Milestone-SPC Plugin

Product Overview

VANDERBILT

Overview

The SPC Milestone plugin has been developed by Vanderbilt and partners to provide you with an integration between Milestone system. This document provides an details on how to configure the plugin and however to configure the milestone system. 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 licence the plugin can be installed in a Milestone Xprotect system. The plugin 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.

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Contents

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.

A white paper issued by: Vanderbilt International.

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Revision History

Rev	Date	Remarks
0.1	2017-6-16	Initial draft

Installation

1. Download the Milestone plugin from Vanderbilt server.

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

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

Configuration of SPC

The SPC panel must be configured to communicate with the Milestone system. The SPC creates a 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 please see

https://www.youtube.com/watch?v=SfdcvTbOPCo

First, an ATS must be configured:

Communications | FlexC ® | Reporting | PC Tools

FlexC ATS | Event Profiles | Command Profile | FlexC Help

ATS Configuration

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	5654-22T9-X9R2-K884	1	- Event Profile 3 - Command Profile 3	90	300	Yes
✏	🗑	↪	3	ATS 3	7474-T76K-62XS-G45T	1	- Event Profile 3 - Command Profile 3	90	300	Yes

Add SPC Connect

Add an ATS to the SPC Connect Server | [Add SPC Connect]

Add EN50136-1 ATS

Add an EN50136-1:2012 single path ATS to the system. | [Add Single Path ATS]
Add an EN50136-1:2012 dual path ATS to the system. | [Add Dual Path ATS]
Add an EN50136-1:2012 dual path and dual Server ATS to the system. | [Add Dual Path Dual Server ATS]

Add Custom ATS

Add a custom ATS to the system. Up to 10 ATPs may be added to the ATS. | [Add Custom ATS]

Import ATS

Import an ATS to the system. | [Browse...] | [Import ATS]

Communications | FlexC ® | Reporting | PC Tools

FlexC ATS | Event Profiles | Command Profile | FlexC Help

ATS Configuration [ATS 3]

Identification

ATS Name	ATS 3	The name of the ATS
ATS Registration ID	7474-T76K-62XS-G45T	The unique registration ID of the ATS allows the panel to be uniquely identified at the RCT.

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 5 [Ethernet]	OK	90	30

[Add ATP to FlexC RCT] [Add ATP to Analog ARC]

ATS Profiles

Event Profile	Event Profile 3 ▾	Select the Event Profile which defines how and which events are transmitted on this ATS
Command Profile	Command Profile 3 ▾	Select the Command Profile which defines the commands that are allowed on this ATS

ATS Faults

ATS Polling Timeout	90	Seconds	An ATS Polling Timeout is raised if no Poll message has been successfully acknowledged on any ATP within this period. (0 = Auto Calculate)
ATS Event Timeout	300	Seconds	An ATS Event Timeout is raised if an event has not been successfully acknowledged on any ATP within this period.
Generate FTC	☑		Selects whether the system generates an FTC on an ATS Event Timeout or an ATS Polling Timeout
Re-queue Events	☑		Select what happens to events after an ATS Timeout
Re-queue Event Delay	300	Seconds	Delay after an ATS Event Timeout before the re-queued event is attempted again.
Re-queue Event Duration	86400	Seconds	Amount of time that the event will be re-queued before the event is deleted.

Installation Details

Installation Details	[Edit Installation Details]	The following installation details are passed to the RCT to help the Operator at the RCT to identify the panel.

Then, an ATP must be added to the ATS:
Check the yellow fields:

Communications	FlexC ®	Reporting	PC Tools	
FlexC ATS	Event Profiles	Command Profile	FlexC Help	

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	99	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	1234	The number that uniquely defines the panel to the RCT (1-99999999, 0 = Auto assign)

RCT Identification

RCT ID	5678	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 5 [Ethernet]	⊞ Select the The ATP category

Advanced

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

Back   Save

Go to the advanced settings to configure the encryption key:

Communications	FlexC ®	Reporting	PC Tools	
FlexC ATS	Event Profiles	Command Profile	FlexC Help	

ATP Configuration - Advanced Settings

ATP Connections

Active ATP Connection	Permanent: Stay Connected	Select the ATP connection type when the ATP is the active ATP (operating as the primary communication path)
Non-Active ATP Connection	Permanent: Stay Connected	Select the ATP connection type when the ATP is not the active ATP (operating as a backup communication path)

Test Calls

Test call Mode (Non Active ATP)	Test calls Disabled	Select the mode for sending testcalls when the ATP is acting as the Non-Active ATP
Test call Mode (Active ATP)	Test calls Disabled	Select the mode for sending testcalls when the ATP is acting as the Active ATP

Encryption (256-bit AES with CBC)

Encryption Key Mode	Fixed Encryption	Select how the encryption key gets updated
Encryption key (64 hex digits)	**	

ATP Profiles

Event Profile	Use ATS Setting	Select the Event Profile which defines how and which events are transmitted on this ATS
Command Profile	Use ATS Setting	Select the Command Profile which defines the commands that are allowed on this ATS

ATP Faults

|		
ATP Monitoring Fault	☐	Generate an ATP fault if the ATP monitoring fails or an Event fails to transmit on ATP
Event Timeout	30s	The amount of time that the ATP will keep trying to transmit the event until the event fails on the ATP and is passed to the next ATP

Minimum Message Lengths

Poll Message	0 Bytes	Minimum length of a Poll Message
Event Message	0 Bytes	Minimum length of a Event and Testcall Messages
Other Message	0 Bytes	Minimum length of connection and encryption key update messages

Back   Save

Management Client

Note: The configuration of the plugin is performed in the management client, smart client is used for map and controlling system. Please ensure plugin is in the correct folder

Configuration is done in the management client. The plugin sits in the 'Devices' tree.
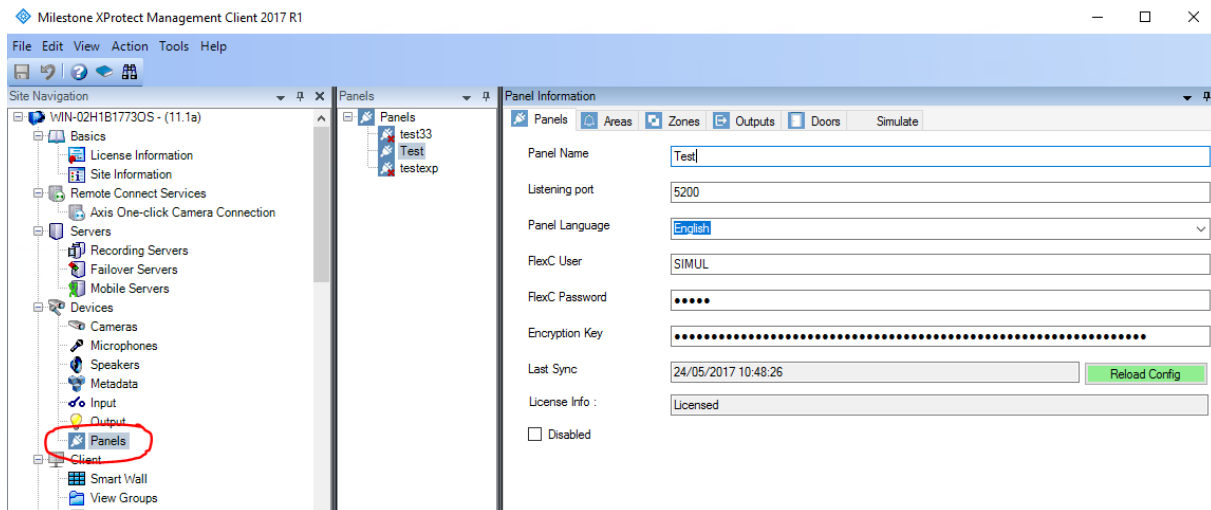
A list of configured SPC Panels is shown. When selecting a panel, the details panes on the right is populated with the configuration of the panel as known in the system.
The panel detail pane shows the configuration details to be able to connect to the panel. The language chosen here will be used as language to get the alerts from the alarm panel, and also as language locale for the actions in the video client (currently not localizable yet)
All other tab-pages contain a list of the items with their properties. All of these properties are retrieved the panel when performing 'Reload Config' from the panel pane.
The button is only available when there is a confirmed connection to the SPC. Connection state is shown with the color or the button:

Reload Config	State Unknown. Waiting for the event server to get the state
Reload Config	Panel is offline
Reload Config	Panel is online, but credentials weren't checked yet. If the panel stays in this state, probably the username or pwd are not OK
Reload Config	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 management client is the 'Related Camera'. When this is set, the camera image will be shown next to an event on this item.

Smart Client integration

Each item of the SPC panel can be put on the map in the 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, OkActive

Actions are only available when the SPC is connected.

For an overview of the operation of the smart client please see the following video.

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. This is normally done automatically	
PANEL_ACT_RESET_ALERTS	Reset all alerte in the SPC	

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

Alerte 0.0.6.IS   Controller Cabinet Tamper - 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
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 A	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	In 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
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
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

Customizations

A lot of things are configurable in the plugin. These settings are all in the file SPCMilestone.data. This file is actually a zip-file containing all necessary settings and icons. Most of the configurations are done the file called meta.csv.

Languages

Syntax:

```
language;{Language-id in the SPC};{Name of language};{Locale}
```

Example:

```
language;0;English;en-US
```

Usage:

This defines the languages shown in the panel-configuration screen.

Event Groups & Event Types

This is used in the Milestone system to configure alarms.

Syntax:

```
eventgroup;{text of group}
eventtype;{text of event type};{group for event type};{entity type}
```

Example:

```
eventgroup;SPC.AREA.EVENTS
eventtype;SPC.AREA.EVENT_UNSET;SPC.AREA.EVENTS;AREA
```

Usage:

The 'text of…' parts must appear in the text-section to get the real localized text.
Entity type is one of the following: AREA, PANEL, ZONE, DOOR

Events

The translation of SPC events to Milestone events is via the 'eventtranslation' keyword

Syntax:

```
eventtranslation;{entity type};{spc event};{event type}
```

Example:

```
eventtranslation;AREA;3505;SPC.AREA.EVENT_UNSET
```

States

The translation of SPC events to Milestone states is via the 'statetranslation' keyword

Syntax:

```
statetranslation;{entity type};{spc event};{state text};{state value}
```

Example:

```
statetranslation;AREA;3505;AREA_MODE;0
```

Texts

Definition and localization of the different texts is done via the 'text' keyword

Syntax:

```
text;{text id};{locale};{text}
```

Example:

```
text;SPC.AREA.EVENTS;en-US;Area Events
text;SPC.AREA.EVENTS;fr-FR;Evènements du secteur
text;SPC.AREA.EVENT_UNSET;fr-FR;MHS secteur
text;SPC.AREA.EVENT_UNSET;en-US;Area Unset
```

Icons

Icons are fully customizable. The following table shows the rules to fetch the icons:

Entity	Purpose	File Name
Panel	Single	SPCPanel.ico
Panel	Multiple	SPCPanels.ico

Panel	State	SPCPanel-{state}.ico
		
		State is one of the following:
		`0: PANEL_STATUS_OK`
		`1: PANEL_STATUS_ENGINEERING`
		`2: PANEL_STATUS_OFFLINE`
		`3: PANEL_STATUS_OFFLINE_CONF`

Area	Single	SPCArea.ico
Area	Multiple	SPCAreas.ico
Area	State	SPCArea-{state}.ico State corresponds to the current mode of the system
Zone	Single	SPCZone.ico
Zone	Multiple	SPCZones.ico
Zone	State	SPCZone-{type}-{state}.ico Type corresponds to the Type of the zone State corresponds to the current 'STATUS' of the zone
Door	Single	SPCDoor.ico
Door	Multiple	SPCDoors.ico
Door	State	SPCDoor-{state}.ico State corresponds to current 'STATUS' of the door
Output	Single	SPCOutput.ico
Output	Multiple	SPCOutputs.ico
Output	State	SPCOutput-{state}.ico State corresponds to current 'STATE' of the Mapping Gate

Remarks:
Each action can have an icon that will be shown in the menu-list. See Smart Client Integration for the ID's of the actions.
All icon files must contain the sizes 8x8 until 64x64.

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 management client. This window permits to simulate an event on the panel. An events consists of two parts: the event code and the related item. This must be separated by a semicolon as shown below.