

# OnGuard - SPC Plugin



## Overview

The SPC plugin has been developed by Vanderbilt and partners to provide you with an integration between OnGuard system and the SPC intrusion system. This document provides details on how to configure the plugin and how to configure the OnGuard system.

The plugin activates with a thirty-day free trial for a single SPC panel. When a plugin is purchased from Vanderbilt the plugin will support up to 20 SPC Panels.

Please note that the information is provided as accurate at time of writing and may not reflect the most update OnGuard system.

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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.

# Revision History

Rev	Date	Remarks
0.4	2020-12-10	Added info about license activation
1.0	2020-12-14	Final version without approval
1.1	2022-01-15	V8.0 support - Final version without approval

## Purpose

The purpose of this document is to explain the configuration of the SPC plugin for the OnGuard software. In addition, it describes the available operations.

## Supported OnGuard version

OnGuard version	Status
V7.5	Supported
V7.6	Supported
V8.0	Supported

State: April 2022

## Prerequisites

SPC Intrusion firmware 3.8.5 or later (tested with 3.13.5)

Please visit our [Download Center](#) to obtain the latest SPC firmware:

[Download Center](#)

Required inbound port on the OnGuard server for incoming connection from the SPC Intrusion system:

- 52000 (default port) can be changed if required








After 30 days a valid license file is required to activate the plugin

# Plugin Installation

1. Copy the files from the SPC plugin installation folder “\Plugin\LnISpc\_20201214” and paste directly into the following folder (\*):

**C:\Program Files (x86)\OnGuard\**

(\*) this is the default folder and can be different based on your OnGuard installation settings.

Name	Date modified	Type	Size
 Flexc Encryption.dll	26/10/2016 14:12	Application exten...	28 KB
 FlexcEncryptionLicense.xml	09/05/2017 20:41	XML Document	1 KB
 LnISpcBurglaryTranslatoru.dll	23/04/2021 15:59	Application exten...	362 KB
 SpcIntegration.sql	07/11/2018 18:07	Microsoft SQL Ser...	2 KB
 SPCLicenseCheck.exe	23/04/2021 15:59	Application	54 KB
 SPCLink.exe	24/10/2018 11:45	Application	54 KB
 SPCLink.exe.config	24/10/2018 15:16	CONFIG File	1 KB

2. Execute the following command in the installation folder with administrator rights:

**regsvr32 LnISpcBurglaryTranslatoru.dll**

Open “Command Prompt” (cmd.exe) in Administrator mode. Paste the text line below into the command prompt window and hit enter.

Please note this is the default location for the file and may need to be adjusted for custom installs/locations.

**C:\Program Files (x86)\OnGuard>regsvr32 LnISpcBurglaryTranslatoru.dll**

3. Execute the following command to update the OnGuard Database.

**sqlcmd -S localhost -E -i SpcIntegration.sql**

In case your database is not on localhost, the command needs to be changed.

## License activation

Within the 30-day trial period a license needs to be purchased from Vanderbilt to activate the SPC plugin.

Please visit the Vanderbilt webshop and select the appropriate license package and place an order.

Link to the [Webshop](#)

Please send the received Vanderbilt order number + the OnGuard License number to [orders.international@vanderbiltindustries.com](mailto:orders.international@vanderbiltindustries.com).

Within 4 working days we will provide you with a license activation file which needs to be placed into the following folder:

**C:\Program Files (x86)\OnGuard\**

(\*) this is the default folder and can be different based on your OnGuard installation settings.

## SPC Configuration

The SPC panel will communicate with OnGuard via a bi-directional, auto. 256bit AES with CBC encrypted IP-based communication.

Preconfigured FlexC ATS files (included in the SPC Plugin package)

Within the provided plugin package / folder "Communication" there are two predefined FlexC ATS configuration files:

- OnGuard\_3.8.5R31629\_flexc for SPC panel with firmware 3.8.5 R xxx
- OnGuard\_3.9.1R33677\_flexc for SPC panel with firmware 3.9.1 R xxx

#### Import a predefined FlexC ATS file.

1. Open the web browser
2. Enter the following address: <http://IP address of the panel>\* in the address bar
3. Select the user GUI language

Note: Depending on the http webserver settings (TLS 1.2 activated) enter the following command: <https://IP address of the panel>

4. Log in as Engineer (default: username "Engineer" / password "1111")



5. Enable the Full Engineer mode in the upper right corner



6. Navigate to Communications / FlexC / FlexC ATS

**Configured ATS**

Edit	Delete	Export ATS	ID	ATS Name	ATS Registration ID	ATP Count	Event / Command Profiles	ATS Polling Timeout	ATS Event Timeout	Generate FIC
			2	Lenel OnGuard	G25T-5YXT-XXR8-K8YX	1	- OnGuard - OnGuard	180	300	Yes

**Import ATS**  
Import an ATS to the system.  Keine Datei ausgewählt.

7. On the bottom of the page click on “Browse” and select the FlexC ATS file (ATS file name includes the supported SPC FW)

Name	Date modified	Type
FlexC user_password_encryptionkey.txt	14/03/2019 16:47	Text Document
OnGuard_3.8.5_flexc.cxml	14/03/2019 16:50	CXML File
OnGuard_3.9.1_flexc.cxml	14/03/2019 16:51	CXML File
OnGuard_3.11.1_flexc.cxml	16/12/2020 10:45	CXML File
OnGuard_3.12.0_flexc.cxml	16/12/2020 10:45	CXML File

8. Click on the “Import ATS” button. This will then automatically setup the OnGuard connection. It will import the required event and command profiles and the correct encryption key required to initiate communication to the OnGuard server.

9. Click on the “Edit” button next to new ATS “OnGuard”

**Configured ATS**

Edit	Delete	Export ATS	ID	ATS Name	ATS Registration ID	ATP Count	Event / Command Profiles
			2	Lenel OnGuard	G25T-5YXT-XXR8-K8YX	1	- OnGuard - OnGuard

10. Click on the “Edit” button next to new ATP “OnGuard”

**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

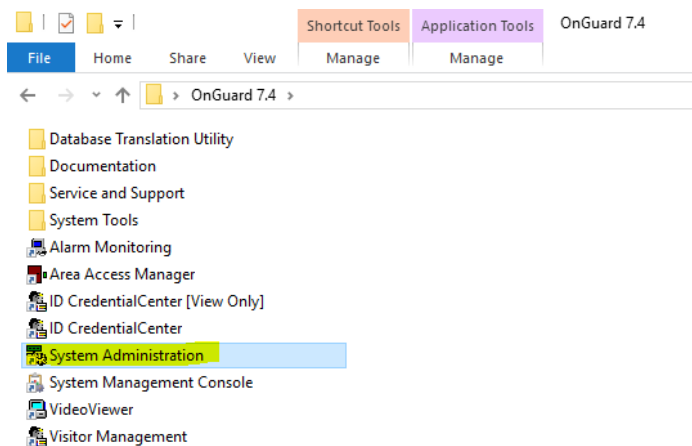
Edits the ATP Configuration

- Enter the IP address and receiving port of the Server where the OnGuard software is running. Click on the save button to save the settings.

The screenshot displays the 'ATP Configuration - FlexC RCT' web interface. It features a navigation bar with tabs for 'Communications', 'FlexC @', 'Reporting', and 'PC Tools'. Under 'FlexC @', there are sub-tabs for 'FlexC ATS', 'Event Profiles', 'Command Profile', and 'FlexC Help'. The main content area is divided into sections: 'Panel Identification' (ATP Sequence No: 1, Unique ID: 156, Name: Lenel OnGuard, SPT Account Code: 0), 'RCT Identification' (RCT ID: 1, RCT URL or IP Address: xxx.xxx.xxx.xxx, RCT TCP Port: 52000), 'ATP Interface' (Communications Interface: Ethernet, ATP Category: Cat 5 [Ethernet]), and 'Advanced' (Advanced ATP Settings). A 'Save' button is highlighted with a red box at the bottom left.

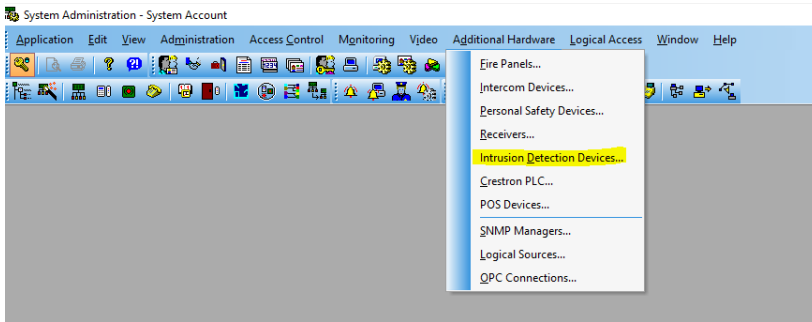
## OnGuard Plugin Configuration

Open the OnGuard system administration program from the start-menu:





Open the Open the window 'Intrusion Detection Devices' from the 'Additional Hardware' menu:



Click the button 'Add' to start configuring a panel.

Enter a Workstation name

Enable the panel communication

Choose a name for the SPC panel and select 'SPC Intrusion Panel' as Panel Type.

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Test Panel  Online

Location Connection Options Notes

Connection type: IPv4

IP address: 5 . 1 . 1 . 1 Port: 52000

Go to the "Connection" tab and enter the IP address (SPC Panel) and the port number for incoming events from the SPC intrusion panel. (default port: 52000).

Click 'OK' to save the panel

Put it in the default Monitoring Zone.

**Remark:**

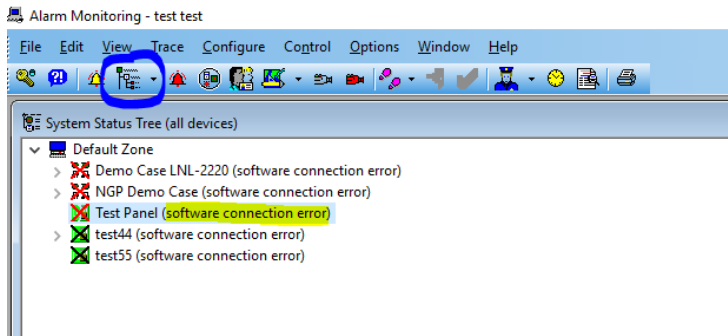
On the OnGuard server, a firewall inbound rule needs to be added (port 52000).

At this stage, no other options can be configured. The SPC connection users a user authentication. This is "FlexC" Username & Password is also set fix to "FlexC" and the encryption key used is 64 x 'A'. There is no requirement to add these either to the SPC or the OnGuard application as they are already applied by default. They cannot be changed as they are hardcoded into the OnGuard application

# Item Population

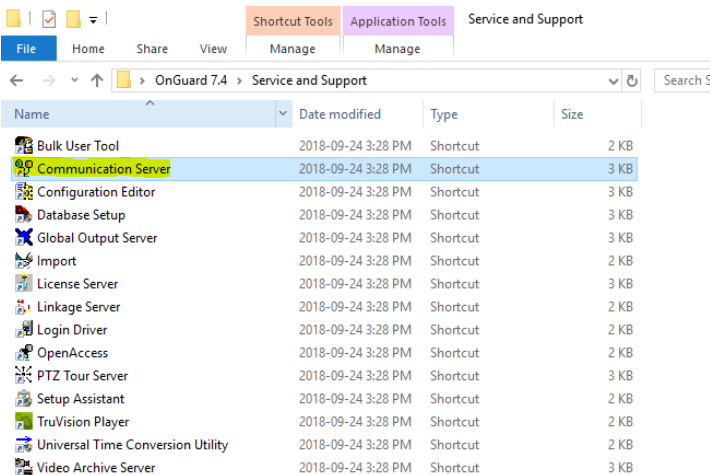
To configure the zones, outputs, doors and areas one can auto-populate it from the alarm monitoring screen. Therefore, you need to open the “Alarm Monitoring” application.

Open the device tree. By clicking the ‘Tree’-icon.

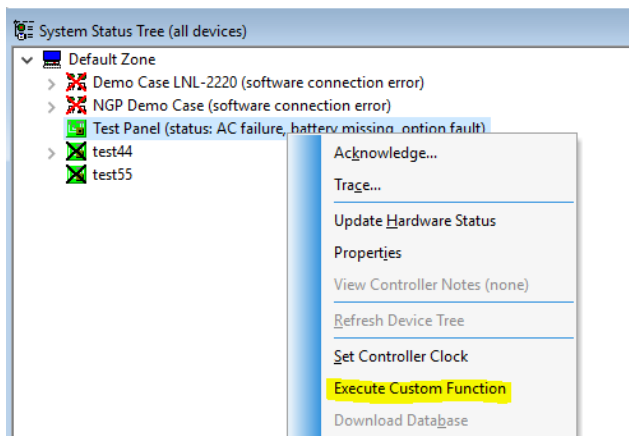


**Remark:**

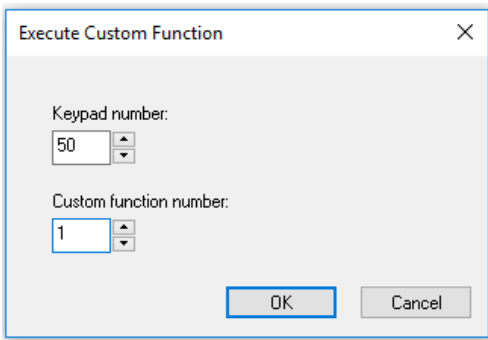
In case the status is ‘software connection error’, this means the communication service is not running. You can find it in the start-menu. Make sure Communication Service is running.



Once the system is online, you can start the population by right-clicking on the panel, and choosing ‘Execute Custom Function’



Insert the following parameters to request the SPC panel configuration:

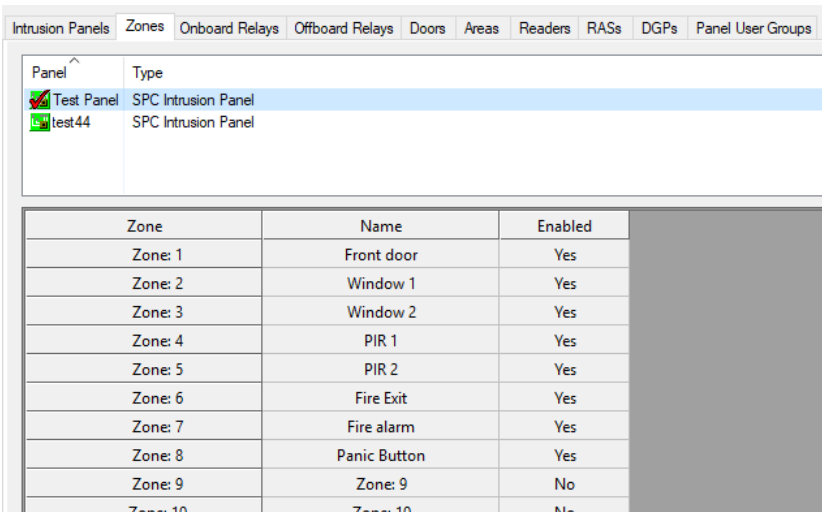


After executing the command, the device tree will be populated by the items in the panel:

- ▶ **Test Panel (status: AC failure, battery missing, option fault)**
  - ⊗ Fire alarm (status: missing; bypassed)
  - ⊗ Fire Exit (bypassed)
  - ⊗ Front door (bypassed)
  - ⊗ Panic Button (status: missing; bypassed)
  - ⊗ PIR 1
  - ⊗ PIR 2
  - ⊗ Window 1
  - ⊗ Window 2
  - 🔊 Bleep
  - 📄 Area 1 (status: disarmed; status: bypassed points)

Once the population is done, the items are available in the 'Map Designer' Program to put on the map. The items will also be visible in the 'System Administration' screens:

The tabs Zones, Offboard Relays, Doors and Areas are automatically filled.



One can link panel users with cardholders in OnGuard by configuring this in the 'Panel User Groups' screen. This needs to be done manually:

User group name:

Panel User	Name
Panel User 1	Angeletti, Alejandro
Panel User 2	Bement, Kevin
Panel User 3	
Panel User 4	
Panel User 5	
Panel User 6	
Panel User 7	

To make this work, one has to link the panel user group with the panel in the 'options' screen of the panel configuration:

Name:  
  Online

Location Connection Options Notes

Panel user group:

Agency code:

Pass code:  Confirm pass code:

# Alarms

Alarm will be shown in the 'Main Alarm Monitor' screen of the 'Alarm Monitoring' application. Where possible, each alarm will be linked to the correct item and user:

The states of the items as shown in the device tree are updated based on the events and on a regular polling of all the item states.

Alarm Description	Time/Date	Controller	Device	Input/Output	Card	Priority
User accessing end	4:34:18 PM 2018-11-07	Test Panel	None	None	Alejandro Angeletti	150
Zone input disconnected	4:34:18 PM 2018-11-07	Test Panel	Panic Butt...	None		150
Zone deinhibit [Panic Zone]	4:34:18 PM 2018-11-07	Test Panel	Panic Butt...	None	Alejandro Angeletti	150
Zone input disconnected	4:34:18 PM 2018-11-07	Test Panel	Fire alarm	None		150
Zone deinhibit [Fire Zone]	4:34:18 PM 2018-11-07	Test Panel	Fire alarm	None	Alejandro Angeletti	150
Zone deinhibit [Fire Exit Zone]	4:34:18 PM 2018-11-07	Test Panel	Fire Exit	None	Alejandro Angeletti	150
Zone deinhibit [Entry/Exit Zone]	4:34:18 PM 2018-11-07	Test Panel	Front door	None	Alejandro Angeletti	150
Cabinet Tamper Deinhibit	4:34:18 PM 2018-11-07	Test Panel	None	None	Alejandro Angeletti	150
PSU Battery Deinhibit	4:34:18 PM 2018-11-07	Test Panel	None	None	Alejandro Angeletti	150
PSU Mains Deinhibit	4:34:18 PM 2018-11-07	Test Panel	None	None	Alejandro Angeletti	150
All Areas Unset	4:34:18 PM 2018-11-07	Test Panel	None	None		150
Unset	4:34:18 PM 2018-11-07	Test Panel	Area 1	None	Alejandro Angeletti	150
User accessing	4:34:18 PM 2018-11-07	Test Panel	None	None	Alejandro Angeletti	150
FlexC ATS Up	4:34:03 PM 2018-11-07	Test Panel	None	None		150
FlexC ATP Up	4:34:03 PM 2018-11-07	Test Panel	None	None		150
FlexC ATP Down	4:34:01 PM 2018-11-07	Test Panel	None	None		150
FlexC ATS Down	4:33:55 PM 2018-11-07	Test Panel	None	None		150
Communications Restored	4:34:10 PM 2018-11-07	Test Panel	None	None		100

# Operations

When clicking right on an item in the device tree or the icon on the map, one can execute an action.

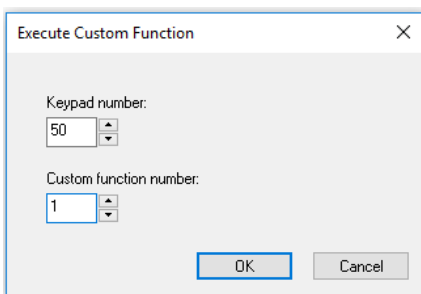
Supported operations:

Area	Arm, Disarm
Output	Activate, Deactivate
Door	Open, Unlock, Secure, Lock
Zone	Bypass, Unbypass, Isolate, Unisolate, Reset
Panel	Set Clock, Execute Custom Function

As the user interface doesn't always show all possibilities for the actions, one can use the 'Execute Function' to test all functions. Two parameters must be given: the keypad and the function number.

The function defines the item on which the action needs to be performed. The keypad defines the action itself.

Eg: keypad "50", function "1" will request the SPC panel configuration.



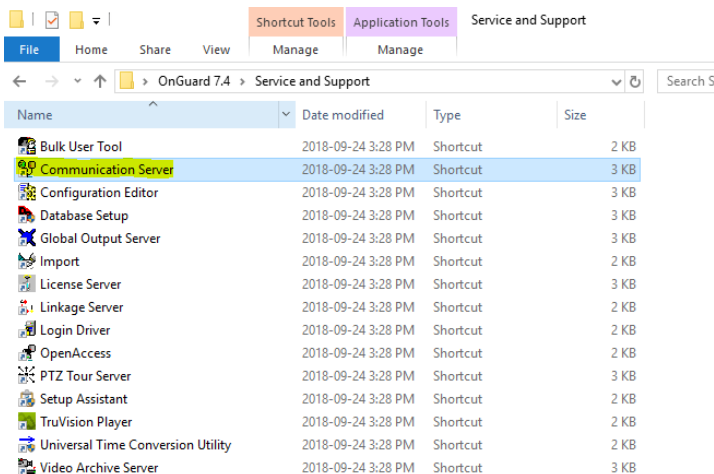
The table below gives each function implemented

Keypad	Function
1	Bypass zone
2	Unbypass zone
3	Isolate zone
4	Unisolate zone
5	Reset zone
11	Disarm Area
12	Arm Area
21	SetRelay On
22	SetRelay Off
31	Open Door
32	Set Door Unlock
33	Set Door Secure
34	Set Door Lock
50	Get Configuration Tree
51	Retrieve alerts as events

# Troubleshooting

## OnGuard device tree – error message:

In case the status is 'software connection error', this means the communication service is not running. You can find it in the start-menu:



## I cannot establish a FlexC connection to OnGuard:

- Check the entered receiver IP address and port
- Delete the imported FlexC ATS file and import it again and enter the receiver IP and port
- On the OnGuard server, a firewall inbound rule needs to be added (default port: 52000).

## I do not receive events from the SPC panel after changing settings:

Please check if you are still in "Full Engineer Mode"  
The SPC offers to a two-layer engineer architecture:

1. Soft Engineer mode:
  - a. only basic configuration possible, e.g. user administration, system status info
  - b. alarm transmission active
2. Full Engineer mode:
  - a. full access to configuration e.g. areas, alarm transmission, etc.
  - b. alarm transmission deactivated
  - c. to leave this mode, all alarming relevant events have to be isolated or inhibited

The SPC offers the option to activate the alarm transmission also while in full engineer mode:  
Please navigate to Configuration / System / System Option and activate "Report in Eng mode"

## Edit the trace level for troubleshooting:

The driver traces in the communication server via a call to the function "DistributeDisplayTextMessage".

The level of tracing can be set by performing the 'execute function' on the panel for keypad "63".

The function number is the level of tracing.

- Error tracing is at level 5

- Detailed tracing at level 10

Remark:

When the level is bigger than 100, the tracing is also saved in the file 'c:\log\log\_file.txt'

## What is the difference between the SPC function “inhibited” and “isolated”?

Inhibited: a one-time isolation of an event – returns automatically into the coerciveness after disarming the panel/area.

- OnGuard terminology: bypass / unbypass

Isolated: a permanent isolation of an event – does not return automatically into the coerciveness after disarming the panel/area.

- OnGuard terminology: isolate / unisolate

## Where can I find more info about the SPC configuration?

Please visit the download center from Vanderbilt to download the latest installer manual or technical notes.

E.g .

- I want to control a physical output on the panel.

- I want to transmit an OnGuard event to a CMS contractor using the SPC a communication device.

Visit our [Download Center](#) for more information or get in touch with the Technical Support organisation from Vanderbilt.