced ATP Settings** Advanced Settings should only be used by expert users who understand the impacts of

Buttons: Back, Save

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)

ATP Configuration - Advanced Settings

ATP Connections
 Active ATP Connection: Permanent: Stay Connected
 Non-Active ATP Connection: Permanent: Stay Connected

Test Calls
 Test call Mode (Non Active ATP): Test calls Disabled
 Test call Mode (Active ATP): Test calls Disabled

Encryption (256-bit AES with CBC)
 Encryption Key Mode: Fixed Encryption
 Encryption key (64 hex digits): [64-digit key]

ATP Profiles
 Event Profile: Use ATS Setting
 Command Profile: Use ATS Setting

ATP Faults
 ATP Monitoring Fault: [Toggle Off]
 Event Timeout: 60s

Minimum Message Lengths
 Poll Message: 0 Bytes
 Event Message: 0 Bytes
 Other Message: 0 Bytes

Buttons: Back, Save

Finish by clicking on the Save button.

The SPC Milestone plugin package also contains .xml 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 .xml 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.

Configured ATS

Edit	Delete	Export ATS	ID	ATS Name	ATS Registration ID	ATP Count	Event / Command Profiles	ATS Polling Timeout	ATS Event Timeout	Generate FTC
[Empty table body]										

Import ATS
 Import an ATS to the system.

Buttons: Add SPC Connect, Add Single Path ATS, Add Dual Path ATS, Add Dual Path Dual Server ATS, Add Custom ATS, Choose File, Import ATS

Name	Date modified	Type	Size
Milestone_ATS_flexc_config_FW3.8.5.xml	09/08/2023 07:47	CXML File	2 KB
Milestone_ATS_flexc_config_FW3.14.5.xml	16/10/2024 09:59	CXML File	2 KB
Milestone_ATS_flexc_config_FW4.0.5.xml	16/10/2024 10:08	CXML File	2 KB

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.

Communications FlexC® Reporting PC Tools

FlexC ATS Event Profiles Command Profile FlexC Help

ATS Configuration

Configuration saved OK

Configured ATS

Edit	Delete	Export ATS	ID	ATS Name	ATS Registration ID	ATP Count	Event / Command Profiles	ATS Polling Timeout	ATS Event Timeout	Generate FTC
			2	ATS 2	2XRR-P358-6279-3KG9	1	- Milestone - Milestone	180	300	Yes

To complete the setup, click on the Edit button.

Identification

ATS Name The name of the

ATS Registration ID The unique regist

Event Sequence Table

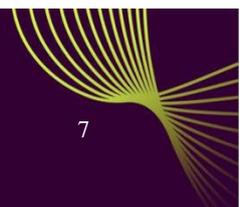
Edit	Delete	Move Up	Move Down	Seq No	Name	Communications Interface	ATP Category	Status	Active Polling Timeout (s)	Event Timeout (s)
		-	-	1	Primary ATP 1	Ethernet	Cat 4 [Ethernet]	Fault	180	60

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.

Zone State Change 0

Zone State Change in Alarm 0



XProtect Management Client configuration

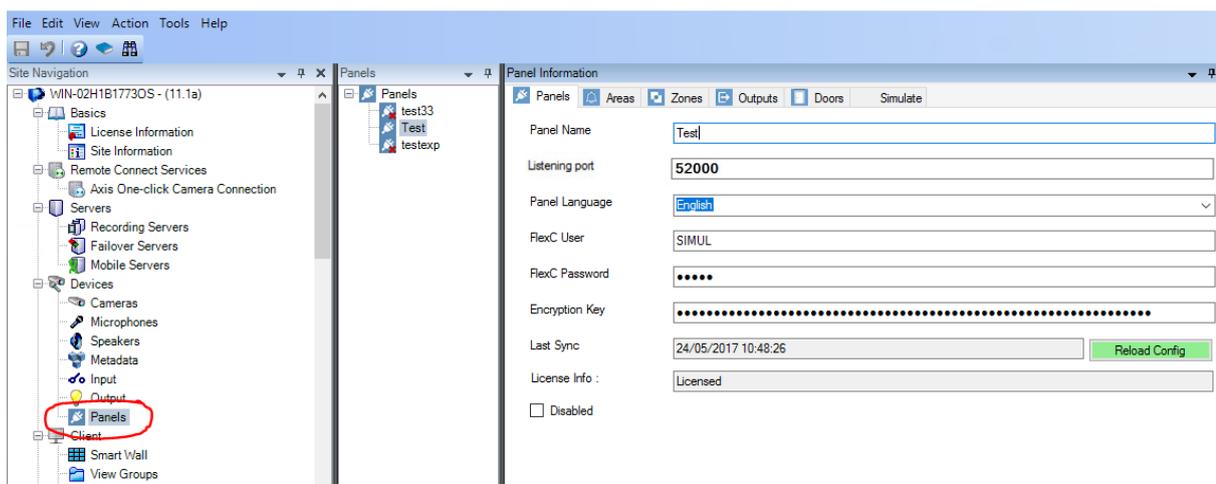
Milestone versions supported

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 of 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

Area ID	Area Name	A Name	B Name	Related Camera
1	Area 112	Partset A	Partset B	
2	Area 2	Partset A	Partset B	
3	Area 3	Partset A	Partset B	
4	Area 4	Partset A	Partset B	

Zones

Zone ID	Zone Name	Area ID	Zone Type	Related Camera
1	Front door	1: Area 112	1: Entry/Exit	
10	Door 1	1: Area 112	1: Entry/Exit	
2	Window 1	2: Area 2	0: Alarm	
3	Window 2	3: Area 3	0: Alarm	
4	PIR 1	4: Area 4	0: Alarm	

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

Outputs

Output ID	Output Name	Related Camera
1	PP500EM on/off	

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

Doors

Door ID	Door Name	Related Camera
1	Door 1	

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=f0jklbWfjlc>

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	Condition to 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

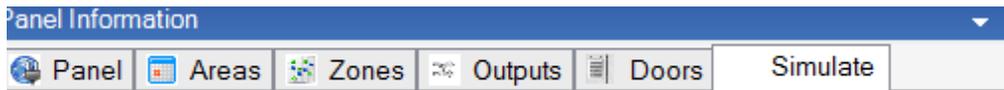
State	Condition
OK	DOOR_STATUS_OK
ERROR	DOOR_STATUS_OPEN_TOO_LONG, DOOR_STATUS_FORCED, DOOR_STATUS_TAMPER, DOOR_STATUS_OFFLINE
Warning	else

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.



Simulate Event:

event_number;item_id (eg: to simulate the an unset of area1 --> 3501;1)

