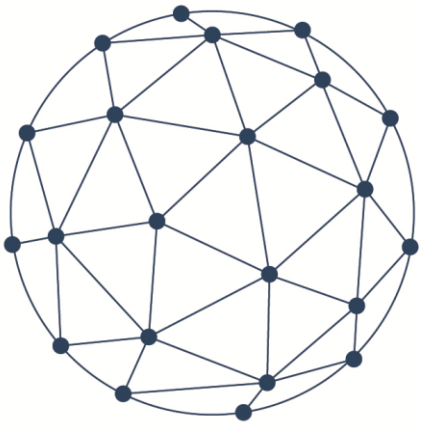


SGSE

Soluciones Globales de Seguridad Electrónica

SPC MONITOR

Installer and User Manual

Content

1. Document versions

Version	Date	Author	Changes in the version
1.0	07/2020	SDA	First version (English)
1.1	10/2020	SDA	Includes XBUS monitoring and new events.

2. Introduction

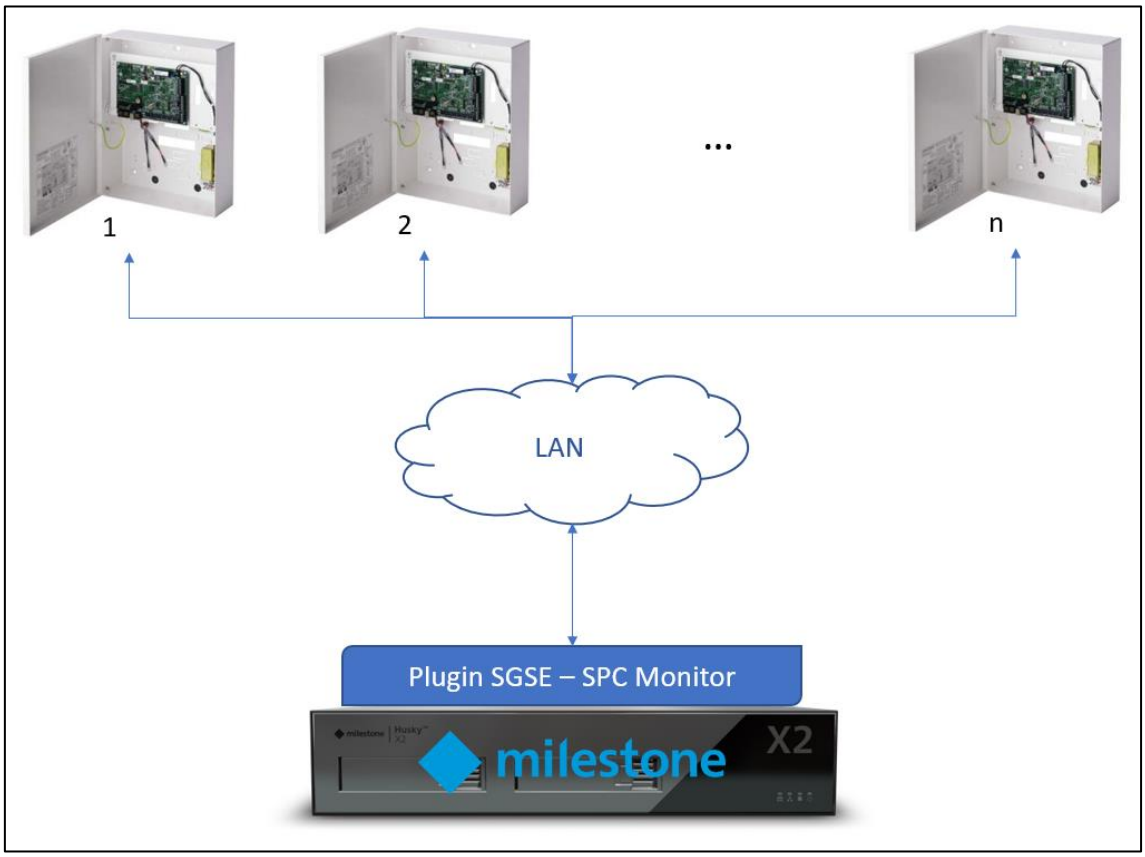
The purpose of this document is to explain the operation, installation and use of the software solution called "*SPC Monitor*".

This solution consists of a plugin that allows to monitor and interact with Vanderbilt SPC intrusion systems, from the user interface and the working environment of the XProtect® platform, by Milestone.

In this way, the monitoring of the intrusion system is available together with the advantages of the XProtect® VMS for video and alarm management. CCTV and intrusion in a single interface.

3. Solution architecture

The architecture of the solution is described in the scheme below:



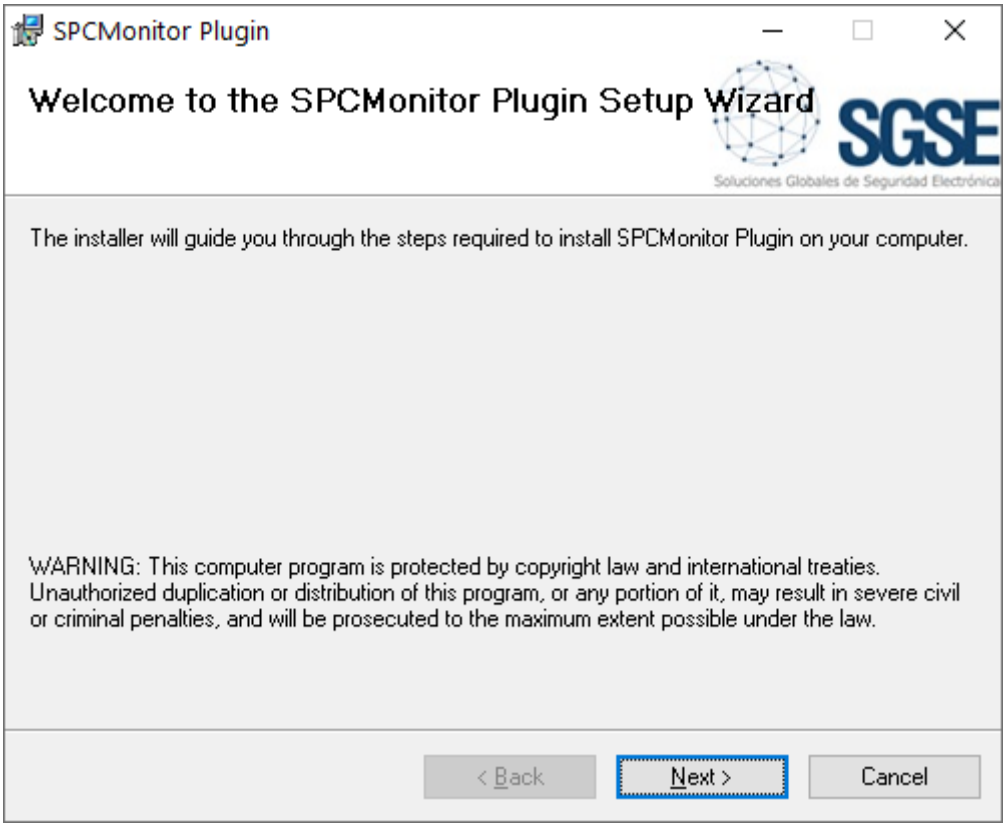
Through the Ethernet network, the plugin gets ready to accept connections from SPC intrusion panels. The SPC intrusion panel must be configured to communicate with the plugin as an ATP (Alarm Transmission Path) in an ATS (Alarm Transmission System). The basic panel configuration needed to work with this plugin will be described later in this document.

Once the communication is established, it imports the panel configuration and keeps the communication channel open to:

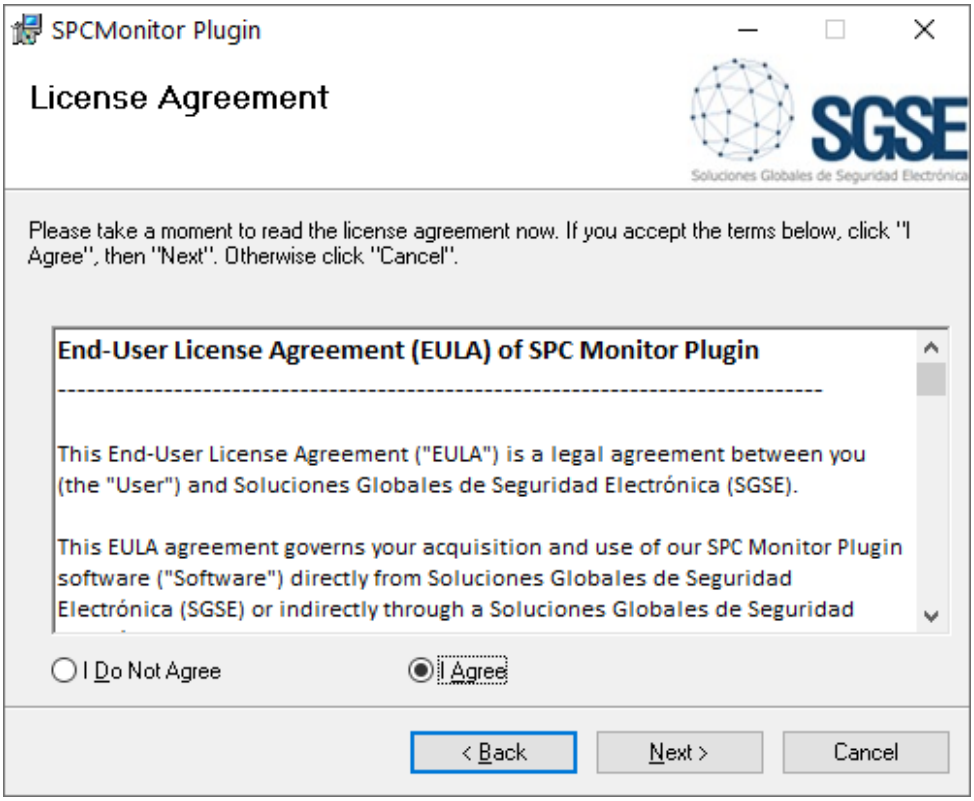
- Send commands to the panel
- Ask the panel for the status of some elements (areas, zones, outputs)
- Receive notifications when intrusion events occur at the intrusion system.
- Receive alerts related to the panel and the X-Bus elements

4. Installation

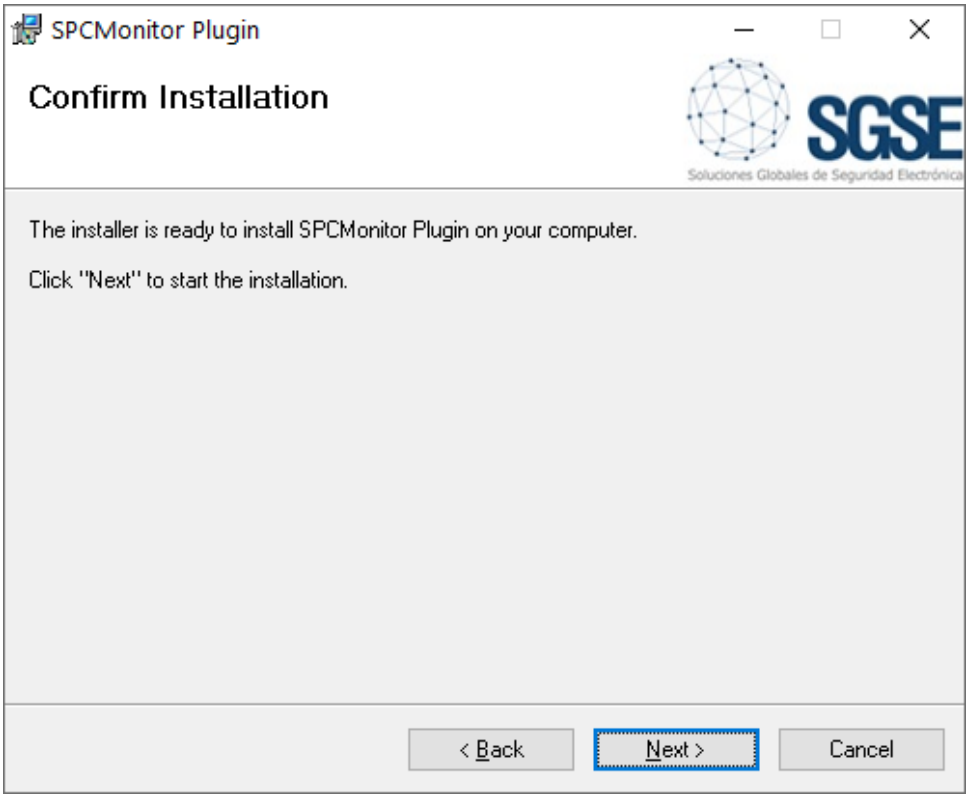
To install the plugin, simply execute with administrator rights the installer " SPC Monitor Installer.msi" provided by SGSE or downloaded from the Milestone Marketplace. The process is automatic. Throughout the different screens of the installer, we will only have to accept the End User License Agreement, a mandatory condition to be able to use the plugin.



Click “Next >” to start the installation process.

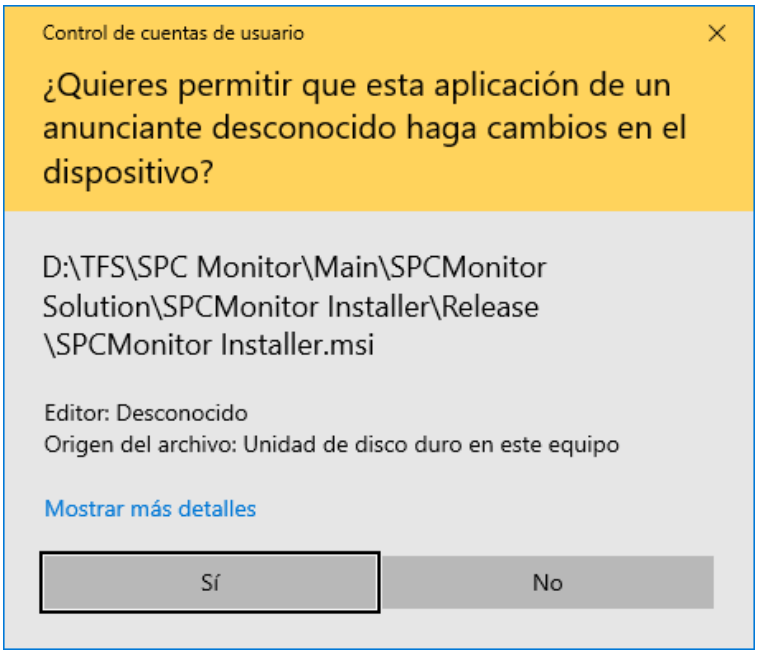


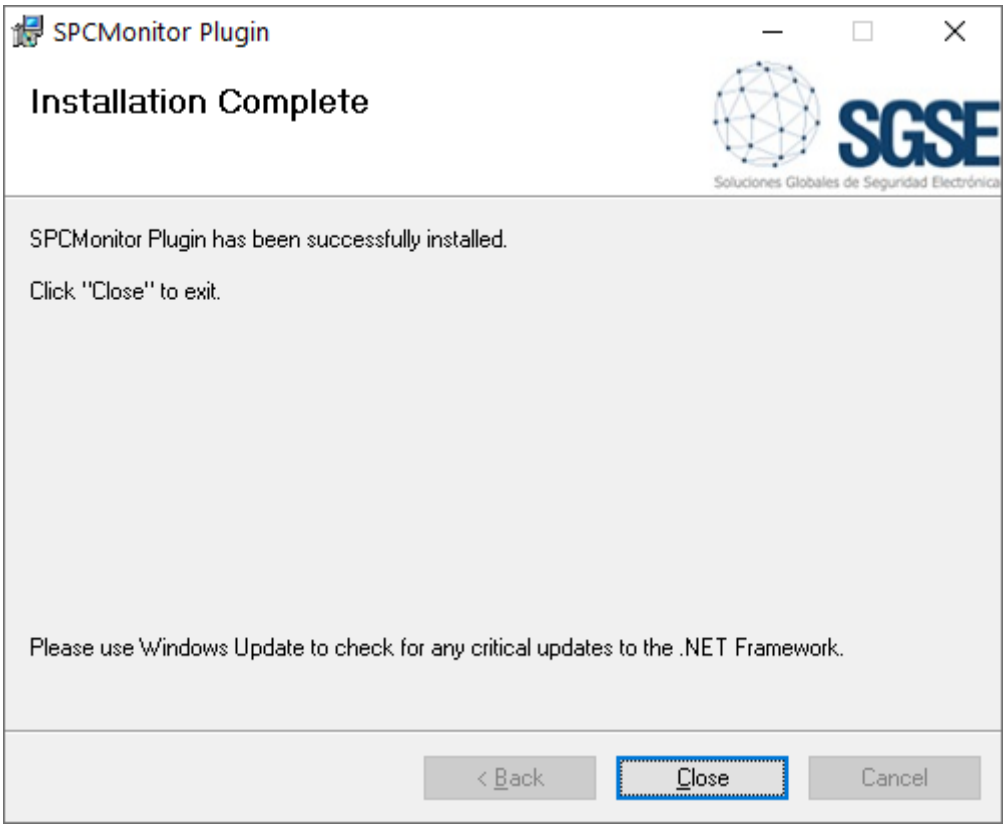
You will have to read and accept the End User License Agreement to proceed with installation.



Click “Next >” to proceed and install the plugin files.

If Windows User Account Control is enabled, you may have to allow the installer to go ahead with installation.





Once the process is finished, you can click “Close”. The plugin is already installed!

5. Licensing

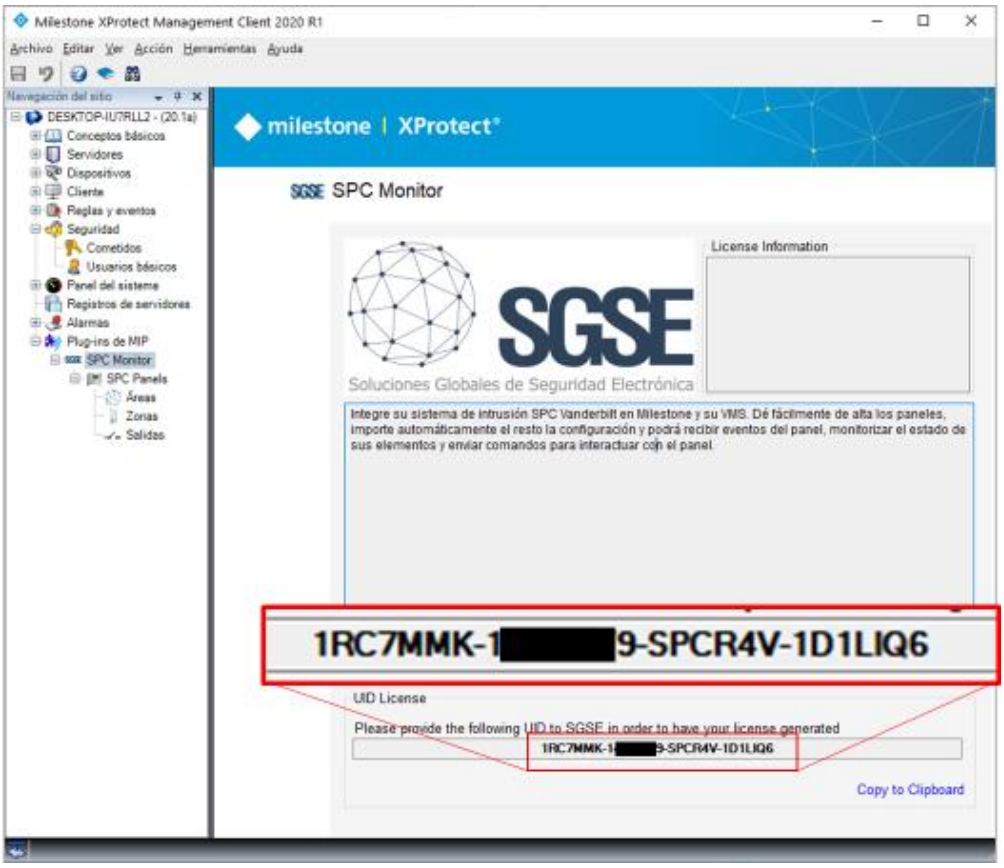
The plugin needs a license to run. Each panel must be licensed. These licenses are generated by SGSE. The procedure to obtain the license file corresponding to the acquired license is described below.

A. Getting a UID

In order to generate the license, you must provide the corresponding UID. This UID is a unique identifier to which the license is bound.

To get this code, you have to run XProtect® Management Client after installing the plugin and go to the corresponding menu item (*MIP Plugins > SPC Monitor*).

In that screen, when the plugin is not licensed, you will see the corresponding UID.



Please provide this UID to SGSE, and you will get your license file generated.

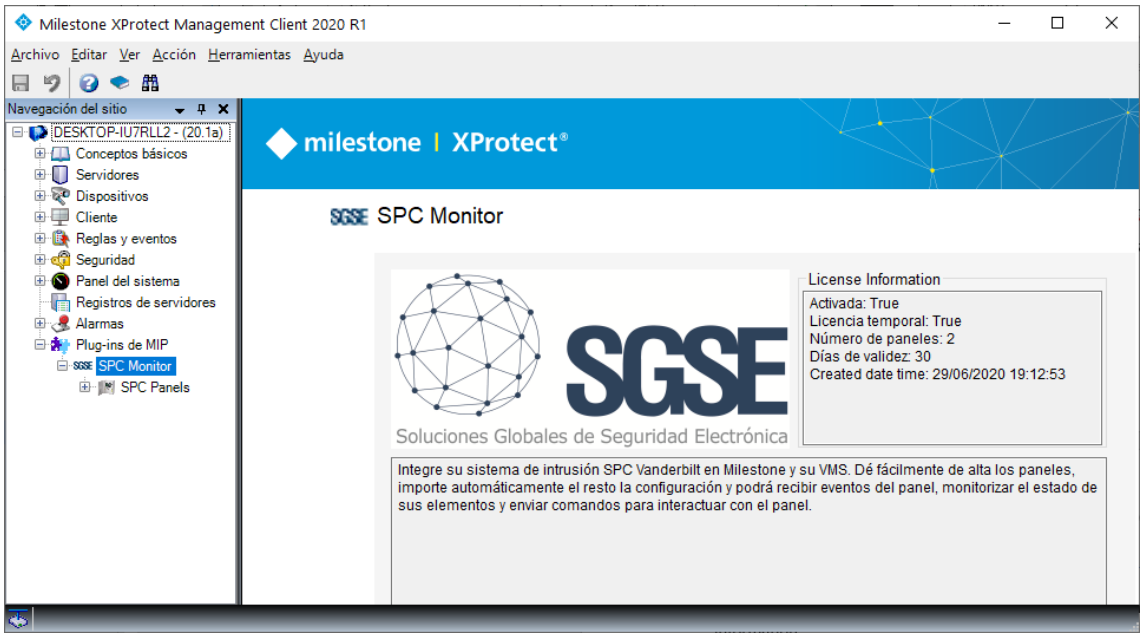
B. Applying the license

Please copy the license file "*Licencia.lic*" into the plugin folder. By default:

```
C:\Program Files\Milestone\MIPPlugins\SPCMonitor\
```

After applying the license, Event Server must be restarted so that changes take effect and we can use the plugin.

Once the license is applied, the Management Client interface will show the license information:



Workstations (only SmartClient)

To generate the UID in a workstation where you don't have XProtect® Management Client, but you will be only using SmartClient instead, you will have to use the SGSE tool, "*UID Generator*" to obtain the UID.

Please, contact SGSE to get this tool.

6. Configuration

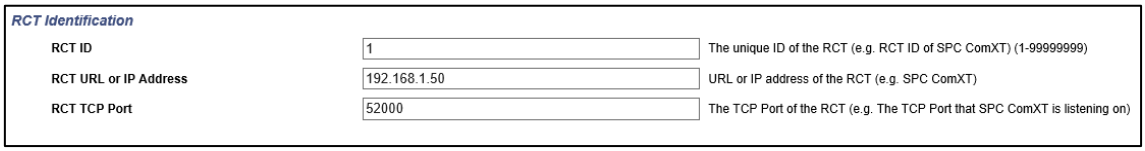
The plugin has been designed to simplify as much as possible its configuration process, so that the start-up is as simple as possible for the installer.

The connection is actively established by the SPC intrusion panel using the FlexC® protocol, so it will have to be configured to establish a connection with the plugin, and the plugin will have to be ready to accept and confirm this connection.

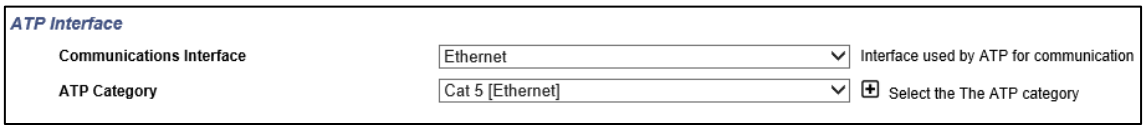
6.1 SPC Panel configuration

In order to communicate with the plugin, it has to be configured as an ATP of an ATS in the SPC configuration. We will give a brief overview of the specific configuration needed to communicate with the plugin. For further information on installation, setup, and configuration of the SPC panel please contact your SPC provider.

1) Add an ATP to an ATS
2) Configure ATP:
   a. Set "*RCT URL or IP Address*" with the Milestone Event Server IP
   b. Set "*RCT TCP Port*" with the port in which the plugin will be listening for this panel to connect.



   c. Select the communication interface "*Ethernet*"
   d. Select the ATP category "*Cat 5 [Ethernet]*"



3) In the "*ATP Advanced configuration*":
   a. Select Encryption Key mode "Fixed Encryption"
   b. Set the fixed encryption key. It must match the encryption key configured at the plugin (64 hexadecimal digits).

6.2 Plugin configuration

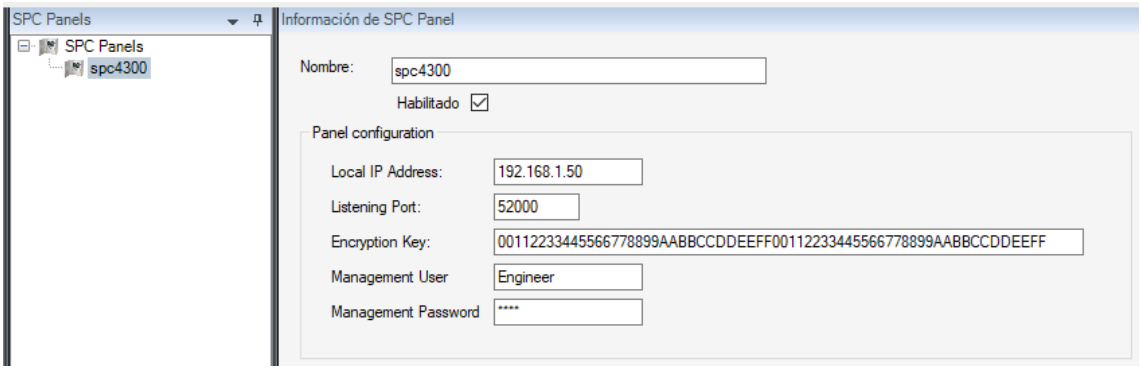
Set up a panel

To set up a panel in Milestone, the procedure is extremely simple.

You just have to assign a name to the panel, to identify it in the system, and configure the needed parameters to allow the panel to connect to the plugin over Ethernet. The connection is established by the SPC Panel, and the needed parameters are the following, that must match the parameters set at the panel:

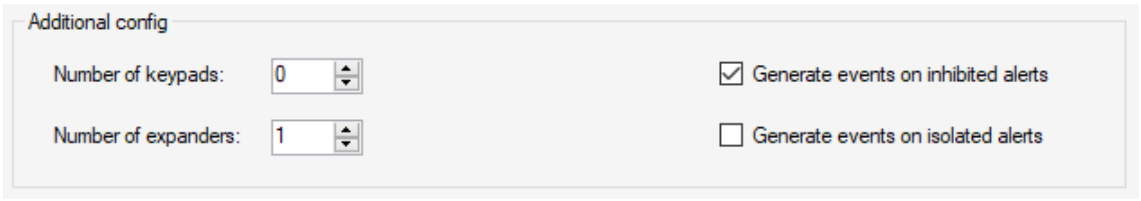
- Local IP address at which the plugin will listen to the panel
- Local port in which the plugin is listening for incoming connection

- Fixed encryption key (64 hexadecimal characters). Must match the Fixed Encryption key configured at the panel.
- Management user with rights to operate and retrieve configuration
- Password of the user configured



In addition to that, we must tell the plugin how many X-Bus keypads and X-Bus expanders the panel has, so that the plugin can create them automatically. They are given automatic correlated X-Bus addresses and names, then you can change them in each individual X-Bus keypads or X-Bus expanders configuration section. We must define the same X-Bus address they have in the panel, so that alerts related to an element at X-Bus will be associated to the corresponding item in Milestone.

We can also prevent panel alerts that are isolated or inhibited from generating events in Milestone, by unchecking the corresponding check box.



After saving changes, the plugin will automatically create the items related to the X-Bus keypads and X-Bus expanders, listen to an incoming *FlexC* connection from the panel and, if everything is properly configured, it will accept the connection and import the panel configuration (areas, zones, outputs), and the state of each element (areas, zones and outputs).

The plugin will automatically create in Milestone the items corresponding to the areas, zones, and outputs of the panel. These items will be accessible from the interface of Management Client and from Smart Client maps.

We can see the download process information in the Event Server MIP Logs.

In case more than one panel need to be integrated into Milestone, each panel must connect to the plugin through a different TCP port. So as to say, you must configure a different TCP port to listen for each panel.

Zone sensor type

The plugin allows you to select the type of sensor used in each zone. This will change the icon of the zone, so that the operator can get the most complete information about the intrusion installation from the SmartClient map.

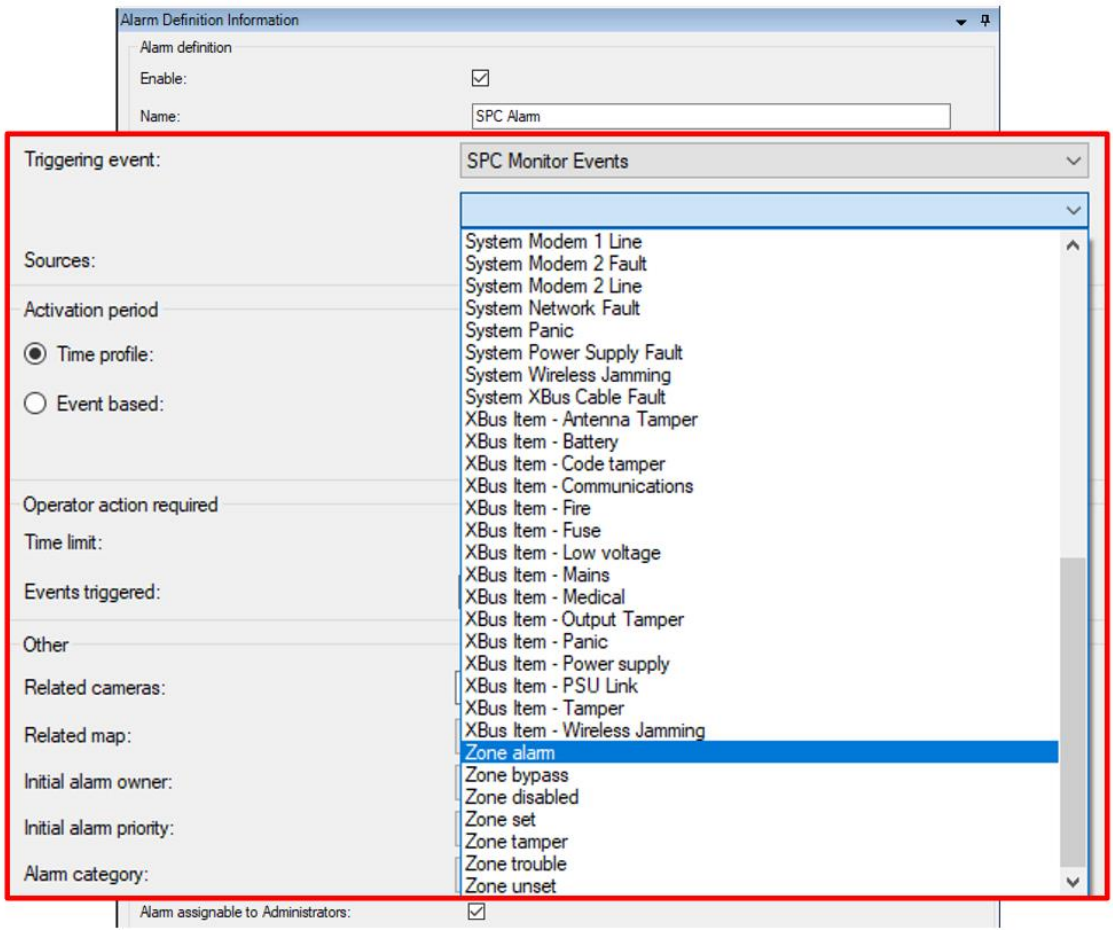
The available sensor types are the following:

- Volumetric (PIR) – Default value
- Seismic
- Glass break
- Magnetic contact
- Panic button

Alarms definition

This plugin adds some event definitions to Milestone, corresponding to the events that the panel sends.

Each event can be defined in Milestone as an alarm. You just have to go to "Alarm definition" section, within Management Client, create a new alarm whose triggering event is an event from the SPC Monitor Events group, and define the item(s) from which we want this event to be considered an alarm.



Rules: events

Those events can also be used to trigger Milestone rules. Just create a new rule and select as “Triggering Event” one of the events from those added by the plugin.

The intrusion events that plugin currently supports are:

- Area fully set
- Area partially set A
- Area partially set B
- Area unset
- Zone alarm
- Zone bypass (inhibited/isolated)
- Zone tamper
- Zone trouble
- Zone standby

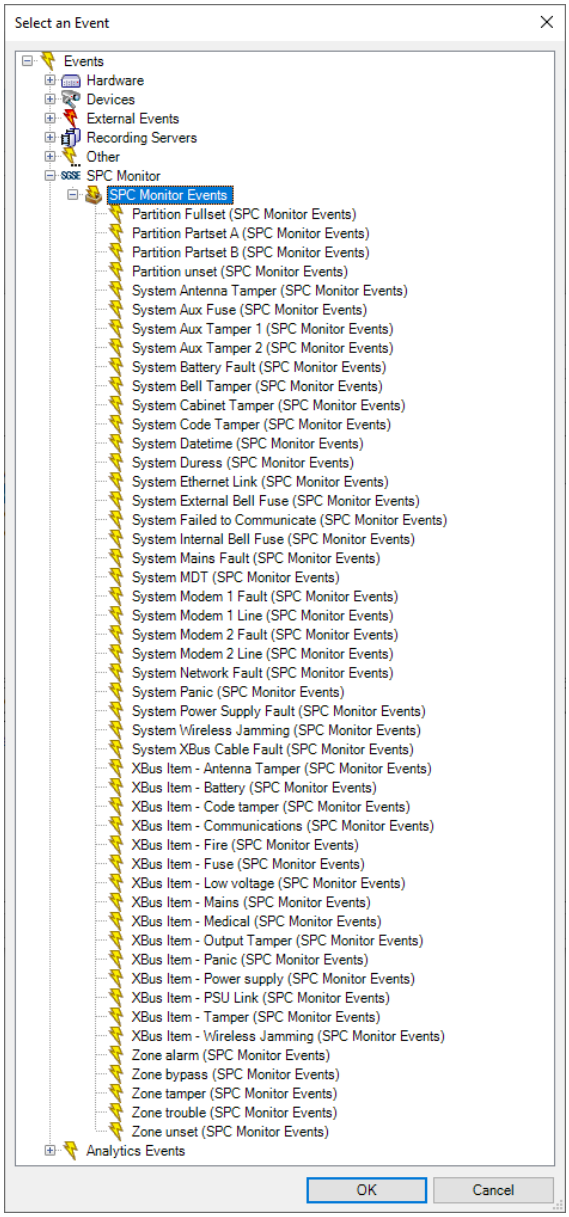
The alerts associated to the panel itself are:

- System – Antenna Tamper
- System – Aux Fuse
- System – Aux Tamper 1
- System – Aux Tamper 2
- System – Battery Fault
- System – Bell tamper
- System – Cabinet tamper
- System – Code tamper
- System – Date time
- System – Duress
- System – Ethernet Link
- System – External Bell Fuse
- System – Fail to communicate
- System – Internal Bell Fuse
- System – Mains fault
- System – MDT
- System – Modem 1 Fault
- System – Modem 1 Line
- System – Modem 2 Fault
- System – Modem 2 Line
- System – Network fault
- System – Panic
- System – Power Supply Fault
- System – Wireless Jamming
- System – X-Bus Cable Fault

The alerts associated to X-Bus elements are:

- X-Bus item – Antenna Tamper

- X-Bus item – Battery
- X-Bus item – Code Tamper
- X-Bus item – Communications
- X-Bus item – Fire
- X-Bus item – Fuse
- X-Bus item – Low voltage
- X-Bus item – Mains
- X-Bus item – Medical
- X-Bus item – Output tamper
- X-Bus item – Panic
- X-Bus item – Power supply
- X-Bus item – PSU Link
- X-Bus item – Tamper
- X-Bus item – Wireless jamming

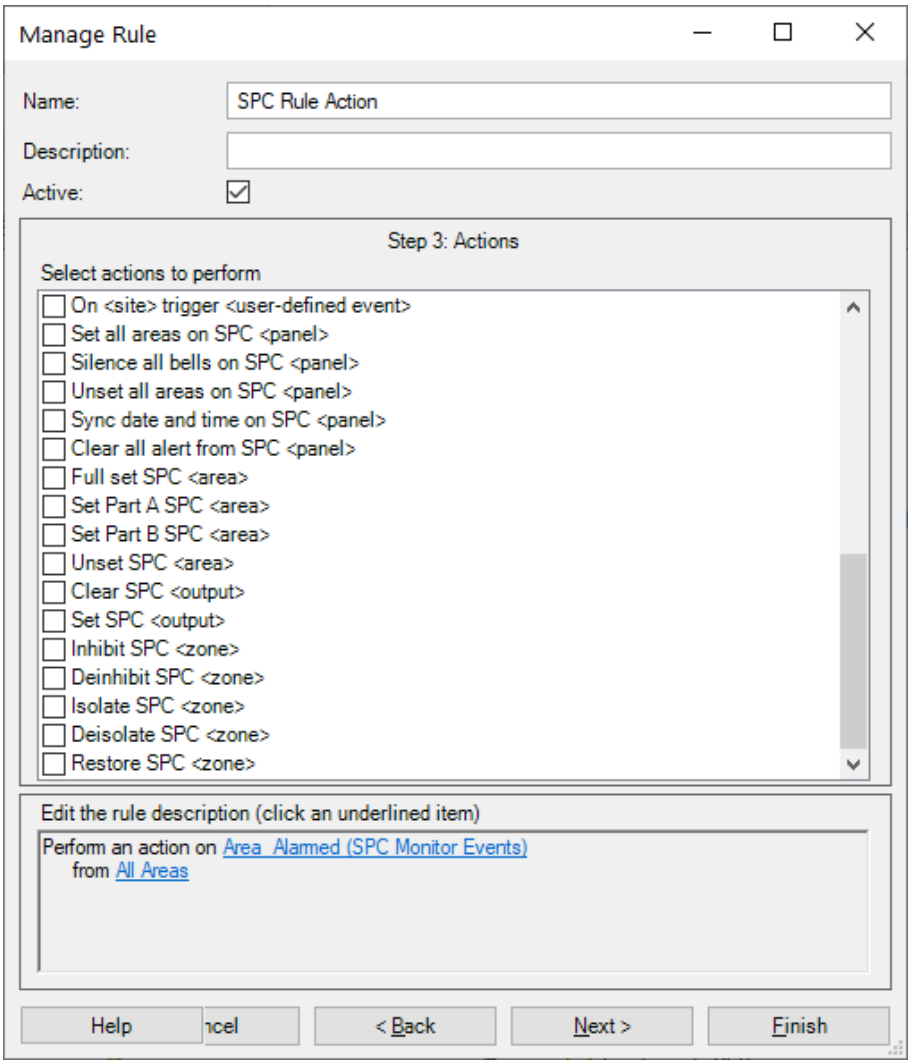


Rules: actions

With the actions defined by the plugin, Milestone can interact with panels when a defined rule is triggered.

We can define rules to trigger the following actions on panels:

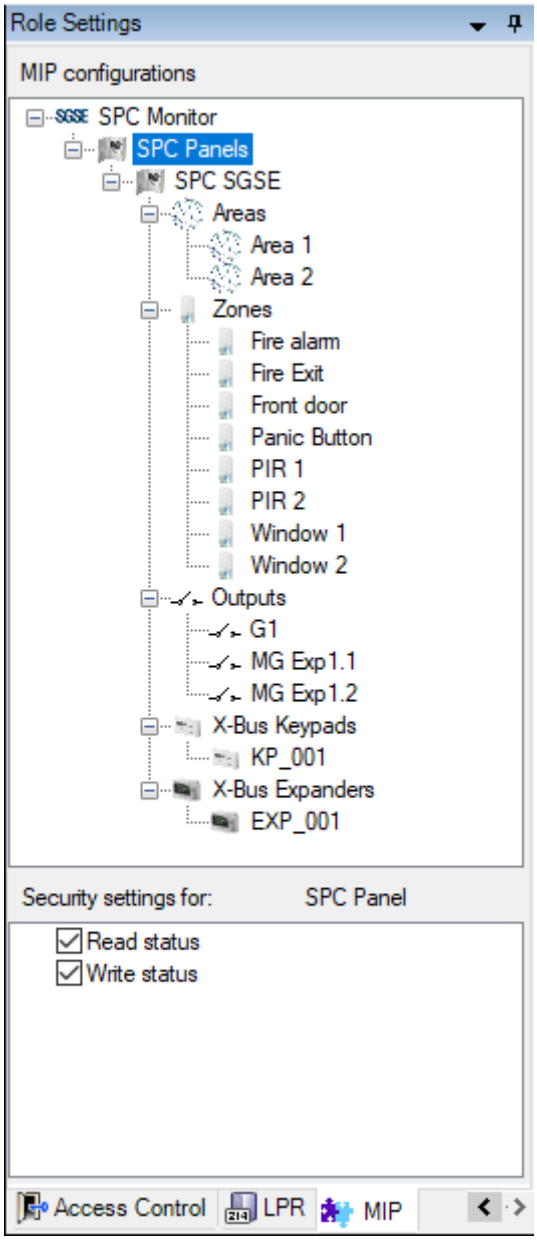
- Set all areas.
- Silence panel bells
- Unset all areas.
- Set panel date and time
- Clear all alerts on the panel
- Full / partial A / partial B set an area
- Unset an area.
- Set / clear an output (mapping gate)
- Inhibit a zone
- De-inhibit a zone
- Isolate a zone
- Deisolate a zone
- Restore a zone



Role permissions

The plugin allows you to interact with SPC panel elements based on roles permissions applied to Milestone user. In particular, the possibility to interact with elements can be limited by using the specific permission.

If a user belongs to a group or has a role which has no “Manage” permission over an element, then this user will not be able to operate that item (arming, disarming, bypassing…).



7. Operation

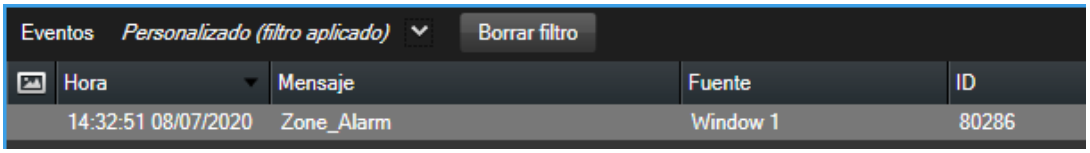
SPC Monitor plugin allows you to monitor and interact with panels. Every action is performed from the SmartClient, which is the standard user interface in XProtect®.

The operator can send commands to:

a) The panel itself
b) An area
c) A zone
d) An output (mapping gate)

A. Event/Alarm viewer

From the standard XProtect® events and alarms viewer, alarms and events coming from the intrusion panels can be viewed and managed.



B. Maps

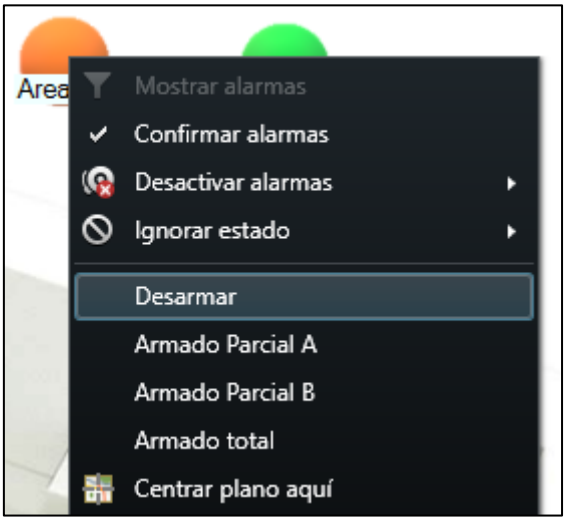
The icons corresponding to panels, areas, zones, and outputs, and also X-Bus expanders and X-Bus keypads can be added to a XProtect® map.

The icon of each area and zone will show the state of the corresponding element according to the colour legend referenced below.

Colour	Sample	Meaning
Green		**Standby**. The zone is OK, it is not armed and there is no problem. No intrusion alarms can be triggered.
Orange		**Standby**. The zone is OK and armed. An intrusion alarm can be triggered.
Red		**Alarm**. The zone is in alarmed status.
Blue		**Bypass**. The zone is either inhibited or isolated.
Magenta		**Tamper**. The zone is in tamper status.
Yellow		**Trouble**. The zone is in trouble status.
Gray		**Unknown**. The zone status is unknown, or the zone is disabled in Milestone.

*The same colour logic applies to other detector icons.

In addition, it will allow to interact with the element from its context menu (secondary button of the mouse).



This way, you can:

- Panel
  - Set all partitions
  - Unset all partitions
  - Silence panel bells
  - Restore all alerts (if enabled)

- Area
  - Set
  - Partially Set A
  - Partially Set B
  - Unset
- Zone
  - Inhibit
  - De-inhibit
  - Isolate
  - Deisolate
  - Restore
- Output
  - Set
  - Clear

C. WebClient and Milestone Mobile

These interfaces do not support al the plugin functionalities, like the custom panel management interface or maps.

However, alarms can be received from these two interfaces if they have been defined in the Management Client. Interaction with panels can also be performed by making use of plugin actions and *User defined events*, that will appear to the user as buttons.

8. Troubleshooting

Integrated systems

In case the integration does not work, please confirm the panel and its firmware version to be plugin compatible. According to Vanderbilt documentation, firmware of the SPC panel must be:

- FW 3.6 or higher.

Previous SPC panel firmware versions are not compatible with FlexC® protocol integration. For more information about FlexC® compatibility with other SPC models, please ask your SPC provider.

Compatibility has been tested with FW 3.8.5 on a SPC 4300 panel. Compatibility is not granted if a different firmware version is used. Although later firmware versions should work properly, compatibility with each specific firmware version should be tested.

Required equipment

The panel must be equipped with an Ethernet connection and FlexC® to be able to connect to Milestone plugin. Ask your SPC provider for more information.

Other

- The panel does not establish communication.
  - Please check panel ATS and ATP configuration.
  - Please check fixed encryption key.
  - Please check listening port configured.
- The plugin does not import partitions, zones, and outputs.
  - Please check configured management user and password.
- Map shows black circles with white crosses instead of expected icons.
  - When the panel is created in Milestone, items are new in the system, so icons related to deleted items must be deleted from the map and added again.
- Commands do not work.
  - The panel status may prevent commands. Please check the Milestone MIP logs for a response message and error code.
- In case of communication failure, please restart XProtect® Event Server.

More info

For more info, please visit plugin online information or contact SGSE in the email address info@sgse.eu.